SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ02056**

Date Completed:10/08/2019

10/10/2019 2:29 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ02056

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
Westinghouse Electric Company
Lot Number: UJ02056
Project Name: Westinghouse RI
Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-87	Aqueous	10/02/2019 0946	10/02/2019
002	W-45	Aqueous	10/02/2019 1200	10/02/2019
003	W-35	Aqueous	10/02/2019 1355	10/02/2019
004	W-37	Aqueous	10/02/2019 1525	10/02/2019
005	TB-01-100219	Aqueous	10/02/2019	10/02/2019
006	W-36	Aqueous	10/02/2019 1408	10/02/2019

(6 samples)

Detection Summary
Westinghouse Electric Company
Lot Number: UJ02056
Project Name: Westinghouse RI
Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-87	Aqueous	Nitrate - N	353.2	0.055		mg/L	5
001	W-87	Aqueous	cis-1,2-Dichloroethene	8260B	2.0		ug/L	6
001	W-87	Aqueous	Tetrachloroethene	8260B	38		ug/L	6
001	W-87	Aqueous	Trichloroethene	8260B	11		ug/L	7
002	W-45	Aqueous	Nitrate - N	353.2	0.093		mg/L	10
002	W-45	Aqueous	Ethylbenzene	8260B	2.3		ug/L	11
002	W-45	Aqueous	Isopropylbenzene	8260B	1.5		ug/L	11
002	W-45	Aqueous	1,1'-Biphenyl	8270D	4.2		ug/L	13
002	W-45	Aqueous	2-Methylnaphthalene	8270D	12		ug/L	13
002	W-45	Aqueous	Acenaphthene	8270D	1.5		ug/L	13
002	W-45	Aqueous	Fluorene	8270D	1.7		ug/L	14
002	W-45	Aqueous	Naphthalene	8270D	15		ug/L	14
002	W-45	Aqueous	Phenanthrene	8270D	1.1		ug/L	14
003	W-35	Aqueous	Nitrate - N	353.2	3.2		mg/L	15
003	W-35	Aqueous	Tetrachloroethene	8260B	2.6		ug/L	16
004	W-37	Aqueous	Nitrate - N	353.2	3.5		mg/L	20
006	W-36	Aqueous	Nitrate - N	353.2	0.11		mg/L	27

(17 detections)

Inorganic non-metals

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-001**

Description: **W-87** Matrix: **Aqueous**

Date Sampled: **10/02/2019 0946** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/03/2019 1107	MSG		30850

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		**353.2**	**0.055**		**0.020**	**mg/L**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-001**

Description: **W-87** Matrix: **Aqueous**

Date Sampled: **10/02/2019 0946** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1212	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	**156-59-2**	**8260B**	**2.0**		**1.0**	**ug/L**	**1**
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**38**		**1.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-001**

Description: **W-87** Matrix: **Aqueous**

Date Sampled: **10/02/2019 0946** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1212	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	**79-01-6**	**8260B**	**11**		**1.0**	**ug/L**	**1**
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-001**

Description: **W-87** Matrix: **Aqueous**

Date Sampled: **10/02/2019 0946** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1928	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-001**

Description: **W-87** Matrix: **Aqueous**

Date Sampled: **10/02/2019 0946** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1928	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		73	24-127
Nitrobenzene-d5		88	38-127
Phenol-d5		73	28-128
Terphenyl-d14		93	10-148
2,4,6-Tribromophenol		83	35-144

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Inorganic non-metals

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-002**

Description: **W-45** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1200** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/03/2019 1108	MSG		30850

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		**353.2**	**0.093**		**0.020**	**mg/L**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-002**

Description: **W-45** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1200** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1236	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	**100-41-4**	**8260B**	**2.3**		**1.0**	**ug/L**	**1**
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	**98-82-8**	**8260B**	**1.5**		**1.0**	**ug/L**	**1**
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-002**

Description: **W-45** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1200** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1236	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-002**

Description: **W-45** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1200** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1749	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	**92-52-4**	**8270D**	**4.2**		**4.0**	**ug/L**	**1**
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	**91-57-6**	**8270D**	**12**		**0.80**	**ug/L**	**1**
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	**83-32-9**	**8270D**	**1.5**		**0.80**	**ug/L**	**1**
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-002**

Description: **W-45** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1200** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1749	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	**86-73-7**	**8270D**	**1.7**		**0.80**	**ug/L**	**1**
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	**91-20-3**	**8270D**	**15**		**0.80**	**ug/L**	**1**
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	**85-01-8**	**8270D**	**1.1**		**0.80**	**ug/L**	**1**
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		52	24-127
Nitrobenzene-d5		88	38-127
Phenol-d5		72	28-128
Terphenyl-d14		87	10-148
2,4,6-Tribromophenol		108	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-003**

Description: **W-35** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1355** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/03/2019 1110	MSG		30850

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		**353.2**	**3.2**		**0.10**	**mg/L**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-003**

Description: **W-35** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1355** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1300	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	**127-18-4**	**8260B**	**2.6**		**1.0**	**ug/L**	**1**
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-003**

Description: **W-35** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1355** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1300	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-003**

Description: **W-35** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1355** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1814	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-003**

Description: **W-35** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1355** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1814	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		85	37-129
2-Fluorophenol		84	24-127
Nitrobenzene-d5		98	38-127
Phenol-d5		85	28-128
Terphenyl-d14		105	10-148
2,4,6-Tribromophenol		101	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-004**

Description: **W-37** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1525** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/03/2019 1111	MSG		30850

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		**353.2**	**3.5**		**0.10**	**mg/L**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-004**

Description: **W-37** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1525** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1324	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-004**

Description: **W-37** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1525** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1324	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
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W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-004**

Description: **W-37** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1525** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1839	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-004**

Description: **W-37** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1525** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1839	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		81	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		86	38-127
Phenol-d5		70	28-128
Terphenyl-d14		101	10-148
2,4,6-Tribromophenol		92	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-005**

Description: **TB-01-100219** Matrix: **Aqueous**

Date Sampled:**10/02/2019** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1059	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** | Laboratory ID: **UJ02056-005**

Description: **TB-01-100219** | Matrix: **Aqueous**

Date Sampled:**10/02/2019** | Project Name: **Westinghouse RI**

Date Received: **10/02/2019** | Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1059	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-006**

Description: **W-36** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1408** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/03/2019 1112	MSG		30850

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		**353.2**	**0.11**		**0.020**	**mg/L**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-006**

Description: **W-36** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1408** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1348	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-006**

Description: **W-36** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1408** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/03/2019 1348	TML		30855

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-006**

Description: **W-36** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1408** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1903	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
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Semivolatile Organic Compounds by GC/MS

Client: **Westinghouse Electric Company** Laboratory ID: **UJ02056-006**

Description: **W-36** Matrix: **Aqueous**

Date Sampled: **10/02/2019 1408** Project Name: **Westinghouse RI**

Date Received: **10/02/2019** Project Number: **60595649**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/05/2019 1903	SCD	10/03/2019 1618	30906

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		85	37-129
2-Fluorophenol		50	24-127
Nitrobenzene-d5		87	38-127
Phenol-d5		71	28-128
Terphenyl-d14		101	10-148
2,4,6-Tribromophenol		84	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ30850-001
Batch: 30850
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/03/2019 1054

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ30850-002
Batch: 30850
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	10/03/2019 1055

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ30855-001
Batch: 30855
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/03/2019 1011
Benzene	ND		1	1.0	ug/L	10/03/2019 1011
Bromodichloromethane	ND		1	1.0	ug/L	10/03/2019 1011
Bromoform	ND		1	1.0	ug/L	10/03/2019 1011
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/03/2019 1011
2-Butanone (MEK)	ND		1	10	ug/L	10/03/2019 1011
Carbon disulfide	ND		1	1.0	ug/L	10/03/2019 1011
Carbon tetrachloride	ND		1	1.0	ug/L	10/03/2019 1011
Chlorobenzene	ND		1	1.0	ug/L	10/03/2019 1011
Chloroethane	ND		1	2.0	ug/L	10/03/2019 1011
Chloroform	ND		1	1.0	ug/L	10/03/2019 1011
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/03/2019 1011
Cyclohexane	ND		1	1.0	ug/L	10/03/2019 1011
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/03/2019 1011
Dibromochloromethane	ND		1	1.0	ug/L	10/03/2019 1011
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/03/2019 1011
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/03/2019 1011
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/03/2019 1011
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/03/2019 1011
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/03/2019 1011
1,1-Dichloroethane	ND		1	1.0	ug/L	10/03/2019 1011
1,2-Dichloroethane	ND		1	1.0	ug/L	10/03/2019 1011
1,1-Dichloroethene	ND		1	1.0	ug/L	10/03/2019 1011
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/03/2019 1011
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/03/2019 1011
1,2-Dichloropropane	ND		1	1.0	ug/L	10/03/2019 1011
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/03/2019 1011
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/03/2019 1011
Ethylbenzene	ND		1	1.0	ug/L	10/03/2019 1011
2-Hexanone	ND		1	10	ug/L	10/03/2019 1011
Isopropylbenzene	ND		1	1.0	ug/L	10/03/2019 1011
Methyl acetate	ND		1	1.0	ug/L	10/03/2019 1011
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/03/2019 1011
4-Methyl-2-pentanone	ND		1	10	ug/L	10/03/2019 1011
Methylcyclohexane	ND		1	5.0	ug/L	10/03/2019 1011
Methylene chloride	ND		1	1.0	ug/L	10/03/2019 1011
Styrene	ND		1	1.0	ug/L	10/03/2019 1011
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/03/2019 1011
Tetrachloroethene	ND		1	1.0	ug/L	10/03/2019 1011
Toluene	ND		1	1.0	ug/L	10/03/2019 1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/03/2019 1011
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/03/2019 1011
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/03/2019 1011
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/03/2019 1011

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ30855-001
Batch: 30855
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/03/2019 1011
Trichlorofluoromethane	ND		1	1.0	ug/L	10/03/2019 1011
Vinyl chloride	ND		1	1.0	ug/L	10/03/2019 1011
Xylenes (total)	ND		1	1.0	ug/L	10/03/2019 1011

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ30855-002
Batch: 30855
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	61		1	61	60-140	10/03/2019 0909
Benzene	50	48		1	96	70-130	10/03/2019 0909
Bromodichloromethane	50	44		1	89	70-130	10/03/2019 0909
Bromoform	50	39		1	78	70-130	10/03/2019 0909
Bromomethane (Methyl bromide)	50	52		1	104	70-130	10/03/2019 0909
2-Butanone (MEK)	100	75		1	75	70-130	10/03/2019 0909
Carbon disulfide	50	50		1	100	70-130	10/03/2019 0909
Carbon tetrachloride	50	47		1	95	70-130	10/03/2019 0909
Chlorobenzene	50	45		1	91	70-130	10/03/2019 0909
Chloroethane	50	57		1	115	70-130	10/03/2019 0909
Chloroform	50	47		1	94	70-130	10/03/2019 0909
Chloromethane (Methyl chloride)	50	52		1	103	60-140	10/03/2019 0909
Cyclohexane	50	49		1	97	70-130	10/03/2019 0909
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	10/03/2019 0909
Dibromochloromethane	50	44		1	87	70-130	10/03/2019 0909
1,2-Dibromoethane (EDB)	50	45		1	91	70-130	10/03/2019 0909
1,2-Dichlorobenzene	50	44		1	89	70-130	10/03/2019 0909
1,3-Dichlorobenzene	50	45		1	90	70-130	10/03/2019 0909
1,4-Dichlorobenzene	50	44		1	88	70-130	10/03/2019 0909
Dichlorodifluoromethane	50	52		1	104	60-140	10/03/2019 0909
1,1-Dichloroethane	50	49		1	97	70-130	10/03/2019 0909
1,2-Dichloroethane	50	44		1	88	70-130	10/03/2019 0909
1,1-Dichloroethene	50	54		1	107	70-130	10/03/2019 0909
cis-1,2-Dichloroethene	50	48		1	95	70-130	10/03/2019 0909
trans-1,2-Dichloroethene	50	50		1	101	70-130	10/03/2019 0909
1,2-Dichloropropane	50	46		1	93	70-130	10/03/2019 0909
cis-1,3-Dichloropropene	50	47		1	94	70-130	10/03/2019 0909
trans-1,3-Dichloropropene	50	47		1	93	70-130	10/03/2019 0909
Ethylbenzene	50	47		1	94	70-130	10/03/2019 0909
2-Hexanone	100	90		1	90	70-130	10/03/2019 0909
Isopropylbenzene	50	49		1	99	70-130	10/03/2019 0909
Methyl acetate	50	60		1	119	70-130	10/03/2019 0909
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	10/03/2019 0909
4-Methyl-2-pentanone	100	96		1	96	70-130	10/03/2019 0909
Methylcyclohexane	50	49		1	98	70-130	10/03/2019 0909
Methylene chloride	50	45		1	91	70-130	10/03/2019 0909
Styrene	50	47		1	95	70-130	10/03/2019 0909
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	10/03/2019 0909
Tetrachloroethene	50	45		1	90	70-130	10/03/2019 0909
Toluene	50	47		1	93	70-130	10/03/2019 0909
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	95	70-130	10/03/2019 0909
1,2,4-Trichlorobenzene	50	44		1	87	70-130	10/03/2019 0909
1,1,1-Trichloroethane	50	47		1	94	70-130	10/03/2019 0909
1,1,2-Trichloroethane	50	47		1	94	70-130	10/03/2019 0909

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ30855-002
Batch: 30855
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	44		1	88	70-130	10/03/2019 0909
Trichlorofluoromethane	50	52		1	104	70-130	10/03/2019 0909
Vinyl chloride	50	51		1	103	70-130	10/03/2019 0909
Xylenes (total)	100	94		1	94	70-130	10/03/2019 0909

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ30906-001
Batch: 30906
Analytical Method: 8270D
Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/05/2019 1407
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/05/2019 1407
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/05/2019 1407
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/05/2019 1407
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/05/2019 1407
2,4-Dinitrophenol	ND		1	20	ug/L	10/05/2019 1407
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/05/2019 1407
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/05/2019 1407
2-Chloronaphthalene	ND		1	4.0	ug/L	10/05/2019 1407
2-Chlorophenol	ND		1	4.0	ug/L	10/05/2019 1407
2-Methylnaphthalene	ND		1	0.80	ug/L	10/05/2019 1407
2-Methylphenol	ND		1	4.0	ug/L	10/05/2019 1407
2-Nitroaniline	ND		1	8.0	ug/L	10/05/2019 1407
2-Nitrophenol	ND		1	4.0	ug/L	10/05/2019 1407
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/05/2019 1407
3+4-Methylphenol	ND		1	4.0	ug/L	10/05/2019 1407
3-Nitroaniline	ND		1	8.0	ug/L	10/05/2019 1407
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/05/2019 1407
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/05/2019 1407
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/05/2019 1407
4-Chloroaniline	ND		1	8.0	ug/L	10/05/2019 1407
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/05/2019 1407
4-Nitroaniline	ND		1	8.0	ug/L	10/05/2019 1407
4-Nitrophenol	ND		1	20	ug/L	10/05/2019 1407
Acenaphthene	ND		1	0.80	ug/L	10/05/2019 1407
Acenaphthylene	ND		1	0.80	ug/L	10/05/2019 1407
Acetophenone	ND		1	4.0	ug/L	10/05/2019 1407
Anthracene	ND		1	0.80	ug/L	10/05/2019 1407
Atrazine	ND		1	4.0	ug/L	10/05/2019 1407
Benzaldehyde	ND		1	8.0	ug/L	10/05/2019 1407
Benzo(a)anthracene	ND		1	0.80	ug/L	10/05/2019 1407
Benzo(a)pyrene	ND		1	0.80	ug/L	10/05/2019 1407
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/05/2019 1407
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/05/2019 1407
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/05/2019 1407
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/05/2019 1407
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/05/2019 1407
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/05/2019 1407
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/05/2019 1407
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/05/2019 1407
Caprolactam	ND		1	8.0	ug/L	10/05/2019 1407
Carbazole	ND		1	4.0	ug/L	10/05/2019 1407
Chrysene	ND		1	0.80	ug/L	10/05/2019 1407
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/05/2019 1407

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ30906-001
Batch: 30906
Analytical Method: 8270D
Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/05/2019 1407
Diethylphthalate	ND		1	4.0	ug/L	10/05/2019 1407
Dimethyl phthalate	ND		1	4.0	ug/L	10/05/2019 1407
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/05/2019 1407
Di-n-octylphthalate	ND		1	4.0	ug/L	10/05/2019 1407
Fluoranthene	ND		1	0.80	ug/L	10/05/2019 1407
Fluorene	ND		1	0.80	ug/L	10/05/2019 1407
Hexachlorobenzene	ND		1	4.0	ug/L	10/05/2019 1407
Hexachlorobutadiene	ND		1	4.0	ug/L	10/05/2019 1407
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/05/2019 1407
Hexachloroethane	ND		1	4.0	ug/L	10/05/2019 1407
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/05/2019 1407
Isophorone	ND		1	4.0	ug/L	10/05/2019 1407
Naphthalene	ND		1	0.80	ug/L	10/05/2019 1407
Nitrobenzene	ND		1	4.0	ug/L	10/05/2019 1407
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/05/2019 1407
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/05/2019 1407
Pentachlorophenol	ND		1	20	ug/L	10/05/2019 1407
Phenanthrene	ND		1	0.80	ug/L	10/05/2019 1407
Phenol	ND		1	4.0	ug/L	10/05/2019 1407
Pyrene	ND		1	0.80	ug/L	10/05/2019 1407

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		53	24-127
Nitrobenzene-d5		86	38-127
Phenol-d5		65	28-128
Terphenyl-d14		97	10-148
2,4,6-Tribromophenol		85	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
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P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ30906-002
Batch: 30906
Analytical Method: 8270D
Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	36		1	90	30-130	10/05/2019 1432
2,4,5-Trichlorophenol	40	39		1	97	30-123	10/05/2019 1432
2,4,6-Trichlorophenol	40	41		1	102	30-130	10/05/2019 1432
2,4-Dichlorophenol	40	36		1	91	30-121	10/05/2019 1432
2,4-Dimethylphenol	40	48		1	120	20-125	10/05/2019 1432
2,4-Dinitrophenol	80	74		1	93	11-126	10/05/2019 1432
2,4-Dinitrotoluene	40	38		1	94	30-130	10/05/2019 1432
2,6-Dinitrotoluene	40	39		1	97	30-130	10/05/2019 1432
2-Chloronaphthalene	40	37		1	92	30-130	10/05/2019 1432
2-Chlorophenol	40	39		1	97	30-130	10/05/2019 1432
2-Methylnaphthalene	40	37		1	92	40-132	10/05/2019 1432
2-Methylphenol	40	41		1	103	30-130	10/05/2019 1432
2-Nitroaniline	40	36		1	91	30-130	10/05/2019 1432
2-Nitrophenol	40	36		1	89	30-130	10/05/2019 1432
3,3'-Dichlorobenzidine	40	27		1	67	10-126	10/05/2019 1432
3+4-Methylphenol	40	40		1	99	30-130	10/05/2019 1432
3-Nitroaniline	40	25		1	64	30-130	10/05/2019 1432
4,6-Dinitro-2-methylphenol	40	39		1	98	30-130	10/05/2019 1432
4-Bromophenyl phenyl ether	40	37		1	93	30-124	10/05/2019 1432
4-Chloro-3-methyl phenol	40	38		1	96	30-123	10/05/2019 1432
4-Chloroaniline	40	26		1	65	12-157	10/05/2019 1432
4-Chlorophenyl phenyl ether	40	37		1	92	30-121	10/05/2019 1432
4-Nitroaniline	40	38		1	95	30-135	10/05/2019 1432
4-Nitrophenol	80	53		1	66	30-130	10/05/2019 1432
Acenaphthene	40	35		1	88	30-122	10/05/2019 1432
Acenaphthylene	40	36		1	89	30-130	10/05/2019 1432
Acetophenone	40	40		1	100	30-130	10/05/2019 1432
Anthracene	40	35		1	89	30-123	10/05/2019 1432
Atrazine	40	36		1	91	30-130	10/05/2019 1432
Benzaldehyde	40	23		1	58	20-115	10/05/2019 1432
Benzo(a)anthracene	40	34		1	86	40-125	10/05/2019 1432
Benzo(a)pyrene	40	34		1	85	40-128	10/05/2019 1432
Benzo(b)fluoranthene	40	37		1	93	30-130	10/05/2019 1432
Benzo(g,h,i)perylene	40	37		1	91	30-130	10/05/2019 1432
Benzo(k)fluoranthene	40	36		1	89	30-130	10/05/2019 1432
bis (2-Chloro-1-methylethyl) ether	40	49		1	122	30-130	10/05/2019 1432
bis(2-Chloroethoxy)methane	40	38		1	95	30-130	10/05/2019 1432
bis(2-Chloroethyl)ether	40	43		1	108	30-130	10/05/2019 1432
bis(2-Ethylhexyl)phthalate	40	29		1	73	30-130	10/05/2019 1432
Butyl benzyl phthalate	40	31		1	78	30-130	10/05/2019 1432
Caprolactam	40	41		1	102	30-130	10/05/2019 1432
Carbazole	40	32		1	80	30-130	10/05/2019 1432
Chrysene	40	36		1	90	30-130	10/05/2019 1432
Dibenzo(a,h)anthracene	40	37		1	92	30-130	10/05/2019 1432

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ30906-002
Batch: 30906
Analytical Method: 8270D
Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	36		1	89	30-118	10/05/2019 1432
Diethylphthalate	40	37		1	93	40-125	10/05/2019 1432
Dimethyl phthalate	40	38		1	95	40-127	10/05/2019 1432
Di-n-butyl phthalate	40	35		1	88	40-127	10/05/2019 1432
Di-n-octylphthalate	40	29		1	73	30-130	10/05/2019 1432
Fluoranthene	40	36		1	90	40-128	10/05/2019 1432
Fluorene	40	36		1	90	30-124	10/05/2019 1432
Hexachlorobenzene	40	38		1	96	30-125	10/05/2019 1432
Hexachlorobutadiene	40	37		1	93	24-110	10/05/2019 1432
Hexachlorocyclopentadiene	200	150		1	75	22-122	10/05/2019 1432
Hexachloroethane	40	33		1	83	30-130	10/05/2019 1432
Indeno(1,2,3-c,d)pyrene	40	36		1	90	30-130	10/05/2019 1432
Isophorone	40	41		1	102	30-130	10/05/2019 1432
Naphthalene	40	38		1	95	30-130	10/05/2019 1432
Nitrobenzene	40	41		1	101	30-130	10/05/2019 1432
N-Nitrosodi-n-propylamine	40	43		1	107	30-130	10/05/2019 1432
N-Nitrosodiphenylamine (Diphenylamine)	40	34		1	84	30-123	10/05/2019 1432
Pentachlorophenol	80	79		1	99	30-130	10/05/2019 1432
Phenanthrene	40	34		1	86	40-123	10/05/2019 1432
Phenol	40	40		1	101	30-130	10/05/2019 1432
Pyrene	40	36		1	89	40-126	10/05/2019 1432

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		91	37-129
2-Fluorophenol		93	24-127
Nitrobenzene-d5		104	38-127
Phenol-d5		97	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		111	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ02056-001MS
Batch: 30906
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	80	67		1	84	30-130	10/05/2019 1953
2,4,5-Trichlorophenol	ND	80	72		1	90	30-123	10/05/2019 1953
2,4,6-Trichlorophenol	ND	80	73		1	92	30-130	10/05/2019 1953
2,4-Dichlorophenol	ND	80	68		1	85	30-121	10/05/2019 1953
2,4-Dimethylphenol	ND	80	76		1	95	20-125	10/05/2019 1953
2,4-Dinitrophenol	ND	160	87		1	55	30-130	10/05/2019 1953
2,4-Dinitrotoluene	ND	80	71		1	89	30-130	10/05/2019 1953
2,6-Dinitrotoluene	ND	80	74		1	92	30-130	10/05/2019 1953
2-Chloronaphthalene	ND	80	69		1	86	30-130	10/05/2019 1953
2-Chlorophenol	ND	80	66		1	83	30-130	10/05/2019 1953
2-Methylnaphthalene	ND	80	69		1	86	40-132	10/05/2019 1953
2-Methylphenol	ND	80	68		1	86	30-130	10/05/2019 1953
2-Nitroaniline	ND	80	68		1	84	30-130	10/05/2019 1953
2-Nitrophenol	ND	80	63		1	79	30-130	10/05/2019 1953
3,3'-Dichlorobenzidine	ND	80	29		1	36	10-126	10/05/2019 1953
3+4-Methylphenol	ND	80	88		1	110	30-130	10/05/2019 1953
3-Nitroaniline	ND	80	43		1	54	30-130	10/05/2019 1953
4,6-Dinitro-2-methylphenol	ND	80	54		1	67	30-130	10/05/2019 1953
4-Bromophenyl phenyl ether	ND	80	69		1	86	30-124	10/05/2019 1953
4-Chloro-3-methyl phenol	ND	80	70		1	87	30-123	10/05/2019 1953
4-Chloroaniline	ND	80	31		1	38	10-130	10/05/2019 1953
4-Chlorophenyl phenyl ether	ND	80	69		1	86	30-121	10/05/2019 1953
4-Nitroaniline	ND	80	65		1	81	30-135	10/05/2019 1953
4-Nitrophenol	ND	160	78		1	49	30-130	10/05/2019 1953
Acenaphthene	ND	80	65		1	81	30-122	10/05/2019 1953
Acenaphthylene	ND	80	66		1	83	30-130	10/05/2019 1953
Acetophenone	ND	80	72		1	90	30-130	10/05/2019 1953
Anthracene	ND	80	65		1	81	30-123	10/05/2019 1953
Atrazine	ND	80	68		1	85	30-130	10/05/2019 1953
Benzaldehyde	ND	80	38		1	48	20-115	10/05/2019 1953
Benzo(a)anthracene	ND	80	62		1	78	40-125	10/05/2019 1953
Benzo(a)pyrene	ND	80	16	N	1	21	40-128	10/05/2019 1953
Benzo(b)fluoranthene	ND	80	63		1	79	30-130	10/05/2019 1953
Benzo(g,h,i)perylene	ND	80	39		1	49	30-130	10/05/2019 1953
Benzo(k)fluoranthene	ND	80	58		1	73	30-130	10/05/2019 1953
bis (2-Chloro-1-methylethyl) ether	ND	80	82		1	103	30-130	10/05/2019 1953
bis(2-Chloroethoxy)methane	ND	80	71		1	89	30-130	10/05/2019 1953
bis(2-Chloroethyl)ether	ND	80	74		1	93	30-130	10/05/2019 1953
bis(2-Ethylhexyl)phthalate	ND	80	46	N	1	58	70-131	10/05/2019 1953
Butyl benzyl phthalate	ND	80	59		1	73	30-130	10/05/2019 1953
Caprolactam	ND	80	83		1	103	30-130	10/05/2019 1953
Carbazole	ND	80	62		1	78	30-130	10/05/2019 1953
Chrysene	ND	80	65		1	81	30-130	10/05/2019 1953
Dibenzo(a,h)anthracene	ND	80	52		1	65	30-130	10/05/2019 1953

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ02056-001MS
Batch: 30906
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	80	67		1	83	30-118	10/05/2019 1953
Diethylphthalate	ND	80	71		1	88	40-125	10/05/2019 1953
Dimethyl phthalate	ND	80	71		1	89	40-127	10/05/2019 1953
Di-n-butyl phthalate	ND	80	66		1	83	40-127	10/05/2019 1953
Di-n-octylphthalate	ND	80	44		1	55	30-130	10/05/2019 1953
Fluoranthene	ND	80	67		1	84	40-128	10/05/2019 1953
Fluorene	ND	80	67		1	84	30-124	10/05/2019 1953
Hexachlorobenzene	ND	80	73		1	91	30-125	10/05/2019 1953
Hexachlorobutadiene	ND	80	69		1	86	24-110	10/05/2019 1953
Hexachlorocyclopentadiene	ND	400	260		1	66	22-122	10/05/2019 1953
Hexachloroethane	ND	80	61		1	76	30-130	10/05/2019 1953
Indeno(1,2,3-c,d)pyrene	ND	80	51		1	63	30-130	10/05/2019 1953
Isophorone	ND	80	79		1	99	30-130	10/05/2019 1953
Naphthalene	ND	80	69		1	86	30-130	10/05/2019 1953
Nitrobenzene	ND	80	78		1	97	30-130	10/05/2019 1953
N-Nitrosodi-n-propylamine	ND	80	76		1	95	30-130	10/05/2019 1953
N-Nitrosodiphenylamine (Diphenylamine)	ND	80	47		1	59	30-123	10/05/2019 1953
Pentachlorophenol	ND	160	140		1	87	30-130	10/05/2019 1953
Phenanthrene	ND	80	64		1	80	40-123	10/05/2019 1953
Phenol	ND	80	69		1	87	30-130	10/05/2019 1953
Pyrene	ND	80	66		1	83	40-126	10/05/2019 1953

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		77	24-127
Nitrobenzene-d5		99	38-127
Phenol-d5		85	28-128
Terphenyl-d14		69	10-148
2,4,6-Tribromophenol		100	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ02056-001MD
Batch: 30906
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	80	69		1	86	3.1	30-130	40	10/05/2019 2017
2,4,5-Trichlorophenol	ND	80	70		1	88	2.5	30-123	40	10/05/2019 2017
2,4,6-Trichlorophenol	ND	80	76		1	95	3.5	30-130	40	10/05/2019 2017
2,4-Dichlorophenol	ND	80	67		1	84	1.2	30-121	40	10/05/2019 2017
2,4-Dimethylphenol	ND	80	84		1	105	9.6	20-125	40	10/05/2019 2017
2,4-Dinitrophenol	ND	160	85		1	53	2.2	30-130	40	10/05/2019 2017
2,4-Dinitrotoluene	ND	80	73		1	91	2.0	30-130	40	10/05/2019 2017
2,6-Dinitrotoluene	ND	80	76		1	95	2.2	30-130	40	10/05/2019 2017
2-Chloronaphthalene	ND	80	69		1	86	0.51	30-130	40	10/05/2019 2017
2-Chlorophenol	ND	80	70		1	87	5.3	30-130	40	10/05/2019 2017
2-Methylnaphthalene	ND	80	68		1	85	1.8	40-132	40	10/05/2019 2017
2-Methylphenol	ND	80	87		1	108	23	30-130	40	10/05/2019 2017
2-Nitroaniline	ND	80	71		1	89	5.1	30-130	40	10/05/2019 2017
2-Nitrophenol	ND	80	63		1	79	0.52	30-130	40	10/05/2019 2017
3,3'-Dichlorobenzidine	ND	80	31		1	39	9.8	10-126	40	10/05/2019 2017
3+4-Methylphenol	ND	80	85		1	106	3.4	30-130	40	10/05/2019 2017
3-Nitroaniline	ND	80	51		1	63	17	30-130	40	10/05/2019 2017
4,6-Dinitro-2-methylphenol	ND	80	54		1	67	0.17	30-130	40	10/05/2019 2017
4-Bromophenyl phenyl ether	ND	80	73		1	91	5.3	30-124	40	10/05/2019 2017
4-Chloro-3-methyl phenol	ND	80	71		1	88	1.2	30-123	40	10/05/2019 2017
4-Chloroaniline	ND	80	60	+	1	75	65	10-130	40	10/05/2019 2017
4-Chlorophenyl phenyl ether	ND	80	70		1	88	2.2	30-121	40	10/05/2019 2017
4-Nitroaniline	ND	80	71		1	89	8.9	30-135	40	10/05/2019 2017
4-Nitrophenol	ND	160	120	+	1	75	42	30-130	40	10/05/2019 2017
Acenaphthene	ND	80	67		1	83	2.7	30-122	40	10/05/2019 2017
Acenaphthylene	ND	80	69		1	86	3.4	30-130	40	10/05/2019 2017
Acetophenone	ND	80	76		1	95	5.7	30-130	40	10/05/2019 2017
Anthracene	ND	80	68		1	85	4.7	30-123	40	10/05/2019 2017
Atrazine	ND	80	70		1	88	3.4	30-130	40	10/05/2019 2017
Benzaldehyde	ND	80	47		1	58	20	20-115	40	10/05/2019 2017
Benzo(a)anthracene	ND	80	66		1	82	5.3	40-125	40	10/05/2019 2017
Benzo(a)pyrene	ND	80	20	N	1	25	19	40-128	40	10/05/2019 2017
Benzo(b)fluoranthene	ND	80	67		1	83	5.9	30-130	40	10/05/2019 2017
Benzo(g,h,i)perylene	ND	80	41		1	52	5.3	30-130	40	10/05/2019 2017
Benzo(k)fluoranthene	ND	80	62		1	77	6.0	30-130	40	10/05/2019 2017
bis (2-Chloro-1-methylethyl) ether	ND	80	90		1	113	8.8	30-130	40	10/05/2019 2017
bis(2-Chloroethoxy)methane	ND	80	72		1	90	1.4	30-130	40	10/05/2019 2017
bis(2-Chloroethyl)ether	ND	80	81		1	101	8.1	30-130	40	10/05/2019 2017
bis(2-Ethylhexyl)phthalate	ND	80	51	N	1	64	9.6	70-131	40	10/05/2019 2017
Butyl benzyl phthalate	ND	80	62		1	77	4.9	30-130	40	10/05/2019 2017
Caprolactam	ND	80	77		1	96	7.6	30-130	40	10/05/2019 2017
Carbazole	ND	80	63		1	79	2.3	30-130	40	10/05/2019 2017
Chrysene	ND	80	69		1	86	5.6	30-130	40	10/05/2019 2017
Dibenzo(a,h)anthracene	ND	80	55		1	69	5.1	30-130	40	10/05/2019 2017

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ02056-001MD
Batch: 30906
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/03/2019 1618

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	80	69		1	86	2.8	30-118	40	10/05/2019 2017
Diethylphthalate	ND	80	72		1	90	2.5	40-125	40	10/05/2019 2017
Dimethyl phthalate	ND	80	73		1	91	2.1	40-127	40	10/05/2019 2017
Di-n-butyl phthalate	ND	80	70		1	88	5.8	40-127	40	10/05/2019 2017
Di-n-octylphthalate	ND	80	48		1	60	9.2	30-130	40	10/05/2019 2017
Fluoranthene	ND	80	70		1	87	3.5	40-128	40	10/05/2019 2017
Fluorene	ND	80	69		1	86	2.5	30-124	40	10/05/2019 2017
Hexachlorobenzene	ND	80	74		1	93	2.1	30-125	40	10/05/2019 2017
Hexachlorobutadiene	ND	80	70		1	87	1.1	24-110	40	10/05/2019 2017
Hexachlorocyclopentadiene	ND	400	300		1	74	12	22-122	40	10/05/2019 2017
Hexachloroethane	ND	80	61		1	76	0.13	30-130	40	10/05/2019 2017
Indeno(1,2,3-c,d)pyrene	ND	80	54		1	68	7.3	30-130	40	10/05/2019 2017
Isophorone	ND	80	78		1	98	1.0	30-130	40	10/05/2019 2017
Naphthalene	ND	80	71		1	89	2.9	30-130	40	10/05/2019 2017
Nitrobenzene	ND	80	81		1	101	4.3	30-130	40	10/05/2019 2017
N-Nitrosodi-n-propylamine	ND	80	82		1	102	7.8	30-130	40	10/05/2019 2017
N-Nitrosodiphenylamine (Diphenylamine)	ND	80	50		1	63	6.2	30-123	40	10/05/2019 2017
Pentachlorophenol	ND	160	140		1	88	0.94	30-130	40	10/05/2019 2017
Phenanthrene	ND	80	67		1	83	3.4	40-123	40	10/05/2019 2017
Phenol	ND	80	76		1	95	8.5	30-130	40	10/05/2019 2017
Pyrene	ND	80	68		1	85	2.1	40-126	40	10/05/2019 2017

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		82	24-127
Nitrobenzene-d5		99	38-127
Phenol-d5		93	28-128
Terphenyl-d14		70	10-148
2,4,6-Tribromophenol		103	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 099488

Client: WESTINGHOUSE	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: R. Crews / J. Leaphart	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	Printed Name: Randy Crews / James Leaphart
Project Name: WESTINGHOUSE RI			
Project No.: 60595649	P.O. No.		

UJ02056
GRW

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab / Composite	Matrix: Aqueous	Soil/Sediment	Non-Aqueous	No of Containers by Preservative Type: Unpres.	HCl/Ice	HNO3	H2SO4	NaOH	ZnAc/NaOH	TCL VOC's 8260B	TCL SVOC's 8270D	Nitrates 353.2	Remarks / Cooler I.D.
W-87	10-2-19	0946	G	X			3			3			X	X	X	
W-45		1200	G	X			3			3			X	X	X	
W-35		1355	G	X			3			3			X	X	X	
W-37		1525	G	X			3			3			X	X	X	
TB-01-100219		—		X						2			X			
W-36		1408	G	X			3			3			X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	10-2-19	1658	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	10/02/19	1658

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack

Receipt Temp. 2.6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: BMG / 10/02/19 Lot #: UJ02056

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.6 / 2.6 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: DMN Date: 10/02/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ03082**

Date Completed:10/11/2019

10/11/2019 3:04 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ03082

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ03082

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-51	Aqueous	10/03/2019 1155	10/03/2019
002	W-52	Aqueous	10/03/2019 1255	10/03/2019
003	W-57	Aqueous	10/03/2019 1415	10/03/2019
004	RW-1	Aqueous	10/03/2019 1043	10/03/2019
005	W-53	Aqueous	10/03/2019 1258	10/03/2019
006	TB-01-100319	Aqueous	10/03/2019	10/03/2019

(6 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ03082

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-51	Aqueous	Nitrate - N	353.2	0.11		mg/L	5
001	W-51	Aqueous	Benzene	8260B	1.2		ug/L	6
001	W-51	Aqueous	1,1'-Biphenyl	8270D	7.4		ug/L	8
002	W-52	Aqueous	Nitrate - N	353.2	1.3		mg/L	10
003	W-57	Aqueous	Nitrate - N	353.2	4.6		mg/L	15
004	RW-1	Aqueous	Nitrate - N	353.2	2.1		mg/L	20
004	RW-1	Aqueous	Tetrachloroethene	8260B	1.4		ug/L	21
005	W-53	Aqueous	Nitrate - N	353.2	0.57		mg/L	25
005	W-53	Aqueous	1,1'-Biphenyl	8270D	4.0		ug/L	28
005	W-53	Aqueous	Carbazole	8270D	4.4		ug/L	28
005	W-53	Aqueous	Fluorene	8270D	1.0		ug/L	29
005	W-53	Aqueous	Phenanthrene	8270D	5.2		ug/L	29

(12 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-001
Description: W-51
Matrix: Aqueous
Date Sampled: 10/03/2019 1155
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/04/2019 1831	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.11		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-001
Description: W-51 | Matrix: Aqueous
Date Sampled:10/03/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1221	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	1.2		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-001
Description: W-51
Matrix: Aqueous
Date Sampled:10/03/2019 1155
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1221	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-001
Description: W-51 | Matrix: Aqueous
Date Sampled:10/03/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1435	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	7.4		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-001
Description: W-51 | Matrix: Aqueous
Date Sampled:10/03/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1435	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		63	37-129
2-Fluorophenol		39	24-127
Nitrobenzene-d5		54	38-127
Phenol-d5		37	28-128
Terphenyl-d14		82	10-148
2,4,6-Tribromophenol		73	35-144

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-002
Description: W-52
Matrix: Aqueous
Date Sampled: 10/03/2019 1255
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/04/2019 1832	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	1.3		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-002
Description: W-52 | Matrix: Aqueous
Date Sampled:10/03/2019 1255 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1243	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-002
Description: W-52 | Matrix: Aqueous
Date Sampled: 10/03/2019 1255 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1243	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-002
Description: W-52 | Matrix: Aqueous
Date Sampled:10/03/2019 1255 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1459	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-002
Description: W-52 | Matrix: Aqueous
Date Sampled:10/03/2019 1255 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1459	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		64	37-129
2-Fluorophenol		37	24-127
Nitrobenzene-d5		56	38-127
Phenol-d5		40	28-128
Terphenyl-d14		82	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-003
Description: W-57
Matrix: Aqueous
Date Sampled: 10/03/2019 1415
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/04/2019 1833	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.6		0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-003
Description: W-57 | Matrix: Aqueous
Date Sampled:10/03/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1305	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-003
Description: W-57
Matrix: Aqueous
Date Sampled:10/03/2019 1415
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1305	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
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W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-003
Description: W-57 | Matrix: Aqueous
Date Sampled:10/03/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1523	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-003
Description: W-57 | Matrix: Aqueous
Date Sampled:10/03/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1523	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		62	37-129
2-Fluorophenol		34	24-127
Nitrobenzene-d5		56	38-127
Phenol-d5		44	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		59	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-004
Description: RW-1
Matrix: Aqueous
Date Sampled: 10/03/2019 1043
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1835	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.1		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-004
Description: RW-1 | Matrix: Aqueous
Date Sampled:10/03/2019 1043 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1328	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.4		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-004
Description: RW-1 | Matrix: Aqueous
Date Sampled: 10/03/2019 1043 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1328	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-004
Description: RW-1 | Matrix: Aqueous
Date Sampled:10/03/2019 1043 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1548	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-004
Description: RW-1 | Matrix: Aqueous
Date Sampled:10/03/2019 1043 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1548	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		57	37-129
2-Fluorophenol		40	24-127
Nitrobenzene-d5		50	38-127
Phenol-d5		38	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		56	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ03082-005
Description: W-53
Matrix: Aqueous
Date Sampled: 10/03/2019 1258
Project Name: Westinghouse RI
Date Received: 10/03/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/04/2019 1840	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.57		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-005
Description: W-53 | Matrix: Aqueous
Date Sampled:10/03/2019 1258 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1349	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-005
Description: W-53 | Matrix: Aqueous
Date Sampled: 10/03/2019 1258 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1349	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-005
Description: W-53 | Matrix: Aqueous
Date Sampled:10/03/2019 1258 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1612	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	4.0		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	4.4		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-005
Description: W-53 | Matrix: Aqueous
Date Sampled:10/03/2019 1258 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1612	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	1.0		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	5.2		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	37-129
2-Fluorophenol		37	24-127
Nitrobenzene-d5		55	38-127
Phenol-d5		42	28-128
Terphenyl-d14		85	10-148
2,4,6-Tribromophenol		63	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-006
Description: TB-01-100319 | Matrix: Aqueous
Date Sampled:10/03/2019 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1200	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ03082-006
Description: TB-01-100319 | Matrix: Aqueous
Date Sampled:10/03/2019 | Project Name: Westinghouse RI
Date Received: 10/03/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/04/2019 1200	JM1		31005

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31076-001
Batch: 31076
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/04/2019 1827

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31076-002
Batch: 31076
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	10/04/2019 1828

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31005-001
Batch: 31005
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/04/2019 1022
Benzene	ND		1	1.0	ug/L	10/04/2019 1022
Bromodichloromethane	ND		1	1.0	ug/L	10/04/2019 1022
Bromoform	ND		1	1.0	ug/L	10/04/2019 1022
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/04/2019 1022
2-Butanone (MEK)	ND		1	10	ug/L	10/04/2019 1022
Carbon disulfide	ND		1	1.0	ug/L	10/04/2019 1022
Carbon tetrachloride	ND		1	1.0	ug/L	10/04/2019 1022
Chlorobenzene	ND		1	1.0	ug/L	10/04/2019 1022
Chloroethane	ND		1	2.0	ug/L	10/04/2019 1022
Chloroform	ND		1	1.0	ug/L	10/04/2019 1022
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/04/2019 1022
Cyclohexane	ND		1	1.0	ug/L	10/04/2019 1022
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/04/2019 1022
Dibromochloromethane	ND		1	1.0	ug/L	10/04/2019 1022
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/04/2019 1022
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/04/2019 1022
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/04/2019 1022
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/04/2019 1022
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/04/2019 1022
1,1-Dichloroethane	ND		1	1.0	ug/L	10/04/2019 1022
1,2-Dichloroethane	ND		1	1.0	ug/L	10/04/2019 1022
1,1-Dichloroethene	ND		1	1.0	ug/L	10/04/2019 1022
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/04/2019 1022
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/04/2019 1022
1,2-Dichloropropane	ND		1	1.0	ug/L	10/04/2019 1022
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/04/2019 1022
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/04/2019 1022
Ethylbenzene	ND		1	1.0	ug/L	10/04/2019 1022
2-Hexanone	ND		1	10	ug/L	10/04/2019 1022
Isopropylbenzene	ND		1	1.0	ug/L	10/04/2019 1022
Methyl acetate	ND		1	1.0	ug/L	10/04/2019 1022
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/04/2019 1022
4-Methyl-2-pentanone	ND		1	10	ug/L	10/04/2019 1022
Methylcyclohexane	ND		1	5.0	ug/L	10/04/2019 1022
Methylene chloride	ND		1	1.0	ug/L	10/04/2019 1022
Styrene	ND		1	1.0	ug/L	10/04/2019 1022
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/04/2019 1022
Tetrachloroethene	ND		1	1.0	ug/L	10/04/2019 1022
Toluene	ND		1	1.0	ug/L	10/04/2019 1022
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/04/2019 1022
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/04/2019 1022
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/04/2019 1022
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/04/2019 1022

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31005-001
Batch: 31005
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/04/2019 1022
Trichlorofluoromethane	ND		1	1.0	ug/L	10/04/2019 1022
Vinyl chloride	ND		1	1.0	ug/L	10/04/2019 1022
Xylenes (total)	ND		1	1.0	ug/L	10/04/2019 1022

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31005-002
Batch: 31005
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	101	60-140	10/04/2019 0938
Benzene	50	51		1	103	70-130	10/04/2019 0938
Bromodichloromethane	50	50		1	100	70-130	10/04/2019 0938
Bromoform	50	53		1	106	70-130	10/04/2019 0938
Bromomethane (Methyl bromide)	50	56		1	113	70-130	10/04/2019 0938
2-Butanone (MEK)	100	120		1	119	70-130	10/04/2019 0938
Carbon disulfide	50	45		1	90	70-130	10/04/2019 0938
Carbon tetrachloride	50	49		1	98	70-130	10/04/2019 0938
Chlorobenzene	50	50		1	100	70-130	10/04/2019 0938
Chloroethane	50	63		1	126	70-130	10/04/2019 0938
Chloroform	50	51		1	103	70-130	10/04/2019 0938
Chloromethane (Methyl chloride)	50	51		1	103	60-140	10/04/2019 0938
Cyclohexane	50	43		1	85	70-130	10/04/2019 0938
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	10/04/2019 0938
Dibromochloromethane	50	53		1	105	70-130	10/04/2019 0938
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	10/04/2019 0938
1,2-Dichlorobenzene	50	49		1	98	70-130	10/04/2019 0938
1,3-Dichlorobenzene	50	48		1	96	70-130	10/04/2019 0938
1,4-Dichlorobenzene	50	46		1	93	70-130	10/04/2019 0938
Dichlorodifluoromethane	50	56		1	112	60-140	10/04/2019 0938
1,1-Dichloroethane	50	50		1	101	70-130	10/04/2019 0938
1,2-Dichloroethane	50	50		1	100	70-130	10/04/2019 0938
1,1-Dichloroethene	50	53		1	106	70-130	10/04/2019 0938
cis-1,2-Dichloroethene	50	51		1	102	70-130	10/04/2019 0938
trans-1,2-Dichloroethene	50	52		1	104	70-130	10/04/2019 0938
1,2-Dichloropropane	50	50		1	100	70-130	10/04/2019 0938
cis-1,3-Dichloropropene	50	51		1	103	70-130	10/04/2019 0938
trans-1,3-Dichloropropene	50	51		1	103	70-130	10/04/2019 0938
Ethylbenzene	50	52		1	104	70-130	10/04/2019 0938
2-Hexanone	100	110		1	107	70-130	10/04/2019 0938
Isopropylbenzene	50	54		1	108	70-130	10/04/2019 0938
Methyl acetate	50	52		1	104	70-130	10/04/2019 0938
Methyl tertiary butyl ether (MTBE)	50	48		1	95	70-130	10/04/2019 0938
4-Methyl-2-pentanone	100	99		1	99	70-130	10/04/2019 0938
Methylcyclohexane	50	47		1	95	70-130	10/04/2019 0938
Methylene chloride	50	46		1	91	70-130	10/04/2019 0938
Styrene	50	53		1	105	70-130	10/04/2019 0938
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	10/04/2019 0938
Tetrachloroethene	50	50		1	100	70-130	10/04/2019 0938
Toluene	50	52		1	104	70-130	10/04/2019 0938
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	43		1	86	70-130	10/04/2019 0938
1,2,4-Trichlorobenzene	50	47		1	94	70-130	10/04/2019 0938
1,1,1-Trichloroethane	50	48		1	96	70-130	10/04/2019 0938
1,1,2-Trichloroethane	50	51		1	102	70-130	10/04/2019 0938

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31005-002
Batch: 31005
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	10/04/2019 0938
Trichlorofluoromethane	50	51		1	103	70-130	10/04/2019 0938
Vinyl chloride	50	48		1	96	70-130	10/04/2019 0938
Xylenes (total)	100	110		1	106	70-130	10/04/2019 0938

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31187-001
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/10/2019 1209
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1209
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1209
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/10/2019 1209
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/10/2019 1209
2,4-Dinitrophenol	ND		1	20	ug/L	10/10/2019 1209
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1209
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1209
2-Chloronaphthalene	ND		1	4.0	ug/L	10/10/2019 1209
2-Chlorophenol	ND		1	4.0	ug/L	10/10/2019 1209
2-Methylnaphthalene	ND		1	0.80	ug/L	10/10/2019 1209
2-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1209
2-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1209
2-Nitrophenol	ND		1	4.0	ug/L	10/10/2019 1209
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/10/2019 1209
3+4-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1209
3-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1209
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/10/2019 1209
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1209
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/10/2019 1209
4-Chloroaniline	ND		1	8.0	ug/L	10/10/2019 1209
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1209
4-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1209
4-Nitrophenol	ND		1	20	ug/L	10/10/2019 1209
Acenaphthene	ND		1	0.80	ug/L	10/10/2019 1209
Acenaphthylene	ND		1	0.80	ug/L	10/10/2019 1209
Acetophenone	ND		1	4.0	ug/L	10/10/2019 1209
Anthracene	ND		1	0.80	ug/L	10/10/2019 1209
Atrazine	ND		1	4.0	ug/L	10/10/2019 1209
Benzaldehyde	ND		1	8.0	ug/L	10/10/2019 1209
Benzo(a)anthracene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(a)pyrene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1209
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/10/2019 1209
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/10/2019 1209
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/10/2019 1209
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Caprolactam	ND		1	8.0	ug/L	10/10/2019 1209
Carbazole	ND		1	4.0	ug/L	10/10/2019 1209
Chrysene	ND		1	0.80	ug/L	10/10/2019 1209
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/10/2019 1209

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31187-001
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/10/2019 1209
Diethylphthalate	ND		1	4.0	ug/L	10/10/2019 1209
Dimethyl phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Di-n-octylphthalate	ND		1	4.0	ug/L	10/10/2019 1209
Fluoranthene	ND		1	0.80	ug/L	10/10/2019 1209
Fluorene	ND		1	0.80	ug/L	10/10/2019 1209
Hexachlorobenzene	ND		1	4.0	ug/L	10/10/2019 1209
Hexachlorobutadiene	ND		1	4.0	ug/L	10/10/2019 1209
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/10/2019 1209
Hexachloroethane	ND		1	4.0	ug/L	10/10/2019 1209
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/10/2019 1209
Isophorone	ND		1	4.0	ug/L	10/10/2019 1209
Naphthalene	ND		1	0.80	ug/L	10/10/2019 1209
Nitrobenzene	ND		1	4.0	ug/L	10/10/2019 1209
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/10/2019 1209
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/10/2019 1209
Pentachlorophenol	ND		1	20	ug/L	10/10/2019 1209
Phenanthrene	ND		1	0.80	ug/L	10/10/2019 1209
Phenol	ND		1	4.0	ug/L	10/10/2019 1209
Pyrene	ND		1	0.80	ug/L	10/10/2019 1209

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		70	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		63	38-127
Phenol-d5		49	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		63	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31187-002
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	29		1	74	30-130	10/10/2019 1233
2,4,5-Trichlorophenol	40	28		1	70	30-123	10/10/2019 1233
2,4,6-Trichlorophenol	40	28		1	69	30-130	10/10/2019 1233
2,4-Dichlorophenol	40	29		1	72	30-121	10/10/2019 1233
2,4-Dimethylphenol	40	41		1	102	20-125	10/10/2019 1233
2,4-Dinitrophenol	80	53		1	66	11-126	10/10/2019 1233
2,4-Dinitrotoluene	40	30		1	76	30-130	10/10/2019 1233
2,6-Dinitrotoluene	40	30		1	75	30-130	10/10/2019 1233
2-Chloronaphthalene	40	29		1	72	30-130	10/10/2019 1233
2-Chlorophenol	40	30		1	74	30-130	10/10/2019 1233
2-Methylnaphthalene	40	30		1	75	40-132	10/10/2019 1233
2-Methylphenol	40	31		1	77	30-130	10/10/2019 1233
2-Nitroaniline	40	29		1	72	30-130	10/10/2019 1233
2-Nitrophenol	40	30		1	76	30-130	10/10/2019 1233
3,3'-Dichlorobenzidine	40	12		1	30	10-126	10/10/2019 1233
3+4-Methylphenol	40	36		1	91	30-130	10/10/2019 1233
3-Nitroaniline	40	22		1	54	30-130	10/10/2019 1233
4,6-Dinitro-2-methylphenol	40	30		1	75	30-130	10/10/2019 1233
4-Bromophenyl phenyl ether	40	29		1	72	30-124	10/10/2019 1233
4-Chloro-3-methyl phenol	40	30		1	74	30-123	10/10/2019 1233
4-Chloroaniline	40	34		1	84	12-157	10/10/2019 1233
4-Chlorophenyl phenyl ether	40	28		1	71	30-121	10/10/2019 1233
4-Nitroaniline	40	27		1	66	30-135	10/10/2019 1233
4-Nitrophenol	80	50		1	62	30-130	10/10/2019 1233
Acenaphthene	40	29		1	72	30-122	10/10/2019 1233
Acenaphthylene	40	30		1	75	30-130	10/10/2019 1233
Acetophenone	40	33		1	81	30-130	10/10/2019 1233
Anthracene	40	30		1	76	30-123	10/10/2019 1233
Atrazine	40	31		1	77	30-130	10/10/2019 1233
Benzaldehyde	40	19		1	48	20-115	10/10/2019 1233
Benzo(a)anthracene	40	29		1	72	40-125	10/10/2019 1233
Benzo(a)pyrene	40	28		1	71	40-128	10/10/2019 1233
Benzo(b)fluoranthene	40	28		1	69	30-130	10/10/2019 1233
Benzo(g,h,i)perylene	40	31		1	77	30-130	10/10/2019 1233
Benzo(k)fluoranthene	40	29		1	73	30-130	10/10/2019 1233
bis (2-Chloro-1-methylethyl) ether	40	30		1	75	30-130	10/10/2019 1233
bis(2-Chloroethoxy)methane	40	30		1	76	30-130	10/10/2019 1233
bis(2-Chloroethyl)ether	40	30		1	75	30-130	10/10/2019 1233
bis(2-Ethylhexyl)phthalate	40	29		1	73	30-130	10/10/2019 1233
Butyl benzyl phthalate	40	29		1	73	30-130	10/10/2019 1233
Caprolactam	40	33		1	82	30-130	10/10/2019 1233
Carbazole	40	29		1	72	30-130	10/10/2019 1233
Chrysene	40	29		1	73	30-130	10/10/2019 1233
Dibenzo(a,h)anthracene	40	31		1	77	30-130	10/10/2019 1233

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31187-002
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	28		1	70	30-118	10/10/2019 1233
Diethylphthalate	40	31		1	78	40-125	10/10/2019 1233
Dimethyl phthalate	40	30		1	75	40-127	10/10/2019 1233
Di-n-butyl phthalate	40	33		1	83	40-127	10/10/2019 1233
Di-n-octylphthalate	40	27		1	67	30-130	10/10/2019 1233
Fluoranthene	40	30		1	76	40-128	10/10/2019 1233
Fluorene	40	28		1	70	30-124	10/10/2019 1233
Hexachlorobenzene	40	30		1	74	30-125	10/10/2019 1233
Hexachlorobutadiene	40	28		1	71	24-110	10/10/2019 1233
Hexachlorocyclopentadiene	200	100		1	52	22-122	10/10/2019 1233
Hexachloroethane	40	26		1	66	30-130	10/10/2019 1233
Indeno(1,2,3-c,d)pyrene	40	30		1	74	30-130	10/10/2019 1233
Isophorone	40	32		1	79	30-130	10/10/2019 1233
Naphthalene	40	31		1	78	30-130	10/10/2019 1233
Nitrobenzene	40	29		1	73	30-130	10/10/2019 1233
N-Nitrosodi-n-propylamine	40	33		1	82	30-130	10/10/2019 1233
N-Nitrosodiphenylamine (Diphenylamine)	40	27		1	68	30-123	10/10/2019 1233
Pentachlorophenol	80	54		1	68	30-130	10/10/2019 1233
Phenanthrene	40	29		1	72	40-123	10/10/2019 1233
Phenol	40	30		1	75	30-130	10/10/2019 1233
Pyrene	40	30		1	74	40-126	10/10/2019 1233

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		68	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		73	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 099489

Client: WESTINGHOUSE	Report to Contact: Diana Jaquez	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: x R. Crews / J. Hazlett	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Hopkins	State: SC	Zip Code: 29061	Printed Name: Randy Crews / James Hazlett	
Project Name: WESTINGHOUSE RI			
Project No.: 60595649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	# Grab or Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Wipe	Matrix: Air	No. of Containers by Preservative Type: Unpres.	No. of Containers by Preservative Type: H2SO4	No. of Containers by Preservative Type: HNO3	No. of Containers by Preservative Type: HCl	No. of Containers by Preservative Type: NaOH	No. of Containers by Preservative Type: ZnAc/NaOH	TCL VOC's 8260B	TCL SVOC's 8270D	PITZBATER 353.2	Remarks / Cooler I.D.
W-51	10-3-19	1155	G	X				3			3			X	X	X	
W-52		1255	G	X				3			3			X	X	X	
W-57		1415	G	X				3			3			X	X	X	
RW-1		1043	G	X				3			3			X	X	X	
W-53		1258	G	X				3			3			X	X	X	
TB-01-100319		—									2			X			

UJ03082
GRW

Turn Around Time Required (Prior lab approval required for expedited TAT.)
~~Standard~~ ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ~~Disposal by Lab~~

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: J. Hazlett	10-3-19	1554	1. Received by		
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by: [signature]	Date 10-3-19	Time 1554

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack Receipt Temp 2.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MB001SC-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: JSH / 10/03/19 Lot #: UJ03082

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.8 /2.8 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☐ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: 10/03/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Groundwater

Project Number: 60595649

Lot Number:**UJ04033**

Date Completed:10/11/2019

10/14/2019 3:29 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ04033

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ04033

Project Name: Groundwater

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-58	Aqueous	10/04/2019 0920	10/04/2019
002	W-72	Aqueous	10/04/2019 1035	10/04/2019
003	W-55	Aqueous	10/04/2019 1140	10/04/2019
004	W-38	Aqueous	10/04/2019 1305	10/04/2019
005	W-56	Aqueous	10/04/2019 1106	10/04/2019
006	W-73	Aqueous	10/04/2019 0945	10/04/2019
007	W-54	Aqueous	10/04/2019 1350	10/04/2019
008	W-54-DUP	Aqueous	10/04/2019 1350	10/04/2019
009	TB-01	Aqueous	10/04/2019	10/04/2019

(9 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ04033

Project Name: Groundwater

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-58	Aqueous	Nitrate - N	353.2	9.7		mg/L	5
001	W-58	Aqueous	cis-1,2-Dichloroethene	8260B	1.0		ug/L	6
002	W-72	Aqueous	Nitrate - N	353.2	1.5		mg/L	10
003	W-55	Aqueous	Nitrate - N	353.2	3.7		mg/L	15
004	W-38	Aqueous	Nitrate - N	353.2	4.3		mg/L	20
004	W-38	Aqueous	Tetrachloroethene	8260B	1.8		ug/L	21
004	W-38	Aqueous	Trichloroethene	8260B	11		ug/L	22
005	W-56	Aqueous	Nitrate - N	353.2	4.2		mg/L	25
006	W-73	Aqueous	Nitrate - N	353.2	2.0		mg/L	30
006	W-73	Aqueous	cis-1,2-Dichloroethene	8260B	1.0		ug/L	31
007	W-54	Aqueous	Nitrate - N	353.2	2.8		mg/L	35
008	W-54-DUP	Aqueous	Nitrate - N	353.2	2.8		mg/L	40

(12 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-001
Description: W-58
Matrix: Aqueous
Date Sampled: 10/04/2019 0920
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/04/2019 1848	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	9.7		0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-001
Description: W-58 | Matrix: Aqueous
Date Sampled:10/04/2019 0920 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1722	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.0		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-001
Description: W-58
Matrix: Aqueous
Date Sampled:10/04/2019 0920
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1722	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-001
Description: W-58 | Matrix: Aqueous
Date Sampled:10/04/2019 0920 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1636	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-001
Description: W-58 | Matrix: Aqueous
Date Sampled:10/04/2019 0920 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1636	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		57	37-129
2-Fluorophenol		34	24-127
Nitrobenzene-d5		51	38-127
Phenol-d5		37	28-128
Terphenyl-d14		79	10-148
2,4,6-Tribromophenol		56	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-002
Description: W-72
Matrix: Aqueous
Date Sampled: 10/04/2019 1035
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1849	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	1.5		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-002
Description: W-72 | Matrix: Aqueous
Date Sampled:10/04/2019 1035 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1746	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-002
Description: W-72
Matrix: Aqueous
Date Sampled:10/04/2019 1035
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1746	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-002
Description: W-72 | Matrix: Aqueous
Date Sampled:10/04/2019 1035 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1701	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-002
Description: W-72 | Matrix: Aqueous
Date Sampled:10/04/2019 1035 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1701	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		63	37-129
2-Fluorophenol		39	24-127
Nitrobenzene-d5		54	38-127
Phenol-d5		47	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		59	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-003
Description: W-55
Matrix: Aqueous
Date Sampled: 10/04/2019 1140
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1851	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.7		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-003
Description: W-55 | Matrix: Aqueous
Date Sampled:10/04/2019 1140 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1811	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-003
Description: W-55
Matrix: Aqueous
Date Sampled:10/04/2019 1140
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1811	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-003
Description: W-55 | Matrix: Aqueous
Date Sampled:10/04/2019 1140 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1725	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-003
Description: W-55 | Matrix: Aqueous
Date Sampled:10/04/2019 1140 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1725	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		62	38-127
Phenol-d5		50	28-128
Terphenyl-d14		78	10-148
2,4,6-Tribromophenol		58	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-004
Description: W-38
Matrix: Aqueous
Date Sampled: 10/04/2019 1305
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1856	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.3		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-004
Description: W-38 | Matrix: Aqueous
Date Sampled:10/04/2019 1305 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1846	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.8		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-004
Description: W-38
Matrix: Aqueous
Date Sampled:10/04/2019 1305
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1846	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	11		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-004
Description: W-38 | Matrix: Aqueous
Date Sampled:10/04/2019 1305 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1749	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-004
Description: W-38 | Matrix: Aqueous
Date Sampled:10/04/2019 1305 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1749	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		54	24-127
Nitrobenzene-d5		60	38-127
Phenol-d5		56	28-128
Terphenyl-d14		78	10-148
2,4,6-Tribromophenol		59	35-144

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-005
Description: W-56
Matrix: Aqueous
Date Sampled:10/04/2019 1106
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1900	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.2		0.10	mg/L	1

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-005
Description: W-56 | Matrix: Aqueous
Date Sampled:10/04/2019 1106 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1910	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-005
Description: W-56 | Matrix: Aqueous
Date Sampled:10/04/2019 1106 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1910	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-005
Description: W-56 | Matrix: Aqueous
Date Sampled:10/04/2019 1106 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1814	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-005
Description: W-56 | Matrix: Aqueous
Date Sampled:10/04/2019 1106 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1814	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		63	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		57	38-127
Phenol-d5		51	28-128
Terphenyl-d14		75	10-148
2,4,6-Tribromophenol		55	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-006
Description: W-73
Matrix: Aqueous
Date Sampled: 10/04/2019 0945
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1901	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.0		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-006
Description: W-73 | Matrix: Aqueous
Date Sampled:10/04/2019 0945 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1935	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.0		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-006
Description: W-73 | Matrix: Aqueous
Date Sampled: 10/04/2019 0945 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1935	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-006
Description: W-73 | Matrix: Aqueous
Date Sampled:10/04/2019 0945 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1838	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-006
Description: W-73 | Matrix: Aqueous
Date Sampled:10/04/2019 0945 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1838	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		69	37-129
2-Fluorophenol		57	24-127
Nitrobenzene-d5		63	38-127
Phenol-d5		58	28-128
Terphenyl-d14		79	10-148
2,4,6-Tribromophenol		60	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-007
Description: W-54
Matrix: Aqueous
Date Sampled: 10/04/2019 1350
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1903	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.8		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-007
Description: W-54 | Matrix: Aqueous
Date Sampled:10/04/2019 1350 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1958	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-007
Description: W-54 | Matrix: Aqueous
Date Sampled:10/04/2019 1350 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 1958	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-007
Description: W-54 | Matrix: Aqueous
Date Sampled:10/04/2019 1350 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1902	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-007
Description: W-54 | Matrix: Aqueous
Date Sampled:10/04/2019 1350 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1902	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		69	37-129
2-Fluorophenol		55	24-127
Nitrobenzene-d5		63	38-127
Phenol-d5		60	28-128
Terphenyl-d14		82	10-148
2,4,6-Tribromophenol		60	35-144

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-008
Description: W-54-DUP
Matrix: Aqueous
Date Sampled: 10/04/2019 1350
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/04/2019 1904	MSG		31076

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.8		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-008
Description: W-54-DUP | Matrix: Aqueous
Date Sampled:10/04/2019 1350 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 2022	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-008
Description: W-54-DUP
Matrix: Aqueous
Date Sampled:10/04/2019 1350
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 2022	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-008
Description: W-54-DUP | Matrix: Aqueous
Date Sampled:10/04/2019 1350 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1927	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-008
Description: W-54-DUP
Matrix: Aqueous
Date Sampled:10/04/2019 1350
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/10/2019 1927	SCD	10/07/2019 1511	31187

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		52	24-127
Nitrobenzene-d5		61	38-127
Phenol-d5		63	28-128
Terphenyl-d14		80	10-148
2,4,6-Tribromophenol		57	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ04033-009
Description: TB-01 | Matrix: Aqueous
Date Sampled:10/04/2019 | Project Name: Groundwater
Date Received: 10/04/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 2045	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ04033-009
Description: TB-01
Matrix: Aqueous
Date Sampled:10/04/2019
Project Name: Groundwater
Date Received: 10/04/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/06/2019 2045	ALR1		31125

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31076-001
Batch: 31076
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/04/2019 1827

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31076-002
Batch: 31076
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	10/04/2019 1828

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ04033-004MS
Batch: 31076
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	4.3	0.80	5.1		5	94	90-110	10/04/2019 1857

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ04033-004MD
Batch: 31076
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	4.3	0.80	5.0	N	5	80	2.3	90-110	20	10/04/2019 1859

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31125-001
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/06/2019 1639
Benzene	ND		1	1.0	ug/L	10/06/2019 1639
Bromodichloromethane	ND		1	1.0	ug/L	10/06/2019 1639
Bromoform	ND		1	1.0	ug/L	10/06/2019 1639
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/06/2019 1639
2-Butanone (MEK)	ND		1	10	ug/L	10/06/2019 1639
Carbon disulfide	ND		1	1.0	ug/L	10/06/2019 1639
Carbon tetrachloride	ND		1	1.0	ug/L	10/06/2019 1639
Chlorobenzene	ND		1	1.0	ug/L	10/06/2019 1639
Chloroethane	ND		1	2.0	ug/L	10/06/2019 1639
Chloroform	ND		1	1.0	ug/L	10/06/2019 1639
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/06/2019 1639
Cyclohexane	ND		1	1.0	ug/L	10/06/2019 1639
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/06/2019 1639
Dibromochloromethane	ND		1	1.0	ug/L	10/06/2019 1639
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/06/2019 1639
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/06/2019 1639
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/06/2019 1639
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/06/2019 1639
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/06/2019 1639
1,1-Dichloroethane	ND		1	1.0	ug/L	10/06/2019 1639
1,2-Dichloroethane	ND		1	1.0	ug/L	10/06/2019 1639
1,1-Dichloroethene	ND		1	1.0	ug/L	10/06/2019 1639
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/06/2019 1639
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/06/2019 1639
1,2-Dichloropropane	ND		1	1.0	ug/L	10/06/2019 1639
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/06/2019 1639
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/06/2019 1639
Ethylbenzene	ND		1	1.0	ug/L	10/06/2019 1639
2-Hexanone	ND		1	10	ug/L	10/06/2019 1639
Isopropylbenzene	ND		1	1.0	ug/L	10/06/2019 1639
Methyl acetate	ND		1	1.0	ug/L	10/06/2019 1639
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/06/2019 1639
4-Methyl-2-pentanone	ND		1	10	ug/L	10/06/2019 1639
Methylcyclohexane	ND		1	5.0	ug/L	10/06/2019 1639
Methylene chloride	ND		1	1.0	ug/L	10/06/2019 1639
Styrene	ND		1	1.0	ug/L	10/06/2019 1639
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/06/2019 1639
Tetrachloroethene	ND		1	1.0	ug/L	10/06/2019 1639
Toluene	ND		1	1.0	ug/L	10/06/2019 1639
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/06/2019 1639
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/06/2019 1639
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/06/2019 1639
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/06/2019 1639

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31125-001
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/06/2019 1639
Trichlorofluoromethane	ND		1	1.0	ug/L	10/06/2019 1639
Vinyl chloride	ND		1	1.0	ug/L	10/06/2019 1639
Xylenes (total)	ND		1	1.0	ug/L	10/06/2019 1639

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31125-002
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	95		1	95	60-140	10/06/2019 1534
Benzene	50	46		1	92	70-130	10/06/2019 1534
Bromodichloromethane	50	44		1	89	70-130	10/06/2019 1534
Bromoform	50	45		1	91	70-130	10/06/2019 1534
Bromomethane (Methyl bromide)	50	46		1	92	70-130	10/06/2019 1534
2-Butanone (MEK)	100	95		1	95	70-130	10/06/2019 1534
Carbon disulfide	50	44		1	88	70-130	10/06/2019 1534
Carbon tetrachloride	50	46		1	93	70-130	10/06/2019 1534
Chlorobenzene	50	44		1	88	70-130	10/06/2019 1534
Chloroethane	50	50		1	100	70-130	10/06/2019 1534
Chloroform	50	45		1	90	70-130	10/06/2019 1534
Chloromethane (Methyl chloride)	50	45		1	90	60-140	10/06/2019 1534
Cyclohexane	50	46		1	92	70-130	10/06/2019 1534
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	70-130	10/06/2019 1534
Dibromochloromethane	50	46		1	92	70-130	10/06/2019 1534
1,2-Dibromoethane (EDB)	50	45		1	90	70-130	10/06/2019 1534
1,2-Dichlorobenzene	50	43		1	87	70-130	10/06/2019 1534
1,3-Dichlorobenzene	50	43		1	86	70-130	10/06/2019 1534
1,4-Dichlorobenzene	50	42		1	84	70-130	10/06/2019 1534
Dichlorodifluoromethane	50	44		1	88	60-140	10/06/2019 1534
1,1-Dichloroethane	50	46		1	92	70-130	10/06/2019 1534
1,2-Dichloroethane	50	42		1	85	70-130	10/06/2019 1534
1,1-Dichloroethene	50	48		1	97	70-130	10/06/2019 1534
cis-1,2-Dichloroethene	50	46		1	92	70-130	10/06/2019 1534
trans-1,2-Dichloroethene	50	48		1	96	70-130	10/06/2019 1534
1,2-Dichloropropane	50	46		1	91	70-130	10/06/2019 1534
cis-1,3-Dichloropropene	50	46		1	93	70-130	10/06/2019 1534
trans-1,3-Dichloropropene	50	47		1	94	70-130	10/06/2019 1534
Ethylbenzene	50	45		1	90	70-130	10/06/2019 1534
2-Hexanone	100	97		1	97	70-130	10/06/2019 1534
Isopropylbenzene	50	48		1	96	70-130	10/06/2019 1534
Methyl acetate	50	57		1	115	70-130	10/06/2019 1534
Methyl tertiary butyl ether (MTBE)	50	43		1	86	70-130	10/06/2019 1534
4-Methyl-2-pentanone	100	95		1	95	70-130	10/06/2019 1534
Methylcyclohexane	50	47		1	95	70-130	10/06/2019 1534
Methylene chloride	50	41		1	82	70-130	10/06/2019 1534
Styrene	50	46		1	92	70-130	10/06/2019 1534
1,1,2,2-Tetrachloroethane	50	48		1	97	70-130	10/06/2019 1534
Tetrachloroethene	50	44		1	88	70-130	10/06/2019 1534
Toluene	50	45		1	89	70-130	10/06/2019 1534
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	88	70-130	10/06/2019 1534
1,2,4-Trichlorobenzene	50	42		1	84	70-130	10/06/2019 1534
1,1,1-Trichloroethane	50	45		1	90	70-130	10/06/2019 1534
1,1,2-Trichloroethane	50	46		1	91	70-130	10/06/2019 1534

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31125-002
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	43		1	85	70-130	10/06/2019 1534
Trichlorofluoromethane	50	46		1	91	70-130	10/06/2019 1534
Vinyl chloride	50	45		1	90	70-130	10/06/2019 1534
Xylenes (total)	100	91		1	91	70-130	10/06/2019 1534

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ04033-004MS
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	52	N	1	52	60-140	10/06/2019 2309
Benzene	ND	50	52		1	105	70-130	10/06/2019 2309
Bromodichloromethane	ND	50	48		1	95	70-130	10/06/2019 2309
Bromoform	ND	50	43		1	86	70-130	10/06/2019 2309
Bromomethane (Methyl bromide)	ND	50	60		1	120	70-130	10/06/2019 2309
2-Butanone (MEK)	ND	100	71		1	71	70-130	10/06/2019 2309
Carbon disulfide	ND	50	55		1	109	70-130	10/06/2019 2309
Carbon tetrachloride	ND	50	54		1	108	70-130	10/06/2019 2309
Chlorobenzene	ND	50	49		1	97	70-130	10/06/2019 2309
Chloroethane	ND	50	65	N	1	131	70-130	10/06/2019 2309
Chloroform	ND	50	52		1	104	70-130	10/06/2019 2309
Chloromethane (Methyl chloride)	ND	50	59		1	117	60-140	10/06/2019 2309
Cyclohexane	ND	50	57		1	113	70-130	10/06/2019 2309
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	47		1	94	70-130	10/06/2019 2309
Dibromochloromethane	ND	50	46		1	92	70-130	10/06/2019 2309
1,2-Dibromoethane (EDB)	ND	50	48		1	95	70-130	10/06/2019 2309
1,2-Dichlorobenzene	ND	50	47		1	95	70-130	10/06/2019 2309
1,3-Dichlorobenzene	ND	50	48		1	96	70-130	10/06/2019 2309
1,4-Dichlorobenzene	ND	50	46		1	92	70-130	10/06/2019 2309
Dichlorodifluoromethane	ND	50	59		1	118	60-140	10/06/2019 2309
1,1-Dichloroethane	ND	50	54		1	107	70-130	10/06/2019 2309
1,2-Dichloroethane	ND	50	47		1	94	70-130	10/06/2019 2309
1,1-Dichloroethene	ND	50	62		1	124	70-130	10/06/2019 2309
cis-1,2-Dichloroethene	ND	50	52		1	104	70-130	10/06/2019 2309
trans-1,2-Dichloroethene	ND	50	56		1	112	70-130	10/06/2019 2309
1,2-Dichloropropane	ND	50	50		1	99	70-130	10/06/2019 2309
cis-1,3-Dichloropropene	ND	50	48		1	97	70-130	10/06/2019 2309
trans-1,3-Dichloropropene	ND	50	47		1	94	70-130	10/06/2019 2309
Ethylbenzene	ND	50	51		1	103	70-130	10/06/2019 2309
2-Hexanone	ND	100	91		1	91	70-130	10/06/2019 2309
Isopropylbenzene	ND	50	54		1	109	70-130	10/06/2019 2309
Methyl acetate	ND	50	53		1	106	70-130	10/06/2019 2309
Methyl tertiary butyl ether (MTBE)	ND	50	46		1	91	70-130	10/06/2019 2309
4-Methyl-2-pentanone	ND	100	100		1	101	70-130	10/06/2019 2309
Methylcyclohexane	ND	50	56		1	112	70-130	10/06/2019 2309
Methylene chloride	ND	50	49		1	98	70-130	10/06/2019 2309
Styrene	ND	50	50		1	100	70-130	10/06/2019 2309
1,1,2,2-Tetrachloroethane	ND	50	52		1	103	70-130	10/06/2019 2309
Tetrachloroethene	1.8	50	53		1	102	70-130	10/06/2019 2309
Toluene	ND	50	51		1	101	70-130	10/06/2019 2309
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	55		1	109	70-130	10/06/2019 2309
1,2,4-Trichlorobenzene	ND	50	46		1	91	70-130	10/06/2019 2309
1,1,1-Trichloroethane	ND	50	54		1	107	70-130	10/06/2019 2309
1,1,2-Trichloroethane	ND	50	49		1	98	70-130	10/06/2019 2309

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ04033-004MS
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	11	50	62		1	100	70-130	10/06/2019 2309
Trichlorofluoromethane	ND	50	62		1	123	70-130	10/06/2019 2309
Vinyl chloride	ND	50	60		1	119	70-130	10/06/2019 2309
Xylenes (total)	ND	100	100		1	102	70-130	10/06/2019 2309

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ04033-004MD
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	49	N	1	49	5.4	60-140	20	10/06/2019 2333
Benzene	ND	50	50		1	101	3.7	70-130	20	10/06/2019 2333
Bromodichloromethane	ND	50	46		1	92	3.5	70-130	20	10/06/2019 2333
Bromoform	ND	50	41		1	83	4.2	70-130	20	10/06/2019 2333
Bromomethane (Methyl bromide)	ND	50	57		1	114	4.4	70-130	20	10/06/2019 2333
2-Butanone (MEK)	ND	100	69	N	1	69	3.7	70-130	20	10/06/2019 2333
Carbon disulfide	ND	50	52		1	105	3.8	70-130	20	10/06/2019 2333
Carbon tetrachloride	ND	50	53		1	106	1.8	70-130	20	10/06/2019 2333
Chlorobenzene	ND	50	47		1	95	2.7	70-130	20	10/06/2019 2333
Chloroethane	ND	50	64		1	127	2.8	70-130	20	10/06/2019 2333
Chloroform	ND	50	50		1	100	3.6	70-130	20	10/06/2019 2333
Chloromethane (Methyl chloride)	ND	50	56		1	112	5.1	60-140	20	10/06/2019 2333
Cyclohexane	ND	50	54		1	108	4.7	70-130	20	10/06/2019 2333
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	46		1	91	3.4	70-130	20	10/06/2019 2333
Dibromochloromethane	ND	50	45		1	91	1.9	70-130	20	10/06/2019 2333
1,2-Dibromoethane (EDB)	ND	50	46		1	92	3.8	70-130	20	10/06/2019 2333
1,2-Dichlorobenzene	ND	50	46		1	92	3.3	70-130	20	10/06/2019 2333
1,3-Dichlorobenzene	ND	50	45		1	91	4.9	70-130	20	10/06/2019 2333
1,4-Dichlorobenzene	ND	50	45		1	90	2.6	70-130	20	10/06/2019 2333
Dichlorodifluoromethane	ND	50	56		1	113	4.2	60-140	20	10/06/2019 2333
1,1-Dichloroethane	ND	50	52		1	103	3.4	70-130	20	10/06/2019 2333
1,2-Dichloroethane	ND	50	45		1	90	4.2	70-130	20	10/06/2019 2333
1,1-Dichloroethene	ND	50	60		1	120	3.2	70-130	20	10/06/2019 2333
cis-1,2-Dichloroethene	ND	50	50		1	101	3.6	70-130	20	10/06/2019 2333
trans-1,2-Dichloroethene	ND	50	55		1	109	2.3	70-130	20	10/06/2019 2333
1,2-Dichloropropane	ND	50	48		1	96	3.0	70-130	20	10/06/2019 2333
cis-1,3-Dichloropropene	ND	50	47		1	94	3.3	70-130	20	10/06/2019 2333
trans-1,3-Dichloropropene	ND	50	46		1	91	3.0	70-130	20	10/06/2019 2333
Ethylbenzene	ND	50	49		1	99	3.7	70-130	20	10/06/2019 2333
2-Hexanone	ND	100	84		1	84	7.4	70-130	20	10/06/2019 2333
Isopropylbenzene	ND	50	53		1	106	2.2	70-130	20	10/06/2019 2333
Methyl acetate	ND	50	51		1	102	4.2	70-130	20	10/06/2019 2333
Methyl tertiary butyl ether (MTBE)	ND	50	47		1	93	2.3	70-130	20	10/06/2019 2333
4-Methyl-2-pentanone	ND	100	94		1	94	6.2	70-130	20	10/06/2019 2333
Methylcyclohexane	ND	50	55		1	110	1.7	70-130	20	10/06/2019 2333
Methylene chloride	ND	50	48		1	95	2.8	70-130	20	10/06/2019 2333
Styrene	ND	50	48		1	96	3.4	70-130	20	10/06/2019 2333
1,1,2,2-Tetrachloroethane	ND	50	50		1	99	4.2	70-130	20	10/06/2019 2333
Tetrachloroethene	1.8	50	50		1	96	5.5	70-130	20	10/06/2019 2333
Toluene	ND	50	49		1	98	3.4	70-130	20	10/06/2019 2333
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	53		1	106	3.1	70-130	20	10/06/2019 2333
1,2,4-Trichlorobenzene	ND	50	45		1	90	1.6	70-130	20	10/06/2019 2333
1,1,1-Trichloroethane	ND	50	51		1	103	4.0	70-130	20	10/06/2019 2333
1,1,2-Trichloroethane	ND	50	47		1	94	3.7	70-130	20	10/06/2019 2333

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ04033-004MD
Batch: 31125
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	11	50	59		1	96	3.6	70-130	20	10/06/2019 2333
Trichlorofluoromethane	ND	50	60		1	120	2.6	70-130	20	10/06/2019 2333
Vinyl chloride	ND	50	58		1	115	3.2	70-130	20	10/06/2019 2333
Xylenes (total)	ND	100	98		1	98	3.4	70-130	20	10/06/2019 2333

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31187-001
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/10/2019 1209
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1209
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1209
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/10/2019 1209
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/10/2019 1209
2,4-Dinitrophenol	ND		1	20	ug/L	10/10/2019 1209
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1209
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1209
2-Chloronaphthalene	ND		1	4.0	ug/L	10/10/2019 1209
2-Chlorophenol	ND		1	4.0	ug/L	10/10/2019 1209
2-Methylnaphthalene	ND		1	0.80	ug/L	10/10/2019 1209
2-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1209
2-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1209
2-Nitrophenol	ND		1	4.0	ug/L	10/10/2019 1209
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/10/2019 1209
3+4-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1209
3-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1209
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/10/2019 1209
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1209
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/10/2019 1209
4-Chloroaniline	ND		1	8.0	ug/L	10/10/2019 1209
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1209
4-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1209
4-Nitrophenol	ND		1	20	ug/L	10/10/2019 1209
Acenaphthene	ND		1	0.80	ug/L	10/10/2019 1209
Acenaphthylene	ND		1	0.80	ug/L	10/10/2019 1209
Acetophenone	ND		1	4.0	ug/L	10/10/2019 1209
Anthracene	ND		1	0.80	ug/L	10/10/2019 1209
Atrazine	ND		1	4.0	ug/L	10/10/2019 1209
Benzaldehyde	ND		1	8.0	ug/L	10/10/2019 1209
Benzo(a)anthracene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(a)pyrene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/10/2019 1209
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1209
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/10/2019 1209
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/10/2019 1209
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/10/2019 1209
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Caprolactam	ND		1	8.0	ug/L	10/10/2019 1209
Carbazole	ND		1	4.0	ug/L	10/10/2019 1209
Chrysene	ND		1	0.80	ug/L	10/10/2019 1209
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/10/2019 1209

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31187-001
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/10/2019 1209
Diethylphthalate	ND		1	4.0	ug/L	10/10/2019 1209
Dimethyl phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/10/2019 1209
Di-n-octylphthalate	ND		1	4.0	ug/L	10/10/2019 1209
Fluoranthene	ND		1	0.80	ug/L	10/10/2019 1209
Fluorene	ND		1	0.80	ug/L	10/10/2019 1209
Hexachlorobenzene	ND		1	4.0	ug/L	10/10/2019 1209
Hexachlorobutadiene	ND		1	4.0	ug/L	10/10/2019 1209
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/10/2019 1209
Hexachloroethane	ND		1	4.0	ug/L	10/10/2019 1209
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/10/2019 1209
Isophorone	ND		1	4.0	ug/L	10/10/2019 1209
Naphthalene	ND		1	0.80	ug/L	10/10/2019 1209
Nitrobenzene	ND		1	4.0	ug/L	10/10/2019 1209
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/10/2019 1209
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/10/2019 1209
Pentachlorophenol	ND		1	20	ug/L	10/10/2019 1209
Phenanthrene	ND		1	0.80	ug/L	10/10/2019 1209
Phenol	ND		1	4.0	ug/L	10/10/2019 1209
Pyrene	ND		1	0.80	ug/L	10/10/2019 1209

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		70	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		63	38-127
Phenol-d5		49	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		63	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31187-002
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	29		1	74	30-130	10/10/2019 1233
2,4,5-Trichlorophenol	40	28		1	70	30-123	10/10/2019 1233
2,4,6-Trichlorophenol	40	28		1	69	30-130	10/10/2019 1233
2,4-Dichlorophenol	40	29		1	72	30-121	10/10/2019 1233
2,4-Dimethylphenol	40	41		1	102	20-125	10/10/2019 1233
2,4-Dinitrophenol	80	53		1	66	11-126	10/10/2019 1233
2,4-Dinitrotoluene	40	30		1	76	30-130	10/10/2019 1233
2,6-Dinitrotoluene	40	30		1	75	30-130	10/10/2019 1233
2-Chloronaphthalene	40	29		1	72	30-130	10/10/2019 1233
2-Chlorophenol	40	30		1	74	30-130	10/10/2019 1233
2-Methylnaphthalene	40	30		1	75	40-132	10/10/2019 1233
2-Methylphenol	40	31		1	77	30-130	10/10/2019 1233
2-Nitroaniline	40	29		1	72	30-130	10/10/2019 1233
2-Nitrophenol	40	30		1	76	30-130	10/10/2019 1233
3,3'-Dichlorobenzidine	40	12		1	30	10-126	10/10/2019 1233
3+4-Methylphenol	40	36		1	91	30-130	10/10/2019 1233
3-Nitroaniline	40	22		1	54	30-130	10/10/2019 1233
4,6-Dinitro-2-methylphenol	40	30		1	75	30-130	10/10/2019 1233
4-Bromophenyl phenyl ether	40	29		1	72	30-124	10/10/2019 1233
4-Chloro-3-methyl phenol	40	30		1	74	30-123	10/10/2019 1233
4-Chloroaniline	40	34		1	84	12-157	10/10/2019 1233
4-Chlorophenyl phenyl ether	40	28		1	71	30-121	10/10/2019 1233
4-Nitroaniline	40	27		1	66	30-135	10/10/2019 1233
4-Nitrophenol	80	50		1	62	30-130	10/10/2019 1233
Acenaphthene	40	29		1	72	30-122	10/10/2019 1233
Acenaphthylene	40	30		1	75	30-130	10/10/2019 1233
Acetophenone	40	33		1	81	30-130	10/10/2019 1233
Anthracene	40	30		1	76	30-123	10/10/2019 1233
Atrazine	40	31		1	77	30-130	10/10/2019 1233
Benzaldehyde	40	19		1	48	20-115	10/10/2019 1233
Benzo(a)anthracene	40	29		1	72	40-125	10/10/2019 1233
Benzo(a)pyrene	40	28		1	71	40-128	10/10/2019 1233
Benzo(b)fluoranthene	40	28		1	69	30-130	10/10/2019 1233
Benzo(g,h,i)perylene	40	31		1	77	30-130	10/10/2019 1233
Benzo(k)fluoranthene	40	29		1	73	30-130	10/10/2019 1233
bis (2-Chloro-1-methylethyl) ether	40	30		1	75	30-130	10/10/2019 1233
bis(2-Chloroethoxy)methane	40	30		1	76	30-130	10/10/2019 1233
bis(2-Chloroethyl)ether	40	30		1	75	30-130	10/10/2019 1233
bis(2-Ethylhexyl)phthalate	40	29		1	73	30-130	10/10/2019 1233
Butyl benzyl phthalate	40	29		1	73	30-130	10/10/2019 1233
Caprolactam	40	33		1	82	30-130	10/10/2019 1233
Carbazole	40	29		1	72	30-130	10/10/2019 1233
Chrysene	40	29		1	73	30-130	10/10/2019 1233
Dibenzo(a,h)anthracene	40	31		1	77	30-130	10/10/2019 1233

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31187-002
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	28		1	70	30-118	10/10/2019 1233
Diethylphthalate	40	31		1	78	40-125	10/10/2019 1233
Dimethyl phthalate	40	30		1	75	40-127	10/10/2019 1233
Di-n-butyl phthalate	40	33		1	83	40-127	10/10/2019 1233
Di-n-octylphthalate	40	27		1	67	30-130	10/10/2019 1233
Fluoranthene	40	30		1	76	40-128	10/10/2019 1233
Fluorene	40	28		1	70	30-124	10/10/2019 1233
Hexachlorobenzene	40	30		1	74	30-125	10/10/2019 1233
Hexachlorobutadiene	40	28		1	71	24-110	10/10/2019 1233
Hexachlorocyclopentadiene	200	100		1	52	22-122	10/10/2019 1233
Hexachloroethane	40	26		1	66	30-130	10/10/2019 1233
Indeno(1,2,3-c,d)pyrene	40	30		1	74	30-130	10/10/2019 1233
Isophorone	40	32		1	79	30-130	10/10/2019 1233
Naphthalene	40	31		1	78	30-130	10/10/2019 1233
Nitrobenzene	40	29		1	73	30-130	10/10/2019 1233
N-Nitrosodi-n-propylamine	40	33		1	82	30-130	10/10/2019 1233
N-Nitrosodiphenylamine (Diphenylamine)	40	27		1	68	30-123	10/10/2019 1233
Pentachlorophenol	80	54		1	68	30-130	10/10/2019 1233
Phenanthrene	40	29		1	72	40-123	10/10/2019 1233
Phenol	40	30		1	75	30-130	10/10/2019 1233
Pyrene	40	30		1	74	40-126	10/10/2019 1233

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		68	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		73	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ04033-004MS
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	40	29		1	71	30-130	10/10/2019 2104
2,4,5-Trichlorophenol	ND	40	27		1	67	30-123	10/10/2019 2104
2,4,6-Trichlorophenol	ND	40	27		1	67	30-130	10/10/2019 2104
2,4-Dichlorophenol	ND	40	28		1	69	30-121	10/10/2019 2104
2,4-Dimethylphenol	ND	40	33		1	82	20-125	10/10/2019 2104
2,4-Dinitrophenol	ND	80	52		1	65	30-130	10/10/2019 2104
2,4-Dinitrotoluene	ND	40	31		1	77	30-130	10/10/2019 2104
2,6-Dinitrotoluene	ND	40	30		1	74	30-130	10/10/2019 2104
2-Chloronaphthalene	ND	40	28		1	71	30-130	10/10/2019 2104
2-Chlorophenol	ND	40	28		1	69	30-130	10/10/2019 2104
2-Methylnaphthalene	ND	40	29		1	73	40-132	10/10/2019 2104
2-Methylphenol	ND	40	37		1	94	30-130	10/10/2019 2104
2-Nitroaniline	ND	40	29		1	72	30-130	10/10/2019 2104
2-Nitrophenol	ND	40	30		1	74	30-130	10/10/2019 2104
3,3'-Dichlorobenzidine	ND	40	24		1	60	10-126	10/10/2019 2104
3+4-Methylphenol	ND	40	34		1	84	30-130	10/10/2019 2104
3-Nitroaniline	ND	40	20		1	50	30-130	10/10/2019 2104
4,6-Dinitro-2-methylphenol	ND	40	30		1	74	30-130	10/10/2019 2104
4-Bromophenyl phenyl ether	ND	40	27		1	69	30-124	10/10/2019 2104
4-Chloro-3-methyl phenol	ND	40	30		1	75	30-123	10/10/2019 2104
4-Chloroaniline	ND	40	33		1	82	10-130	10/10/2019 2104
4-Chlorophenyl phenyl ether	ND	40	27		1	68	30-121	10/10/2019 2104
4-Nitroaniline	ND	40	26		1	66	30-135	10/10/2019 2104
4-Nitrophenol	ND	80	53		1	66	30-130	10/10/2019 2104
Acenaphthene	ND	40	29		1	71	30-122	10/10/2019 2104
Acenaphthylene	ND	40	30		1	74	30-130	10/10/2019 2104
Acetophenone	ND	40	30		1	74	30-130	10/10/2019 2104
Anthracene	ND	40	30		1	75	30-123	10/10/2019 2104
Atrazine	ND	40	31		1	76	30-130	10/10/2019 2104
Benzaldehyde	ND	40	15		1	37	20-115	10/10/2019 2104
Benzo(a)anthracene	ND	40	29		1	73	40-125	10/10/2019 2104
Benzo(a)pyrene	ND	40	29		1	73	40-128	10/10/2019 2104
Benzo(b)fluoranthene	ND	40	29		1	74	30-130	10/10/2019 2104
Benzo(g,h,i)perylene	ND	40	30		1	76	30-130	10/10/2019 2104
Benzo(k)fluoranthene	ND	40	29		1	74	30-130	10/10/2019 2104
bis (2-Chloro-1-methylethyl) ether	ND	40	29		1	73	30-130	10/10/2019 2104
bis(2-Chloroethoxy)methane	ND	40	30		1	75	30-130	10/10/2019 2104
bis(2-Chloroethyl)ether	ND	40	29		1	73	30-130	10/10/2019 2104
bis(2-Ethylhexyl)phthalate	ND	40	31		1	77	70-131	10/10/2019 2104
Butyl benzyl phthalate	ND	40	31		1	76	30-130	10/10/2019 2104
Caprolactam	ND	40	35		1	87	30-130	10/10/2019 2104
Carbazole	ND	40	29		1	73	30-130	10/10/2019 2104
Chrysene	ND	40	29		1	73	30-130	10/10/2019 2104
Dibenzo(a,h)anthracene	ND	40	31		1	77	30-130	10/10/2019 2104

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ04033-004MS
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	40	28		1	69	30-118	10/10/2019 2104
Diethylphthalate	ND	40	31		1	79	40-125	10/10/2019 2104
Dimethyl phthalate	ND	40	30		1	76	40-127	10/10/2019 2104
Di-n-butyl phthalate	ND	40	33		1	83	40-127	10/10/2019 2104
Di-n-octylphthalate	ND	40	29		1	72	30-130	10/10/2019 2104
Fluoranthene	ND	40	30		1	74	40-128	10/10/2019 2104
Fluorene	ND	40	28		1	70	30-124	10/10/2019 2104
Hexachlorobenzene	ND	40	29		1	72	30-125	10/10/2019 2104
Hexachlorobutadiene	ND	40	27		1	68	24-110	10/10/2019 2104
Hexachlorocyclopentadiene	ND	200	100		1	50	22-122	10/10/2019 2104
Hexachloroethane	ND	40	27		1	66	30-130	10/10/2019 2104
Indeno(1,2,3-c,d)pyrene	ND	40	30		1	75	30-130	10/10/2019 2104
Isophorone	ND	40	32		1	79	30-130	10/10/2019 2104
Naphthalene	ND	40	30		1	76	30-130	10/10/2019 2104
Nitrobenzene	ND	40	29		1	72	30-130	10/10/2019 2104
N-Nitrosodi-n-propylamine	ND	40	30		1	76	30-130	10/10/2019 2104
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	29		1	73	30-123	10/10/2019 2104
Pentachlorophenol	ND	80	53		1	66	30-130	10/10/2019 2104
Phenanthrene	ND	40	29		1	72	40-123	10/10/2019 2104
Phenol	ND	40	27		1	68	30-130	10/10/2019 2104
Pyrene	ND	40	30		1	75	40-126	10/10/2019 2104

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		69	37-129
2-Fluorophenol		63	24-127
Nitrobenzene-d5		71	38-127
Phenol-d5		65	28-128
Terphenyl-d14		81	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ04033-004MD
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	40	29		1	72	1.0	30-130	40	10/10/2019 2128
2,4,5-Trichlorophenol	ND	40	26		1	64	4.5	30-123	40	10/10/2019 2128
2,4,6-Trichlorophenol	ND	40	27		1	68	1.3	30-130	40	10/10/2019 2128
2,4-Dichlorophenol	ND	40	28		1	71	1.8	30-121	40	10/10/2019 2128
2,4-Dimethylphenol	ND	40	36		1	90	9.2	20-125	40	10/10/2019 2128
2,4-Dinitrophenol	ND	80	52		1	65	1.3	30-130	40	10/10/2019 2128
2,4-Dinitrotoluene	ND	40	31		1	78	0.75	30-130	40	10/10/2019 2128
2,6-Dinitrotoluene	ND	40	30		1	75	1.0	30-130	40	10/10/2019 2128
2-Chloronaphthalene	ND	40	28		1	71	0.72	30-130	40	10/10/2019 2128
2-Chlorophenol	ND	40	27		1	68	1.9	30-130	40	10/10/2019 2128
2-Methylnaphthalene	ND	40	29		1	73	0.78	40-132	40	10/10/2019 2128
2-Methylphenol	ND	40	36		1	89	5.2	30-130	40	10/10/2019 2128
2-Nitroaniline	ND	40	30		1	74	1.9	30-130	40	10/10/2019 2128
2-Nitrophenol	ND	40	30		1	76	2.5	30-130	40	10/10/2019 2128
3,3'-Dichlorobenzidine	ND	40	22		1	55	8.4	10-126	40	10/10/2019 2128
3+4-Methylphenol	ND	40	34		1	84	0.041	30-130	40	10/10/2019 2128
3-Nitroaniline	ND	40	21		1	53	6.1	30-130	40	10/10/2019 2128
4,6-Dinitro-2-methylphenol	ND	40	30		1	75	0.82	30-130	40	10/10/2019 2128
4-Bromophenyl phenyl ether	ND	40	27		1	68	0.40	30-124	40	10/10/2019 2128
4-Chloro-3-methyl phenol	ND	40	30		1	74	0.80	30-123	40	10/10/2019 2128
4-Chloroaniline	ND	40	34		1	85	3.3	10-130	40	10/10/2019 2128
4-Chlorophenyl phenyl ether	ND	40	28		1	69	0.63	30-121	40	10/10/2019 2128
4-Nitroaniline	ND	40	27		1	69	3.7	30-135	40	10/10/2019 2128
4-Nitrophenol	ND	80	50		1	63	5.2	30-130	40	10/10/2019 2128
Acenaphthene	ND	40	28		1	71	0.37	30-122	40	10/10/2019 2128
Acenaphthylene	ND	40	30		1	74	0.51	30-130	40	10/10/2019 2128
Acetophenone	ND	40	30		1	74	0.12	30-130	40	10/10/2019 2128
Anthracene	ND	40	30		1	75	0.15	30-123	40	10/10/2019 2128
Atrazine	ND	40	31		1	77	1.4	30-130	40	10/10/2019 2128
Benzaldehyde	ND	40	18		1	46	21	20-115	40	10/10/2019 2128
Benzo(a)anthracene	ND	40	29		1	72	1.1	40-125	40	10/10/2019 2128
Benzo(a)pyrene	ND	40	28		1	71	2.8	40-128	40	10/10/2019 2128
Benzo(b)fluoranthene	ND	40	28		1	70	5.2	30-130	40	10/10/2019 2128
Benzo(g,h,i)perylene	ND	40	29		1	73	4.0	30-130	40	10/10/2019 2128
Benzo(k)fluoranthene	ND	40	30		1	74	0.37	30-130	40	10/10/2019 2128
bis (2-Chloro-1-methylethyl) ether	ND	40	29		1	72	0.81	30-130	40	10/10/2019 2128
bis(2-Chloroethoxy)methane	ND	40	30		1	76	1.2	30-130	40	10/10/2019 2128
bis(2-Chloroethyl)ether	ND	40	29		1	73	1.2	30-130	40	10/10/2019 2128
bis(2-Ethylhexyl)phthalate	ND	40	30		1	76	1.6	70-131	40	10/10/2019 2128
Butyl benzyl phthalate	ND	40	30		1	75	1.2	30-130	40	10/10/2019 2128
Caprolactam	ND	40	35		1	87	0.22	30-130	40	10/10/2019 2128
Carbazole	ND	40	29		1	73	0.13	30-130	40	10/10/2019 2128
Chrysene	ND	40	29		1	72	0.72	30-130	40	10/10/2019 2128
Dibenzo(a,h)anthracene	ND	40	30		1	75	2.4	30-130	40	10/10/2019 2128

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ04033-004MD
Batch: 31187
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/07/2019 1511

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	40	28		1	69	0.36	30-118	40	10/10/2019 2128
Diethylphthalate	ND	40	31		1	77	1.7	40-125	40	10/10/2019 2128
Dimethyl phthalate	ND	40	30		1	75	0.60	40-127	40	10/10/2019 2128
Di-n-butyl phthalate	ND	40	33		1	81	1.8	40-127	40	10/10/2019 2128
Di-n-octylphthalate	ND	40	28		1	70	2.6	30-130	40	10/10/2019 2128
Fluoranthene	ND	40	29		1	74	1.1	40-128	40	10/10/2019 2128
Fluorene	ND	40	28		1	70	0.66	30-124	40	10/10/2019 2128
Hexachlorobenzene	ND	40	28		1	71	1.6	30-125	40	10/10/2019 2128
Hexachlorobutadiene	ND	40	27		1	68	0.19	24-110	40	10/10/2019 2128
Hexachlorocyclopentadiene	ND	200	110		1	55	10	22-122	40	10/10/2019 2128
Hexachloroethane	ND	40	27		1	67	0.36	30-130	40	10/10/2019 2128
Indeno(1,2,3-c,d)pyrene	ND	40	30		1	74	1.8	30-130	40	10/10/2019 2128
Isophorone	ND	40	32		1	80	1.6	30-130	40	10/10/2019 2128
Naphthalene	ND	40	31		1	77	1.3	30-130	40	10/10/2019 2128
Nitrobenzene	ND	40	31		1	76	5.8	30-130	40	10/10/2019 2128
N-Nitrosodi-n-propylamine	ND	40	30		1	75	1.9	30-130	40	10/10/2019 2128
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	29		1	73	0.30	30-123	40	10/10/2019 2128
Pentachlorophenol	ND	80	53		1	67	0.69	30-130	40	10/10/2019 2128
Phenanthrene	ND	40	29		1	72	0.015	40-123	40	10/10/2019 2128
Phenol	ND	40	27		1	67	0.87	30-130	40	10/10/2019 2128
Pyrene	ND	40	30		1	75	0.14	40-126	40	10/10/2019 2128

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		69	37-129
2-Fluorophenol		62	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		65	28-128
Terphenyl-d14		79	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099900

Client: WESTINGHOUSE	Report to Contact: Diana Joyner	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM
Address: 5801 BLUFF RD	Sampler's Signature: [signature] T Crews	Quote No.
City: HOPKINS	State: SC	Zip Code: 29061
Project Name: WESTINGHOUSE RI	Printed Name: James Leaphart Randy Crews	Page 1 of 1
Project No.: 60595649	P.O. No.	UJ04033

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCL VOC's 8260B	TCL SVOC's 8270D	NITRATES 353.2	Remarks / Cooler I.D.
W-58	10-4-19	0920	G	X			3			3			X	X	X	TB-01-100419 TCL VOC's
W-72		1035	G	X			3			3			X	X	X	
W-55		1140	G	X			3			3			X	X	X	
W-38		1305	G	X			3			3			X	X	X	
W-38-MS		1305	G	X			3			3			X	X	X	
W-38-MSD		1306	G	X			3			3			X	X	X	
W-56		1106	G	X			3			3			X	X	X	
W-73		0945	G	X			3			3			X	X	X	
W-54		1350	G	X			3			3			X	X	X	
W-54-DUP		1350	G	X			3			3			X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.): [X] Standard [ ] Rush (Specify)

Sample Disposal: [ ] Return to Client [X] Disposal by Lab

Possible Hazard Identification: [X] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison [ ] Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature]	10-4-19	1530	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: L Hale	10/04/19	1530

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp. 4.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-139 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: DMN / 10/04/19 Lot #: UJ04033

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

4.2 / 4.2 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: DMN Date: 10/04/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Groundwater

Lot Number:**UJ07001**

Date Completed:10/14/2019

10/17/2019 10:58 AM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Case Narrative
Westinghouse Electric Company
Lot Number: UJ07001

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ07001

Project Name: Groundwater

Project Number:

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-59	Aqueous	10/05/2019 0930	10/06/2019
002	W-76	Aqueous	10/05/2019 1049	10/06/2019
003	W-78	Aqueous	10/05/2019 1159	10/06/2019

(3 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ07001

Project Name: Groundwater

Project Number:

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-59	Aqueous	Nitrate - N	353.2	14		mg/L	5
002	W-76	Aqueous	Nitrate - N	353.2	9.8		mg/L	10
002	W-76	Aqueous	Trichloroethene	8260B	63		ug/L	12
003	W-78	Aqueous	Nitrate - N	353.2	3.5		mg/L	15

(4 detections)

Inorganic non-metals

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-001

Description: W-59 | Matrix: Aqueous

Date Sampled: 10/05/2019 0930 | Project Name: Groundwater

Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/07/2019 0855	MSG		31225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	14		0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-001
Description: W-59
Matrix: Aqueous
Date Sampled:10/05/2019 0930
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2019 2351 JTH		31242
2	5030B	8260B	1	10/08/2019 2244 STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-001
Description: W-59
Matrix: Aqueous
Date Sampled: 10/05/2019 0930
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/07/2019 2351	JTH		31242
2	5030B	8260B	1	10/08/2019 2244	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		96	70-130
Bromofluorobenzene		99	70-130		97	70-130
Toluene-d8		94	70-130		90	70-130

LOQ = Limit of Quantitation
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N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-001
Description: W-59 | Matrix: Aqueous
Date Sampled:10/05/2019 0930 | Project Name: Groundwater
Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1524	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-001
Description: W-59 | Matrix: Aqueous
Date Sampled:10/05/2019 0930 | Project Name: Groundwater
Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1524	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		68	37-129
2-Fluorophenol		54	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		59	28-128
Terphenyl-d14		78	10-148
2,4,6-Tribromophenol		63	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-002
Description: W-76
Matrix: Aqueous
Date Sampled: 10/05/2019 1049
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/07/2019 0857	MSG		31225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	9.8		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-002
Description: W-76
Matrix: Aqueous
Date Sampled:10/05/2019 1049
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 0014 JTH		31242
2	5030B	8260B	1	10/08/2019 2308 STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-002
Description: W-76
Matrix: Aqueous
Date Sampled:10/05/2019 1049
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 0014 JTH		31242
2	5030B	8260B	1	10/08/2019 2308 STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	63		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130		97	70-130
Bromofluorobenzene		92	70-130		93	70-130
Toluene-d8		91	70-130		91	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-002
Description: W-76 | Matrix: Aqueous
Date Sampled:10/05/2019 1049 | Project Name: Groundwater
Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1549	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-002
Description: W-76 | Matrix: Aqueous
Date Sampled:10/05/2019 1049 | Project Name: Groundwater
Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1549	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		64	38-127
Phenol-d5		55	28-128
Terphenyl-d14		75	10-148
2,4,6-Tribromophenol		60	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-003
Description: W-78
Matrix: Aqueous
Date Sampled: 10/05/2019 1159
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/07/2019 0906	MSG		31225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.5		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-003

Description: W-78 | Matrix: Aqueous

Date Sampled:10/05/2019 1159 | Project Name: Groundwater

Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 0037 JTH		31242
2	5030B	8260B	1	10/08/2019 2331 STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07001-003
Description: W-78
Matrix: Aqueous
Date Sampled:10/05/2019 1159
Project Name: Groundwater
Date Received: 10/06/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 0037	JTH		31242
2	5030B	8260B	1	10/08/2019 2331	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130		96	70-130
Bromofluorobenzene		97	70-130		98	70-130
Toluene-d8		91	70-130		91	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-003
Description: W-78 | Matrix: Aqueous
Date Sampled:10/05/2019 1159 | Project Name: Groundwater
Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1613	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07001-003
Description: W-78 | Matrix: Aqueous
Date Sampled:10/05/2019 1159 | Project Name: Groundwater
Date Received: 10/06/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1613	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		60	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		68	28-128
Terphenyl-d14		76	10-148
2,4,6-Tribromophenol		62	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31225-001
Batch: 31225
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/07/2019 0853

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31225-002
Batch: 31225
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.79		1	98	90-110	10/07/2019 0854

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ07001-003MS
Batch: 31225
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	3.5	0.80	4.1	N	5	79	90-110	10/07/2019 0907

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ07001-003MD
Batch: 31225
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	3.5	0.80	4.1	N	5	78	0.22	90-110	20	10/07/2019 0909

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31242-001
Batch: 31242
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/07/2019 2228
Benzene	ND		1	1.0	ug/L	10/07/2019 2228
Bromodichloromethane	ND		1	1.0	ug/L	10/07/2019 2228
Bromoform	ND		1	1.0	ug/L	10/07/2019 2228
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/07/2019 2228
2-Butanone (MEK)	ND		1	10	ug/L	10/07/2019 2228
Carbon disulfide	ND		1	1.0	ug/L	10/07/2019 2228
Carbon tetrachloride	ND		1	1.0	ug/L	10/07/2019 2228
Chlorobenzene	ND		1	1.0	ug/L	10/07/2019 2228
Chloroethane	ND		1	2.0	ug/L	10/07/2019 2228
Chloroform	ND		1	1.0	ug/L	10/07/2019 2228
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/07/2019 2228
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/07/2019 2228
Dibromochloromethane	ND		1	1.0	ug/L	10/07/2019 2228
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/07/2019 2228
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/07/2019 2228
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/07/2019 2228
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/07/2019 2228
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/07/2019 2228
1,1-Dichloroethane	ND		1	1.0	ug/L	10/07/2019 2228
1,2-Dichloroethane	ND		1	1.0	ug/L	10/07/2019 2228
1,1-Dichloroethene	ND		1	1.0	ug/L	10/07/2019 2228
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/07/2019 2228
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/07/2019 2228
1,2-Dichloropropane	ND		1	1.0	ug/L	10/07/2019 2228
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/07/2019 2228
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/07/2019 2228
Ethylbenzene	ND		1	1.0	ug/L	10/07/2019 2228
2-Hexanone	ND		1	10	ug/L	10/07/2019 2228
Isopropylbenzene	ND		1	1.0	ug/L	10/07/2019 2228
Methyl acetate	ND		1	1.0	ug/L	10/07/2019 2228
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/07/2019 2228
4-Methyl-2-pentanone	ND		1	10	ug/L	10/07/2019 2228
Methylcyclohexane	ND		1	5.0	ug/L	10/07/2019 2228
Methylene chloride	ND		1	1.0	ug/L	10/07/2019 2228
Styrene	ND		1	1.0	ug/L	10/07/2019 2228
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/07/2019 2228
Tetrachloroethene	ND		1	1.0	ug/L	10/07/2019 2228
Toluene	ND		1	1.0	ug/L	10/07/2019 2228
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/07/2019 2228
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/07/2019 2228
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/07/2019 2228
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/07/2019 2228
Trichloroethene	ND		1	1.0	ug/L	10/07/2019 2228

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31242-001
Batch: 31242
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	ug/L	10/07/2019 2228
Vinyl chloride	ND		1	1.0	ug/L	10/07/2019 2228
Xylenes (total)	ND		1	1.0	ug/L	10/07/2019 2228

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31242-002
Batch: 31242
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	91		1	91	60-140	10/07/2019 2126
Benzene	50	49		1	98	70-130	10/07/2019 2126
Bromodichloromethane	50	48		1	97	70-130	10/07/2019 2126
Bromoform	50	48		1	96	70-130	10/07/2019 2126
Bromomethane (Methyl bromide)	50	49		1	98	70-130	10/07/2019 2126
2-Butanone (MEK)	100	88		1	88	70-130	10/07/2019 2126
Carbon disulfide	50	52		1	104	70-130	10/07/2019 2126
Carbon tetrachloride	50	49		1	97	70-130	10/07/2019 2126
Chlorobenzene	50	48		1	95	70-130	10/07/2019 2126
Chloroethane	50	53		1	105	70-130	10/07/2019 2126
Chloroform	50	49		1	98	70-130	10/07/2019 2126
Chloromethane (Methyl chloride)	50	48		1	96	60-140	10/07/2019 2126
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	89	70-130	10/07/2019 2126
Dibromochloromethane	50	50		1	100	70-130	10/07/2019 2126
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	10/07/2019 2126
1,2-Dichlorobenzene	50	43		1	87	70-130	10/07/2019 2126
1,3-Dichlorobenzene	50	44		1	87	70-130	10/07/2019 2126
1,4-Dichlorobenzene	50	43		1	87	70-130	10/07/2019 2126
Dichlorodifluoromethane	50	54		1	108	60-140	10/07/2019 2126
1,1-Dichloroethane	50	49		1	99	70-130	10/07/2019 2126
1,2-Dichloroethane	50	48		1	96	70-130	10/07/2019 2126
1,1-Dichloroethene	50	51		1	103	70-130	10/07/2019 2126
cis-1,2-Dichloroethene	50	48		1	95	70-130	10/07/2019 2126
trans-1,2-Dichloroethene	50	52		1	103	70-130	10/07/2019 2126
1,2-Dichloropropane	50	48		1	96	70-130	10/07/2019 2126
cis-1,3-Dichloropropene	50	50		1	99	70-130	10/07/2019 2126
trans-1,3-Dichloropropene	50	51		1	103	70-130	10/07/2019 2126
Ethylbenzene	50	48		1	96	70-130	10/07/2019 2126
2-Hexanone	100	94		1	94	70-130	10/07/2019 2126
Isopropylbenzene	50	49		1	97	70-130	10/07/2019 2126
Methyl acetate	50	57		1	115	70-130	10/07/2019 2126
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	10/07/2019 2126
4-Methyl-2-pentanone	100	96		1	96	70-130	10/07/2019 2126
Methylcyclohexane	50	50		1	99	70-130	10/07/2019 2126
Methylene chloride	50	44		1	88	70-130	10/07/2019 2126
Styrene	50	49		1	98	70-130	10/07/2019 2126
1,1,2,2-Tetrachloroethane	50	48		1	97	70-130	10/07/2019 2126
Tetrachloroethene	50	49		1	97	70-130	10/07/2019 2126
Toluene	50	49		1	98	70-130	10/07/2019 2126
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	98	70-130	10/07/2019 2126
1,2,4-Trichlorobenzene	50	42		1	83	70-130	10/07/2019 2126
1,1,1-Trichloroethane	50	46		1	92	70-130	10/07/2019 2126
1,1,2-Trichloroethane	50	50		1	99	70-130	10/07/2019 2126
Trichloroethene	50	47		1	94	70-130	10/07/2019 2126

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31242-002
Batch: 31242
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	51		1	103	70-130	10/07/2019 2126
Vinyl chloride	50	49		1	98	70-130	10/07/2019 2126
Xylenes (total)	100	97		1	97	70-130	10/07/2019 2126

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31381-001
Batch: 31381
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Cyclohexane	ND		1	1.0	ug/L	10/08/2019 1959

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31381-002
Batch: 31381
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyclohexane	50	41		1	82	70-130	10/08/2019 1858

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31335-001
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/10/2019 1112
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/10/2019 1112
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4-Dinitrophenol	ND		1	20	ug/L	10/10/2019 1112
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1112
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1112
2-Chloronaphthalene	ND		1	4.0	ug/L	10/10/2019 1112
2-Chlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2-Methylnaphthalene	ND		1	0.80	ug/L	10/10/2019 1112
2-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1112
2-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
2-Nitrophenol	ND		1	4.0	ug/L	10/10/2019 1112
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/10/2019 1112
3+4-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1112
3-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/10/2019 1112
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1112
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/10/2019 1112
4-Chloroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1112
4-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4-Nitrophenol	ND		1	20	ug/L	10/10/2019 1112
Acenaphthene	ND		1	0.80	ug/L	10/10/2019 1112
Acenaphthylene	ND		1	0.80	ug/L	10/10/2019 1112
Acetophenone	ND		1	4.0	ug/L	10/10/2019 1112
Anthracene	ND		1	0.80	ug/L	10/10/2019 1112
Atrazine	ND		1	4.0	ug/L	10/10/2019 1112
Benzaldehyde	ND		1	8.0	ug/L	10/10/2019 1112
Benzo(a)anthracene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(a)pyrene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Caprolactam	ND		1	8.0	ug/L	10/10/2019 1112
Carbazole	ND		1	4.0	ug/L	10/10/2019 1112
Chrysene	ND		1	0.80	ug/L	10/10/2019 1112
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/10/2019 1112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31335-001
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/10/2019 1112
Diethylphthalate	ND		1	4.0	ug/L	10/10/2019 1112
Dimethyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Di-n-octylphthalate	ND		1	4.0	ug/L	10/10/2019 1112
Fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
Fluorene	ND		1	0.80	ug/L	10/10/2019 1112
Hexachlorobenzene	ND		1	4.0	ug/L	10/10/2019 1112
Hexachlorobutadiene	ND		1	4.0	ug/L	10/10/2019 1112
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/10/2019 1112
Hexachloroethane	ND		1	4.0	ug/L	10/10/2019 1112
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/10/2019 1112
Isophorone	ND		1	4.0	ug/L	10/10/2019 1112
Naphthalene	ND		1	0.80	ug/L	10/10/2019 1112
Nitrobenzene	ND		1	4.0	ug/L	10/10/2019 1112
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/10/2019 1112
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/10/2019 1112
Pentachlorophenol	ND		1	20	ug/L	10/10/2019 1112
Phenanthrene	ND		1	0.80	ug/L	10/10/2019 1112
Phenol	ND		1	4.0	ug/L	10/10/2019 1112
Pyrene	ND		1	0.80	ug/L	10/10/2019 1112

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		46	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		52	28-128
Terphenyl-d14		83	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31335-002
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	29		1	72	30-130	10/10/2019 1137
2,4,5-Trichlorophenol	40	33		1	83	30-123	10/10/2019 1137
2,4,6-Trichlorophenol	40	35		1	87	30-130	10/10/2019 1137
2,4-Dichlorophenol	40	31		1	77	30-121	10/10/2019 1137
2,4-Dimethylphenol	40	40		1	100	20-125	10/10/2019 1137
2,4-Dinitrophenol	80	73		1	91	11-126	10/10/2019 1137
2,4-Dinitrotoluene	40	32		1	81	30-130	10/10/2019 1137
2,6-Dinitrotoluene	40	32		1	80	30-130	10/10/2019 1137
2-Chloronaphthalene	40	29		1	72	30-130	10/10/2019 1137
2-Chlorophenol	40	30		1	74	30-130	10/10/2019 1137
2-Methylnaphthalene	40	30		1	76	40-132	10/10/2019 1137
2-Methylphenol	40	32		1	80	30-130	10/10/2019 1137
2-Nitroaniline	40	27		1	69	30-130	10/10/2019 1137
2-Nitrophenol	40	31		1	76	30-130	10/10/2019 1137
3,3'-Dichlorobenzidine	40	23		1	59	10-126	10/10/2019 1137
3+4-Methylphenol	40	33		1	82	30-130	10/10/2019 1137
3-Nitroaniline	40	21		1	52	30-130	10/10/2019 1137
4,6-Dinitro-2-methylphenol	40	38		1	94	30-130	10/10/2019 1137
4-Bromophenyl phenyl ether	40	28		1	70	30-124	10/10/2019 1137
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/10/2019 1137
4-Chloroaniline	40	25		1	64	12-157	10/10/2019 1137
4-Chlorophenyl phenyl ether	40	31		1	78	30-121	10/10/2019 1137
4-Nitroaniline	40	29		1	73	30-135	10/10/2019 1137
4-Nitrophenol	80	43		1	53	30-130	10/10/2019 1137
Acenaphthene	40	28		1	71	30-122	10/10/2019 1137
Acenaphthylene	40	28		1	70	30-130	10/10/2019 1137
Acetophenone	40	33		1	82	30-130	10/10/2019 1137
Anthracene	40	27		1	68	30-123	10/10/2019 1137
Atrazine	40	30		1	75	30-130	10/10/2019 1137
Benzaldehyde	40	22		1	55	20-115	10/10/2019 1137
Benzo(a)anthracene	40	27		1	66	40-125	10/10/2019 1137
Benzo(a)pyrene	40	26		1	65	40-128	10/10/2019 1137
Benzo(b)fluoranthene	40	27		1	66	30-130	10/10/2019 1137
Benzo(g,h,i)perylene	40	29		1	73	30-130	10/10/2019 1137
Benzo(k)fluoranthene	40	26		1	65	30-130	10/10/2019 1137
bis (2-Chloro-1-methylethyl) ether	40	34		1	85	30-130	10/10/2019 1137
bis(2-Chloroethoxy)methane	40	28		1	70	30-130	10/10/2019 1137
bis(2-Chloroethyl)ether	40	32		1	80	30-130	10/10/2019 1137
bis(2-Ethylhexyl)phthalate	40	24		1	59	30-130	10/10/2019 1137
Butyl benzyl phthalate	40	24		1	61	30-130	10/10/2019 1137
Caprolactam	40	32		1	80	30-130	10/10/2019 1137
Carbazole	40	26		1	65	30-130	10/10/2019 1137
Chrysene	40	29		1	72	30-130	10/10/2019 1137
Dibenzo(a,h)anthracene	40	28		1	70	30-130	10/10/2019 1137

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31335-002
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	28		1	69	30-118	10/10/2019 1137
Diethylphthalate	40	30		1	75	40-125	10/10/2019 1137
Dimethyl phthalate	40	29		1	73	40-127	10/10/2019 1137
Di-n-butyl phthalate	40	28		1	70	40-127	10/10/2019 1137
Di-n-octylphthalate	40	24		1	60	30-130	10/10/2019 1137
Fluoranthene	40	28		1	70	40-128	10/10/2019 1137
Fluorene	40	28		1	71	30-124	10/10/2019 1137
Hexachlorobenzene	40	29		1	73	30-125	10/10/2019 1137
Hexachlorobutadiene	40	34		1	86	24-110	10/10/2019 1137
Hexachlorocyclopentadiene	200	130		1	67	22-122	10/10/2019 1137
Hexachloroethane	40	28		1	69	30-130	10/10/2019 1137
Indeno(1,2,3-c,d)pyrene	40	28		1	69	30-130	10/10/2019 1137
Isophorone	40	32		1	80	30-130	10/10/2019 1137
Naphthalene	40	30		1	75	30-130	10/10/2019 1137
Nitrobenzene	40	32		1	81	30-130	10/10/2019 1137
N-Nitrosodi-n-propylamine	40	33		1	82	30-130	10/10/2019 1137
N-Nitrosodiphenylamine (Diphenylamine)	40	25		1	63	30-123	10/10/2019 1137
Pentachlorophenol	80	69		1	87	30-130	10/10/2019 1137
Phenanthrene	40	26		1	66	40-123	10/10/2019 1137
Phenol	40	31		1	79	30-130	10/10/2019 1137
Pyrene	40	26		1	64	40-126	10/10/2019 1137

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		69	24-127
Nitrobenzene-d5		84	38-127
Phenol-d5		75	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		82	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 83735

Client: Westinghouse Elc Co
Report to Contact: Diana Joyner
Telephone No. / E-mail: 647-1925 joynerdc@Westinghouse.com
Quote No.
Address: 5801 Bluff Rd
Sampler's Signature: T. R. Crews
Analysis (Attach list if more space is needed)
Page ___ of ___
City: Hopkins | State: SC | Zip Code: 29061
Printed Name: Randy Crews
Project Name
Project No. | P.O. No.

UJ07001
GRW

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	No. of Containers	Matrix: Aqueous	Soil	Air/Aqueous	Other	No. of Containers by Preservative Type: HNO3	H2SO4	NaOH	ZnAc/NaOH	SVOC	VOC	Nitrates	Remarks / Cooler I.D.
W-59	10/5/19	0930	6	✓			3			3		✓	✓	✓	
W-76	10/5/19	1049	6	✓			3			3		✓	✓	✓	
W-78	10/5/19	1159	6	✓			3			3		✓	✓	✓	

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)
Sample Disposal: ☐ Return to Client ☒ Disposal by Lab
Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown
QC Requirements (Specify)

	Date	Time
1. Relinquished by: R. Crews	10/6/19	1011
2. Relinquished by		
3. Relinquished by		
4. Relinquished by		

	Date	Time
1. Received by: Matt M. Neal	10/6/19	1011
2. Received by		
3. Received by		
4. Laboratory received by		

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 2.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 06-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: MEC / 10/7/19 Lot #: UJ07001

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.4 / 2.4 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: MEC Date: 10/7/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Groundwater

Lot Number:**UJ07005**

Date Completed:10/14/2019

10/17/2019 11:01 AM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ07005

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ07005

Project Name: Groundwater

Project Number:

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-77	Aqueous	10/06/2019 1205	10/07/2019
002	W-80	Aqueous	10/06/2019 0847	10/07/2019
003	W-93	Aqueous	10/06/2019 1354	10/07/2019
004	TB-01-100719	Aqueous	10/07/2019	10/07/2019

(4 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ07005

Project Name: Groundwater

Project Number:

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-77	Aqueous	Nitrate - N	353.2	12		mg/L	5
001	W-77	Aqueous	Bromodichloromethane	8260B	3.4		ug/L	6
001	W-77	Aqueous	Bromoform	8260B	11		ug/L	6
001	W-77	Aqueous	Chloroform	8260B	11		ug/L	6
001	W-77	Aqueous	Dibromochloromethane	8260B	3.6		ug/L	6
002	W-80	Aqueous	Nitrate - N	353.2	8.3		mg/L	10
002	W-80	Aqueous	Bromoform	8260B	3.9		ug/L	11
002	W-80	Aqueous	Dibromochloromethane	8260B	1.8		ug/L	11
003	W-93	Aqueous	Nitrate - N	353.2	5.3		mg/L	15
003	W-93	Aqueous	Tetrachloroethene	8260B	24		ug/L	16
003	W-93	Aqueous	Trichloroethene	8260B	2.8		ug/L	17

(11 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07005-001
Description: W-77
Matrix: Aqueous
Date Sampled: 10/06/2019 1205
Project Name: Groundwater
Date Received: 10/07/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	25	10/07/2019 1738	MSG		31226

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	12		0.50	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-001
Description: W-77 | Matrix: Aqueous
Date Sampled:10/06/2019 1205 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2110	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	3.4		1.0	ug/L	1
Bromoform	75-25-2	8260B	11		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	11		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	3.6		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-001

Description: W-77 | Matrix: Aqueous

Date Sampled: 10/06/2019 1205 | Project Name: Groundwater

Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2110	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-001
Description: W-77 | Matrix: Aqueous
Date Sampled:10/06/2019 1205 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1637	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-001
Description: W-77 | Matrix: Aqueous
Date Sampled:10/06/2019 1205 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1637	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		70	37-129
2-Fluorophenol		30	24-127
Nitrobenzene-d5		64	38-127
Phenol-d5		43	28-128
Terphenyl-d14		43	10-148
2,4,6-Tribromophenol		57	35-144

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07005-002
Description: W-80
Matrix: Aqueous
Date Sampled: 10/06/2019 0847
Project Name: Groundwater
Date Received: 10/07/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/07/2019 1727	MSG		31226

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	8.3		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-002
Description: W-80 | Matrix: Aqueous
Date Sampled: 10/06/2019 0847 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2133	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	3.9		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	1.8		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-002
Description: W-80 | Matrix: Aqueous
Date Sampled: 10/06/2019 0847 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2133	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-002
Description: W-80 | Matrix: Aqueous
Date Sampled:10/06/2019 0847 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1702	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-002
Description: W-80 | Matrix: Aqueous
Date Sampled:10/06/2019 0847 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1702	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		68	37-129
2-Fluorophenol		49	24-127
Nitrobenzene-d5		64	38-127
Phenol-d5		45	28-128
Terphenyl-d14		77	10-148
2,4,6-Tribromophenol		60	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07005-003
Description: W-93
Matrix: Aqueous
Date Sampled: 10/06/2019 1354
Project Name: Groundwater
Date Received: 10/07/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/07/2019 1728	MSG		31226

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	5.3		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-003
Description: W-93 | Matrix: Aqueous
Date Sampled: 10/06/2019 1354 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2156	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	24		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07005-003
Description: W-93
Matrix: Aqueous
Date Sampled:10/06/2019 1354
Project Name: Groundwater
Date Received: 10/07/2019
Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2156	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	2.8		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-003
Description: W-93 | Matrix: Aqueous
Date Sampled:10/06/2019 1354 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1726	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-003
Description: W-93 | Matrix: Aqueous
Date Sampled:10/06/2019 1354 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1726	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	37-129
2-Fluorophenol		49	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		58	28-128
Terphenyl-d14		75	10-148
2,4,6-Tribromophenol		58	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-004
Description: TB-01-100719 | Matrix: Aqueous
Date Sampled:10/07/2019 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2221	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07005-004
Description: TB-01-100719 | Matrix: Aqueous
Date Sampled:10/07/2019 | Project Name: Groundwater
Date Received: 10/07/2019 | Project Number:

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 2221	STM		31381

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31226-001
Batch: 31226
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/07/2019 1723

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31226-002
Batch: 31226
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	10/07/2019 1724

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ07005-003MS
Batch: 31226
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	5.3	0.80	6.2		5	101	90-110	10/07/2019 1730

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ07005-003MD
Batch: 31226
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	5.3	0.80	6.1		5	91	1.3	90-110	20	10/07/2019 1731

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31381-001
Batch: 31381
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/08/2019 1959
Benzene	ND		1	1.0	ug/L	10/08/2019 1959
Bromodichloromethane	ND		1	1.0	ug/L	10/08/2019 1959
Bromoform	ND		1	1.0	ug/L	10/08/2019 1959
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/08/2019 1959
2-Butanone (MEK)	ND		1	10	ug/L	10/08/2019 1959
Carbon disulfide	ND		1	1.0	ug/L	10/08/2019 1959
Carbon tetrachloride	ND		1	1.0	ug/L	10/08/2019 1959
Chlorobenzene	ND		1	1.0	ug/L	10/08/2019 1959
Chloroethane	ND		1	2.0	ug/L	10/08/2019 1959
Chloroform	ND		1	1.0	ug/L	10/08/2019 1959
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/08/2019 1959
Cyclohexane	ND		1	1.0	ug/L	10/08/2019 1959
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/08/2019 1959
Dibromochloromethane	ND		1	1.0	ug/L	10/08/2019 1959
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/08/2019 1959
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1959
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1959
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1959
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/08/2019 1959
1,1-Dichloroethane	ND		1	1.0	ug/L	10/08/2019 1959
1,2-Dichloroethane	ND		1	1.0	ug/L	10/08/2019 1959
1,1-Dichloroethene	ND		1	1.0	ug/L	10/08/2019 1959
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/08/2019 1959
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/08/2019 1959
1,2-Dichloropropane	ND		1	1.0	ug/L	10/08/2019 1959
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/08/2019 1959
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/08/2019 1959
Ethylbenzene	ND		1	1.0	ug/L	10/08/2019 1959
2-Hexanone	ND		1	10	ug/L	10/08/2019 1959
Isopropylbenzene	ND		1	1.0	ug/L	10/08/2019 1959
Methyl acetate	ND		1	1.0	ug/L	10/08/2019 1959
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/08/2019 1959
4-Methyl-2-pentanone	ND		1	10	ug/L	10/08/2019 1959
Methylcyclohexane	ND		1	5.0	ug/L	10/08/2019 1959
Methylene chloride	ND		1	1.0	ug/L	10/08/2019 1959
Styrene	ND		1	1.0	ug/L	10/08/2019 1959
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/08/2019 1959
Tetrachloroethene	ND		1	1.0	ug/L	10/08/2019 1959
Toluene	ND		1	1.0	ug/L	10/08/2019 1959
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/08/2019 1959
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1959
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/08/2019 1959
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/08/2019 1959

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31381-001
Batch: 31381
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/08/2019 1959
Trichlorofluoromethane	ND		1	1.0	ug/L	10/08/2019 1959
Vinyl chloride	ND		1	1.0	ug/L	10/08/2019 1959
Xylenes (total)	ND		1	1.0	ug/L	10/08/2019 1959

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31381-002
Batch: 31381
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	91		1	91	60-140	10/08/2019 1858
Benzene	50	52		1	103	70-130	10/08/2019 1858
Bromodichloromethane	50	49		1	99	70-130	10/08/2019 1858
Bromoform	50	43		1	86	70-130	10/08/2019 1858
Bromomethane (Methyl bromide)	50	51		1	101	70-130	10/08/2019 1858
2-Butanone (MEK)	100	99		1	99	70-130	10/08/2019 1858
Carbon disulfide	50	55		1	110	70-130	10/08/2019 1858
Carbon tetrachloride	50	50		1	101	70-130	10/08/2019 1858
Chlorobenzene	50	48		1	97	70-130	10/08/2019 1858
Chloroethane	50	55		1	110	70-130	10/08/2019 1858
Chloroform	50	51		1	102	70-130	10/08/2019 1858
Chloromethane (Methyl chloride)	50	50		1	100	60-140	10/08/2019 1858
Cyclohexane	50	41		1	82	70-130	10/08/2019 1858
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	81	70-130	10/08/2019 1858
Dibromochloromethane	50	48		1	95	70-130	10/08/2019 1858
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	10/08/2019 1858
1,2-Dichlorobenzene	50	44		1	89	70-130	10/08/2019 1858
1,3-Dichlorobenzene	50	45		1	90	70-130	10/08/2019 1858
1,4-Dichlorobenzene	50	44		1	88	70-130	10/08/2019 1858
Dichlorodifluoromethane	50	57		1	115	60-140	10/08/2019 1858
1,1-Dichloroethane	50	50		1	100	70-130	10/08/2019 1858
1,2-Dichloroethane	50	49		1	99	70-130	10/08/2019 1858
1,1-Dichloroethene	50	55		1	109	70-130	10/08/2019 1858
cis-1,2-Dichloroethene	50	49		1	98	70-130	10/08/2019 1858
trans-1,2-Dichloroethene	50	52		1	104	70-130	10/08/2019 1858
1,2-Dichloropropane	50	50		1	100	70-130	10/08/2019 1858
cis-1,3-Dichloropropene	50	52		1	104	70-130	10/08/2019 1858
trans-1,3-Dichloropropene	50	53		1	106	70-130	10/08/2019 1858
Ethylbenzene	50	50		1	101	70-130	10/08/2019 1858
2-Hexanone	100	100		1	100	70-130	10/08/2019 1858
Isopropylbenzene	50	51		1	102	70-130	10/08/2019 1858
Methyl acetate	50	58		1	115	70-130	10/08/2019 1858
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	10/08/2019 1858
4-Methyl-2-pentanone	100	99		1	99	70-130	10/08/2019 1858
Methylcyclohexane	50	54		1	107	70-130	10/08/2019 1858
Methylene chloride	50	44		1	88	70-130	10/08/2019 1858
Styrene	50	50		1	101	70-130	10/08/2019 1858
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	10/08/2019 1858
Tetrachloroethene	50	52		1	103	70-130	10/08/2019 1858
Toluene	50	51		1	103	70-130	10/08/2019 1858
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	70-130	10/08/2019 1858
1,2,4-Trichlorobenzene	50	43		1	85	70-130	10/08/2019 1858
1,1,1-Trichloroethane	50	49		1	97	70-130	10/08/2019 1858
1,1,2-Trichloroethane	50	50		1	101	70-130	10/08/2019 1858

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31381-002
Batch: 31381
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	10/08/2019 1858
Trichlorofluoromethane	50	53		1	105	70-130	10/08/2019 1858
Vinyl chloride	50	52		1	104	70-130	10/08/2019 1858
Xylenes (total)	100	100		1	102	70-130	10/08/2019 1858

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31335-001
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/10/2019 1112
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/10/2019 1112
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4-Dinitrophenol	ND		1	20	ug/L	10/10/2019 1112
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1112
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1112
2-Chloronaphthalene	ND		1	4.0	ug/L	10/10/2019 1112
2-Chlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2-Methylnaphthalene	ND		1	0.80	ug/L	10/10/2019 1112
2-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1112
2-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
2-Nitrophenol	ND		1	4.0	ug/L	10/10/2019 1112
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/10/2019 1112
3+4-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1112
3-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/10/2019 1112
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1112
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/10/2019 1112
4-Chloroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1112
4-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4-Nitrophenol	ND		1	20	ug/L	10/10/2019 1112
Acenaphthene	ND		1	0.80	ug/L	10/10/2019 1112
Acenaphthylene	ND		1	0.80	ug/L	10/10/2019 1112
Acetophenone	ND		1	4.0	ug/L	10/10/2019 1112
Anthracene	ND		1	0.80	ug/L	10/10/2019 1112
Atrazine	ND		1	4.0	ug/L	10/10/2019 1112
Benzaldehyde	ND		1	8.0	ug/L	10/10/2019 1112
Benzo(a)anthracene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(a)pyrene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Caprolactam	ND		1	8.0	ug/L	10/10/2019 1112
Carbazole	ND		1	4.0	ug/L	10/10/2019 1112
Chrysene	ND		1	0.80	ug/L	10/10/2019 1112
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/10/2019 1112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31335-001
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/10/2019 1112
Diethylphthalate	ND		1	4.0	ug/L	10/10/2019 1112
Dimethyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Di-n-octylphthalate	ND		1	4.0	ug/L	10/10/2019 1112
Fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
Fluorene	ND		1	0.80	ug/L	10/10/2019 1112
Hexachlorobenzene	ND		1	4.0	ug/L	10/10/2019 1112
Hexachlorobutadiene	ND		1	4.0	ug/L	10/10/2019 1112
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/10/2019 1112
Hexachloroethane	ND		1	4.0	ug/L	10/10/2019 1112
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/10/2019 1112
Isophorone	ND		1	4.0	ug/L	10/10/2019 1112
Naphthalene	ND		1	0.80	ug/L	10/10/2019 1112
Nitrobenzene	ND		1	4.0	ug/L	10/10/2019 1112
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/10/2019 1112
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/10/2019 1112
Pentachlorophenol	ND		1	20	ug/L	10/10/2019 1112
Phenanthrene	ND		1	0.80	ug/L	10/10/2019 1112
Phenol	ND		1	4.0	ug/L	10/10/2019 1112
Pyrene	ND		1	0.80	ug/L	10/10/2019 1112

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		46	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		52	28-128
Terphenyl-d14		83	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31335-002
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	29		1	72	30-130	10/10/2019 1137
2,4,5-Trichlorophenol	40	33		1	83	30-123	10/10/2019 1137
2,4,6-Trichlorophenol	40	35		1	87	30-130	10/10/2019 1137
2,4-Dichlorophenol	40	31		1	77	30-121	10/10/2019 1137
2,4-Dimethylphenol	40	40		1	100	20-125	10/10/2019 1137
2,4-Dinitrophenol	80	73		1	91	11-126	10/10/2019 1137
2,4-Dinitrotoluene	40	32		1	81	30-130	10/10/2019 1137
2,6-Dinitrotoluene	40	32		1	80	30-130	10/10/2019 1137
2-Chloronaphthalene	40	29		1	72	30-130	10/10/2019 1137
2-Chlorophenol	40	30		1	74	30-130	10/10/2019 1137
2-Methylnaphthalene	40	30		1	76	40-132	10/10/2019 1137
2-Methylphenol	40	32		1	80	30-130	10/10/2019 1137
2-Nitroaniline	40	27		1	69	30-130	10/10/2019 1137
2-Nitrophenol	40	31		1	76	30-130	10/10/2019 1137
3,3'-Dichlorobenzidine	40	23		1	59	10-126	10/10/2019 1137
3+4-Methylphenol	40	33		1	82	30-130	10/10/2019 1137
3-Nitroaniline	40	21		1	52	30-130	10/10/2019 1137
4,6-Dinitro-2-methylphenol	40	38		1	94	30-130	10/10/2019 1137
4-Bromophenyl phenyl ether	40	28		1	70	30-124	10/10/2019 1137
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/10/2019 1137
4-Chloroaniline	40	25		1	64	12-157	10/10/2019 1137
4-Chlorophenyl phenyl ether	40	31		1	78	30-121	10/10/2019 1137
4-Nitroaniline	40	29		1	73	30-135	10/10/2019 1137
4-Nitrophenol	80	43		1	53	30-130	10/10/2019 1137
Acenaphthene	40	28		1	71	30-122	10/10/2019 1137
Acenaphthylene	40	28		1	70	30-130	10/10/2019 1137
Acetophenone	40	33		1	82	30-130	10/10/2019 1137
Anthracene	40	27		1	68	30-123	10/10/2019 1137
Atrazine	40	30		1	75	30-130	10/10/2019 1137
Benzaldehyde	40	22		1	55	20-115	10/10/2019 1137
Benzo(a)anthracene	40	27		1	66	40-125	10/10/2019 1137
Benzo(a)pyrene	40	26		1	65	40-128	10/10/2019 1137
Benzo(b)fluoranthene	40	27		1	66	30-130	10/10/2019 1137
Benzo(g,h,i)perylene	40	29		1	73	30-130	10/10/2019 1137
Benzo(k)fluoranthene	40	26		1	65	30-130	10/10/2019 1137
bis (2-Chloro-1-methylethyl) ether	40	34		1	85	30-130	10/10/2019 1137
bis(2-Chloroethoxy)methane	40	28		1	70	30-130	10/10/2019 1137
bis(2-Chloroethyl)ether	40	32		1	80	30-130	10/10/2019 1137
bis(2-Ethylhexyl)phthalate	40	24		1	59	30-130	10/10/2019 1137
Butyl benzyl phthalate	40	24		1	61	30-130	10/10/2019 1137
Caprolactam	40	32		1	80	30-130	10/10/2019 1137
Carbazole	40	26		1	65	30-130	10/10/2019 1137
Chrysene	40	29		1	72	30-130	10/10/2019 1137
Dibenzo(a,h)anthracene	40	28		1	70	30-130	10/10/2019 1137

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31335-002
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	28		1	69	30-118	10/10/2019 1137
Diethylphthalate	40	30		1	75	40-125	10/10/2019 1137
Dimethyl phthalate	40	29		1	73	40-127	10/10/2019 1137
Di-n-butyl phthalate	40	28		1	70	40-127	10/10/2019 1137
Di-n-octylphthalate	40	24		1	60	30-130	10/10/2019 1137
Fluoranthene	40	28		1	70	40-128	10/10/2019 1137
Fluorene	40	28		1	71	30-124	10/10/2019 1137
Hexachlorobenzene	40	29		1	73	30-125	10/10/2019 1137
Hexachlorobutadiene	40	34		1	86	24-110	10/10/2019 1137
Hexachlorocyclopentadiene	200	130		1	67	22-122	10/10/2019 1137
Hexachloroethane	40	28		1	69	30-130	10/10/2019 1137
Indeno(1,2,3-c,d)pyrene	40	28		1	69	30-130	10/10/2019 1137
Isophorone	40	32		1	80	30-130	10/10/2019 1137
Naphthalene	40	30		1	75	30-130	10/10/2019 1137
Nitrobenzene	40	32		1	81	30-130	10/10/2019 1137
N-Nitrosodi-n-propylamine	40	33		1	82	30-130	10/10/2019 1137
N-Nitrosodiphenylamine (Diphenylamine)	40	25		1	63	30-123	10/10/2019 1137
Pentachlorophenol	80	69		1	87	30-130	10/10/2019 1137
Phenanthrene	40	26		1	66	40-123	10/10/2019 1137
Phenol	40	31		1	79	30-130	10/10/2019 1137
Pyrene	40	26		1	64	40-126	10/10/2019 1137

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		69	24-127
Nitrobenzene-d5		84	38-127
Phenol-d5		75	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		82	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

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Chain of Custody Record

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 83736

Client: Westinghouse Ele Co	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 647-1920 joynerdp@westinghouse.com	Quote No.
Address: 5801 Bluff Rd	Sampler's Signature: X TChews	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Hopkins	State: SC	Zip Code: 29061	
Project Name: Groundwater	Printed Name: Randy Crews		

UJ07005
GRW

Project No.	P.O. No.			Matrix			No of Containers by Preservative Type										Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab/Composite	Aqueous	Solid	Non-Aqueous	Unpres	H2SO4	HNO3	HCl	NaOH	Na2S2O3	VOC	SVOC	Nitrates		
W-77	10/6/19	1205	G	✓			3			3			✓	✓	✓		
W-80	10/6/19	0847	G	✓			3			3			✓	✓	✓		
W-93	10/6/19	1354	G	✓			3			3			✓	✓	✓		
TB-01-100719	10/7/19												✓	✓	✓		

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: R. Crews	10/7/19	0841	1. Received by: C. Logsdon	10.7.19	0841
2. Relinquished by: C. Logsdon	10.7.19	1050	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	Date 10-7-19	Time 1050

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes / No Ice Pack — Receipt Temp: 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-139 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Electric Cooler Inspected by/date: MEC / 10/07/19 Lot #: UJ07005

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.3 / 2.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: 10/07/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ07036**

Date Completed:10/15/2019

10/17/2019 11:02 AM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ07036

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Semivolatile Organic Analysis – Method 8270D
Sample -007: The surrogate, 2-Fluorophenol, was recovered below control limits due to matrix interference.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ07036

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-6	Aqueous	10/07/2019 0930	10/07/2019
002	W-22	Aqueous	10/07/2019 1045	10/07/2019
003	W-18R	Aqueous	10/07/2019 1225	10/07/2019
004	W-79	Aqueous	10/07/2019 1400	10/07/2019
005	W-30	Aqueous	10/07/2019 1009	10/07/2019
006	W-29	Aqueous	10/07/2019 1253	10/07/2019
007	W-28	Aqueous	10/07/2019 1443	10/07/2019
008	TB-02-100719	Aqueous	10/07/2019	10/07/2019

(8 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ07036

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-6	Aqueous	Nitrate - N	353.2	210		mg/L	5
001	W-6	Aqueous	cis-1,2-Dichloroethene	8260B	2.8		ug/L	6
001	W-6	Aqueous	Tetrachloroethene	8260B	16		ug/L	6
001	W-6	Aqueous	Trichloroethene	8260B	2.5		ug/L	7
002	W-22	Aqueous	Nitrate - N	353.2	100		mg/L	10
003	W-18R	Aqueous	Nitrate - N	353.2	770		mg/L	15
003	W-18R	Aqueous	Chloroform	8260B	1.9		ug/L	16
003	W-18R	Aqueous	Tetrachloroethene	8260B	3.5		ug/L	16
004	W-79	Aqueous	Nitrate - N	353.2	4.0		mg/L	20
005	W-30	Aqueous	Nitrate - N	353.2	120		mg/L	25
006	W-29	Aqueous	Nitrate - N	353.2	11		mg/L	30
006	W-29	Aqueous	Chloroform	8260B	1.0		ug/L	31
007	W-28	Aqueous	Nitrate - N	353.2	6.3		mg/L	35

(13 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07036-001
Description: W-6
Matrix: Aqueous
Date Sampled: 10/07/2019 0930
Project Name: Westinghouse RI
Date Received: 10/07/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	250	10/09/2019 0912	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	210		5.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-001
Description: W-6 | Matrix: Aqueous
Date Sampled: 10/07/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1638	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.8		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	16		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-001
Description: W-6 | Matrix: Aqueous
Date Sampled: 10/07/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1638	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	2.5		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-001
Description: W-6 | Matrix: Aqueous
Date Sampled:10/07/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1839	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-001
Description: W-6 | Matrix: Aqueous
Date Sampled:10/07/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1839	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	37-129
2-Fluorophenol		39	24-127
Nitrobenzene-d5		61	38-127
Phenol-d5		44	28-128
Terphenyl-d14		76	10-148
2,4,6-Tribromophenol		59	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07036-002
Description: W-22
Matrix: Aqueous
Date Sampled: 10/07/2019 1045
Project Name: Westinghouse RI
Date Received: 10/07/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	100	10/09/2019 0914	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	100		2.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-002
Description: W-22 | Matrix: Aqueous
Date Sampled:10/07/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1700	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-002
Description: W-22 | Matrix: Aqueous
Date Sampled:10/07/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1700	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-002
Description: W-22 | Matrix: Aqueous
Date Sampled:10/07/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1903	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-002
Description: W-22 | Matrix: Aqueous
Date Sampled:10/07/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1903	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		40	24-127
Nitrobenzene-d5		62	38-127
Phenol-d5		47	28-128
Terphenyl-d14		73	10-148
2,4,6-Tribromophenol		56	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07036-003
Description: W-18R
Matrix: Aqueous
Date Sampled:10/07/2019 1225
Project Name: Westinghouse RI
Date Received: 10/07/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	500	10/09/2019 0916	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	770		10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-003
Description: W-18R | Matrix: Aqueous
Date Sampled:10/07/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1723	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	1.9		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	3.5		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-003
Description: W-18R | Matrix: Aqueous
Date Sampled:10/07/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1723	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-003
Description: W-18R | Matrix: Aqueous
Date Sampled:10/07/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1927	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-003
Description: W-18R | Matrix: Aqueous
Date Sampled:10/07/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1927	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		38	24-127
Nitrobenzene-d5		62	38-127
Phenol-d5		44	28-128
Terphenyl-d14		76	10-148
2,4,6-Tribromophenol		60	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company	Laboratory ID: UJ07036-004
Description: W-79	Matrix: Aqueous
Date Sampled:10/07/2019 1400	Project Name: Westinghouse RI
Date Received: 10/07/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/09/2019 0917	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.0		0.10	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-004
Description: W-79 | Matrix: Aqueous
Date Sampled:10/07/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1747	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-004
Description: W-79 | Matrix: Aqueous
Date Sampled:10/07/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1747	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		85	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-004
Description: W-79 | Matrix: Aqueous
Date Sampled:10/07/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1952	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-004
Description: W-79 | Matrix: Aqueous
Date Sampled:10/07/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 1952	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	37-129
2-Fluorophenol		41	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		51	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		58	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07036-005
Description: W-30
Matrix: Aqueous
Date Sampled: 10/07/2019 1009
Project Name: Westinghouse RI
Date Received: 10/07/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	100	10/09/2019 0913	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	120		2.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-005
Description: W-30 | Matrix: Aqueous
Date Sampled:10/07/2019 1009 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1810	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-005
Description: W-30 | Matrix: Aqueous
Date Sampled:10/07/2019 1009 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1810	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-005
Description: W-30 | Matrix: Aqueous
Date Sampled:10/07/2019 1009 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 2016	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-005
Description: W-30 | Matrix: Aqueous
Date Sampled:10/07/2019 1009 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 2016	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		67	37-129
2-Fluorophenol		59	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		62	28-128
Terphenyl-d14		76	10-148
2,4,6-Tribromophenol		58	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company			Laboratory ID: UJ07036-006
Description: W-29			Matrix: Aqueous
Date Sampled: 10/07/2019 1253	Project Name: Westinghouse RI		
Date Received: 10/07/2019	Project Number: 60595649		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/09/2019 0933	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	11		0.20	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-006
Description: W-29 | Matrix: Aqueous
Date Sampled:10/07/2019 1253 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1834	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	1.0		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-006
Description: W-29 | Matrix: Aqueous
Date Sampled:10/07/2019 1253 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1834	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-006
Description: W-29 | Matrix: Aqueous
Date Sampled:10/07/2019 1253 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 2040	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-006
Description: W-29 | Matrix: Aqueous
Date Sampled:10/07/2019 1253 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 2040	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		64	37-129
2-Fluorophenol		45	24-127
Nitrobenzene-d5		61	38-127
Phenol-d5		64	28-128
Terphenyl-d14		72	10-148
2,4,6-Tribromophenol		55	35-144

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ07036-007
Description: W-28
Matrix: Aqueous
Date Sampled: 10/07/2019 1443
Project Name: Westinghouse RI
Date Received: 10/07/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/09/2019 0934	MSG		31414

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	6.3		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-007
Description: W-28 | Matrix: Aqueous
Date Sampled:10/07/2019 1443 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1857	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-007
Description: W-28 | Matrix: Aqueous
Date Sampled: 10/07/2019 1443 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1857	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-007
Description: W-28 | Matrix: Aqueous
Date Sampled:10/07/2019 1443 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 2105	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-007
Description: W-28 | Matrix: Aqueous
Date Sampled:10/07/2019 1443 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/11/2019 2105	SCD	10/08/2019 1635	31335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		68	37-129
2-Fluorophenol	N	20	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		35	28-128
Terphenyl-d14		78	10-148
2,4,6-Tribromophenol		56	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ07036-008
Description: TB-02-100719 | Matrix: Aqueous
Date Sampled:10/07/2019 | Project Name: Westinghouse RI
Date Received: 10/07/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1614	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ07036-008
Description: TB-02-100719
Matrix: Aqueous
Date Sampled:10/07/2019
Project Name: Westinghouse RI
Date Received: 10/07/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/08/2019 1614	JM1		31325

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31414-001
Batch: 31414
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/09/2019 0858

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31414-002
Batch: 31414
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	10/09/2019 0900

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31325-001
Batch: 31325
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/08/2019 1041
Benzene	ND		1	1.0	ug/L	10/08/2019 1041
Bromodichloromethane	ND		1	1.0	ug/L	10/08/2019 1041
Bromoform	ND		1	1.0	ug/L	10/08/2019 1041
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/08/2019 1041
2-Butanone (MEK)	ND		1	10	ug/L	10/08/2019 1041
Carbon disulfide	ND		1	1.0	ug/L	10/08/2019 1041
Carbon tetrachloride	ND		1	1.0	ug/L	10/08/2019 1041
Chlorobenzene	ND		1	1.0	ug/L	10/08/2019 1041
Chloroethane	ND		1	2.0	ug/L	10/08/2019 1041
Chloroform	ND		1	1.0	ug/L	10/08/2019 1041
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/08/2019 1041
Cyclohexane	ND		1	1.0	ug/L	10/08/2019 1041
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/08/2019 1041
Dibromochloromethane	ND		1	1.0	ug/L	10/08/2019 1041
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/08/2019 1041
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1041
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1041
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1041
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/08/2019 1041
1,1-Dichloroethane	ND		1	1.0	ug/L	10/08/2019 1041
1,2-Dichloroethane	ND		1	1.0	ug/L	10/08/2019 1041
1,1-Dichloroethene	ND		1	1.0	ug/L	10/08/2019 1041
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/08/2019 1041
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/08/2019 1041
1,2-Dichloropropane	ND		1	1.0	ug/L	10/08/2019 1041
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/08/2019 1041
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/08/2019 1041
Ethylbenzene	ND		1	1.0	ug/L	10/08/2019 1041
2-Hexanone	ND		1	10	ug/L	10/08/2019 1041
Isopropylbenzene	ND		1	1.0	ug/L	10/08/2019 1041
Methyl acetate	ND		1	1.0	ug/L	10/08/2019 1041
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/08/2019 1041
4-Methyl-2-pentanone	ND		1	10	ug/L	10/08/2019 1041
Methylcyclohexane	ND		1	5.0	ug/L	10/08/2019 1041
Methylene chloride	ND		1	1.0	ug/L	10/08/2019 1041
Styrene	ND		1	1.0	ug/L	10/08/2019 1041
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/08/2019 1041
Tetrachloroethene	ND		1	1.0	ug/L	10/08/2019 1041
Toluene	ND		1	1.0	ug/L	10/08/2019 1041
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/08/2019 1041
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/08/2019 1041
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/08/2019 1041
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/08/2019 1041

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31325-001
Batch: 31325
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/08/2019 1041
Trichlorofluoromethane	ND		1	1.0	ug/L	10/08/2019 1041
Vinyl chloride	ND		1	1.0	ug/L	10/08/2019 1041
Xylenes (total)	ND		1	1.0	ug/L	10/08/2019 1041

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31325-002
Batch: 31325
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	66		1	66	60-140	10/08/2019 0950
Benzene	50	47		1	94	70-130	10/08/2019 0950
Bromodichloromethane	50	47		1	94	70-130	10/08/2019 0950
Bromoform	50	46		1	92	70-130	10/08/2019 0950
Bromomethane (Methyl bromide)	50	45		1	90	70-130	10/08/2019 0950
2-Butanone (MEK)	100	79		1	79	70-130	10/08/2019 0950
Carbon disulfide	50	41		1	81	70-130	10/08/2019 0950
Carbon tetrachloride	50	44		1	88	70-130	10/08/2019 0950
Chlorobenzene	50	46		1	92	70-130	10/08/2019 0950
Chloroethane	50	48		1	96	70-130	10/08/2019 0950
Chloroform	50	47		1	94	70-130	10/08/2019 0950
Chloromethane (Methyl chloride)	50	42		1	85	60-140	10/08/2019 0950
Cyclohexane	50	42		1	84	70-130	10/08/2019 0950
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	10/08/2019 0950
Dibromochloromethane	50	48		1	95	70-130	10/08/2019 0950
1,2-Dibromoethane (EDB)	50	46		1	91	70-130	10/08/2019 0950
1,2-Dichlorobenzene	50	46		1	92	70-130	10/08/2019 0950
1,3-Dichlorobenzene	50	47		1	94	70-130	10/08/2019 0950
1,4-Dichlorobenzene	50	45		1	90	70-130	10/08/2019 0950
Dichlorodifluoromethane	50	35		1	69	60-140	10/08/2019 0950
1,1-Dichloroethane	50	47		1	94	70-130	10/08/2019 0950
1,2-Dichloroethane	50	47		1	94	70-130	10/08/2019 0950
1,1-Dichloroethene	50	49		1	98	70-130	10/08/2019 0950
cis-1,2-Dichloroethene	50	45		1	90	70-130	10/08/2019 0950
trans-1,2-Dichloroethene	50	49		1	98	70-130	10/08/2019 0950
1,2-Dichloropropane	50	47		1	95	70-130	10/08/2019 0950
cis-1,3-Dichloropropene	50	51		1	101	70-130	10/08/2019 0950
trans-1,3-Dichloropropene	50	51		1	102	70-130	10/08/2019 0950
Ethylbenzene	50	49		1	98	70-130	10/08/2019 0950
2-Hexanone	100	97		1	97	70-130	10/08/2019 0950
Isopropylbenzene	50	51		1	102	70-130	10/08/2019 0950
Methyl acetate	50	52		1	104	70-130	10/08/2019 0950
Methyl tertiary butyl ether (MTBE)	50	46		1	93	70-130	10/08/2019 0950
4-Methyl-2-pentanone	100	98		1	98	70-130	10/08/2019 0950
Methylcyclohexane	50	40		1	81	70-130	10/08/2019 0950
Methylene chloride	50	40		1	81	70-130	10/08/2019 0950
Styrene	50	49		1	99	70-130	10/08/2019 0950
1,1,2,2-Tetrachloroethane	50	44		1	89	70-130	10/08/2019 0950
Tetrachloroethene	50	45		1	90	70-130	10/08/2019 0950
Toluene	50	48		1	96	70-130	10/08/2019 0950
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	36		1	72	70-130	10/08/2019 0950
1,2,4-Trichlorobenzene	50	47		1	93	70-130	10/08/2019 0950
1,1,1-Trichloroethane	50	46		1	92	70-130	10/08/2019 0950
1,1,2-Trichloroethane	50	45		1	89	70-130	10/08/2019 0950

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31325-002
Batch: 31325
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	90	70-130	10/08/2019 0950
Trichlorofluoromethane	50	40		1	80	70-130	10/08/2019 0950
Vinyl chloride	50	40		1	79	70-130	10/08/2019 0950
Xylenes (total)	100	100		1	101	70-130	10/08/2019 0950

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31335-001
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/10/2019 1112
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/10/2019 1112
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/10/2019 1112
2,4-Dinitrophenol	ND		1	20	ug/L	10/10/2019 1112
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1112
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/10/2019 1112
2-Chloronaphthalene	ND		1	4.0	ug/L	10/10/2019 1112
2-Chlorophenol	ND		1	4.0	ug/L	10/10/2019 1112
2-Methylnaphthalene	ND		1	0.80	ug/L	10/10/2019 1112
2-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1112
2-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
2-Nitrophenol	ND		1	4.0	ug/L	10/10/2019 1112
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/10/2019 1112
3+4-Methylphenol	ND		1	4.0	ug/L	10/10/2019 1112
3-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/10/2019 1112
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1112
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/10/2019 1112
4-Chloroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/10/2019 1112
4-Nitroaniline	ND		1	8.0	ug/L	10/10/2019 1112
4-Nitrophenol	ND		1	20	ug/L	10/10/2019 1112
Acenaphthene	ND		1	0.80	ug/L	10/10/2019 1112
Acenaphthylene	ND		1	0.80	ug/L	10/10/2019 1112
Acetophenone	ND		1	4.0	ug/L	10/10/2019 1112
Anthracene	ND		1	0.80	ug/L	10/10/2019 1112
Atrazine	ND		1	4.0	ug/L	10/10/2019 1112
Benzaldehyde	ND		1	8.0	ug/L	10/10/2019 1112
Benzo(a)anthracene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(a)pyrene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/10/2019 1112
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/10/2019 1112
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Caprolactam	ND		1	8.0	ug/L	10/10/2019 1112
Carbazole	ND		1	4.0	ug/L	10/10/2019 1112
Chrysene	ND		1	0.80	ug/L	10/10/2019 1112
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/10/2019 1112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31335-001
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/10/2019 1112
Diethylphthalate	ND		1	4.0	ug/L	10/10/2019 1112
Dimethyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/10/2019 1112
Di-n-octylphthalate	ND		1	4.0	ug/L	10/10/2019 1112
Fluoranthene	ND		1	0.80	ug/L	10/10/2019 1112
Fluorene	ND		1	0.80	ug/L	10/10/2019 1112
Hexachlorobenzene	ND		1	4.0	ug/L	10/10/2019 1112
Hexachlorobutadiene	ND		1	4.0	ug/L	10/10/2019 1112
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/10/2019 1112
Hexachloroethane	ND		1	4.0	ug/L	10/10/2019 1112
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/10/2019 1112
Isophorone	ND		1	4.0	ug/L	10/10/2019 1112
Naphthalene	ND		1	0.80	ug/L	10/10/2019 1112
Nitrobenzene	ND		1	4.0	ug/L	10/10/2019 1112
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/10/2019 1112
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/10/2019 1112
Pentachlorophenol	ND		1	20	ug/L	10/10/2019 1112
Phenanthrene	ND		1	0.80	ug/L	10/10/2019 1112
Phenol	ND		1	4.0	ug/L	10/10/2019 1112
Pyrene	ND		1	0.80	ug/L	10/10/2019 1112

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		46	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		52	28-128
Terphenyl-d14		83	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31335-002
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	29		1	72	30-130	10/10/2019 1137
2,4,5-Trichlorophenol	40	33		1	83	30-123	10/10/2019 1137
2,4,6-Trichlorophenol	40	35		1	87	30-130	10/10/2019 1137
2,4-Dichlorophenol	40	31		1	77	30-121	10/10/2019 1137
2,4-Dimethylphenol	40	40		1	100	20-125	10/10/2019 1137
2,4-Dinitrophenol	80	73		1	91	11-126	10/10/2019 1137
2,4-Dinitrotoluene	40	32		1	81	30-130	10/10/2019 1137
2,6-Dinitrotoluene	40	32		1	80	30-130	10/10/2019 1137
2-Chloronaphthalene	40	29		1	72	30-130	10/10/2019 1137
2-Chlorophenol	40	30		1	74	30-130	10/10/2019 1137
2-Methylnaphthalene	40	30		1	76	40-132	10/10/2019 1137
2-Methylphenol	40	32		1	80	30-130	10/10/2019 1137
2-Nitroaniline	40	27		1	69	30-130	10/10/2019 1137
2-Nitrophenol	40	31		1	76	30-130	10/10/2019 1137
3,3'-Dichlorobenzidine	40	23		1	59	10-126	10/10/2019 1137
3+4-Methylphenol	40	33		1	82	30-130	10/10/2019 1137
3-Nitroaniline	40	21		1	52	30-130	10/10/2019 1137
4,6-Dinitro-2-methylphenol	40	38		1	94	30-130	10/10/2019 1137
4-Bromophenyl phenyl ether	40	28		1	70	30-124	10/10/2019 1137
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/10/2019 1137
4-Chloroaniline	40	25		1	64	12-157	10/10/2019 1137
4-Chlorophenyl phenyl ether	40	31		1	78	30-121	10/10/2019 1137
4-Nitroaniline	40	29		1	73	30-135	10/10/2019 1137
4-Nitrophenol	80	43		1	53	30-130	10/10/2019 1137
Acenaphthene	40	28		1	71	30-122	10/10/2019 1137
Acenaphthylene	40	28		1	70	30-130	10/10/2019 1137
Acetophenone	40	33		1	82	30-130	10/10/2019 1137
Anthracene	40	27		1	68	30-123	10/10/2019 1137
Atrazine	40	30		1	75	30-130	10/10/2019 1137
Benzaldehyde	40	22		1	55	20-115	10/10/2019 1137
Benzo(a)anthracene	40	27		1	66	40-125	10/10/2019 1137
Benzo(a)pyrene	40	26		1	65	40-128	10/10/2019 1137
Benzo(b)fluoranthene	40	27		1	66	30-130	10/10/2019 1137
Benzo(g,h,i)perylene	40	29		1	73	30-130	10/10/2019 1137
Benzo(k)fluoranthene	40	26		1	65	30-130	10/10/2019 1137
bis (2-Chloro-1-methylethyl) ether	40	34		1	85	30-130	10/10/2019 1137
bis(2-Chloroethoxy)methane	40	28		1	70	30-130	10/10/2019 1137
bis(2-Chloroethyl)ether	40	32		1	80	30-130	10/10/2019 1137
bis(2-Ethylhexyl)phthalate	40	24		1	59	30-130	10/10/2019 1137
Butyl benzyl phthalate	40	24		1	61	30-130	10/10/2019 1137
Caprolactam	40	32		1	80	30-130	10/10/2019 1137
Carbazole	40	26		1	65	30-130	10/10/2019 1137
Chrysene	40	29		1	72	30-130	10/10/2019 1137
Dibenzo(a,h)anthracene	40	28		1	70	30-130	10/10/2019 1137

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31335-002
Batch: 31335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/08/2019 1635

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	28		1	69	30-118	10/10/2019 1137
Diethylphthalate	40	30		1	75	40-125	10/10/2019 1137
Dimethyl phthalate	40	29		1	73	40-127	10/10/2019 1137
Di-n-butyl phthalate	40	28		1	70	40-127	10/10/2019 1137
Di-n-octylphthalate	40	24		1	60	30-130	10/10/2019 1137
Fluoranthene	40	28		1	70	40-128	10/10/2019 1137
Fluorene	40	28		1	71	30-124	10/10/2019 1137
Hexachlorobenzene	40	29		1	73	30-125	10/10/2019 1137
Hexachlorobutadiene	40	34		1	86	24-110	10/10/2019 1137
Hexachlorocyclopentadiene	200	130		1	67	22-122	10/10/2019 1137
Hexachloroethane	40	28		1	69	30-130	10/10/2019 1137
Indeno(1,2,3-c,d)pyrene	40	28		1	69	30-130	10/10/2019 1137
Isophorone	40	32		1	80	30-130	10/10/2019 1137
Naphthalene	40	30		1	75	30-130	10/10/2019 1137
Nitrobenzene	40	32		1	81	30-130	10/10/2019 1137
N-Nitrosodi-n-propylamine	40	33		1	82	30-130	10/10/2019 1137
N-Nitrosodiphenylamine (Diphenylamine)	40	25		1	63	30-123	10/10/2019 1137
Pentachlorophenol	80	69		1	87	30-130	10/10/2019 1137
Phenanthrene	40	26		1	66	40-123	10/10/2019 1137
Phenol	40	31		1	79	30-130	10/10/2019 1137
Pyrene	40	26		1	64	40-126	10/10/2019 1137

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		69	24-127
Nitrobenzene-d5		84	38-127
Phenol-d5		75	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		82	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099491

Client: WESTINGHOUSE	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: [signature]	Analysis (Attach list if more space is needed)	Page: 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	Printed Name: JAMES LEAPHART / RANDY CREWS	
Project Name: WESTINGHOUSE RI		
Project No.: 60595649	P.O. No.	

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Soil	Non-Aqueous	No of Containers by Preservative Type: Unpres.	HCl	HNO3	H2SO4	NaOH	ZnOAc NaOH	TCL VOC's 8260B	TCL SVOC's 8270D	NITRATES	Remarks / Cooler I.D.
W-6	10-7-19	0980	G	X			3			3			X	X	X	
W-22		1045	G	X			3			3			X	X	X	
W-18R		1226	G	X			3			3			X	X	X	
W-79		1400	G	X			3			3			X	X	X	
W-30		1009	G	X			3			3			X	X	X	
W-29		1253	G	X			3			3			X	X	X	
W-28		1443	G	X			3			3			X	X	X	
TB-02-100719		—		X						2			X			

IJJ07036
GRN

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature]	10-7-19	1551	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: [signature]	10/7/19	1551

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle): (Yes) No Ice Pack Receipt Temp: 2.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME00018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: BMG / 10/07/19 Lot #: CJ07036

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.7 / 2.7 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: 10/07/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ08070**

Date Completed:10/15/2019

10/17/2019 11:38 AM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ08070

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Volatile Organic Analysis – Method 8260B
The laboratory control sample (LCS) associated with batch 31435 had 1,1-Dichloroethene recovered marginally outside of the acceptance limits. Due to the large number of analytes in the LCS, there is a high statistical probability of a few analytes outside of control limits. Per SW-846 Update V 8000D- 23 Revision 4 July 2014, a number of analytes should be allowed to marginally fail the limits without requirement for corrective action. The laboratory's SOP allows for 10% of analytes to recover marginally outside criteria.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ08070

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-82	Aqueous	10/08/2019 0945	10/08/2019
002	W-83	Aqueous	10/08/2019 1155	10/08/2019
003	W-32	Aqueous	10/08/2019 1335	10/08/2019
004	W-11	Aqueous	10/08/2019 1445	10/08/2019
005	W-81	Aqueous	10/08/2019 0946	10/08/2019
006	W-84	Aqueous	10/08/2019 1219	10/08/2019
007	W-13R	Aqueous	10/08/2019 1409	10/08/2019
008	EB-01-100819	Aqueous	10/08/2019 1100	10/08/2019
009	TB-01-100819	Aqueous	10/08/2019	10/08/2019

(9 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ08070

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-82	Aqueous	Nitrate - N	353.2	0.99		mg/L	5
002	W-83	Aqueous	Nitrate - N	353.2	0.76		mg/L	10
002	W-83	Aqueous	Carbon disulfide	8260B	2.1		ug/L	11
002	W-83	Aqueous	Chloroform	8260B	1.3		ug/L	11
003	W-32	Aqueous	Nitrate - N	353.2	170		mg/L	15
003	W-32	Aqueous	Tetrachloroethene	8260B	1.4		ug/L	16
004	W-11	Aqueous	Nitrate - N	353.2	56		mg/L	20
004	W-11	Aqueous	Chloroform	8260B	1.1		ug/L	21
004	W-11	Aqueous	Tetrachloroethene	8260B	1.4		ug/L	21
005	W-81	Aqueous	Nitrate - N	353.2	3.1		mg/L	25
007	W-13R	Aqueous	Nitrate - N	353.2	18		mg/L	35
007	W-13R	Aqueous	Tetrachloroethene	8260B	15		ug/L	36
007	W-13R	Aqueous	Trichloroethene	8260B	1.4		ug/L	37

(13 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-001
Description: W-82
Matrix: Aqueous
Date Sampled: 10/08/2019 0945
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/09/2019 0952	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.99		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-001
Description: W-82 | Matrix: Aqueous
Date Sampled:10/08/2019 0945 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1206	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-001
Description: W-82
Matrix: Aqueous
Date Sampled: 10/08/2019 0945
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1206	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-001
Description: W-82 | Matrix: Aqueous
Date Sampled:10/08/2019 0945 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1512	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-001
Description: W-82 | Matrix: Aqueous
Date Sampled:10/08/2019 0945 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1512	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		63	37-129
2-Fluorophenol		37	24-127
Nitrobenzene-d5		57	38-127
Phenol-d5		45	28-128
Terphenyl-d14		70	10-148
2,4,6-Tribromophenol		56	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
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H = Out of holding time
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-002
Description: W-83
Matrix: Aqueous
Date Sampled: 10/08/2019 1155
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/09/2019 0953	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.76		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-002
Description: W-83 | Matrix: Aqueous
Date Sampled:10/08/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1231	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	2.1		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	1.3		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-002
Description: W-83 | Matrix: Aqueous
Date Sampled: 10/08/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1231	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-002
Description: W-83 | Matrix: Aqueous
Date Sampled:10/08/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1536	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-002
Description: W-83 | Matrix: Aqueous
Date Sampled:10/08/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1536	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		61	37-129
2-Fluorophenol		37	24-127
Nitrobenzene-d5		57	38-127
Phenol-d5		42	28-128
Terphenyl-d14		71	10-148
2,4,6-Tribromophenol		52	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-003
Description: W-32
Matrix: Aqueous
Date Sampled: 10/08/2019 1335
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	100	10/09/2019 0954	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	170		2.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-003
Description: W-32 | Matrix: Aqueous
Date Sampled:10/08/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1254	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.4		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-003
Description: W-32 | Matrix: Aqueous
Date Sampled: 10/08/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1254	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-003
Description: W-32 | Matrix: Aqueous
Date Sampled:10/08/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1600	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-003
Description: W-32 | Matrix: Aqueous
Date Sampled:10/08/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1600	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		61	37-129
2-Fluorophenol		37	24-127
Nitrobenzene-d5		57	38-127
Phenol-d5		47	28-128
Terphenyl-d14		71	10-148
2,4,6-Tribromophenol		52	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-004
Description: W-11
Matrix: Aqueous
Date Sampled: 10/08/2019 1445
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	50	10/09/2019 0956	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	56		1.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-004
Description: W-11 | Matrix: Aqueous
Date Sampled:10/08/2019 1445 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1318	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	1.1		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.4		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-004
Description: W-11 | Matrix: Aqueous
Date Sampled: 10/08/2019 1445 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1318	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-004
Description: W-11 | Matrix: Aqueous
Date Sampled:10/08/2019 1445 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1624	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-004
Description: W-11 | Matrix: Aqueous
Date Sampled:10/08/2019 1445 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1624	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		61	37-129
2-Fluorophenol		36	24-127
Nitrobenzene-d5		59	38-127
Phenol-d5		41	28-128
Terphenyl-d14		70	10-148
2,4,6-Tribromophenol		51	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-005
Description: W-81
Matrix: Aqueous
Date Sampled: 10/08/2019 0946
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/09/2019 1009	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.1		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-005
Description: W-81 | Matrix: Aqueous
Date Sampled: 10/08/2019 0946 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1342	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-005
Description: W-81 | Matrix: Aqueous
Date Sampled: 10/08/2019 0946 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1342	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-005
Description: W-81 | Matrix: Aqueous
Date Sampled:10/08/2019 0946 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1649	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-005
Description: W-81 | Matrix: Aqueous
Date Sampled:10/08/2019 0946 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1649	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		63	37-129
2-Fluorophenol		34	24-127
Nitrobenzene-d5		58	38-127
Phenol-d5		42	28-128
Terphenyl-d14		75	10-148
2,4,6-Tribromophenol		58	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-006
Description: W-84
Matrix: Aqueous
Date Sampled:10/08/2019 1219
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/09/2019 0958	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-006
Description: W-84 | Matrix: Aqueous
Date Sampled:10/08/2019 1219 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1406	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-006
Description: W-84 | Matrix: Aqueous
Date Sampled: 10/08/2019 1219 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1406	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-006
Description: W-84 | Matrix: Aqueous
Date Sampled:10/08/2019 1219 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1713	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-006
Description: W-84 | Matrix: Aqueous
Date Sampled:10/08/2019 1219 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1713	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		62	37-129
2-Fluorophenol		30	24-127
Nitrobenzene-d5		61	38-127
Phenol-d5		46	28-128
Terphenyl-d14		70	10-148
2,4,6-Tribromophenol		54	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-007
Description: W-13R
Matrix: Aqueous
Date Sampled:10/08/2019 1409
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/09/2019 1014	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	18		0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-007
Description: W-13R | Matrix: Aqueous
Date Sampled:10/08/2019 1409 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1430	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	15		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-007
Description: W-13R | Matrix: Aqueous
Date Sampled: 10/08/2019 1409 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1430	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	1.4		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-007

Description: W-13R | Matrix: Aqueous

Date Sampled:10/08/2019 1409 | Project Name: Westinghouse RI

Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/14/2019 1414	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-007
Description: W-13R | Matrix: Aqueous
Date Sampled:10/08/2019 1409 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/14/2019 1414	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		94	37-129
2-Fluorophenol		45	24-127
Nitrobenzene-d5		79	38-127
Phenol-d5		33	28-128
Terphenyl-d14		122	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-008
Description: EB-01-100819
Matrix: Aqueous
Date Sampled: 10/08/2019 1100
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/09/2019 1008	MSG		31416

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-008
Description: EB-01-100819
Matrix: Aqueous
Date Sampled:10/08/2019 1100
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1119	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ08070-008
Description: EB-01-100819
Matrix: Aqueous
Date Sampled:10/08/2019 1100
Project Name: Westinghouse RI
Date Received: 10/08/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1119	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-008
Description: EB-01-100819 | Matrix: Aqueous
Date Sampled: 10/08/2019 1100 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1801	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-008
Description: EB-01-100819 | Matrix: Aqueous
Date Sampled: 10/08/2019 1100 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1801	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		60	37-129
2-Fluorophenol		38	24-127
Nitrobenzene-d5		58	38-127
Phenol-d5		45	28-128
Terphenyl-d14		67	10-148
2,4,6-Tribromophenol		49	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-009
Description: TB-01-100819 | Matrix: Aqueous
Date Sampled:10/08/2019 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1142	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ08070-009
Description: TB-01-100819 | Matrix: Aqueous
Date Sampled:10/08/2019 | Project Name: Westinghouse RI
Date Received: 10/08/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 1142	TML		31435

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31416-001
Batch: 31416
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/09/2019 0949

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31416-002
Batch: 31416
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	97	90-110	10/09/2019 0950

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ08070-006MS
Batch: 31416
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	0.82		1	102	90-110	10/09/2019 1000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ08070-006MD
Batch: 31416
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	0.76		1	95	7.0	90-110	20	10/09/2019 1005

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31435-001
Batch: 31435
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/09/2019 1011
Benzene	ND		1	1.0	ug/L	10/09/2019 1011
Bromodichloromethane	ND		1	1.0	ug/L	10/09/2019 1011
Bromoform	ND		1	1.0	ug/L	10/09/2019 1011
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/09/2019 1011
2-Butanone (MEK)	ND		1	10	ug/L	10/09/2019 1011
Carbon disulfide	ND		1	1.0	ug/L	10/09/2019 1011
Carbon tetrachloride	ND		1	1.0	ug/L	10/09/2019 1011
Chlorobenzene	ND		1	1.0	ug/L	10/09/2019 1011
Chloroethane	ND		1	2.0	ug/L	10/09/2019 1011
Chloroform	ND		1	1.0	ug/L	10/09/2019 1011
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/09/2019 1011
Cyclohexane	ND		1	1.0	ug/L	10/09/2019 1011
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/09/2019 1011
Dibromochloromethane	ND		1	1.0	ug/L	10/09/2019 1011
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/09/2019 1011
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/09/2019 1011
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/09/2019 1011
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/09/2019 1011
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/09/2019 1011
1,1-Dichloroethane	ND		1	1.0	ug/L	10/09/2019 1011
1,2-Dichloroethane	ND		1	1.0	ug/L	10/09/2019 1011
1,1-Dichloroethene	ND		1	1.0	ug/L	10/09/2019 1011
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/09/2019 1011
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/09/2019 1011
1,2-Dichloropropane	ND		1	1.0	ug/L	10/09/2019 1011
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/09/2019 1011
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/09/2019 1011
Ethylbenzene	ND		1	1.0	ug/L	10/09/2019 1011
2-Hexanone	ND		1	10	ug/L	10/09/2019 1011
Isopropylbenzene	ND		1	1.0	ug/L	10/09/2019 1011
Methyl acetate	ND		1	1.0	ug/L	10/09/2019 1011
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/09/2019 1011
4-Methyl-2-pentanone	ND		1	10	ug/L	10/09/2019 1011
Methylcyclohexane	ND		1	5.0	ug/L	10/09/2019 1011
Methylene chloride	ND		1	1.0	ug/L	10/09/2019 1011
Styrene	ND		1	1.0	ug/L	10/09/2019 1011
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/09/2019 1011
Tetrachloroethene	ND		1	1.0	ug/L	10/09/2019 1011
Toluene	ND		1	1.0	ug/L	10/09/2019 1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/09/2019 1011
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/09/2019 1011
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/09/2019 1011
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/09/2019 1011

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31435-001
Batch: 31435
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/09/2019 1011
Trichlorofluoromethane	ND		1	1.0	ug/L	10/09/2019 1011
Vinyl chloride	ND		1	1.0	ug/L	10/09/2019 1011
Xylenes (total)	ND		1	1.0	ug/L	10/09/2019 1011

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31435-002
Batch: 31435
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	96		1	96	60-140	10/09/2019 0907
Benzene	50	52		1	104	70-130	10/09/2019 0907
Bromodichloromethane	50	54		1	108	70-130	10/09/2019 0907
Bromoform	50	56		1	113	70-130	10/09/2019 0907
Bromomethane (Methyl bromide)	50	53		1	105	70-130	10/09/2019 0907
2-Butanone (MEK)	100	94		1	94	70-130	10/09/2019 0907
Carbon disulfide	50	59		1	118	70-130	10/09/2019 0907
Carbon tetrachloride	50	55		1	111	70-130	10/09/2019 0907
Chlorobenzene	50	51		1	102	70-130	10/09/2019 0907
Chloroethane	50	57		1	113	70-130	10/09/2019 0907
Chloroform	50	53		1	107	70-130	10/09/2019 0907
Chloromethane (Methyl chloride)	50	49		1	99	60-140	10/09/2019 0907
Cyclohexane	50	61		1	122	70-130	10/09/2019 0907
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	104	70-130	10/09/2019 0907
Dibromochloromethane	50	55		1	110	70-130	10/09/2019 0907
1,2-Dibromoethane (EDB)	50	50		1	101	70-130	10/09/2019 0907
1,2-Dichlorobenzene	50	51		1	101	70-130	10/09/2019 0907
1,3-Dichlorobenzene	50	51		1	102	70-130	10/09/2019 0907
1,4-Dichlorobenzene	50	50		1	100	70-130	10/09/2019 0907
Dichlorodifluoromethane	50	53		1	106	60-140	10/09/2019 0907
1,1-Dichloroethane	50	53		1	106	70-130	10/09/2019 0907
1,2-Dichloroethane	50	49		1	99	70-130	10/09/2019 0907
1,1-Dichloroethene	50	67	N	1	134	70-130	10/09/2019 0907
cis-1,2-Dichloroethene	50	52		1	104	70-130	10/09/2019 0907
trans-1,2-Dichloroethene	50	58		1	116	70-130	10/09/2019 0907
1,2-Dichloropropane	50	51		1	102	70-130	10/09/2019 0907
cis-1,3-Dichloropropene	50	57		1	114	70-130	10/09/2019 0907
trans-1,3-Dichloropropene	50	56		1	113	70-130	10/09/2019 0907
Ethylbenzene	50	52		1	105	70-130	10/09/2019 0907
2-Hexanone	100	99		1	99	70-130	10/09/2019 0907
Isopropylbenzene	50	54		1	107	70-130	10/09/2019 0907
Methyl acetate	50	56		1	113	70-130	10/09/2019 0907
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	10/09/2019 0907
4-Methyl-2-pentanone	100	96		1	96	70-130	10/09/2019 0907
Methylcyclohexane	50	57		1	113	70-130	10/09/2019 0907
Methylene chloride	50	55		1	109	70-130	10/09/2019 0907
Styrene	50	54		1	107	70-130	10/09/2019 0907
1,1,2,2-Tetrachloroethane	50	49		1	97	70-130	10/09/2019 0907
Tetrachloroethene	50	53		1	107	70-130	10/09/2019 0907
Toluene	50	51		1	103	70-130	10/09/2019 0907
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	58		1	116	70-130	10/09/2019 0907
1,2,4-Trichlorobenzene	50	52		1	105	70-130	10/09/2019 0907
1,1,1-Trichloroethane	50	54		1	108	70-130	10/09/2019 0907
1,1,2-Trichloroethane	50	49		1	98	70-130	10/09/2019 0907

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31435-002
Batch: 31435
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	106	70-130	10/09/2019 0907
Trichlorofluoromethane	50	56		1	113	70-130	10/09/2019 0907
Vinyl chloride	50	51		1	102	70-130	10/09/2019 0907
Xylenes (total)	100	100		1	105	70-130	10/09/2019 0907

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31654-001
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/12/2019 1359
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/12/2019 1359
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/12/2019 1359
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/12/2019 1359
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/12/2019 1359
2,4-Dinitrophenol	ND		1	20	ug/L	10/12/2019 1359
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/12/2019 1359
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/12/2019 1359
2-Chloronaphthalene	ND		1	4.0	ug/L	10/12/2019 1359
2-Chlorophenol	ND		1	4.0	ug/L	10/12/2019 1359
2-Methylnaphthalene	ND		1	0.80	ug/L	10/12/2019 1359
2-Methylphenol	ND		1	4.0	ug/L	10/12/2019 1359
2-Nitroaniline	ND		1	8.0	ug/L	10/12/2019 1359
2-Nitrophenol	ND		1	4.0	ug/L	10/12/2019 1359
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/12/2019 1359
3+4-Methylphenol	ND		1	4.0	ug/L	10/12/2019 1359
3-Nitroaniline	ND		1	8.0	ug/L	10/12/2019 1359
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/12/2019 1359
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/12/2019 1359
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/12/2019 1359
4-Chloroaniline	ND		1	8.0	ug/L	10/12/2019 1359
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/12/2019 1359
4-Nitroaniline	ND		1	8.0	ug/L	10/12/2019 1359
4-Nitrophenol	ND		1	20	ug/L	10/12/2019 1359
Acenaphthene	ND		1	0.80	ug/L	10/12/2019 1359
Acenaphthylene	ND		1	0.80	ug/L	10/12/2019 1359
Acetophenone	ND		1	4.0	ug/L	10/12/2019 1359
Anthracene	ND		1	0.80	ug/L	10/12/2019 1359
Atrazine	ND		1	4.0	ug/L	10/12/2019 1359
Benzaldehyde	ND		1	8.0	ug/L	10/12/2019 1359
Benzo(a)anthracene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(a)pyrene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/12/2019 1359
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/12/2019 1359
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/12/2019 1359
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/12/2019 1359
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Caprolactam	ND		1	8.0	ug/L	10/12/2019 1359
Carbazole	ND		1	4.0	ug/L	10/12/2019 1359
Chrysene	ND		1	0.80	ug/L	10/12/2019 1359
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/12/2019 1359

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31654-001
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/12/2019 1359
Diethylphthalate	ND		1	4.0	ug/L	10/12/2019 1359
Dimethyl phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Di-n-octylphthalate	ND		1	4.0	ug/L	10/12/2019 1359
Fluoranthene	ND		1	0.80	ug/L	10/12/2019 1359
Fluorene	ND		1	0.80	ug/L	10/12/2019 1359
Hexachlorobenzene	ND		1	4.0	ug/L	10/12/2019 1359
Hexachlorobutadiene	ND		1	4.0	ug/L	10/12/2019 1359
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/12/2019 1359
Hexachloroethane	ND		1	4.0	ug/L	10/12/2019 1359
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/12/2019 1359
Isophorone	ND		1	4.0	ug/L	10/12/2019 1359
Naphthalene	ND		1	0.80	ug/L	10/12/2019 1359
Nitrobenzene	ND		1	4.0	ug/L	10/12/2019 1359
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/12/2019 1359
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/12/2019 1359
Pentachlorophenol	ND		1	20	ug/L	10/12/2019 1359
Phenanthrene	ND		1	0.80	ug/L	10/12/2019 1359
Phenol	ND		1	4.0	ug/L	10/12/2019 1359
Pyrene	ND		1	0.80	ug/L	10/12/2019 1359

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		62	37-129
2-Fluorophenol		35	24-127
Nitrobenzene-d5		58	38-127
Phenol-d5		46	28-128
Terphenyl-d14		70	10-148
2,4,6-Tribromophenol		53	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31654-002
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	27		1	69	30-130	10/12/2019 1423
2,4,5-Trichlorophenol	40	26		1	65	30-123	10/12/2019 1423
2,4,6-Trichlorophenol	40	27		1	67	30-130	10/12/2019 1423
2,4-Dichlorophenol	40	28		1	69	30-121	10/12/2019 1423
2,4-Dimethylphenol	40	34		1	85	20-125	10/12/2019 1423
2,4-Dinitrophenol	80	49		1	61	11-126	10/12/2019 1423
2,4-Dinitrotoluene	40	29		1	71	30-130	10/12/2019 1423
2,6-Dinitrotoluene	40	28		1	69	30-130	10/12/2019 1423
2-Chloronaphthalene	40	27		1	68	30-130	10/12/2019 1423
2-Chlorophenol	40	27		1	67	30-130	10/12/2019 1423
2-Methylnaphthalene	40	28		1	70	40-132	10/12/2019 1423
2-Methylphenol	40	29		1	72	30-130	10/12/2019 1423
2-Nitroaniline	40	27		1	69	30-130	10/12/2019 1423
2-Nitrophenol	40	29		1	72	30-130	10/12/2019 1423
3,3'-Dichlorobenzidine	40	21		1	51	10-126	10/12/2019 1423
3+4-Methylphenol	40	25		1	64	30-130	10/12/2019 1423
3-Nitroaniline	40	22		1	54	30-130	10/12/2019 1423
4,6-Dinitro-2-methylphenol	40	27		1	68	30-130	10/12/2019 1423
4-Bromophenyl phenyl ether	40	25		1	63	30-124	10/12/2019 1423
4-Chloro-3-methyl phenol	40	29		1	74	30-123	10/12/2019 1423
4-Chloroaniline	40	34		1	84	12-157	10/12/2019 1423
4-Chlorophenyl phenyl ether	40	26		1	65	30-121	10/12/2019 1423
4-Nitroaniline	40	25		1	64	30-135	10/12/2019 1423
4-Nitrophenol	80	54		1	68	30-130	10/12/2019 1423
Acenaphthene	40	27		1	68	30-122	10/12/2019 1423
Acenaphthylene	40	28		1	70	30-130	10/12/2019 1423
Acetophenone	40	26		1	65	30-130	10/12/2019 1423
Anthracene	40	28		1	69	30-123	10/12/2019 1423
Atrazine	40	28		1	69	30-130	10/12/2019 1423
Benzaldehyde	40	16		1	39	20-115	10/12/2019 1423
Benzo(a)anthracene	40	26		1	65	40-125	10/12/2019 1423
Benzo(a)pyrene	40	26		1	65	40-128	10/12/2019 1423
Benzo(b)fluoranthene	40	26		1	65	30-130	10/12/2019 1423
Benzo(g,h,i)perylene	40	28		1	71	30-130	10/12/2019 1423
Benzo(k)fluoranthene	40	26		1	64	30-130	10/12/2019 1423
bis (2-Chloro-1-methylethyl) ether	40	26		1	65	30-130	10/12/2019 1423
bis(2-Chloroethoxy)methane	40	29		1	73	30-130	10/12/2019 1423
bis(2-Chloroethyl)ether	40	27		1	68	30-130	10/12/2019 1423
bis(2-Ethylhexyl)phthalate	40	27		1	67	30-130	10/12/2019 1423
Butyl benzyl phthalate	40	27		1	67	30-130	10/12/2019 1423
Caprolactam	40	30		1	75	30-130	10/12/2019 1423
Carbazole	40	27		1	68	30-130	10/12/2019 1423
Chrysene	40	26		1	65	30-130	10/12/2019 1423
Dibenzo(a,h)anthracene	40	28		1	71	30-130	10/12/2019 1423

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31654-002
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	26		1	66	30-118	10/12/2019 1423
Diethylphthalate	40	29		1	71	40-125	10/12/2019 1423
Dimethyl phthalate	40	28		1	70	40-127	10/12/2019 1423
Di-n-butyl phthalate	40	29		1	73	40-127	10/12/2019 1423
Di-n-octylphthalate	40	25		1	63	30-130	10/12/2019 1423
Fluoranthene	40	27		1	67	40-128	10/12/2019 1423
Fluorene	40	27		1	66	30-124	10/12/2019 1423
Hexachlorobenzene	40	26		1	65	30-125	10/12/2019 1423
Hexachlorobutadiene	40	26		1	66	24-110	10/12/2019 1423
Hexachlorocyclopentadiene	200	100		1	52	22-122	10/12/2019 1423
Hexachloroethane	40	26		1	64	30-130	10/12/2019 1423
Indeno(1,2,3-c,d)pyrene	40	27		1	69	30-130	10/12/2019 1423
Isophorone	40	30		1	74	30-130	10/12/2019 1423
Naphthalene	40	29		1	73	30-130	10/12/2019 1423
Nitrobenzene	40	28		1	71	30-130	10/12/2019 1423
N-Nitrosodi-n-propylamine	40	26		1	66	30-130	10/12/2019 1423
N-Nitrosodiphenylamine (Diphenylamine)	40	27		1	68	30-123	10/12/2019 1423
Pentachlorophenol	80	45		1	56	30-130	10/12/2019 1423
Phenanthrene	40	26		1	66	40-123	10/12/2019 1423
Phenol	40	26		1	65	30-130	10/12/2019 1423
Pyrene	40	27		1	68	40-126	10/12/2019 1423

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		67	37-129
2-Fluorophenol		62	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		62	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		64	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 099490

Client: WESTINGHOUSE	Report to Contact: DIANNA JOYNER	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD.	Sampler's Signature:	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	Printed Name: JAMES LEIGHTON, RANDY CREWS	UJ08070 GRW
Project Name: WESTINGHOUSE RI			
Project No.: 60595649	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Matrix: Aqueous	Soil	Wipe/Air/Other	No. of Containers by Preservative Type: Unpres.	HNO3	MeOH	HCl	NaOH	ZnAc/NaOH	TCL VOCs 8260B	TCL SVOCs 8270D	Nitrates 353.2
W-82	10-8-19	0945	G	X			3			3			X	X	X
W-83		1155	G	X			3			3			X	X	X
W-32		1335	G	X			3			3			X	X	X
W-11		1445	G	X			3			3			X	X	X
W-81		0946	G	X			3			3			X	X	X
W-84		1219	G	X			3			3			X	X	X
W-13R		1409	G	X			3			3			X	X	X
EB-01-100819		1100	G	X			3			3			X	X	X
TB-01-100819		—		X			2			2			X		
							(JV)								

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☑ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	10-8-19	1646	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	10/8/19	1646

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack Receipt Temp 4.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-135 Effective Date: 06-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: JSH / 10/08/19 Lot #: UJ08070

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

4.0 / 4.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☐ Yes	☑ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 10/08/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ09050**

Date Completed:10/18/2019

10/18/2019 4:41 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ09050

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ09050

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-74	Aqueous	10/09/2019 0915	10/09/2019
002	W-75	Aqueous	10/09/2019 1025	10/09/2019
003	W-10	Aqueous	10/09/2019 1155	10/09/2019
004	W-10-DUP	Aqueous	10/09/2019 1155	10/09/2019
005	W-7A	Aqueous	10/09/2019 1400	10/09/2019
006	TB-01-100919	Aqueous	10/09/2019	10/09/2019

(6 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ09050

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-74	Aqueous	Nitrate - N	353.2	4.9		mg/L	6
001	W-74	Aqueous	cis-1,2-Dichloroethene	8260B	1.9		ug/L	7
001	W-74	Aqueous	Tetrachloroethene	8260B	19		ug/L	7
001	W-74	Aqueous	Trichloroethene	8260B	4.5		ug/L	8
002	W-75	Aqueous	Nitrate - N	353.2	0.063		mg/L	11
002	W-75	Aqueous	Benzene	8260B	1.2		ug/L	12
003	W-10	Aqueous	Nitrate - N	353.2	37		mg/L	16
004	W-10-DUP	Aqueous	Nitrate - N	353.2	37		mg/L	21
005	W-7A	Aqueous	Nitrate - N	353.2	390		mg/L	26
005	W-7A	Aqueous	Tetrachloroethene	8260B	1.9		ug/L	27

(10 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ09050-001
Description: W-74
Matrix: Aqueous
Date Sampled: 10/09/2019 0915
Project Name: Westinghouse RI
Date Received: 10/09/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/10/2019 1247	MSG		31667

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.9		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-001
Description: W-74 | Matrix: Aqueous
Date Sampled:10/09/2019 0915 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0048	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.9		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	19		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-001
Description: W-74 | Matrix: Aqueous
Date Sampled: 10/09/2019 0915 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0048	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	4.5		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-001
Description: W-74 | Matrix: Aqueous
Date Sampled:10/09/2019 0915 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	10/18/2019 1256	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	2
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	2
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	2
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	2
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	2
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	2
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	2
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	2
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	2
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	2
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	2
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	2
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	2
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	2
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	2
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	2
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	2
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	2
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	2
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	2
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	2
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	2
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	2
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	2
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	2
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	2
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	2
Anthracene	120-12-7	8270D	ND		0.80	ug/L	2
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	2
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	2
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	2
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	2
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	2
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	2
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	2
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	2
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	2
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	2
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	2
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	2
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	2
Carbazole	86-74-8	8270D	ND		4.0	ug/L	2
Chrysene	218-01-9	8270D	ND		0.80	ug/L	2
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-001
Description: W-74 | Matrix: Aqueous
Date Sampled:10/09/2019 0915 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	10/18/2019 1256	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	2
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	2
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	2
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	2
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	2
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	2
Fluorene	86-73-7	8270D	ND		0.80	ug/L	2
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	2
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	2
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	2
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	2
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	2
Isophorone	78-59-1	8270D	ND		4.0	ug/L	2
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	2
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	2
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	2
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	2
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	2
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	2
Phenol	108-95-2	8270D	ND		4.0	ug/L	2
Pyrene	129-00-0	8270D	ND		0.80	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		44	24-127
Nitrobenzene-d5		77	38-127
Phenol-d5		39	28-128
Terphenyl-d14		107	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ09050-002
Description: W-75
Matrix: Aqueous
Date Sampled: 10/09/2019 1025
Project Name: Westinghouse RI
Date Received: 10/09/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/10/2019 1249	MSG		31667

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.063		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-002
Description: W-75 | Matrix: Aqueous
Date Sampled:10/09/2019 1025 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0111	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	1.2		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-002
Description: W-75 | Matrix: Aqueous
Date Sampled: 10/09/2019 1025 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0111	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-002
Description: W-75 | Matrix: Aqueous
Date Sampled:10/09/2019 1025 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1850	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-002
Description: W-75 | Matrix: Aqueous
Date Sampled:10/09/2019 1025 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1850	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		61	37-129
2-Fluorophenol		38	24-127
Nitrobenzene-d5		58	38-127
Phenol-d5		45	28-128
Terphenyl-d14		68	10-148
2,4,6-Tribromophenol		50	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ09050-003
Description: W-10
Matrix: Aqueous
Date Sampled: 10/09/2019 1155
Project Name: Westinghouse RI
Date Received: 10/09/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	25	10/10/2019 1250	MSG		31667

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	37		0.50	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-003
Description: W-10 | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0134	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-003
Description: W-10 | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0134	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-003
Description: W-10 | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1914	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-003
Description: W-10 | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/12/2019 1914	SCD	10/10/2019 1655	31654

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		60	37-129
2-Fluorophenol		25	24-127
Nitrobenzene-d5		59	38-127
Phenol-d5		40	28-128
Terphenyl-d14		68	10-148
2,4,6-Tribromophenol		52	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ09050-004
Description: W-10-DUP
Matrix: Aqueous
Date Sampled:10/09/2019 1155
Project Name: Westinghouse RI
Date Received: 10/09/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	25	10/10/2019 1251	MSG		31667

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	37		0.50	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-004
Description: W-10-DUP | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0157	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-004
Description: W-10-DUP | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0157	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-004
Description: W-10-DUP | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	10/18/2019 1321	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	2
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	2
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	2
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	2
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	2
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	2
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	2
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	2
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	2
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	2
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	2
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	2
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	2
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	2
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	2
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	2
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	2
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	2
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	2
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	2
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	2
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	2
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	2
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	2
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	2
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	2
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	2
Anthracene	120-12-7	8270D	ND		0.80	ug/L	2
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	2
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	2
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	2
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	2
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	2
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	2
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	2
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	2
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	2
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	2
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	2
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	2
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	2
Carbazole	86-74-8	8270D	ND		4.0	ug/L	2
Chrysene	218-01-9	8270D	ND		0.80	ug/L	2
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	2

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-004
Description: W-10-DUP | Matrix: Aqueous
Date Sampled:10/09/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	10/18/2019 1321	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	2
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	2
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	2
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	2
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	2
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	2
Fluorene	86-73-7	8270D	ND		0.80	ug/L	2
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	2
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	2
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	2
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	2
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	2
Isophorone	78-59-1	8270D	ND		4.0	ug/L	2
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	2
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	2
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	2
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	2
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	2
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	2
Phenol	108-95-2	8270D	ND		4.0	ug/L	2
Pyrene	129-00-0	8270D	ND		0.80	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
2-Fluorobiphenyl		81	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		80	38-127
Phenol-d5		46	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		65	35-144

LOQ = Limit of Quantitation
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H = Out of holding time
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ09050-005
Description: W-7A
Matrix: Aqueous
Date Sampled: 10/09/2019 1400
Project Name: Westinghouse RI
Date Received: 10/09/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	200	10/10/2019 1307	MSG		31667

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	390		4.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-005
Description: W-7A | Matrix: Aqueous
Date Sampled:10/09/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0220	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.9		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-005
Description: W-7A | Matrix: Aqueous
Date Sampled: 10/09/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/10/2019 0220	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-005
Description: W-7A | Matrix: Aqueous
Date Sampled:10/09/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	10/18/2019 1345	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	2
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	2
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	2
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	2
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	2
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	2
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	2
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	2
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	2
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	2
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	2
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	2
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	2
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	2
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	2
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	2
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	2
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	2
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	2
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	2
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	2
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	2
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	2
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	2
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	2
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	2
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	2
Anthracene	120-12-7	8270D	ND		0.80	ug/L	2
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	2
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	2
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	2
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	2
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	2
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	2
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	2
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	2
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	2
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	2
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	2
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	2
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	2
Carbazole	86-74-8	8270D	ND		4.0	ug/L	2
Chrysene	218-01-9	8270D	ND		0.80	ug/L	2
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-005
Description: W-7A | Matrix: Aqueous
Date Sampled:10/09/2019 1400 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	3520C	8270D	1	10/18/2019 1345	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	2
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	2
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	2
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	2
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	2
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	2
Fluorene	86-73-7	8270D	ND		0.80	ug/L	2
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	2
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	2
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	2
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	2
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	2
Isophorone	78-59-1	8270D	ND		4.0	ug/L	2
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	2
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	2
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	2
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	2
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	2
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	2
Phenol	108-95-2	8270D	ND		4.0	ug/L	2
Pyrene	129-00-0	8270D	ND		0.80	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		65	24-127
Nitrobenzene-d5		78	38-127
Phenol-d5		55	28-128
Terphenyl-d14		108	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ09050-006
Description: TB-01-100919 | Matrix: Aqueous
Date Sampled:10/09/2019 | Project Name: Westinghouse RI
Date Received: 10/09/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 2338	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company	Laboratory ID: UJ09050-006
Description: TB-01-100919	Matrix: Aqueous
Date Sampled:10/09/2019	Project Name: Westinghouse RI
Date Received: 10/09/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/09/2019 2338	STM		31548

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31667-001
Batch: 31667
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/10/2019 1243

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31667-002
Batch: 31667
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	10/10/2019 1244

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31548-001
Batch: 31548
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/09/2019 2233
Benzene	ND		1	1.0	ug/L	10/09/2019 2233
Bromodichloromethane	ND		1	1.0	ug/L	10/09/2019 2233
Bromoform	ND		1	1.0	ug/L	10/09/2019 2233
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/09/2019 2233
2-Butanone (MEK)	ND		1	10	ug/L	10/09/2019 2233
Carbon disulfide	ND		1	1.0	ug/L	10/09/2019 2233
Carbon tetrachloride	ND		1	1.0	ug/L	10/09/2019 2233
Chlorobenzene	ND		1	1.0	ug/L	10/09/2019 2233
Chloroethane	ND		1	2.0	ug/L	10/09/2019 2233
Chloroform	ND		1	1.0	ug/L	10/09/2019 2233
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/09/2019 2233
Cyclohexane	ND		1	1.0	ug/L	10/09/2019 2233
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/09/2019 2233
Dibromochloromethane	ND		1	1.0	ug/L	10/09/2019 2233
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/09/2019 2233
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/09/2019 2233
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/09/2019 2233
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/09/2019 2233
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/09/2019 2233
1,1-Dichloroethane	ND		1	1.0	ug/L	10/09/2019 2233
1,2-Dichloroethane	ND		1	1.0	ug/L	10/09/2019 2233
1,1-Dichloroethene	ND		1	1.0	ug/L	10/09/2019 2233
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/09/2019 2233
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/09/2019 2233
1,2-Dichloropropane	ND		1	1.0	ug/L	10/09/2019 2233
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/09/2019 2233
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/09/2019 2233
Ethylbenzene	ND		1	1.0	ug/L	10/09/2019 2233
2-Hexanone	ND		1	10	ug/L	10/09/2019 2233
Isopropylbenzene	ND		1	1.0	ug/L	10/09/2019 2233
Methyl acetate	ND		1	1.0	ug/L	10/09/2019 2233
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/09/2019 2233
4-Methyl-2-pentanone	ND		1	10	ug/L	10/09/2019 2233
Methylcyclohexane	ND		1	5.0	ug/L	10/09/2019 2233
Methylene chloride	ND		1	1.0	ug/L	10/09/2019 2233
Styrene	ND		1	1.0	ug/L	10/09/2019 2233
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/09/2019 2233
Tetrachloroethene	ND		1	1.0	ug/L	10/09/2019 2233
Toluene	ND		1	1.0	ug/L	10/09/2019 2233
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/09/2019 2233
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/09/2019 2233
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/09/2019 2233
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/09/2019 2233

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31548-001
Batch: 31548
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/09/2019 2233
Trichlorofluoromethane	ND		1	1.0	ug/L	10/09/2019 2233
Vinyl chloride	ND		1	1.0	ug/L	10/09/2019 2233
Xylenes (total)	ND		1	1.0	ug/L	10/09/2019 2233

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31548-002
Batch: 31548
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	97		1	97	60-140	10/09/2019 2103
Benzene	50	49		1	98	70-130	10/09/2019 2103
Bromodichloromethane	50	48		1	95	70-130	10/09/2019 2103
Bromoform	50	45		1	90	70-130	10/09/2019 2103
Bromomethane (Methyl bromide)	50	45		1	90	70-130	10/09/2019 2103
2-Butanone (MEK)	100	98		1	98	70-130	10/09/2019 2103
Carbon disulfide	50	51		1	102	70-130	10/09/2019 2103
Carbon tetrachloride	50	47		1	94	70-130	10/09/2019 2103
Chlorobenzene	50	46		1	92	70-130	10/09/2019 2103
Chloroethane	50	50		1	100	70-130	10/09/2019 2103
Chloroform	50	47		1	94	70-130	10/09/2019 2103
Chloromethane (Methyl chloride)	50	45		1	90	60-140	10/09/2019 2103
Cyclohexane	50	35		1	70	70-130	10/09/2019 2103
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	10/09/2019 2103
Dibromochloromethane	50	48		1	97	70-130	10/09/2019 2103
1,2-Dibromoethane (EDB)	50	47		1	95	70-130	10/09/2019 2103
1,2-Dichlorobenzene	50	42		1	83	70-130	10/09/2019 2103
1,3-Dichlorobenzene	50	42		1	85	70-130	10/09/2019 2103
1,4-Dichlorobenzene	50	41		1	82	70-130	10/09/2019 2103
Dichlorodifluoromethane	50	46		1	93	60-140	10/09/2019 2103
1,1-Dichloroethane	50	47		1	94	70-130	10/09/2019 2103
1,2-Dichloroethane	50	48		1	96	70-130	10/09/2019 2103
1,1-Dichloroethene	50	50		1	100	70-130	10/09/2019 2103
cis-1,2-Dichloroethene	50	46		1	93	70-130	10/09/2019 2103
trans-1,2-Dichloroethene	50	48		1	97	70-130	10/09/2019 2103
1,2-Dichloropropane	50	47		1	95	70-130	10/09/2019 2103
cis-1,3-Dichloropropene	50	50		1	99	70-130	10/09/2019 2103
trans-1,3-Dichloropropene	50	50		1	101	70-130	10/09/2019 2103
Ethylbenzene	50	47		1	94	70-130	10/09/2019 2103
2-Hexanone	100	97		1	97	70-130	10/09/2019 2103
Isopropylbenzene	50	48		1	97	70-130	10/09/2019 2103
Methyl acetate	50	54		1	107	70-130	10/09/2019 2103
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	10/09/2019 2103
4-Methyl-2-pentanone	100	97		1	97	70-130	10/09/2019 2103
Methylcyclohexane	50	48		1	95	70-130	10/09/2019 2103
Methylene chloride	50	42		1	85	70-130	10/09/2019 2103
Styrene	50	48		1	96	70-130	10/09/2019 2103
1,1,2,2-Tetrachloroethane	50	46		1	92	70-130	10/09/2019 2103
Tetrachloroethene	50	48		1	96	70-130	10/09/2019 2103
Toluene	50	48		1	96	70-130	10/09/2019 2103
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	90	70-130	10/09/2019 2103
1,2,4-Trichlorobenzene	50	41		1	82	70-130	10/09/2019 2103
1,1,1-Trichloroethane	50	45		1	91	70-130	10/09/2019 2103
1,1,2-Trichloroethane	50	48		1	96	70-130	10/09/2019 2103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31548-002
Batch: 31548
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	10/09/2019 2103
Trichlorofluoromethane	50	46		1	92	70-130	10/09/2019 2103
Vinyl chloride	50	44		1	89	70-130	10/09/2019 2103
Xylenes (total)	100	96		1	96	70-130	10/09/2019 2103

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: UQ31548-003
Batch: 31548
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	140	N,+	1	143	38	60-140	20	10/09/2019 2147
Benzene	50	48		1	97	1.6	70-130	20	10/09/2019 2147
Bromodichloromethane	50	47		1	95	0.54	70-130	20	10/09/2019 2147
Bromoform	50	46		1	91	1.7	70-130	20	10/09/2019 2147
Bromomethane (Methyl bromide)	50	44		1	87	3.6	70-130	20	10/09/2019 2147
2-Butanone (MEK)	100	110		1	112	13	70-130	20	10/09/2019 2147
Carbon disulfide	50	52		1	104	2.3	70-130	20	10/09/2019 2147
Carbon tetrachloride	50	47		1	94	0.29	70-130	20	10/09/2019 2147
Chlorobenzene	50	46		1	92	0.10	70-130	20	10/09/2019 2147
Chloroethane	50	48		1	95	4.8	70-130	20	10/09/2019 2147
Chloroform	50	47		1	95	0.99	70-130	20	10/09/2019 2147
Chloromethane (Methyl chloride)	50	42		1	85	5.3	60-140	20	10/09/2019 2147
Cyclohexane	50	39		1	79	12	70-130	20	10/09/2019 2147
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	0.38	70-130	20	10/09/2019 2147
Dibromochloromethane	50	48		1	96	0.89	70-130	20	10/09/2019 2147
1,2-Dibromoethane (EDB)	50	47		1	94	1.2	70-130	20	10/09/2019 2147
1,2-Dichlorobenzene	50	44		1	88	5.8	70-130	20	10/09/2019 2147
1,3-Dichlorobenzene	50	44		1	87	2.6	70-130	20	10/09/2019 2147
1,4-Dichlorobenzene	50	43		1	86	4.2	70-130	20	10/09/2019 2147
Dichlorodifluoromethane	50	45		1	90	3.0	60-140	20	10/09/2019 2147
1,1-Dichloroethane	50	48		1	95	0.87	70-130	20	10/09/2019 2147
1,2-Dichloroethane	50	47		1	94	2.4	70-130	20	10/09/2019 2147
1,1-Dichloroethene	50	51		1	101	1.4	70-130	20	10/09/2019 2147
cis-1,2-Dichloroethene	50	47		1	93	0.72	70-130	20	10/09/2019 2147
trans-1,2-Dichloroethene	50	49		1	99	2.1	70-130	20	10/09/2019 2147
1,2-Dichloropropane	50	47		1	93	1.6	70-130	20	10/09/2019 2147
cis-1,3-Dichloropropene	50	50		1	99	0.21	70-130	20	10/09/2019 2147
trans-1,3-Dichloropropene	50	51		1	102	1.4	70-130	20	10/09/2019 2147
Ethylbenzene	50	47		1	94	0.28	70-130	20	10/09/2019 2147
2-Hexanone	100	92		1	92	6.1	70-130	20	10/09/2019 2147
Isopropylbenzene	50	49		1	97	0.87	70-130	20	10/09/2019 2147
Methyl acetate	50	55		1	110	2.3	70-130	20	10/09/2019 2147
Methyl tertiary butyl ether (MTBE)	50	44		1	88	3.5	70-130	20	10/09/2019 2147
4-Methyl-2-pentanone	100	93		1	93	4.2	70-130	20	10/09/2019 2147
Methylcyclohexane	50	48		1	95	0.097	70-130	20	10/09/2019 2147
Methylene chloride	50	42		1	84	1.1	70-130	20	10/09/2019 2147
Styrene	50	48		1	97	0.66	70-130	20	10/09/2019 2147
1,1,2,2-Tetrachloroethane	50	47		1	94	1.1	70-130	20	10/09/2019 2147
Tetrachloroethene	50	49		1	97	1.2	70-130	20	10/09/2019 2147
Toluene	50	48		1	96	0.37	70-130	20	10/09/2019 2147
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	91	1.8	70-130	20	10/09/2019 2147
1,2,4-Trichlorobenzene	50	43		1	86	5.8	70-130	20	10/09/2019 2147
1,1,1-Trichloroethane	50	46		1	91	0.49	70-130	20	10/09/2019 2147
1,1,2-Trichloroethane	50	47		1	95	1.7	70-130	20	10/09/2019 2147

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: UQ31548-003
Batch: 31548
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 503 0B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	47		1	94	0.73	70-130	20	10/09/2019 2147
Trichlorofluoromethane	50	45		1	91	1.8	70-130	20	10/09/2019 2147
Vinyl chloride	50	44		1	88	1.0	70-130	20	10/09/2019 2147
Xylenes (total)	100	96		1	96	0.093	70-130	20	10/09/2019 2147

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31654-001
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/12/2019 1359
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/12/2019 1359
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/12/2019 1359
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/12/2019 1359
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/12/2019 1359
2,4-Dinitrophenol	ND		1	20	ug/L	10/12/2019 1359
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/12/2019 1359
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/12/2019 1359
2-Chloronaphthalene	ND		1	4.0	ug/L	10/12/2019 1359
2-Chlorophenol	ND		1	4.0	ug/L	10/12/2019 1359
2-Methylnaphthalene	ND		1	0.80	ug/L	10/12/2019 1359
2-Methylphenol	ND		1	4.0	ug/L	10/12/2019 1359
2-Nitroaniline	ND		1	8.0	ug/L	10/12/2019 1359
2-Nitrophenol	ND		1	4.0	ug/L	10/12/2019 1359
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/12/2019 1359
3+4-Methylphenol	ND		1	4.0	ug/L	10/12/2019 1359
3-Nitroaniline	ND		1	8.0	ug/L	10/12/2019 1359
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/12/2019 1359
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/12/2019 1359
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/12/2019 1359
4-Chloroaniline	ND		1	8.0	ug/L	10/12/2019 1359
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/12/2019 1359
4-Nitroaniline	ND		1	8.0	ug/L	10/12/2019 1359
4-Nitrophenol	ND		1	20	ug/L	10/12/2019 1359
Acenaphthene	ND		1	0.80	ug/L	10/12/2019 1359
Acenaphthylene	ND		1	0.80	ug/L	10/12/2019 1359
Acetophenone	ND		1	4.0	ug/L	10/12/2019 1359
Anthracene	ND		1	0.80	ug/L	10/12/2019 1359
Atrazine	ND		1	4.0	ug/L	10/12/2019 1359
Benzaldehyde	ND		1	8.0	ug/L	10/12/2019 1359
Benzo(a)anthracene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(a)pyrene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/12/2019 1359
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/12/2019 1359
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/12/2019 1359
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/12/2019 1359
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/12/2019 1359
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Caprolactam	ND		1	8.0	ug/L	10/12/2019 1359
Carbazole	ND		1	4.0	ug/L	10/12/2019 1359
Chrysene	ND		1	0.80	ug/L	10/12/2019 1359
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/12/2019 1359

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ31654-001
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/12/2019 1359
Diethylphthalate	ND		1	4.0	ug/L	10/12/2019 1359
Dimethyl phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/12/2019 1359
Di-n-octylphthalate	ND		1	4.0	ug/L	10/12/2019 1359
Fluoranthene	ND		1	0.80	ug/L	10/12/2019 1359
Fluorene	ND		1	0.80	ug/L	10/12/2019 1359
Hexachlorobenzene	ND		1	4.0	ug/L	10/12/2019 1359
Hexachlorobutadiene	ND		1	4.0	ug/L	10/12/2019 1359
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/12/2019 1359
Hexachloroethane	ND		1	4.0	ug/L	10/12/2019 1359
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/12/2019 1359
Isophorone	ND		1	4.0	ug/L	10/12/2019 1359
Naphthalene	ND		1	0.80	ug/L	10/12/2019 1359
Nitrobenzene	ND		1	4.0	ug/L	10/12/2019 1359
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/12/2019 1359
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/12/2019 1359
Pentachlorophenol	ND		1	20	ug/L	10/12/2019 1359
Phenanthrene	ND		1	0.80	ug/L	10/12/2019 1359
Phenol	ND		1	4.0	ug/L	10/12/2019 1359
Pyrene	ND		1	0.80	ug/L	10/12/2019 1359

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		62	37-129
2-Fluorophenol		35	24-127
Nitrobenzene-d5		58	38-127
Phenol-d5		46	28-128
Terphenyl-d14		70	10-148
2,4,6-Tribromophenol		53	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31654-002
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	27		1	69	30-130	10/12/2019 1423
2,4,5-Trichlorophenol	40	26		1	65	30-123	10/12/2019 1423
2,4,6-Trichlorophenol	40	27		1	67	30-130	10/12/2019 1423
2,4-Dichlorophenol	40	28		1	69	30-121	10/12/2019 1423
2,4-Dimethylphenol	40	34		1	85	20-125	10/12/2019 1423
2,4-Dinitrophenol	80	49		1	61	11-126	10/12/2019 1423
2,4-Dinitrotoluene	40	29		1	71	30-130	10/12/2019 1423
2,6-Dinitrotoluene	40	28		1	69	30-130	10/12/2019 1423
2-Chloronaphthalene	40	27		1	68	30-130	10/12/2019 1423
2-Chlorophenol	40	27		1	67	30-130	10/12/2019 1423
2-Methylnaphthalene	40	28		1	70	40-132	10/12/2019 1423
2-Methylphenol	40	29		1	72	30-130	10/12/2019 1423
2-Nitroaniline	40	27		1	69	30-130	10/12/2019 1423
2-Nitrophenol	40	29		1	72	30-130	10/12/2019 1423
3,3'-Dichlorobenzidine	40	21		1	51	10-126	10/12/2019 1423
3+4-Methylphenol	40	25		1	64	30-130	10/12/2019 1423
3-Nitroaniline	40	22		1	54	30-130	10/12/2019 1423
4,6-Dinitro-2-methylphenol	40	27		1	68	30-130	10/12/2019 1423
4-Bromophenyl phenyl ether	40	25		1	63	30-124	10/12/2019 1423
4-Chloro-3-methyl phenol	40	29		1	74	30-123	10/12/2019 1423
4-Chloroaniline	40	34		1	84	12-157	10/12/2019 1423
4-Chlorophenyl phenyl ether	40	26		1	65	30-121	10/12/2019 1423
4-Nitroaniline	40	25		1	64	30-135	10/12/2019 1423
4-Nitrophenol	80	54		1	68	30-130	10/12/2019 1423
Acenaphthene	40	27		1	68	30-122	10/12/2019 1423
Acenaphthylene	40	28		1	70	30-130	10/12/2019 1423
Acetophenone	40	26		1	65	30-130	10/12/2019 1423
Anthracene	40	28		1	69	30-123	10/12/2019 1423
Atrazine	40	28		1	69	30-130	10/12/2019 1423
Benzaldehyde	40	16		1	39	20-115	10/12/2019 1423
Benzo(a)anthracene	40	26		1	65	40-125	10/12/2019 1423
Benzo(a)pyrene	40	26		1	65	40-128	10/12/2019 1423
Benzo(b)fluoranthene	40	26		1	65	30-130	10/12/2019 1423
Benzo(g,h,i)perylene	40	28		1	71	30-130	10/12/2019 1423
Benzo(k)fluoranthene	40	26		1	64	30-130	10/12/2019 1423
bis (2-Chloro-1-methylethyl) ether	40	26		1	65	30-130	10/12/2019 1423
bis(2-Chloroethoxy)methane	40	29		1	73	30-130	10/12/2019 1423
bis(2-Chloroethyl)ether	40	27		1	68	30-130	10/12/2019 1423
bis(2-Ethylhexyl)phthalate	40	27		1	67	30-130	10/12/2019 1423
Butyl benzyl phthalate	40	27		1	67	30-130	10/12/2019 1423
Caprolactam	40	30		1	75	30-130	10/12/2019 1423
Carbazole	40	27		1	68	30-130	10/12/2019 1423
Chrysene	40	26		1	65	30-130	10/12/2019 1423
Dibenzo(a,h)anthracene	40	28		1	71	30-130	10/12/2019 1423

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31654-002
Batch: 31654
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/10/2019 1655

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	26		1	66	30-118	10/12/2019 1423
Diethylphthalate	40	29		1	71	40-125	10/12/2019 1423
Dimethyl phthalate	40	28		1	70	40-127	10/12/2019 1423
Di-n-butyl phthalate	40	29		1	73	40-127	10/12/2019 1423
Di-n-octylphthalate	40	25		1	63	30-130	10/12/2019 1423
Fluoranthene	40	27		1	67	40-128	10/12/2019 1423
Fluorene	40	27		1	66	30-124	10/12/2019 1423
Hexachlorobenzene	40	26		1	65	30-125	10/12/2019 1423
Hexachlorobutadiene	40	26		1	66	24-110	10/12/2019 1423
Hexachlorocyclopentadiene	200	100		1	52	22-122	10/12/2019 1423
Hexachloroethane	40	26		1	64	30-130	10/12/2019 1423
Indeno(1,2,3-c,d)pyrene	40	27		1	69	30-130	10/12/2019 1423
Isophorone	40	30		1	74	30-130	10/12/2019 1423
Naphthalene	40	29		1	73	30-130	10/12/2019 1423
Nitrobenzene	40	28		1	71	30-130	10/12/2019 1423
N-Nitrosodi-n-propylamine	40	26		1	66	30-130	10/12/2019 1423
N-Nitrosodiphenylamine (Diphenylamine)	40	27		1	68	30-123	10/12/2019 1423
Pentachlorophenol	80	45		1	56	30-130	10/12/2019 1423
Phenanthrene	40	26		1	66	40-123	10/12/2019 1423
Phenol	40	26		1	65	30-130	10/12/2019 1423
Pyrene	40	27		1	68	40-126	10/12/2019 1423

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		67	37-129
2-Fluorophenol		62	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		62	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		64	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32279-001
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/18/2019 1030
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/18/2019 1030
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4-Dinitrophenol	ND		1	20	ug/L	10/18/2019 1030
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/18/2019 1030
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/18/2019 1030
2-Chloronaphthalene	ND		1	4.0	ug/L	10/18/2019 1030
2-Chlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2-Methylnaphthalene	ND		1	0.80	ug/L	10/18/2019 1030
2-Methylphenol	ND		1	4.0	ug/L	10/18/2019 1030
2-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
2-Nitrophenol	ND		1	4.0	ug/L	10/18/2019 1030
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/18/2019 1030
3+4-Methylphenol	ND		1	4.0	ug/L	10/18/2019 1030
3-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/18/2019 1030
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/18/2019 1030
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/18/2019 1030
4-Chloroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/18/2019 1030
4-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4-Nitrophenol	ND		1	20	ug/L	10/18/2019 1030
Acenaphthene	ND		1	0.80	ug/L	10/18/2019 1030
Acenaphthylene	ND		1	0.80	ug/L	10/18/2019 1030
Acetophenone	ND		1	4.0	ug/L	10/18/2019 1030
Anthracene	ND		1	0.80	ug/L	10/18/2019 1030
Atrazine	ND		1	4.0	ug/L	10/18/2019 1030
Benzaldehyde	ND		1	8.0	ug/L	10/18/2019 1030
Benzo(a)anthracene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(a)pyrene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Caprolactam	ND		1	8.0	ug/L	10/18/2019 1030
Carbazole	ND		1	4.0	ug/L	10/18/2019 1030
Chrysene	ND		1	0.80	ug/L	10/18/2019 1030
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/18/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32279-001
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/18/2019 1030
Diethylphthalate	ND		1	4.0	ug/L	10/18/2019 1030
Dimethyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Di-n-octylphthalate	ND		1	4.0	ug/L	10/18/2019 1030
Fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
Fluorene	ND		1	0.80	ug/L	10/18/2019 1030
Hexachlorobenzene	ND		1	4.0	ug/L	10/18/2019 1030
Hexachlorobutadiene	ND		1	4.0	ug/L	10/18/2019 1030
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/18/2019 1030
Hexachloroethane	ND		1	4.0	ug/L	10/18/2019 1030
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/18/2019 1030
Isophorone	ND		1	4.0	ug/L	10/18/2019 1030
Naphthalene	ND		1	0.80	ug/L	10/18/2019 1030
Nitrobenzene	ND		1	4.0	ug/L	10/18/2019 1030
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/18/2019 1030
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/18/2019 1030
Pentachlorophenol	ND		1	20	ug/L	10/18/2019 1030
Phenanthrene	ND		1	0.80	ug/L	10/18/2019 1030
Phenol	ND		1	4.0	ug/L	10/18/2019 1030
Pyrene	ND		1	0.80	ug/L	10/18/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		47	24-127
Nitrobenzene-d5		77	38-127
Phenol-d5		41	28-128
Terphenyl-d14		109	10-148
2,4,6-Tribromophenol		59	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32279-002
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	37		1	94	30-130	10/18/2019 1054
2,4,5-Trichlorophenol	40	29		1	71	30-123	10/18/2019 1054
2,4,6-Trichlorophenol	40	33		1	82	30-130	10/18/2019 1054
2,4-Dichlorophenol	40	31		1	77	30-121	10/18/2019 1054
2,4-Dimethylphenol	40	51	N	1	129	20-125	10/18/2019 1054
2,4-Dinitrophenol	80	62		1	77	11-126	10/18/2019 1054
2,4-Dinitrotoluene	40	38		1	96	30-130	10/18/2019 1054
2,6-Dinitrotoluene	40	38		1	94	30-130	10/18/2019 1054
2-Chloronaphthalene	40	37		1	92	30-130	10/18/2019 1054
2-Chlorophenol	40	41		1	103	30-130	10/18/2019 1054
2-Methylnaphthalene	40	34		1	85	40-132	10/18/2019 1054
2-Methylphenol	40	45		1	114	30-130	10/18/2019 1054
2-Nitroaniline	40	38		1	94	30-130	10/18/2019 1054
2-Nitrophenol	40	36		1	90	30-130	10/18/2019 1054
3,3'-Dichlorobenzidine	40	22		1	55	10-126	10/18/2019 1054
3+4-Methylphenol	40	43		1	109	30-130	10/18/2019 1054
3-Nitroaniline	40	31		1	77	30-130	10/18/2019 1054
4,6-Dinitro-2-methylphenol	40	36		1	89	30-130	10/18/2019 1054
4-Bromophenyl phenyl ether	40	32		1	81	30-124	10/18/2019 1054
4-Chloro-3-methyl phenol	40	36		1	90	30-123	10/18/2019 1054
4-Chloroaniline	40	17		1	42	12-157	10/18/2019 1054
4-Chlorophenyl phenyl ether	40	33		1	83	30-121	10/18/2019 1054
4-Nitroaniline	40	34		1	84	30-135	10/18/2019 1054
4-Nitrophenol	80	63		1	79	30-130	10/18/2019 1054
Acenaphthene	40	38		1	94	30-122	10/18/2019 1054
Acenaphthylene	40	39		1	97	30-130	10/18/2019 1054
Acetophenone	40	48		1	119	30-130	10/18/2019 1054
Anthracene	40	38		1	95	30-123	10/18/2019 1054
Atrazine	40	40		1	99	30-130	10/18/2019 1054
Benzaldehyde	40	45		1	113	20-115	10/18/2019 1054
Benzo(a)anthracene	40	38		1	94	40-125	10/18/2019 1054
Benzo(a)pyrene	40	40		1	100	40-128	10/18/2019 1054
Benzo(b)fluoranthene	40	40		1	99	30-130	10/18/2019 1054
Benzo(g,h,i)perylene	40	41		1	103	30-130	10/18/2019 1054
Benzo(k)fluoranthene	40	39		1	97	30-130	10/18/2019 1054
bis (2-Chloro-1-methylethyl) ether	40	45		1	112	30-130	10/18/2019 1054
bis(2-Chloroethoxy)methane	40	36		1	91	30-130	10/18/2019 1054
bis(2-Chloroethyl)ether	40	43		1	107	30-130	10/18/2019 1054
bis(2-Ethylhexyl)phthalate	40	43		1	107	30-130	10/18/2019 1054
Butyl benzyl phthalate	40	43		1	107	30-130	10/18/2019 1054
Caprolactam	40	17		1	42	30-130	10/18/2019 1054
Carbazole	40	38		1	95	30-130	10/18/2019 1054
Chrysene	40	37		1	92	30-130	10/18/2019 1054
Dibenzo(a,h)anthracene	40	42		1	104	30-130	10/18/2019 1054

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32279-002
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	35		1	89	30-118	10/18/2019 1054
Diethylphthalate	40	41		1	103	40-125	10/18/2019 1054
Dimethyl phthalate	40	38		1	96	40-127	10/18/2019 1054
Di-n-butyl phthalate	40	43		1	108	40-127	10/18/2019 1054
Di-n-octylphthalate	40	43		1	106	30-130	10/18/2019 1054
Fluoranthene	40	36		1	89	40-128	10/18/2019 1054
Fluorene	40	35		1	89	30-124	10/18/2019 1054
Hexachlorobenzene	40	35		1	87	30-125	10/18/2019 1054
Hexachlorobutadiene	40	32		1	79	24-110	10/18/2019 1054
Hexachlorocyclopentadiene	200	180		1	91	22-122	10/18/2019 1054
Hexachloroethane	40	37		1	92	30-130	10/18/2019 1054
Indeno(1,2,3-c,d)pyrene	40	42		1	105	30-130	10/18/2019 1054
Isophorone	40	38		1	95	30-130	10/18/2019 1054
Naphthalene	40	37		1	92	30-130	10/18/2019 1054
Nitrobenzene	40	36		1	90	30-130	10/18/2019 1054
N-Nitrosodi-n-propylamine	40	47		1	117	30-130	10/18/2019 1054
N-Nitrosodiphenylamine (Diphenylamine)	40	37		1	93	30-123	10/18/2019 1054
Pentachlorophenol	80	54		1	67	30-130	10/18/2019 1054
Phenanthrene	40	37		1	92	40-123	10/18/2019 1054
Phenol	40	32		1	79	30-130	10/18/2019 1054
Pyrene	40	40		1	100	40-126	10/18/2019 1054

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		82	24-127
Nitrobenzene-d5		87	38-127
Phenol-d5		74	28-128
Terphenyl-d14		98	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099902

Client: WESTINGHOUSE	Report to Contact: DIANE JOYNER	Telephone No. / E-mail: 803 647 1720 JOYNERDPC@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: x [signature]	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	Printed Name: JAMES WRIGHT
Project Name: WESTINGHOUSE RSE			
Project No.: 60596649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCL VOCs 8260B	TCL SVOCs 8270D	Nitrates 353.2
W-74	10-9-19	0915	G	X			3			3			X	X	X
W-75		1025	G	X			3			3			X	X	X
W-10		1155	G	X			3			3			X	X	X
W-10-DUP		1155	G	X			3			3			X	X	X
W-7A		1400	G	X			3			3			X	X	X
TB-01-100919		—		X						2			X		

UJ09050

GRW

Remarks / Cooler I.D.

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☒ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by [signature]	10-9-19	1549	1. Received by		
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: Darby Nunn	Date: 10/9/19	Time: 1549

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack Receipt Temp: 2.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: DMN / 10/09/19 Lot #: UJ09050

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.8 / 2.8 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: DMN Date: 10/09/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ10085**

Date Completed:10/21/2019

10/21/2019 1:41 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ10085

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ10085

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-92	Aqueous	10/10/2019 0930	10/10/2019
002	W-27	Aqueous	10/10/2019 1140	10/10/2019
003	W-3A	Aqueous	10/10/2019 1340	10/10/2019
004	W-4	Aqueous	10/10/2019 1515	10/10/2019
005	TB-01-101019	Aqueous	10/10/2019	10/10/2019

(5 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ10085

Project Name: Westinghouse RI

Project Number: 60595649

Sample Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001 W-92	Aqueous	Nitrate - N	353.2	0.029		mg/L	5
004 W-4	Aqueous	Nitrate - N	353.2	0.023		mg/L	20

(2 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ10085-001
Description: W-92
Matrix: Aqueous
Date Sampled: 10/10/2019 0930
Project Name: Westinghouse RI
Date Received: 10/10/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/11/2019 2327	AMR		32285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.029		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-001
Description: W-92 | Matrix: Aqueous
Date Sampled:10/10/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 1202	TML		32051

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ10085-001
Description: W-92
Matrix: Aqueous
Date Sampled: 10/10/2019 0930
Project Name: Westinghouse RI
Date Received: 10/10/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 1202	TML		32051

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-001
Description: W-92 | Matrix: Aqueous
Date Sampled:10/10/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 2014	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-001
Description: W-92 | Matrix: Aqueous
Date Sampled:10/10/2019 0930 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 2014	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		79	37-129
2-Fluorophenol		45	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		48	28-128
Terphenyl-d14		100	10-148
2,4,6-Tribromophenol		65	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ10085-002
Description: W-27
Matrix: Aqueous
Date Sampled:10/10/2019 1140
Project Name: Westinghouse RI
Date Received: 10/10/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/11/2019 2331	AMR		32285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-002
Description: W-27 | Matrix: Aqueous
Date Sampled:10/10/2019 1140 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 1226	TML		32051

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-002
Description: W-27 | Matrix: Aqueous
Date Sampled:10/10/2019 1140 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 1226	TML		32051

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-002
Description: W-27 | Matrix: Aqueous
Date Sampled:10/10/2019 1140 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1434	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-002
Description: W-27 | Matrix: Aqueous
Date Sampled:10/10/2019 1140 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1434	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		72	37-129
2-Fluorophenol		37	24-127
Nitrobenzene-d5		69	38-127
Phenol-d5		41	28-128
Terphenyl-d14		93	10-148
2,4,6-Tribromophenol		58	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ10085-003
Description: W-3A
Matrix: Aqueous
Date Sampled:10/10/2019 1340
Project Name: Westinghouse RI
Date Received: 10/10/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/11/2019 2332	AMR		32285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-003
Description: W-3A | Matrix: Aqueous
Date Sampled:10/10/2019 1340 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 1250	TML		32051

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-003
Description: W-3A | Matrix: Aqueous
Date Sampled:10/10/2019 1340 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 1250	TML		32051

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-003
Description: W-3A | Matrix: Aqueous
Date Sampled:10/10/2019 1340 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1458	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-003
Description: W-3A | Matrix: Aqueous
Date Sampled:10/10/2019 1340 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1458	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		78	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		75	38-127
Phenol-d5		43	28-128
Terphenyl-d14		102	10-148
2,4,6-Tribromophenol		63	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company	Laboratory ID: UJ10085-004
Description: W-4	Matrix: Aqueous
Date Sampled:10/10/2019 1515	Project Name: Westinghouse RI
Date Received: 10/10/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/12/2019 0144	AMR		31821

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.023		0.020	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-004
Description: W-4 | Matrix: Aqueous
Date Sampled:10/10/2019 1515 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/13/2019 2347	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-004

Description: W-4 | Matrix: Aqueous

Date Sampled:10/10/2019 1515 | Project Name: Westinghouse RI

Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/13/2019 2347	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-004
Description: W-4 | Matrix: Aqueous
Date Sampled:10/10/2019 1515 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1522	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-004
Description: W-4 | Matrix: Aqueous
Date Sampled:10/10/2019 1515 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1522	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		79	37-129
2-Fluorophenol		44	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		38	28-128
Terphenyl-d14		104	10-148
2,4,6-Tribromophenol		61	35-144

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-005
Description: TB-01-101019 | Matrix: Aqueous
Date Sampled:10/10/2019 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 1135	TML		31917

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ10085-005
Description: TB-01-101019 | Matrix: Aqueous
Date Sampled:10/10/2019 | Project Name: Westinghouse RI
Date Received: 10/10/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 1135	TML		31917

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31821-001
Batch: 31821
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/12/2019 0141

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31821-002
Batch: 31821
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	10/12/2019 0143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: UQ32285-001
Batch: 32285
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/11/2019 2324

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32285-002
Batch: 32285
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	10/11/2019 2325

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ10085-001MS
Batch: 32285
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.029	0.80	0.44	N	1	51	90-110	10/11/2019 2328

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ10085-001MD
Batch: 32285
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.029	0.80	0.44	N	1	51	0.25	90-110	20	10/11/2019 2329

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31876-001
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/13/2019 1742
Benzene	ND		1	1.0	ug/L	10/13/2019 1742
Bromodichloromethane	ND		1	1.0	ug/L	10/13/2019 1742
Bromoform	ND		1	1.0	ug/L	10/13/2019 1742
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/13/2019 1742
2-Butanone (MEK)	ND		1	10	ug/L	10/13/2019 1742
Carbon disulfide	ND		1	1.0	ug/L	10/13/2019 1742
Carbon tetrachloride	ND		1	1.0	ug/L	10/13/2019 1742
Chlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
Chloroethane	ND		1	2.0	ug/L	10/13/2019 1742
Chloroform	ND		1	1.0	ug/L	10/13/2019 1742
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/13/2019 1742
Cyclohexane	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/13/2019 1742
Dibromochloromethane	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/13/2019 1742
1,1-Dichloroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dichloroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,1-Dichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dichloropropane	ND		1	1.0	ug/L	10/13/2019 1742
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/13/2019 1742
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/13/2019 1742
Ethylbenzene	ND		1	1.0	ug/L	10/13/2019 1742
2-Hexanone	ND		1	10	ug/L	10/13/2019 1742
Isopropylbenzene	ND		1	1.0	ug/L	10/13/2019 1742
Methyl acetate	ND		1	1.0	ug/L	10/13/2019 1742
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/13/2019 1742
4-Methyl-2-pentanone	ND		1	10	ug/L	10/13/2019 1742
Methylcyclohexane	ND		1	5.0	ug/L	10/13/2019 1742
Methylene chloride	ND		1	1.0	ug/L	10/13/2019 1742
Styrene	ND		1	1.0	ug/L	10/13/2019 1742
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/13/2019 1742
Tetrachloroethene	ND		1	1.0	ug/L	10/13/2019 1742
Toluene	ND		1	1.0	ug/L	10/13/2019 1742
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/13/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31876-001
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
Trichlorofluoromethane	ND		1	1.0	ug/L	10/13/2019 1742
Vinyl chloride	ND		1	1.0	ug/L	10/13/2019 1742
Xylenes (total)	ND		1	1.0	ug/L	10/13/2019 1742

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31876-002
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	10/13/2019 1639
Benzene	50	52		1	103	70-130	10/13/2019 1639
Bromodichloromethane	50	55		1	109	70-130	10/13/2019 1639
Bromoform	50	57		1	114	70-130	10/13/2019 1639
Bromomethane (Methyl bromide)	50	51		1	102	70-130	10/13/2019 1639
2-Butanone (MEK)	100	120		1	125	70-130	10/13/2019 1639
Carbon disulfide	50	55		1	110	70-130	10/13/2019 1639
Carbon tetrachloride	50	53		1	107	70-130	10/13/2019 1639
Chlorobenzene	50	51		1	103	70-130	10/13/2019 1639
Chloroethane	50	57		1	115	70-130	10/13/2019 1639
Chloroform	50	53		1	107	70-130	10/13/2019 1639
Chloromethane (Methyl chloride)	50	49		1	98	60-140	10/13/2019 1639
Cyclohexane	50	50		1	99	70-130	10/13/2019 1639
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	104	70-130	10/13/2019 1639
Dibromochloromethane	50	55		1	111	70-130	10/13/2019 1639
1,2-Dibromoethane (EDB)	50	51		1	103	70-130	10/13/2019 1639
1,2-Dichlorobenzene	50	51		1	101	70-130	10/13/2019 1639
1,3-Dichlorobenzene	50	51		1	102	70-130	10/13/2019 1639
1,4-Dichlorobenzene	50	50		1	100	70-130	10/13/2019 1639
Dichlorodifluoromethane	50	52		1	104	60-140	10/13/2019 1639
1,1-Dichloroethane	50	53		1	106	70-130	10/13/2019 1639
1,2-Dichloroethane	50	49		1	99	70-130	10/13/2019 1639
1,1-Dichloroethene	50	63		1	127	70-130	10/13/2019 1639
cis-1,2-Dichloroethene	50	52		1	104	70-130	10/13/2019 1639
trans-1,2-Dichloroethene	50	57		1	115	70-130	10/13/2019 1639
1,2-Dichloropropane	50	52		1	105	70-130	10/13/2019 1639
cis-1,3-Dichloropropene	50	58		1	116	70-130	10/13/2019 1639
trans-1,3-Dichloropropene	50	57		1	114	70-130	10/13/2019 1639
Ethylbenzene	50	52		1	104	70-130	10/13/2019 1639
2-Hexanone	100	100		1	102	70-130	10/13/2019 1639
Isopropylbenzene	50	53		1	106	70-130	10/13/2019 1639
Methyl acetate	50	59		1	118	70-130	10/13/2019 1639
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	10/13/2019 1639
4-Methyl-2-pentanone	100	100		1	100	70-130	10/13/2019 1639
Methylcyclohexane	50	55		1	111	70-130	10/13/2019 1639
Methylene chloride	50	53		1	106	70-130	10/13/2019 1639
Styrene	50	54		1	107	70-130	10/13/2019 1639
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	10/13/2019 1639
Tetrachloroethene	50	52		1	103	70-130	10/13/2019 1639
Toluene	50	51		1	102	70-130	10/13/2019 1639
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	111	70-130	10/13/2019 1639
1,2,4-Trichlorobenzene	50	52		1	105	70-130	10/13/2019 1639
1,1,1-Trichloroethane	50	52		1	104	70-130	10/13/2019 1639
1,1,2-Trichloroethane	50	50		1	100	70-130	10/13/2019 1639

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31876-002
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	10/13/2019 1639
Trichlorofluoromethane	50	56		1	112	70-130	10/13/2019 1639
Vinyl chloride	50	51		1	101	70-130	10/13/2019 1639
Xylenes (total)	100	100		1	104	70-130	10/13/2019 1639

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31917-001
Batch: 31917
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/14/2019 1031
Benzene	ND		1	1.0	ug/L	10/14/2019 1031
Bromodichloromethane	ND		1	1.0	ug/L	10/14/2019 1031
Bromoform	ND		1	1.0	ug/L	10/14/2019 1031
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/14/2019 1031
2-Butanone (MEK)	ND		1	10	ug/L	10/14/2019 1031
Carbon disulfide	ND		1	1.0	ug/L	10/14/2019 1031
Carbon tetrachloride	ND		1	1.0	ug/L	10/14/2019 1031
Chlorobenzene	ND		1	1.0	ug/L	10/14/2019 1031
Chloroethane	ND		1	2.0	ug/L	10/14/2019 1031
Chloroform	ND		1	1.0	ug/L	10/14/2019 1031
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/14/2019 1031
Cyclohexane	ND		1	1.0	ug/L	10/14/2019 1031
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/14/2019 1031
Dibromochloromethane	ND		1	1.0	ug/L	10/14/2019 1031
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/14/2019 1031
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/14/2019 1031
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/14/2019 1031
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/14/2019 1031
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/14/2019 1031
1,1-Dichloroethane	ND		1	1.0	ug/L	10/14/2019 1031
1,2-Dichloroethane	ND		1	1.0	ug/L	10/14/2019 1031
1,1-Dichloroethene	ND		1	1.0	ug/L	10/14/2019 1031
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/14/2019 1031
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/14/2019 1031
1,2-Dichloropropane	ND		1	1.0	ug/L	10/14/2019 1031
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/14/2019 1031
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/14/2019 1031
Ethylbenzene	ND		1	1.0	ug/L	10/14/2019 1031
2-Hexanone	ND		1	10	ug/L	10/14/2019 1031
Isopropylbenzene	ND		1	1.0	ug/L	10/14/2019 1031
Methyl acetate	ND		1	1.0	ug/L	10/14/2019 1031
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/14/2019 1031
4-Methyl-2-pentanone	ND		1	10	ug/L	10/14/2019 1031
Methylcyclohexane	ND		1	5.0	ug/L	10/14/2019 1031
Methylene chloride	ND		1	1.0	ug/L	10/14/2019 1031
Styrene	ND		1	1.0	ug/L	10/14/2019 1031
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/14/2019 1031
Tetrachloroethene	ND		1	1.0	ug/L	10/14/2019 1031
Toluene	ND		1	1.0	ug/L	10/14/2019 1031
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/14/2019 1031
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/14/2019 1031
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/14/2019 1031
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/14/2019 1031

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31917-001
Batch: 31917
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/14/2019 1031
Trichlorofluoromethane	ND		1	1.0	ug/L	10/14/2019 1031
Vinyl chloride	ND		1	1.0	ug/L	10/14/2019 1031
Xylenes (total)	ND		1	1.0	ug/L	10/14/2019 1031

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31917-002
Batch: 31917
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	140		1	136	60-140	10/14/2019 0928
Benzene	50	48		1	96	70-130	10/14/2019 0928
Bromodichloromethane	50	48		1	96	70-130	10/14/2019 0928
Bromoform	50	47		1	94	70-130	10/14/2019 0928
Bromomethane (Methyl bromide)	50	48		1	95	70-130	10/14/2019 0928
2-Butanone (MEK)	100	110		1	111	70-130	10/14/2019 0928
Carbon disulfide	50	52		1	104	70-130	10/14/2019 0928
Carbon tetrachloride	50	46		1	93	70-130	10/14/2019 0928
Chlorobenzene	50	45		1	89	70-130	10/14/2019 0928
Chloroethane	50	50		1	99	70-130	10/14/2019 0928
Chloroform	50	47		1	95	70-130	10/14/2019 0928
Chloromethane (Methyl chloride)	50	44		1	88	60-140	10/14/2019 0928
Cyclohexane	50	39		1	79	70-130	10/14/2019 0928
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	10/14/2019 0928
Dibromochloromethane	50	47		1	95	70-130	10/14/2019 0928
1,2-Dibromoethane (EDB)	50	46		1	92	70-130	10/14/2019 0928
1,2-Dichlorobenzene	50	42		1	85	70-130	10/14/2019 0928
1,3-Dichlorobenzene	50	43		1	85	70-130	10/14/2019 0928
1,4-Dichlorobenzene	50	42		1	84	70-130	10/14/2019 0928
Dichlorodifluoromethane	50	45		1	90	60-140	10/14/2019 0928
1,1-Dichloroethane	50	47		1	94	70-130	10/14/2019 0928
1,2-Dichloroethane	50	47		1	95	70-130	10/14/2019 0928
1,1-Dichloroethene	50	51		1	102	70-130	10/14/2019 0928
cis-1,2-Dichloroethene	50	46		1	93	70-130	10/14/2019 0928
trans-1,2-Dichloroethene	50	48		1	97	70-130	10/14/2019 0928
1,2-Dichloropropane	50	47		1	94	70-130	10/14/2019 0928
cis-1,3-Dichloropropene	50	50		1	100	70-130	10/14/2019 0928
trans-1,3-Dichloropropene	50	51		1	101	70-130	10/14/2019 0928
Ethylbenzene	50	47		1	93	70-130	10/14/2019 0928
2-Hexanone	100	93		1	93	70-130	10/14/2019 0928
Isopropylbenzene	50	46		1	92	70-130	10/14/2019 0928
Methyl acetate	50	57		1	114	70-130	10/14/2019 0928
Methyl tertiary butyl ether (MTBE)	50	47		1	93	70-130	10/14/2019 0928
4-Methyl-2-pentanone	100	97		1	97	70-130	10/14/2019 0928
Methylcyclohexane	50	47		1	95	70-130	10/14/2019 0928
Methylene chloride	50	43		1	85	70-130	10/14/2019 0928
Styrene	50	47		1	94	70-130	10/14/2019 0928
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	10/14/2019 0928
Tetrachloroethene	50	47		1	93	70-130	10/14/2019 0928
Toluene	50	46		1	93	70-130	10/14/2019 0928
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	10/14/2019 0928
1,2,4-Trichlorobenzene	50	43		1	86	70-130	10/14/2019 0928
1,1,1-Trichloroethane	50	45		1	90	70-130	10/14/2019 0928
1,1,2-Trichloroethane	50	47		1	95	70-130	10/14/2019 0928

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31917-002
Batch: 31917
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	93	70-130	10/14/2019 0928
Trichlorofluoromethane	50	45		1	90	70-130	10/14/2019 0928
Vinyl chloride	50	44		1	88	70-130	10/14/2019 0928
Xylenes (total)	100	94		1	94	70-130	10/14/2019 0928

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32051-001
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/15/2019 1031
Benzene	ND		1	1.0	ug/L	10/15/2019 1031
Bromodichloromethane	ND		1	1.0	ug/L	10/15/2019 1031
Bromoform	ND		1	1.0	ug/L	10/15/2019 1031
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/15/2019 1031
2-Butanone (MEK)	ND		1	10	ug/L	10/15/2019 1031
Carbon disulfide	ND		1	1.0	ug/L	10/15/2019 1031
Carbon tetrachloride	ND		1	1.0	ug/L	10/15/2019 1031
Chlorobenzene	ND		1	1.0	ug/L	10/15/2019 1031
Chloroethane	ND		1	2.0	ug/L	10/15/2019 1031
Chloroform	ND		1	1.0	ug/L	10/15/2019 1031
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/15/2019 1031
Cyclohexane	ND		1	1.0	ug/L	10/15/2019 1031
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/15/2019 1031
Dibromochloromethane	ND		1	1.0	ug/L	10/15/2019 1031
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/15/2019 1031
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/15/2019 1031
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/15/2019 1031
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/15/2019 1031
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/15/2019 1031
1,1-Dichloroethane	ND		1	1.0	ug/L	10/15/2019 1031
1,2-Dichloroethane	ND		1	1.0	ug/L	10/15/2019 1031
1,1-Dichloroethene	ND		1	1.0	ug/L	10/15/2019 1031
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/15/2019 1031
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/15/2019 1031
1,2-Dichloropropane	ND		1	1.0	ug/L	10/15/2019 1031
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/15/2019 1031
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/15/2019 1031
Ethylbenzene	ND		1	1.0	ug/L	10/15/2019 1031
2-Hexanone	ND		1	10	ug/L	10/15/2019 1031
Isopropylbenzene	ND		1	1.0	ug/L	10/15/2019 1031
Methyl acetate	ND		1	1.0	ug/L	10/15/2019 1031
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/15/2019 1031
4-Methyl-2-pentanone	ND		1	10	ug/L	10/15/2019 1031
Methylcyclohexane	ND		1	5.0	ug/L	10/15/2019 1031
Methylene chloride	ND		1	1.0	ug/L	10/15/2019 1031
Styrene	ND		1	1.0	ug/L	10/15/2019 1031
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/15/2019 1031
Tetrachloroethene	ND		1	1.0	ug/L	10/15/2019 1031
Toluene	ND		1	1.0	ug/L	10/15/2019 1031
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/15/2019 1031
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/15/2019 1031
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/15/2019 1031
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/15/2019 1031

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32051-001
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/15/2019 1031
Trichlorofluoromethane	ND		1	1.0	ug/L	10/15/2019 1031
Vinyl chloride	ND		1	1.0	ug/L	10/15/2019 1031
Xylenes (total)	ND		1	1.0	ug/L	10/15/2019 1031

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32051-002
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	76		1	76	60-140	10/15/2019 0926
Benzene	50	46		1	93	70-130	10/15/2019 0926
Bromodichloromethane	50	46		1	93	70-130	10/15/2019 0926
Bromoform	50	45		1	89	70-130	10/15/2019 0926
Bromomethane (Methyl bromide)	50	53		1	107	70-130	10/15/2019 0926
2-Butanone (MEK)	100	89		1	89	70-130	10/15/2019 0926
Carbon disulfide	50	50		1	101	70-130	10/15/2019 0926
Carbon tetrachloride	50	45		1	90	70-130	10/15/2019 0926
Chlorobenzene	50	46		1	92	70-130	10/15/2019 0926
Chloroethane	50	61		1	122	70-130	10/15/2019 0926
Chloroform	50	47		1	94	70-130	10/15/2019 0926
Chloromethane (Methyl chloride)	50	56		1	112	60-140	10/15/2019 0926
Cyclohexane	50	43		1	86	70-130	10/15/2019 0926
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	89	70-130	10/15/2019 0926
Dibromochloromethane	50	46		1	92	70-130	10/15/2019 0926
1,2-Dibromoethane (EDB)	50	45		1	90	70-130	10/15/2019 0926
1,2-Dichlorobenzene	50	46		1	93	70-130	10/15/2019 0926
1,3-Dichlorobenzene	50	47		1	94	70-130	10/15/2019 0926
1,4-Dichlorobenzene	50	46		1	92	70-130	10/15/2019 0926
Dichlorodifluoromethane	50	63		1	125	60-140	10/15/2019 0926
1,1-Dichloroethane	50	48		1	96	70-130	10/15/2019 0926
1,2-Dichloroethane	50	43		1	86	70-130	10/15/2019 0926
1,1-Dichloroethene	50	58		1	116	70-130	10/15/2019 0926
cis-1,2-Dichloroethene	50	47		1	93	70-130	10/15/2019 0926
trans-1,2-Dichloroethene	50	51		1	102	70-130	10/15/2019 0926
1,2-Dichloropropane	50	47		1	94	70-130	10/15/2019 0926
cis-1,3-Dichloropropene	50	50		1	101	70-130	10/15/2019 0926
trans-1,3-Dichloropropene	50	49		1	98	70-130	10/15/2019 0926
Ethylbenzene	50	47		1	93	70-130	10/15/2019 0926
2-Hexanone	100	90		1	90	70-130	10/15/2019 0926
Isopropylbenzene	50	48		1	96	70-130	10/15/2019 0926
Methyl acetate	50	51		1	103	70-130	10/15/2019 0926
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	10/15/2019 0926
4-Methyl-2-pentanone	100	89		1	89	70-130	10/15/2019 0926
Methylcyclohexane	50	48		1	96	70-130	10/15/2019 0926
Methylene chloride	50	50		1	99	70-130	10/15/2019 0926
Styrene	50	48		1	97	70-130	10/15/2019 0926
1,1,2,2-Tetrachloroethane	50	46		1	92	70-130	10/15/2019 0926
Tetrachloroethene	50	46		1	91	70-130	10/15/2019 0926
Toluene	50	46		1	92	70-130	10/15/2019 0926
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	10/15/2019 0926
1,2,4-Trichlorobenzene	50	47		1	95	70-130	10/15/2019 0926
1,1,1-Trichloroethane	50	46		1	92	70-130	10/15/2019 0926
1,1,2-Trichloroethane	50	44		1	88	70-130	10/15/2019 0926

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32051-002
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	91	70-130	10/15/2019 0926
Trichlorofluoromethane	50	57		1	114	70-130	10/15/2019 0926
Vinyl chloride	50	55		1	111	70-130	10/15/2019 0926
Xylenes (total)	100	94		1	94	70-130	10/15/2019 0926

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ10085-001MS
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	93		1	93	60-140	10/15/2019 1913
Benzene	ND	50	59		1	117	70-130	10/15/2019 1913
Bromodichloromethane	ND	50	56		1	112	70-130	10/15/2019 1913
Bromoform	ND	50	47		1	93	70-130	10/15/2019 1913
Bromomethane (Methyl bromide)	ND	50	56		1	112	70-130	10/15/2019 1913
2-Butanone (MEK)	ND	100	110		1	107	70-130	10/15/2019 1913
Carbon disulfide	ND	50	63		1	126	70-130	10/15/2019 1913
Carbon tetrachloride	ND	50	60		1	121	70-130	10/15/2019 1913
Chlorobenzene	ND	50	56		1	112	70-130	10/15/2019 1913
Chloroethane	ND	50	66	N	1	132	70-130	10/15/2019 1913
Chloroform	ND	50	59		1	119	70-130	10/15/2019 1913
Chloromethane (Methyl chloride)	ND	50	61		1	122	60-140	10/15/2019 1913
Cyclohexane	ND	50	60		1	120	70-130	10/15/2019 1913
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	51		1	102	70-130	10/15/2019 1913
Dibromochloromethane	ND	50	52		1	104	70-130	10/15/2019 1913
1,2-Dibromoethane (EDB)	ND	50	54		1	108	70-130	10/15/2019 1913
1,2-Dichlorobenzene	ND	50	55		1	111	70-130	10/15/2019 1913
1,3-Dichlorobenzene	ND	50	56		1	111	70-130	10/15/2019 1913
1,4-Dichlorobenzene	ND	50	55		1	110	70-130	10/15/2019 1913
Dichlorodifluoromethane	ND	50	71	N	1	143	60-140	10/15/2019 1913
1,1-Dichloroethane	ND	50	61		1	122	70-130	10/15/2019 1913
1,2-Dichloroethane	ND	50	53		1	106	70-130	10/15/2019 1913
1,1-Dichloroethene	ND	50	75	N	1	150	70-130	10/15/2019 1913
cis-1,2-Dichloroethene	ND	50	59		1	117	70-130	10/15/2019 1913
trans-1,2-Dichloroethene	ND	50	66	N	1	133	70-130	10/15/2019 1913
1,2-Dichloropropane	ND	50	59		1	117	70-130	10/15/2019 1913
cis-1,3-Dichloropropene	ND	50	58		1	116	70-130	10/15/2019 1913
trans-1,3-Dichloropropene	ND	50	55		1	110	70-130	10/15/2019 1913
Ethylbenzene	ND	50	59		1	118	70-130	10/15/2019 1913
2-Hexanone	ND	100	110		1	109	70-130	10/15/2019 1913
Isopropylbenzene	ND	50	60		1	119	70-130	10/15/2019 1913
Methyl acetate	ND	50	56		1	113	70-130	10/15/2019 1913
Methyl tertiary butyl ether (MTBE)	ND	50	53		1	105	70-130	10/15/2019 1913
4-Methyl-2-pentanone	ND	100	110		1	109	70-130	10/15/2019 1913
Methylcyclohexane	ND	50	65		1	130	70-130	10/15/2019 1913
Methylene chloride	ND	50	59		1	118	70-130	10/15/2019 1913
Styrene	ND	50	58		1	117	70-130	10/15/2019 1913
1,1,2,2-Tetrachloroethane	ND	50	55		1	110	70-130	10/15/2019 1913
Tetrachloroethene	ND	50	58		1	117	70-130	10/15/2019 1913
Toluene	ND	50	58		1	116	70-130	10/15/2019 1913
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	63		1	127	70-130	10/15/2019 1913
1,2,4-Trichlorobenzene	ND	50	54		1	109	70-130	10/15/2019 1913
1,1,1-Trichloroethane	ND	50	60		1	120	70-130	10/15/2019 1913
1,1,2-Trichloroethane	ND	50	53		1	107	70-130	10/15/2019 1913

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ10085-001MS
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	50	57		1	115	70-130	10/15/2019 1913
Trichlorofluoromethane	ND	50	64		1	127	70-130	10/15/2019 1913
Vinyl chloride	ND	50	63		1	127	70-130	10/15/2019 1913
Xylenes (total)	ND	100	110		1	115	70-130	10/15/2019 1913

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ10085-001MD
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	92		1	92	0.41	60-140	20	10/15/2019 1937
Benzene	ND	50	59		1	118	0.19	70-130	20	10/15/2019 1937
Bromodichloromethane	ND	50	57		1	114	2.0	70-130	20	10/15/2019 1937
Bromoform	ND	50	48		1	96	3.1	70-130	20	10/15/2019 1937
Bromomethane (Methyl bromide)	ND	50	58		1	116	3.5	70-130	20	10/15/2019 1937
2-Butanone (MEK)	ND	100	110		1	108	0.37	70-130	20	10/15/2019 1937
Carbon disulfide	ND	50	66	N	1	132	4.1	70-130	20	10/15/2019 1937
Carbon tetrachloride	ND	50	62		1	123	2.2	70-130	20	10/15/2019 1937
Chlorobenzene	ND	50	56		1	113	0.38	70-130	20	10/15/2019 1937
Chloroethane	ND	50	67	N	1	134	0.98	70-130	20	10/15/2019 1937
Chloroform	ND	50	60		1	120	0.88	70-130	20	10/15/2019 1937
Chloromethane (Methyl chloride)	ND	50	61		1	122	0.10	60-140	20	10/15/2019 1937
Cyclohexane	ND	50	61		1	122	1.1	70-130	20	10/15/2019 1937
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	51		1	103	0.66	70-130	20	10/15/2019 1937
Dibromochloromethane	ND	50	53		1	107	2.5	70-130	20	10/15/2019 1937
1,2-Dibromoethane (EDB)	ND	50	54		1	107	0.60	70-130	20	10/15/2019 1937
1,2-Dichlorobenzene	ND	50	56		1	112	0.70	70-130	20	10/15/2019 1937
1,3-Dichlorobenzene	ND	50	57		1	113	1.7	70-130	20	10/15/2019 1937
1,4-Dichlorobenzene	ND	50	55		1	110	0.36	70-130	20	10/15/2019 1937
Dichlorodifluoromethane	ND	50	72	N	1	144	0.73	60-140	20	10/15/2019 1937
1,1-Dichloroethane	ND	50	62		1	125	1.9	70-130	20	10/15/2019 1937
1,2-Dichloroethane	ND	50	53		1	106	0.16	70-130	20	10/15/2019 1937
1,1-Dichloroethene	ND	50	78	N	1	156	3.4	70-130	20	10/15/2019 1937
cis-1,2-Dichloroethene	ND	50	59		1	119	1.4	70-130	20	10/15/2019 1937
trans-1,2-Dichloroethene	ND	50	68	N	1	136	2.5	70-130	20	10/15/2019 1937
1,2-Dichloropropane	ND	50	59		1	117	0.031	70-130	20	10/15/2019 1937
cis-1,3-Dichloropropene	ND	50	59		1	117	1.5	70-130	20	10/15/2019 1937
trans-1,3-Dichloropropene	ND	50	55		1	110	0.30	70-130	20	10/15/2019 1937
Ethylbenzene	ND	50	58		1	117	0.74	70-130	20	10/15/2019 1937
2-Hexanone	ND	100	110		1	106	3.2	70-130	20	10/15/2019 1937
Isopropylbenzene	ND	50	59		1	119	0.46	70-130	20	10/15/2019 1937
Methyl acetate	ND	50	56		1	111	1.4	70-130	20	10/15/2019 1937
Methyl tertiary butyl ether (MTBE)	ND	50	56		1	112	5.9	70-130	20	10/15/2019 1937
4-Methyl-2-pentanone	ND	100	110		1	108	1.6	70-130	20	10/15/2019 1937
Methylcyclohexane	ND	50	66	N	1	131	1.5	70-130	20	10/15/2019 1937
Methylene chloride	ND	50	61		1	122	3.2	70-130	20	10/15/2019 1937
Styrene	ND	50	58		1	116	0.69	70-130	20	10/15/2019 1937
1,1,2,2-Tetrachloroethane	ND	50	54		1	108	1.7	70-130	20	10/15/2019 1937
Tetrachloroethene	ND	50	58		1	117	0.13	70-130	20	10/15/2019 1937
Toluene	ND	50	58		1	116	0.45	70-130	20	10/15/2019 1937
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	66	N	1	132	4.3	70-130	20	10/15/2019 1937
1,2,4-Trichlorobenzene	ND	50	53		1	107	1.7	70-130	20	10/15/2019 1937
1,1,1-Trichloroethane	ND	50	62		1	123	2.8	70-130	20	10/15/2019 1937
1,1,2-Trichloroethane	ND	50	53		1	107	0.39	70-130	20	10/15/2019 1937

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ10085-001MD
Batch: 32051
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	50	58		1	117	1.4	70-130	20	10/15/2019 1937
Trichlorofluoromethane	ND	50	65		1	129	1.8	70-130	20	10/15/2019 1937
Vinyl chloride	ND	50	63		1	127	0.32	70-130	20	10/15/2019 1937
Xylenes (total)	ND	100	120		1	115	0.44	70-130	20	10/15/2019 1937

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32279-001
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/18/2019 1030
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/18/2019 1030
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4-Dinitrophenol	ND		1	20	ug/L	10/18/2019 1030
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/18/2019 1030
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/18/2019 1030
2-Chloronaphthalene	ND		1	4.0	ug/L	10/18/2019 1030
2-Chlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2-Methylnaphthalene	ND		1	0.80	ug/L	10/18/2019 1030
2-Methylphenol	ND		1	4.0	ug/L	10/18/2019 1030
2-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
2-Nitrophenol	ND		1	4.0	ug/L	10/18/2019 1030
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/18/2019 1030
3+4-Methylphenol	ND		1	4.0	ug/L	10/18/2019 1030
3-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/18/2019 1030
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/18/2019 1030
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/18/2019 1030
4-Chloroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/18/2019 1030
4-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4-Nitrophenol	ND		1	20	ug/L	10/18/2019 1030
Acenaphthene	ND		1	0.80	ug/L	10/18/2019 1030
Acenaphthylene	ND		1	0.80	ug/L	10/18/2019 1030
Acetophenone	ND		1	4.0	ug/L	10/18/2019 1030
Anthracene	ND		1	0.80	ug/L	10/18/2019 1030
Atrazine	ND		1	4.0	ug/L	10/18/2019 1030
Benzaldehyde	ND		1	8.0	ug/L	10/18/2019 1030
Benzo(a)anthracene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(a)pyrene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Caprolactam	ND		1	8.0	ug/L	10/18/2019 1030
Carbazole	ND		1	4.0	ug/L	10/18/2019 1030
Chrysene	ND		1	0.80	ug/L	10/18/2019 1030
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/18/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32279-001
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/18/2019 1030
Diethylphthalate	ND		1	4.0	ug/L	10/18/2019 1030
Dimethyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Di-n-octylphthalate	ND		1	4.0	ug/L	10/18/2019 1030
Fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
Fluorene	ND		1	0.80	ug/L	10/18/2019 1030
Hexachlorobenzene	ND		1	4.0	ug/L	10/18/2019 1030
Hexachlorobutadiene	ND		1	4.0	ug/L	10/18/2019 1030
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/18/2019 1030
Hexachloroethane	ND		1	4.0	ug/L	10/18/2019 1030
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/18/2019 1030
Isophorone	ND		1	4.0	ug/L	10/18/2019 1030
Naphthalene	ND		1	0.80	ug/L	10/18/2019 1030
Nitrobenzene	ND		1	4.0	ug/L	10/18/2019 1030
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/18/2019 1030
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/18/2019 1030
Pentachlorophenol	ND		1	20	ug/L	10/18/2019 1030
Phenanthrene	ND		1	0.80	ug/L	10/18/2019 1030
Phenol	ND		1	4.0	ug/L	10/18/2019 1030
Pyrene	ND		1	0.80	ug/L	10/18/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		47	24-127
Nitrobenzene-d5		77	38-127
Phenol-d5		41	28-128
Terphenyl-d14		109	10-148
2,4,6-Tribromophenol		59	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32279-002
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	37		1	94	30-130	10/18/2019 1054
2,4,5-Trichlorophenol	40	29		1	71	30-123	10/18/2019 1054
2,4,6-Trichlorophenol	40	33		1	82	30-130	10/18/2019 1054
2,4-Dichlorophenol	40	31		1	77	30-121	10/18/2019 1054
2,4-Dimethylphenol	40	51	N	1	129	20-125	10/18/2019 1054
2,4-Dinitrophenol	80	62		1	77	11-126	10/18/2019 1054
2,4-Dinitrotoluene	40	38		1	96	30-130	10/18/2019 1054
2,6-Dinitrotoluene	40	38		1	94	30-130	10/18/2019 1054
2-Chloronaphthalene	40	37		1	92	30-130	10/18/2019 1054
2-Chlorophenol	40	41		1	103	30-130	10/18/2019 1054
2-Methylnaphthalene	40	34		1	85	40-132	10/18/2019 1054
2-Methylphenol	40	45		1	114	30-130	10/18/2019 1054
2-Nitroaniline	40	38		1	94	30-130	10/18/2019 1054
2-Nitrophenol	40	36		1	90	30-130	10/18/2019 1054
3,3'-Dichlorobenzidine	40	22		1	55	10-126	10/18/2019 1054
3+4-Methylphenol	40	43		1	109	30-130	10/18/2019 1054
3-Nitroaniline	40	31		1	77	30-130	10/18/2019 1054
4,6-Dinitro-2-methylphenol	40	36		1	89	30-130	10/18/2019 1054
4-Bromophenyl phenyl ether	40	32		1	81	30-124	10/18/2019 1054
4-Chloro-3-methyl phenol	40	36		1	90	30-123	10/18/2019 1054
4-Chloroaniline	40	17		1	42	12-157	10/18/2019 1054
4-Chlorophenyl phenyl ether	40	33		1	83	30-121	10/18/2019 1054
4-Nitroaniline	40	34		1	84	30-135	10/18/2019 1054
4-Nitrophenol	80	63		1	79	30-130	10/18/2019 1054
Acenaphthene	40	38		1	94	30-122	10/18/2019 1054
Acenaphthylene	40	39		1	97	30-130	10/18/2019 1054
Acetophenone	40	48		1	119	30-130	10/18/2019 1054
Anthracene	40	38		1	95	30-123	10/18/2019 1054
Atrazine	40	40		1	99	30-130	10/18/2019 1054
Benzaldehyde	40	45		1	113	20-115	10/18/2019 1054
Benzo(a)anthracene	40	38		1	94	40-125	10/18/2019 1054
Benzo(a)pyrene	40	40		1	100	40-128	10/18/2019 1054
Benzo(b)fluoranthene	40	40		1	99	30-130	10/18/2019 1054
Benzo(g,h,i)perylene	40	41		1	103	30-130	10/18/2019 1054
Benzo(k)fluoranthene	40	39		1	97	30-130	10/18/2019 1054
bis (2-Chloro-1-methylethyl) ether	40	45		1	112	30-130	10/18/2019 1054
bis(2-Chloroethoxy)methane	40	36		1	91	30-130	10/18/2019 1054
bis(2-Chloroethyl)ether	40	43		1	107	30-130	10/18/2019 1054
bis(2-Ethylhexyl)phthalate	40	43		1	107	30-130	10/18/2019 1054
Butyl benzyl phthalate	40	43		1	107	30-130	10/18/2019 1054
Caprolactam	40	17		1	42	30-130	10/18/2019 1054
Carbazole	40	38		1	95	30-130	10/18/2019 1054
Chrysene	40	37		1	92	30-130	10/18/2019 1054
Dibenzo(a,h)anthracene	40	42		1	104	30-130	10/18/2019 1054

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32279-002
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	35		1	89	30-118	10/18/2019 1054
Diethylphthalate	40	41		1	103	40-125	10/18/2019 1054
Dimethyl phthalate	40	38		1	96	40-127	10/18/2019 1054
Di-n-butyl phthalate	40	43		1	108	40-127	10/18/2019 1054
Di-n-octylphthalate	40	43		1	106	30-130	10/18/2019 1054
Fluoranthene	40	36		1	89	40-128	10/18/2019 1054
Fluorene	40	35		1	89	30-124	10/18/2019 1054
Hexachlorobenzene	40	35		1	87	30-125	10/18/2019 1054
Hexachlorobutadiene	40	32		1	79	24-110	10/18/2019 1054
Hexachlorocyclopentadiene	200	180		1	91	22-122	10/18/2019 1054
Hexachloroethane	40	37		1	92	30-130	10/18/2019 1054
Indeno(1,2,3-c,d)pyrene	40	42		1	105	30-130	10/18/2019 1054
Isophorone	40	38		1	95	30-130	10/18/2019 1054
Naphthalene	40	37		1	92	30-130	10/18/2019 1054
Nitrobenzene	40	36		1	90	30-130	10/18/2019 1054
N-Nitrosodi-n-propylamine	40	47		1	117	30-130	10/18/2019 1054
N-Nitrosodiphenylamine (Diphenylamine)	40	37		1	93	30-123	10/18/2019 1054
Pentachlorophenol	80	54		1	67	30-130	10/18/2019 1054
Phenanthrene	40	37		1	92	40-123	10/18/2019 1054
Phenol	40	32		1	79	30-130	10/18/2019 1054
Pyrene	40	40		1	100	40-126	10/18/2019 1054

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		82	24-127
Nitrobenzene-d5		87	38-127
Phenol-d5		74	28-128
Terphenyl-d14		98	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ10085-001MS
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	40	36		1	89	30-130	10/18/2019 2039
2,4,5-Trichlorophenol	ND	40	31		1	77	30-123	10/18/2019 2039
2,4,6-Trichlorophenol	ND	40	32		1	80	30-130	10/18/2019 2039
2,4-Dichlorophenol	ND	40	31		1	78	30-121	10/18/2019 2039
2,4-Dimethylphenol	ND	40	52	N	1	131	20-125	10/18/2019 2039
2,4-Dinitrophenol	ND	80	54		1	67	30-130	10/18/2019 2039
2,4-Dinitrotoluene	ND	40	38		1	94	30-130	10/18/2019 2039
2,6-Dinitrotoluene	ND	40	36		1	91	30-130	10/18/2019 2039
2-Chloronaphthalene	ND	40	35		1	89	30-130	10/18/2019 2039
2-Chlorophenol	ND	40	39		1	97	30-130	10/18/2019 2039
2-Methylnaphthalene	ND	40	33		1	82	40-132	10/18/2019 2039
2-Methylphenol	ND	40	51		1	128	30-130	10/18/2019 2039
2-Nitroaniline	ND	40	36		1	91	30-130	10/18/2019 2039
2-Nitrophenol	ND	40	35		1	88	30-130	10/18/2019 2039
3,3'-Dichlorobenzidine	ND	40	23		1	57	10-126	10/18/2019 2039
3+4-Methylphenol	ND	40	43		1	107	30-130	10/18/2019 2039
3-Nitroaniline	ND	40	28		1	71	30-130	10/18/2019 2039
4,6-Dinitro-2-methylphenol	ND	40	32		1	80	30-130	10/18/2019 2039
4-Bromophenyl phenyl ether	ND	40	32		1	79	30-124	10/18/2019 2039
4-Chloro-3-methyl phenol	ND	40	35		1	87	30-123	10/18/2019 2039
4-Chloroaniline	ND	40	26		1	64	10-130	10/18/2019 2039
4-Chlorophenyl phenyl ether	ND	40	32		1	80	30-121	10/18/2019 2039
4-Nitroaniline	ND	40	32		1	81	30-135	10/18/2019 2039
4-Nitrophenol	ND	80	57		1	71	30-130	10/18/2019 2039
Acenaphthene	ND	40	36		1	89	30-122	10/18/2019 2039
Acenaphthylene	ND	40	37		1	92	30-130	10/18/2019 2039
Acetophenone	ND	40	41		1	102	30-130	10/18/2019 2039
Anthracene	ND	40	36		1	91	30-123	10/18/2019 2039
Atrazine	ND	40	38		1	95	30-130	10/18/2019 2039
Benzaldehyde	ND	40	42		1	104	20-115	10/18/2019 2039
Benzo(a)anthracene	ND	40	36		1	90	40-125	10/18/2019 2039
Benzo(a)pyrene	ND	40	39		1	98	40-128	10/18/2019 2039
Benzo(b)fluoranthene	ND	40	39		1	97	30-130	10/18/2019 2039
Benzo(g,h,i)perylene	ND	40	35		1	87	30-130	10/18/2019 2039
Benzo(k)fluoranthene	ND	40	36		1	91	30-130	10/18/2019 2039
bis (2-Chloro-1-methylethyl) ether	ND	40	39		1	97	30-130	10/18/2019 2039
bis(2-Chloroethoxy)methane	ND	40	35		1	87	30-130	10/18/2019 2039
bis(2-Chloroethyl)ether	ND	40	39		1	97	30-130	10/18/2019 2039
bis(2-Ethylhexyl)phthalate	ND	40	41		1	102	70-131	10/18/2019 2039
Butyl benzyl phthalate	ND	40	42		1	105	30-130	10/18/2019 2039
Caprolactam	ND	40	17		1	41	30-130	10/18/2019 2039
Carbazole	ND	40	37		1	93	30-130	10/18/2019 2039
Chrysene	ND	40	35		1	88	30-130	10/18/2019 2039
Dibenzo(a,h)anthracene	ND	40	36		1	90	30-130	10/18/2019 2039

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ10085-001MS
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	40	33		1	84	30-118	10/18/2019 2039
Diethylphthalate	ND	40	39		1	98	40-125	10/18/2019 2039
Dimethyl phthalate	ND	40	37		1	93	40-127	10/18/2019 2039
Di-n-butyl phthalate	ND	40	42		1	106	40-127	10/18/2019 2039
Di-n-octylphthalate	ND	40	38		1	95	30-130	10/18/2019 2039
Fluoranthene	ND	40	35		1	87	40-128	10/18/2019 2039
Fluorene	ND	40	33		1	84	30-124	10/18/2019 2039
Hexachlorobenzene	ND	40	33		1	84	30-125	10/18/2019 2039
Hexachlorobutadiene	ND	40	32		1	79	24-110	10/18/2019 2039
Hexachlorocyclopentadiene	ND	200	150		1	76	22-122	10/18/2019 2039
Hexachloroethane	ND	40	35		1	87	30-130	10/18/2019 2039
Indeno(1,2,3-c,d)pyrene	ND	40	36		1	90	30-130	10/18/2019 2039
Isophorone	ND	40	37		1	92	30-130	10/18/2019 2039
Naphthalene	ND	40	35		1	88	30-130	10/18/2019 2039
Nitrobenzene	ND	40	34		1	85	30-130	10/18/2019 2039
N-Nitrosodi-n-propylamine	ND	40	42		1	104	30-130	10/18/2019 2039
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	36		1	91	30-123	10/18/2019 2039
Pentachlorophenol	ND	80	53		1	66	30-130	10/18/2019 2039
Phenanthrene	ND	40	35		1	88	40-123	10/18/2019 2039
Phenol	ND	40	30		1	76	30-130	10/18/2019 2039
Pyrene	ND	40	38		1	95	40-126	10/18/2019 2039

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		80	37-129
2-Fluorophenol		75	24-127
Nitrobenzene-d5		81	38-127
Phenol-d5		67	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ10085-001MD
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	40	36		1	91	1.8	30-130	40	10/18/2019 2103
2,4,5-Trichlorophenol	ND	40	32		1	80	2.7	30-123	40	10/18/2019 2103
2,4,6-Trichlorophenol	ND	40	32		1	81	1.3	30-130	40	10/18/2019 2103
2,4-Dichlorophenol	ND	40	32		1	79	1.2	30-121	40	10/18/2019 2103
2,4-Dimethylphenol	ND	40	53	N	1	131	0.35	20-125	40	10/18/2019 2103
2,4-Dinitrophenol	ND	80	55		1	69	3.2	30-130	40	10/18/2019 2103
2,4-Dinitrotoluene	ND	40	39		1	97	3.2	30-130	40	10/18/2019 2103
2,6-Dinitrotoluene	ND	40	37		1	92	1.6	30-130	40	10/18/2019 2103
2-Chloronaphthalene	ND	40	36		1	89	0.87	30-130	40	10/18/2019 2103
2-Chlorophenol	ND	40	40		1	101	4.0	30-130	40	10/18/2019 2103
2-Methylnaphthalene	ND	40	33		1	84	1.4	40-132	40	10/18/2019 2103
2-Methylphenol	ND	40	52		1	129	1.3	30-130	40	10/18/2019 2103
2-Nitroaniline	ND	40	37		1	93	2.8	30-130	40	10/18/2019 2103
2-Nitrophenol	ND	40	36		1	89	1.0	30-130	40	10/18/2019 2103
3,3'-Dichlorobenzidine	ND	40	20		1	50	11	10-126	40	10/18/2019 2103
3+4-Methylphenol	ND	40	45		1	112	4.5	30-130	40	10/18/2019 2103
3-Nitroaniline	ND	40	29		1	72	1.6	30-130	40	10/18/2019 2103
4,6-Dinitro-2-methylphenol	ND	40	32		1	81	0.43	30-130	40	10/18/2019 2103
4-Bromophenyl phenyl ether	ND	40	32		1	79	0.0057	30-124	40	10/18/2019 2103
4-Chloro-3-methyl phenol	ND	40	35		1	88	1.7	30-123	40	10/18/2019 2103
4-Chloroaniline	ND	40	21		1	52	20	10-130	40	10/18/2019 2103
4-Chlorophenyl phenyl ether	ND	40	32		1	81	1.1	30-121	40	10/18/2019 2103
4-Nitroaniline	ND	40	33		1	82	1.1	30-135	40	10/18/2019 2103
4-Nitrophenol	ND	80	59		1	73	3.4	30-130	40	10/18/2019 2103
Acenaphthene	ND	40	36		1	90	0.91	30-122	40	10/18/2019 2103
Acenaphthylene	ND	40	38		1	94	2.2	30-130	40	10/18/2019 2103
Acetophenone	ND	40	42		1	105	3.2	30-130	40	10/18/2019 2103
Anthracene	ND	40	37		1	91	0.35	30-123	40	10/18/2019 2103
Atrazine	ND	40	38		1	96	0.36	30-130	40	10/18/2019 2103
Benzaldehyde	ND	40	46		1	114	8.7	20-115	40	10/18/2019 2103
Benzo(a)anthracene	ND	40	35		1	89	1.2	40-125	40	10/18/2019 2103
Benzo(a)pyrene	ND	40	38		1	95	3.2	40-128	40	10/18/2019 2103
Benzo(b)fluoranthene	ND	40	37		1	92	5.6	30-130	40	10/18/2019 2103
Benzo(g,h,i)perylene	ND	40	35		1	86	0.45	30-130	40	10/18/2019 2103
Benzo(k)fluoranthene	ND	40	36		1	90	0.50	30-130	40	10/18/2019 2103
bis (2-Chloro-1-methylethyl) ether	ND	40	41		1	102	4.6	30-130	40	10/18/2019 2103
bis(2-Chloroethoxy)methane	ND	40	35		1	88	0.68	30-130	40	10/18/2019 2103
bis(2-Chloroethyl)ether	ND	40	41		1	101	4.7	30-130	40	10/18/2019 2103
bis(2-Ethylhexyl)phthalate	ND	40	40		1	99	2.8	70-131	40	10/18/2019 2103
Butyl benzyl phthalate	ND	40	42		1	105	0.054	30-130	40	10/18/2019 2103
Caprolactam	ND	40	17		1	41	0.37	30-130	40	10/18/2019 2103
Carbazole	ND	40	37		1	94	0.36	30-130	40	10/18/2019 2103
Chrysene	ND	40	34		1	86	2.7	30-130	40	10/18/2019 2103
Dibenzo(a,h)anthracene	ND	40	36		1	90	0.24	30-130	40	10/18/2019 2103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ10085-001MD
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	40	34		1	86	2.5	30-118	40	10/18/2019 2103
Diethylphthalate	ND	40	40		1	100	2.8	40-125	40	10/18/2019 2103
Dimethyl phthalate	ND	40	37		1	94	1.0	40-127	40	10/18/2019 2103
Di-n-butyl phthalate	ND	40	42		1	105	0.50	40-127	40	10/18/2019 2103
Di-n-octylphthalate	ND	40	38		1	96	0.64	30-130	40	10/18/2019 2103
Fluoranthene	ND	40	35		1	87	0.29	40-128	40	10/18/2019 2103
Fluorene	ND	40	34		1	86	2.5	30-124	40	10/18/2019 2103
Hexachlorobenzene	ND	40	33		1	83	1.2	30-125	40	10/18/2019 2103
Hexachlorobutadiene	ND	40	32		1	79	0.28	24-110	40	10/18/2019 2103
Hexachlorocyclopentadiene	ND	200	150		1	77	0.94	22-122	40	10/18/2019 2103
Hexachloroethane	ND	40	36		1	89	2.0	30-130	40	10/18/2019 2103
Indeno(1,2,3-c,d)pyrene	ND	40	36		1	90	0.13	30-130	40	10/18/2019 2103
Isophorone	ND	40	37		1	93	1.2	30-130	40	10/18/2019 2103
Naphthalene	ND	40	35		1	87	0.40	30-130	40	10/18/2019 2103
Nitrobenzene	ND	40	34		1	86	0.76	30-130	40	10/18/2019 2103
N-Nitrosodi-n-propylamine	ND	40	43		1	107	2.7	30-130	40	10/18/2019 2103
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	37		1	92	0.40	30-123	40	10/18/2019 2103
Pentachlorophenol	ND	80	54		1	67	1.5	30-130	40	10/18/2019 2103
Phenanthrene	ND	40	35		1	89	0.70	40-123	40	10/18/2019 2103
Phenol	ND	40	31		1	77	2.2	30-130	40	10/18/2019 2103
Pyrene	ND	40	37		1	93	1.8	40-126	40	10/18/2019 2103

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		80	24-127
Nitrobenzene-d5		82	38-127
Phenol-d5		69	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 099581

Client: WESTINGHOUSE	Report to Contact: Diana Joyner	Telephone No. / E-mail: 803 647 1920 Joyner1dp@westinghouse.com	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: X [signature]	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS State: SC Zip Code: 29061	Printed Name: James Leaphart		UJ10085 GRW
Project Name: WESTINGHOUSE RI			Elements / Cooler I.D.
Project No.: 60595649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab (G) / Composite (C)	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnOAc/NaOH	TCL VOC's 8260B	TCL SVOC's 8270B	NITRATES 353.2
W-92	10-10-19	0930	G	X			3			3			X	X	X
W-92-MS		0930	G	X			3			3			X	X	X
W-92-MSD		0930	G	X			3			3			X	X	X
W-27		1140	G	X			3			3			X	X	X
W-3A		1340	G	X			3			3			X	X	X
W-4		1515	G	X			3			3			X	X	X
TB-01-101019		—	—	X			2						X		

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature]	10-10-19	1625	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: L Hite	10/10/19	1625

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on ice (Circle) (Yes) No Ice Pack — Receipt Temp 2.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MEX018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: JSH / 10/10/19 Lot #: UJ10085

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.0 / 2.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: DMN Date: 10/10/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ11039**

Date Completed:10/21/2019

10/21/2019 4:47 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ11039

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ11039

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-97	Aqueous	10/11/2019 1225	10/11/2019
002	W-96	Aqueous	10/11/2019 1420	10/11/2019
003	W-24	Aqueous	10/11/2019 1001	10/11/2019
004	W-RW2	Aqueous	10/11/2019 1218	10/11/2019
005	TB-01-101119	Aqueous	10/11/2019	10/11/2019

(5 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ11039

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-97	Aqueous	Nitrate - N	353.2	3.4		mg/L	5
001	W-97	Aqueous	Tetrachloroethene	8260B	4.3		ug/L	6
001	W-97	Aqueous	Trichloroethene	8260B	1.2		ug/L	7
002	W-96	Aqueous	Nitrate - N	353.2	0.054		mg/L	10
004	W-RW2	Aqueous	Nitrate - N	353.2	20		mg/L	20
004	W-RW2	Aqueous	Tetrachloroethene	8260B	140		ug/L	21
004	W-RW2	Aqueous	Trichloroethene	8260B	8.3		ug/L	22

(7 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ11039-001
Description: W-97
Matrix: Aqueous
Date Sampled:10/11/2019 1225
Project Name: Westinghouse RI
Date Received: 10/11/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	25	10/12/2019 0148	AMR		31821

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.4		0.50	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-001
Description: W-97 | Matrix: Aqueous
Date Sampled:10/11/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0034	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.3		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-001
Description: W-97 | Matrix: Aqueous
Date Sampled:10/11/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0034	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	1.2		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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N = Recovery is out of criteria
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H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-001
Description: W-97 | Matrix: Aqueous
Date Sampled:10/11/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1635	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-001
Description: W-97 | Matrix: Aqueous
Date Sampled:10/11/2019 1225 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1635	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		78	37-129
2-Fluorophenol		49	24-127
Nitrobenzene-d5		74	38-127
Phenol-d5		38	28-128
Terphenyl-d14		97	10-148
2,4,6-Tribromophenol		61	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ11039-002
Description: W-96
Matrix: Aqueous
Date Sampled:10/11/2019 1420
Project Name: Westinghouse RI
Date Received: 10/11/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/12/2019 0149	AMR		31821

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.054		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-002
Description: W-96 | Matrix: Aqueous
Date Sampled:10/11/2019 1420 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0058	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ11039-002
Description: W-96
Matrix: Aqueous
Date Sampled:10/11/2019 1420
Project Name: Westinghouse RI
Date Received: 10/11/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0058	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
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N = Recovery is out of criteria
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H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-002
Description: W-96 | Matrix: Aqueous
Date Sampled:10/11/2019 1420 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1700	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-002
Description: W-96 | Matrix: Aqueous
Date Sampled:10/11/2019 1420 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1700	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		40	24-127
Nitrobenzene-d5		69	38-127
Phenol-d5		43	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		57	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ11039-003
Description: W-24
Matrix: Aqueous
Date Sampled:10/11/2019 1001
Project Name: Westinghouse RI
Date Received: 10/11/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/12/2019 0151	AMR		31821

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-003
Description: W-24 | Matrix: Aqueous
Date Sampled:10/11/2019 1001 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0122	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company — Laboratory ID: UJ11039-003
Description: W-24 — Matrix: Aqueous
Date Sampled:10/11/2019 1001 — Project Name: Westinghouse RI
Date Received: 10/11/2019 — Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0122	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-003
Description: W-24 | Matrix: Aqueous
Date Sampled:10/11/2019 1001 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1724	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-003
Description: W-24 | Matrix: Aqueous
Date Sampled:10/11/2019 1001 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1724	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		77	37-129
2-Fluorophenol		39	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		36	28-128
Terphenyl-d14		96	10-148
2,4,6-Tribromophenol		61	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ11039-004
Description: W-RW2
Matrix: Aqueous
Date Sampled:10/11/2019 1218
Project Name: Westinghouse RI
Date Received: 10/11/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	15	10/12/2019 0156	AMR		31821

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	20		0.30	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-004
Description: W-RW2 | Matrix: Aqueous
Date Sampled:10/11/2019 1218 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0146	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	140		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-004
Description: W-RW2 | Matrix: Aqueous
Date Sampled:10/11/2019 1218 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/14/2019 0146	ALR1		31876

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	8.3		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-004
Description: W-RW2 | Matrix: Aqueous
Date Sampled:10/11/2019 1218 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1748	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-004
Description: W-RW2 | Matrix: Aqueous
Date Sampled:10/11/2019 1218 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/18/2019 1748	SCD	10/16/2019 1427	32279

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		80	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		71	38-127
Phenol-d5		42	28-128
Terphenyl-d14		98	10-148
2,4,6-Tribromophenol		63	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ11039-005
Description: TB-01-101119 | Matrix: Aqueous
Date Sampled:10/11/2019 | Project Name: Westinghouse RI
Date Received: 10/11/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 0208	ALR1		32008

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company	Laboratory ID: UJ11039-005
Description: TB-01-101119	Matrix: Aqueous
Date Sampled:10/11/2019	Project Name: Westinghouse RI
Date Received: 10/11/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/15/2019 0208	ALR1		32008

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ31821-001
Batch: 31821
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/12/2019 0141

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ31821-002
Batch: 31821
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	10/12/2019 0143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31876-001
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/13/2019 1742
Benzene	ND		1	1.0	ug/L	10/13/2019 1742
Bromodichloromethane	ND		1	1.0	ug/L	10/13/2019 1742
Bromoform	ND		1	1.0	ug/L	10/13/2019 1742
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/13/2019 1742
2-Butanone (MEK)	ND		1	10	ug/L	10/13/2019 1742
Carbon disulfide	ND		1	1.0	ug/L	10/13/2019 1742
Carbon tetrachloride	ND		1	1.0	ug/L	10/13/2019 1742
Chlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
Chloroethane	ND		1	2.0	ug/L	10/13/2019 1742
Chloroform	ND		1	1.0	ug/L	10/13/2019 1742
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/13/2019 1742
Cyclohexane	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/13/2019 1742
Dibromochloromethane	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/13/2019 1742
1,1-Dichloroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dichloroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,1-Dichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
1,2-Dichloropropane	ND		1	1.0	ug/L	10/13/2019 1742
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/13/2019 1742
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/13/2019 1742
Ethylbenzene	ND		1	1.0	ug/L	10/13/2019 1742
2-Hexanone	ND		1	10	ug/L	10/13/2019 1742
Isopropylbenzene	ND		1	1.0	ug/L	10/13/2019 1742
Methyl acetate	ND		1	1.0	ug/L	10/13/2019 1742
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/13/2019 1742
4-Methyl-2-pentanone	ND		1	10	ug/L	10/13/2019 1742
Methylcyclohexane	ND		1	5.0	ug/L	10/13/2019 1742
Methylene chloride	ND		1	1.0	ug/L	10/13/2019 1742
Styrene	ND		1	1.0	ug/L	10/13/2019 1742
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/13/2019 1742
Tetrachloroethene	ND		1	1.0	ug/L	10/13/2019 1742
Toluene	ND		1	1.0	ug/L	10/13/2019 1742
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/13/2019 1742
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/13/2019 1742
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/13/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ31876-001
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/13/2019 1742
Trichlorofluoromethane	ND		1	1.0	ug/L	10/13/2019 1742
Vinyl chloride	ND		1	1.0	ug/L	10/13/2019 1742
Xylenes (total)	ND		1	1.0	ug/L	10/13/2019 1742

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31876-002
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	10/13/2019 1639
Benzene	50	52		1	103	70-130	10/13/2019 1639
Bromodichloromethane	50	55		1	109	70-130	10/13/2019 1639
Bromoform	50	57		1	114	70-130	10/13/2019 1639
Bromomethane (Methyl bromide)	50	51		1	102	70-130	10/13/2019 1639
2-Butanone (MEK)	100	120		1	125	70-130	10/13/2019 1639
Carbon disulfide	50	55		1	110	70-130	10/13/2019 1639
Carbon tetrachloride	50	53		1	107	70-130	10/13/2019 1639
Chlorobenzene	50	51		1	103	70-130	10/13/2019 1639
Chloroethane	50	57		1	115	70-130	10/13/2019 1639
Chloroform	50	53		1	107	70-130	10/13/2019 1639
Chloromethane (Methyl chloride)	50	49		1	98	60-140	10/13/2019 1639
Cyclohexane	50	50		1	99	70-130	10/13/2019 1639
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	104	70-130	10/13/2019 1639
Dibromochloromethane	50	55		1	111	70-130	10/13/2019 1639
1,2-Dibromoethane (EDB)	50	51		1	103	70-130	10/13/2019 1639
1,2-Dichlorobenzene	50	51		1	101	70-130	10/13/2019 1639
1,3-Dichlorobenzene	50	51		1	102	70-130	10/13/2019 1639
1,4-Dichlorobenzene	50	50		1	100	70-130	10/13/2019 1639
Dichlorodifluoromethane	50	52		1	104	60-140	10/13/2019 1639
1,1-Dichloroethane	50	53		1	106	70-130	10/13/2019 1639
1,2-Dichloroethane	50	49		1	99	70-130	10/13/2019 1639
1,1-Dichloroethene	50	63		1	127	70-130	10/13/2019 1639
cis-1,2-Dichloroethene	50	52		1	104	70-130	10/13/2019 1639
trans-1,2-Dichloroethene	50	57		1	115	70-130	10/13/2019 1639
1,2-Dichloropropane	50	52		1	105	70-130	10/13/2019 1639
cis-1,3-Dichloropropene	50	58		1	116	70-130	10/13/2019 1639
trans-1,3-Dichloropropene	50	57		1	114	70-130	10/13/2019 1639
Ethylbenzene	50	52		1	104	70-130	10/13/2019 1639
2-Hexanone	100	100		1	102	70-130	10/13/2019 1639
Isopropylbenzene	50	53		1	106	70-130	10/13/2019 1639
Methyl acetate	50	59		1	118	70-130	10/13/2019 1639
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	10/13/2019 1639
4-Methyl-2-pentanone	100	100		1	100	70-130	10/13/2019 1639
Methylcyclohexane	50	55		1	111	70-130	10/13/2019 1639
Methylene chloride	50	53		1	106	70-130	10/13/2019 1639
Styrene	50	54		1	107	70-130	10/13/2019 1639
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	10/13/2019 1639
Tetrachloroethene	50	52		1	103	70-130	10/13/2019 1639
Toluene	50	51		1	102	70-130	10/13/2019 1639
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	56		1	111	70-130	10/13/2019 1639
1,2,4-Trichlorobenzene	50	52		1	105	70-130	10/13/2019 1639
1,1,1-Trichloroethane	50	52		1	104	70-130	10/13/2019 1639
1,1,2-Trichloroethane	50	50		1	100	70-130	10/13/2019 1639

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ31876-002
Batch: 31876
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	10/13/2019 1639
Trichlorofluoromethane	50	56		1	112	70-130	10/13/2019 1639
Vinyl chloride	50	51		1	101	70-130	10/13/2019 1639
Xylenes (total)	100	100		1	104	70-130	10/13/2019 1639

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32008-001
Batch: 32008
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/14/2019 2300
Benzene	ND		1	1.0	ug/L	10/14/2019 2300
Bromodichloromethane	ND		1	1.0	ug/L	10/14/2019 2300
Bromoform	ND		1	1.0	ug/L	10/14/2019 2300
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/14/2019 2300
2-Butanone (MEK)	ND		1	10	ug/L	10/14/2019 2300
Carbon disulfide	ND		1	1.0	ug/L	10/14/2019 2300
Carbon tetrachloride	ND		1	1.0	ug/L	10/14/2019 2300
Chlorobenzene	ND		1	1.0	ug/L	10/14/2019 2300
Chloroethane	ND		1	2.0	ug/L	10/14/2019 2300
Chloroform	ND		1	1.0	ug/L	10/14/2019 2300
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/14/2019 2300
Cyclohexane	ND		1	1.0	ug/L	10/14/2019 2300
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/14/2019 2300
Dibromochloromethane	ND		1	1.0	ug/L	10/14/2019 2300
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/14/2019 2300
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/14/2019 2300
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/14/2019 2300
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/14/2019 2300
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/14/2019 2300
1,1-Dichloroethane	ND		1	1.0	ug/L	10/14/2019 2300
1,2-Dichloroethane	ND		1	1.0	ug/L	10/14/2019 2300
1,1-Dichloroethene	ND		1	1.0	ug/L	10/14/2019 2300
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/14/2019 2300
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/14/2019 2300
1,2-Dichloropropane	ND		1	1.0	ug/L	10/14/2019 2300
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/14/2019 2300
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/14/2019 2300
Ethylbenzene	ND		1	1.0	ug/L	10/14/2019 2300
2-Hexanone	ND		1	10	ug/L	10/14/2019 2300
Isopropylbenzene	ND		1	1.0	ug/L	10/14/2019 2300
Methyl acetate	ND		1	1.0	ug/L	10/14/2019 2300
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/14/2019 2300
4-Methyl-2-pentanone	ND		1	10	ug/L	10/14/2019 2300
Methylcyclohexane	ND		1	5.0	ug/L	10/14/2019 2300
Methylene chloride	ND		1	1.0	ug/L	10/14/2019 2300
Styrene	ND		1	1.0	ug/L	10/14/2019 2300
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/14/2019 2300
Tetrachloroethene	ND		1	1.0	ug/L	10/14/2019 2300
Toluene	ND		1	1.0	ug/L	10/14/2019 2300
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/14/2019 2300
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/14/2019 2300
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/14/2019 2300
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/14/2019 2300

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32008-001
Batch: 32008
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/14/2019 2300
Trichlorofluoromethane	ND		1	1.0	ug/L	10/14/2019 2300
Vinyl chloride	ND		1	1.0	ug/L	10/14/2019 2300
Xylenes (total)	ND		1	1.0	ug/L	10/14/2019 2300

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32008-002
Batch: 32008
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	80		1	80	60-140	10/14/2019 2052
Benzene	50	49		1	98	70-130	10/14/2019 2052
Bromodichloromethane	50	49		1	98	70-130	10/14/2019 2052
Bromoform	50	45		1	90	70-130	10/14/2019 2052
Bromomethane (Methyl bromide)	50	53		1	105	70-130	10/14/2019 2052
2-Butanone (MEK)	100	96		1	96	70-130	10/14/2019 2052
Carbon disulfide	50	51		1	101	70-130	10/14/2019 2052
Carbon tetrachloride	50	49		1	99	70-130	10/14/2019 2052
Chlorobenzene	50	48		1	97	70-130	10/14/2019 2052
Chloroethane	50	60		1	121	70-130	10/14/2019 2052
Chloroform	50	49		1	99	70-130	10/14/2019 2052
Chloromethane (Methyl chloride)	50	55		1	110	60-140	10/14/2019 2052
Cyclohexane	50	47		1	94	70-130	10/14/2019 2052
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	10/14/2019 2052
Dibromochloromethane	50	48		1	95	70-130	10/14/2019 2052
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	10/14/2019 2052
1,2-Dichlorobenzene	50	49		1	98	70-130	10/14/2019 2052
1,3-Dichlorobenzene	50	49		1	98	70-130	10/14/2019 2052
1,4-Dichlorobenzene	50	48		1	97	70-130	10/14/2019 2052
Dichlorodifluoromethane	50	66		1	132	60-140	10/14/2019 2052
1,1-Dichloroethane	50	50		1	100	70-130	10/14/2019 2052
1,2-Dichloroethane	50	46		1	92	70-130	10/14/2019 2052
1,1-Dichloroethene	50	60		1	119	70-130	10/14/2019 2052
cis-1,2-Dichloroethene	50	49		1	97	70-130	10/14/2019 2052
trans-1,2-Dichloroethene	50	54		1	108	70-130	10/14/2019 2052
1,2-Dichloropropane	50	50		1	100	70-130	10/14/2019 2052
cis-1,3-Dichloropropene	50	53		1	106	70-130	10/14/2019 2052
trans-1,3-Dichloropropene	50	52		1	103	70-130	10/14/2019 2052
Ethylbenzene	50	49		1	99	70-130	10/14/2019 2052
2-Hexanone	100	96		1	96	70-130	10/14/2019 2052
Isopropylbenzene	50	50		1	101	70-130	10/14/2019 2052
Methyl acetate	50	56		1	112	70-130	10/14/2019 2052
Methyl tertiary butyl ether (MTBE)	50	49		1	97	70-130	10/14/2019 2052
4-Methyl-2-pentanone	100	96		1	96	70-130	10/14/2019 2052
Methylcyclohexane	50	53		1	107	70-130	10/14/2019 2052
Methylene chloride	50	50		1	99	70-130	10/14/2019 2052
Styrene	50	51		1	101	70-130	10/14/2019 2052
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	10/14/2019 2052
Tetrachloroethene	50	49		1	97	70-130	10/14/2019 2052
Toluene	50	48		1	97	70-130	10/14/2019 2052
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	107	70-130	10/14/2019 2052
1,2,4-Trichlorobenzene	50	49		1	98	70-130	10/14/2019 2052
1,1,1-Trichloroethane	50	49		1	99	70-130	10/14/2019 2052
1,1,2-Trichloroethane	50	47		1	95	70-130	10/14/2019 2052

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32008-002
Batch: 32008
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	97	70-130	10/14/2019 2052
Trichlorofluoromethane	50	58		1	116	70-130	10/14/2019 2052
Vinyl chloride	50	56		1	112	70-130	10/14/2019 2052
Xylenes (total)	100	99		1	99	70-130	10/14/2019 2052

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32279-001
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/18/2019 1030
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/18/2019 1030
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/18/2019 1030
2,4-Dinitrophenol	ND		1	20	ug/L	10/18/2019 1030
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/18/2019 1030
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/18/2019 1030
2-Chloronaphthalene	ND		1	4.0	ug/L	10/18/2019 1030
2-Chlorophenol	ND		1	4.0	ug/L	10/18/2019 1030
2-Methylnaphthalene	ND		1	0.80	ug/L	10/18/2019 1030
2-Methylphenol	ND		1	4.0	ug/L	10/18/2019 1030
2-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
2-Nitrophenol	ND		1	4.0	ug/L	10/18/2019 1030
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/18/2019 1030
3+4-Methylphenol	ND		1	4.0	ug/L	10/18/2019 1030
3-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/18/2019 1030
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/18/2019 1030
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/18/2019 1030
4-Chloroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/18/2019 1030
4-Nitroaniline	ND		1	8.0	ug/L	10/18/2019 1030
4-Nitrophenol	ND		1	20	ug/L	10/18/2019 1030
Acenaphthene	ND		1	0.80	ug/L	10/18/2019 1030
Acenaphthylene	ND		1	0.80	ug/L	10/18/2019 1030
Acetophenone	ND		1	4.0	ug/L	10/18/2019 1030
Anthracene	ND		1	0.80	ug/L	10/18/2019 1030
Atrazine	ND		1	4.0	ug/L	10/18/2019 1030
Benzaldehyde	ND		1	8.0	ug/L	10/18/2019 1030
Benzo(a)anthracene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(a)pyrene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/18/2019 1030
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/18/2019 1030
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Caprolactam	ND		1	8.0	ug/L	10/18/2019 1030
Carbazole	ND		1	4.0	ug/L	10/18/2019 1030
Chrysene	ND		1	0.80	ug/L	10/18/2019 1030
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/18/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32279-001
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/18/2019 1030
Diethylphthalate	ND		1	4.0	ug/L	10/18/2019 1030
Dimethyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/18/2019 1030
Di-n-octylphthalate	ND		1	4.0	ug/L	10/18/2019 1030
Fluoranthene	ND		1	0.80	ug/L	10/18/2019 1030
Fluorene	ND		1	0.80	ug/L	10/18/2019 1030
Hexachlorobenzene	ND		1	4.0	ug/L	10/18/2019 1030
Hexachlorobutadiene	ND		1	4.0	ug/L	10/18/2019 1030
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/18/2019 1030
Hexachloroethane	ND		1	4.0	ug/L	10/18/2019 1030
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/18/2019 1030
Isophorone	ND		1	4.0	ug/L	10/18/2019 1030
Naphthalene	ND		1	0.80	ug/L	10/18/2019 1030
Nitrobenzene	ND		1	4.0	ug/L	10/18/2019 1030
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/18/2019 1030
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/18/2019 1030
Pentachlorophenol	ND		1	20	ug/L	10/18/2019 1030
Phenanthrene	ND		1	0.80	ug/L	10/18/2019 1030
Phenol	ND		1	4.0	ug/L	10/18/2019 1030
Pyrene	ND		1	0.80	ug/L	10/18/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		47	24-127
Nitrobenzene-d5		77	38-127
Phenol-d5		41	28-128
Terphenyl-d14		109	10-148
2,4,6-Tribromophenol		59	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32279-002
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	37		1	94	30-130	10/18/2019 1054
2,4,5-Trichlorophenol	40	29		1	71	30-123	10/18/2019 1054
2,4,6-Trichlorophenol	40	33		1	82	30-130	10/18/2019 1054
2,4-Dichlorophenol	40	31		1	77	30-121	10/18/2019 1054
2,4-Dimethylphenol	40	51	N	1	129	20-125	10/18/2019 1054
2,4-Dinitrophenol	80	62		1	77	11-126	10/18/2019 1054
2,4-Dinitrotoluene	40	38		1	96	30-130	10/18/2019 1054
2,6-Dinitrotoluene	40	38		1	94	30-130	10/18/2019 1054
2-Chloronaphthalene	40	37		1	92	30-130	10/18/2019 1054
2-Chlorophenol	40	41		1	103	30-130	10/18/2019 1054
2-Methylnaphthalene	40	34		1	85	40-132	10/18/2019 1054
2-Methylphenol	40	45		1	114	30-130	10/18/2019 1054
2-Nitroaniline	40	38		1	94	30-130	10/18/2019 1054
2-Nitrophenol	40	36		1	90	30-130	10/18/2019 1054
3,3'-Dichlorobenzidine	40	22		1	55	10-126	10/18/2019 1054
3+4-Methylphenol	40	43		1	109	30-130	10/18/2019 1054
3-Nitroaniline	40	31		1	77	30-130	10/18/2019 1054
4,6-Dinitro-2-methylphenol	40	36		1	89	30-130	10/18/2019 1054
4-Bromophenyl phenyl ether	40	32		1	81	30-124	10/18/2019 1054
4-Chloro-3-methyl phenol	40	36		1	90	30-123	10/18/2019 1054
4-Chloroaniline	40	17		1	42	12-157	10/18/2019 1054
4-Chlorophenyl phenyl ether	40	33		1	83	30-121	10/18/2019 1054
4-Nitroaniline	40	34		1	84	30-135	10/18/2019 1054
4-Nitrophenol	80	63		1	79	30-130	10/18/2019 1054
Acenaphthene	40	38		1	94	30-122	10/18/2019 1054
Acenaphthylene	40	39		1	97	30-130	10/18/2019 1054
Acetophenone	40	48		1	119	30-130	10/18/2019 1054
Anthracene	40	38		1	95	30-123	10/18/2019 1054
Atrazine	40	40		1	99	30-130	10/18/2019 1054
Benzaldehyde	40	45		1	113	20-115	10/18/2019 1054
Benzo(a)anthracene	40	38		1	94	40-125	10/18/2019 1054
Benzo(a)pyrene	40	40		1	100	40-128	10/18/2019 1054
Benzo(b)fluoranthene	40	40		1	99	30-130	10/18/2019 1054
Benzo(g,h,i)perylene	40	41		1	103	30-130	10/18/2019 1054
Benzo(k)fluoranthene	40	39		1	97	30-130	10/18/2019 1054
bis (2-Chloro-1-methylethyl) ether	40	45		1	112	30-130	10/18/2019 1054
bis(2-Chloroethoxy)methane	40	36		1	91	30-130	10/18/2019 1054
bis(2-Chloroethyl)ether	40	43		1	107	30-130	10/18/2019 1054
bis(2-Ethylhexyl)phthalate	40	43		1	107	30-130	10/18/2019 1054
Butyl benzyl phthalate	40	43		1	107	30-130	10/18/2019 1054
Caprolactam	40	17		1	42	30-130	10/18/2019 1054
Carbazole	40	38		1	95	30-130	10/18/2019 1054
Chrysene	40	37		1	92	30-130	10/18/2019 1054
Dibenzo(a,h)anthracene	40	42		1	104	30-130	10/18/2019 1054

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32279-002
Batch: 32279
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/16/2019 1427

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	35		1	89	30-118	10/18/2019 1054
Diethylphthalate	40	41		1	103	40-125	10/18/2019 1054
Dimethyl phthalate	40	38		1	96	40-127	10/18/2019 1054
Di-n-butyl phthalate	40	43		1	108	40-127	10/18/2019 1054
Di-n-octylphthalate	40	43		1	106	30-130	10/18/2019 1054
Fluoranthene	40	36		1	89	40-128	10/18/2019 1054
Fluorene	40	35		1	89	30-124	10/18/2019 1054
Hexachlorobenzene	40	35		1	87	30-125	10/18/2019 1054
Hexachlorobutadiene	40	32		1	79	24-110	10/18/2019 1054
Hexachlorocyclopentadiene	200	180		1	91	22-122	10/18/2019 1054
Hexachloroethane	40	37		1	92	30-130	10/18/2019 1054
Indeno(1,2,3-c,d)pyrene	40	42		1	105	30-130	10/18/2019 1054
Isophorone	40	38		1	95	30-130	10/18/2019 1054
Naphthalene	40	37		1	92	30-130	10/18/2019 1054
Nitrobenzene	40	36		1	90	30-130	10/18/2019 1054
N-Nitrosodi-n-propylamine	40	47		1	117	30-130	10/18/2019 1054
N-Nitrosodiphenylamine (Diphenylamine)	40	37		1	93	30-123	10/18/2019 1054
Pentachlorophenol	80	54		1	67	30-130	10/18/2019 1054
Phenanthrene	40	37		1	92	40-123	10/18/2019 1054
Phenol	40	32		1	79	30-130	10/18/2019 1054
Pyrene	40	40		1	100	40-126	10/18/2019 1054

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		82	24-127
Nitrobenzene-d5		87	38-127
Phenol-d5		74	28-128
Terphenyl-d14		98	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 099903

Client: WESTINGHOUSE	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: [signature]	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS State: SC Zip Code: 29061	Printed Name: JAMES LEAVITT		UJ11039 GRW
Project Name: WESTINGHOUSE RI			
Project No.: 60595649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab / Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Other Matrix	No. of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	NaOH/ZnAc	TCL VOC's 8260B	TCL SVOC's 8270D	NITRATES 353.2	Remarks / Cooler I.D.
W-97	10-11-19	1225	G	X			3			3			X	X	X	
W-96		1420	G	X			3			3			X	X	X	
W-24		1001	G	X			3			3			X	X	X	
W-RW2		1218	G	X			3			3			X	X	X	
TB-01-101119				X						2			X			

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature]	10-11-19	1555	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: [signature]	10/14/19	1555

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack Receipt Temp. 5.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-139 Effective Date: 06-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page: 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: BMG / 10/11/19 Lot #: UJ11039

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

5.2 / 5.2 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: DMN Date: 10/11/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ14027**

Date Completed:10/23/2019

10/24/2019 3:09 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ14027

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ14027

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-26	Aqueous	10/14/2019 1425	10/14/2019
002	W-41R	Aqueous	10/14/2019 1345	10/14/2019
003	W-44	Aqueous	10/14/2019 1455	10/14/2019
004	TB-01-101419	Aqueous	10/14/2019	10/14/2019

(4 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ14027

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-26	Aqueous	Nitrate - N	353.2	3.2		mg/L	5
001	W-26	Aqueous	cis-1,2-Dichloroethene	8260B	3.7		ug/L	6
002	W-41R	Aqueous	Nitrate - N	353.2	65		mg/L	10
002	W-41R	Aqueous	cis-1,2-Dichloroethene	8260B	4.4		ug/L	11
002	W-41R	Aqueous	Tetrachloroethene	8260B	190		ug/L	11
002	W-41R	Aqueous	Trichloroethene	8260B	14		ug/L	12
003	W-44	Aqueous	Nitrate - N	353.2	2.4		mg/L	15

(7 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ14027-001
Description: W-26
Matrix: Aqueous
Date Sampled:10/14/2019 1425
Project Name: Westinghouse RI
Date Received: 10/14/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/16/2019 1140	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.2		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-001
Description: W-26 | Matrix: Aqueous
Date Sampled:10/14/2019 1425 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 0036	STM		32299

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	3.7		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-001

Description: W-26 | Matrix: Aqueous

Date Sampled: 10/14/2019 1425 | Project Name: Westinghouse RI

Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 0036	STM		32299

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
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H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-001
Description: W-26 | Matrix: Aqueous
Date Sampled:10/14/2019 1425 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1344	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-001
Description: W-26 | Matrix: Aqueous
Date Sampled:10/14/2019 1425 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1344	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		79	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		51	28-128
Terphenyl-d14		95	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ14027-002
Description: W-41R
Matrix: Aqueous
Date Sampled:10/14/2019 1345
Project Name: Westinghouse RI
Date Received: 10/14/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	50	10/16/2019 1157	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	65		1.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-002

Description: W-41R | Matrix: Aqueous

Date Sampled:10/14/2019 1345 | Project Name: Westinghouse RI

Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 0059 STM		32299
2	5030B	8260B	5	10/18/2019 0253 STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	4.4		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	190		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ14027-002
Description: W-41R
Matrix: Aqueous
Date Sampled:10/14/2019 1345
Project Name: Westinghouse RI
Date Received: 10/14/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 0059 STM		32299
2	5030B	8260B	5	10/18/2019 0253 STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	14		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		95	70-130		95	70-130
Bromofluorobenzene		87	70-130		90	70-130
Toluene-d8		90	70-130		92	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-002
Description: W-41R | Matrix: Aqueous
Date Sampled:10/14/2019 1345 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1408	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-002
Description: W-41R | Matrix: Aqueous
Date Sampled:10/14/2019 1345 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1408	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		33	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		45	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		70	35-144

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ14027-003
Description: W-44
Matrix: Aqueous
Date Sampled:10/14/2019 1455
Project Name: Westinghouse RI
Date Received: 10/14/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/16/2019 1148	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.4		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-003
Description: W-44 | Matrix: Aqueous
Date Sampled:10/14/2019 1455 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 0123	STM		32299

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-003
Description: W-44 | Matrix: Aqueous
Date Sampled:10/14/2019 1455 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 0123	STM		32299

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-003
Description: W-44 | Matrix: Aqueous
Date Sampled:10/14/2019 1455 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1457	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-003
Description: W-44 | Matrix: Aqueous
Date Sampled:10/14/2019 1455 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1457	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		41	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		51	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ14027-004
Description: TB-01-101419 | Matrix: Aqueous
Date Sampled:10/14/2019 | Project Name: Westinghouse RI
Date Received: 10/14/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/16/2019 2327	STM		32299

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company	Laboratory ID: UJ14027-004
Description: TB-01-101419	Matrix: Aqueous
Date Sampled:10/14/2019	Project Name: Westinghouse RI
Date Received: 10/14/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/16/2019 2327	STM		32299

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ32199-001
Batch: 32199
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/16/2019 1117

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32199-002
Batch: 32199
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	97	90-110	10/16/2019 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32299-001
Batch: 32299
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/16/2019 2158
Benzene	ND		1	1.0	ug/L	10/16/2019 2158
Bromodichloromethane	ND		1	1.0	ug/L	10/16/2019 2158
Bromoform	ND		1	1.0	ug/L	10/16/2019 2158
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/16/2019 2158
2-Butanone (MEK)	ND		1	10	ug/L	10/16/2019 2158
Carbon disulfide	ND		1	1.0	ug/L	10/16/2019 2158
Carbon tetrachloride	ND		1	1.0	ug/L	10/16/2019 2158
Chlorobenzene	ND		1	1.0	ug/L	10/16/2019 2158
Chloroethane	ND		1	2.0	ug/L	10/16/2019 2158
Chloroform	ND		1	1.0	ug/L	10/16/2019 2158
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/16/2019 2158
Cyclohexane	ND		1	1.0	ug/L	10/16/2019 2158
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/16/2019 2158
Dibromochloromethane	ND		1	1.0	ug/L	10/16/2019 2158
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/16/2019 2158
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/16/2019 2158
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/16/2019 2158
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/16/2019 2158
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/16/2019 2158
1,1-Dichloroethane	ND		1	1.0	ug/L	10/16/2019 2158
1,2-Dichloroethane	ND		1	1.0	ug/L	10/16/2019 2158
1,1-Dichloroethene	ND		1	1.0	ug/L	10/16/2019 2158
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/16/2019 2158
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/16/2019 2158
1,2-Dichloropropane	ND		1	1.0	ug/L	10/16/2019 2158
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/16/2019 2158
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/16/2019 2158
Ethylbenzene	ND		1	1.0	ug/L	10/16/2019 2158
2-Hexanone	ND		1	10	ug/L	10/16/2019 2158
Isopropylbenzene	ND		1	1.0	ug/L	10/16/2019 2158
Methyl acetate	ND		1	1.0	ug/L	10/16/2019 2158
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/16/2019 2158
4-Methyl-2-pentanone	ND		1	10	ug/L	10/16/2019 2158
Methylcyclohexane	ND		1	5.0	ug/L	10/16/2019 2158
Methylene chloride	ND		1	1.0	ug/L	10/16/2019 2158
Styrene	ND		1	1.0	ug/L	10/16/2019 2158
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/16/2019 2158
Tetrachloroethene	ND		1	1.0	ug/L	10/16/2019 2158
Toluene	ND		1	1.0	ug/L	10/16/2019 2158
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/16/2019 2158
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/16/2019 2158
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/16/2019 2158
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/16/2019 2158

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32299-001
Batch: 32299
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/16/2019 2158
Trichlorofluoromethane	ND		1	1.0	ug/L	10/16/2019 2158
Vinyl chloride	ND		1	1.0	ug/L	10/16/2019 2158
Xylenes (total)	ND		1	1.0	ug/L	10/16/2019 2158

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32299-002
Batch: 32299
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	104	60-140	10/16/2019 2058
Benzene	50	50		1	100	70-130	10/16/2019 2058
Bromodichloromethane	50	48		1	96	70-130	10/16/2019 2058
Bromoform	50	47		1	94	70-130	10/16/2019 2058
Bromomethane (Methyl bromide)	50	47		1	93	70-130	10/16/2019 2058
2-Butanone (MEK)	100	100		1	104	70-130	10/16/2019 2058
Carbon disulfide	50	53		1	107	70-130	10/16/2019 2058
Carbon tetrachloride	50	47		1	94	70-130	10/16/2019 2058
Chlorobenzene	50	48		1	96	70-130	10/16/2019 2058
Chloroethane	50	49		1	98	70-130	10/16/2019 2058
Chloroform	50	49		1	98	70-130	10/16/2019 2058
Chloromethane (Methyl chloride)	50	43		1	86	60-140	10/16/2019 2058
Cyclohexane	50	37		1	74	70-130	10/16/2019 2058
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	88	70-130	10/16/2019 2058
Dibromochloromethane	50	50		1	101	70-130	10/16/2019 2058
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	10/16/2019 2058
1,2-Dichlorobenzene	50	44		1	87	70-130	10/16/2019 2058
1,3-Dichlorobenzene	50	44		1	87	70-130	10/16/2019 2058
1,4-Dichlorobenzene	50	43		1	86	70-130	10/16/2019 2058
Dichlorodifluoromethane	50	48		1	96	60-140	10/16/2019 2058
1,1-Dichloroethane	50	49		1	97	70-130	10/16/2019 2058
1,2-Dichloroethane	50	48		1	96	70-130	10/16/2019 2058
1,1-Dichloroethene	50	51		1	103	70-130	10/16/2019 2058
cis-1,2-Dichloroethene	50	47		1	94	70-130	10/16/2019 2058
trans-1,2-Dichloroethene	50	51		1	102	70-130	10/16/2019 2058
1,2-Dichloropropane	50	49		1	98	70-130	10/16/2019 2058
cis-1,3-Dichloropropene	50	50		1	99	70-130	10/16/2019 2058
trans-1,3-Dichloropropene	50	52		1	104	70-130	10/16/2019 2058
Ethylbenzene	50	49		1	99	70-130	10/16/2019 2058
2-Hexanone	100	110		1	106	70-130	10/16/2019 2058
Isopropylbenzene	50	49		1	99	70-130	10/16/2019 2058
Methyl acetate	50	57		1	115	70-130	10/16/2019 2058
Methyl tertiary butyl ether (MTBE)	50	42		1	84	70-130	10/16/2019 2058
4-Methyl-2-pentanone	100	100		1	101	70-130	10/16/2019 2058
Methylcyclohexane	50	49		1	98	70-130	10/16/2019 2058
Methylene chloride	50	43		1	85	70-130	10/16/2019 2058
Styrene	50	50		1	99	70-130	10/16/2019 2058
1,1,2,2-Tetrachloroethane	50	49		1	97	70-130	10/16/2019 2058
Tetrachloroethene	50	50		1	99	70-130	10/16/2019 2058
Toluene	50	50		1	100	70-130	10/16/2019 2058
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	10/16/2019 2058
1,2,4-Trichlorobenzene	50	41		1	81	70-130	10/16/2019 2058
1,1,1-Trichloroethane	50	46		1	92	70-130	10/16/2019 2058
1,1,2-Trichloroethane	50	51		1	102	70-130	10/16/2019 2058

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32299-002
Batch: 32299
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	10/16/2019 2058
Trichlorofluoromethane	50	47		1	94	70-130	10/16/2019 2058
Vinyl chloride	50	46		1	91	70-130	10/16/2019 2058
Xylenes (total)	100	100		1	100	70-130	10/16/2019 2058

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32441-001
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	ug/L	10/17/2019 2151

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32441-002
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	51		1	101	70-130	10/17/2019 2051

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ14027-002MS
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	190	250	440		5	101	70-130	10/18/2019 0316

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ14027-002MD
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Tetrachloroethene	190	250	460		5	109	4.4	70-130	20	10/18/2019 0340

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32710-001
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/23/2019 1433
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/23/2019 1433
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4-Dinitrophenol	ND		1	20	ug/L	10/23/2019 1433
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/23/2019 1433
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/23/2019 1433
2-Chloronaphthalene	ND		1	4.0	ug/L	10/23/2019 1433
2-Chlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2-Methylnaphthalene	ND		1	0.80	ug/L	10/23/2019 1433
2-Methylphenol	ND		1	4.0	ug/L	10/23/2019 1433
2-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
2-Nitrophenol	ND		1	4.0	ug/L	10/23/2019 1433
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/23/2019 1433
3+4-Methylphenol	ND		1	4.0	ug/L	10/23/2019 1433
3-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/23/2019 1433
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/23/2019 1433
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/23/2019 1433
4-Chloroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/23/2019 1433
4-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4-Nitrophenol	ND		1	20	ug/L	10/23/2019 1433
Acenaphthene	ND		1	0.80	ug/L	10/23/2019 1433
Acenaphthylene	ND		1	0.80	ug/L	10/23/2019 1433
Acetophenone	ND		1	4.0	ug/L	10/23/2019 1433
Anthracene	ND		1	0.80	ug/L	10/23/2019 1433
Atrazine	ND		1	4.0	ug/L	10/23/2019 1433
Benzaldehyde	ND		1	8.0	ug/L	10/23/2019 1433
Benzo(a)anthracene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(a)pyrene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Caprolactam	ND		1	8.0	ug/L	10/23/2019 1433
Carbazole	ND		1	4.0	ug/L	10/23/2019 1433
Chrysene	ND		1	0.80	ug/L	10/23/2019 1433
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/23/2019 1433

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32710-001
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/23/2019 1433
Diethylphthalate	ND		1	4.0	ug/L	10/23/2019 1433
Dimethyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Di-n-octylphthalate	ND		1	4.0	ug/L	10/23/2019 1433
Fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
Fluorene	ND		1	0.80	ug/L	10/23/2019 1433
Hexachlorobenzene	ND		1	4.0	ug/L	10/23/2019 1433
Hexachlorobutadiene	ND		1	4.0	ug/L	10/23/2019 1433
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/23/2019 1433
Hexachloroethane	ND		1	4.0	ug/L	10/23/2019 1433
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/23/2019 1433
Isophorone	ND		1	4.0	ug/L	10/23/2019 1433
Naphthalene	ND		1	0.80	ug/L	10/23/2019 1433
Nitrobenzene	ND		1	4.0	ug/L	10/23/2019 1433
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/23/2019 1433
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/23/2019 1433
Pentachlorophenol	ND		1	20	ug/L	10/23/2019 1433
Phenanthrene	ND		1	0.80	ug/L	10/23/2019 1433
Phenol	ND		1	4.0	ug/L	10/23/2019 1433
Pyrene	ND		1	0.80	ug/L	10/23/2019 1433

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		74	37-129
2-Fluorophenol		32	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		62	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32710-002
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	33		1	83	30-130	10/23/2019 1320
2,4,5-Trichlorophenol	40	32		1	81	30-123	10/23/2019 1320
2,4,6-Trichlorophenol	40	33		1	81	30-130	10/23/2019 1320
2,4-Dichlorophenol	40	31		1	77	30-121	10/23/2019 1320
2,4-Dimethylphenol	40	36		1	91	20-125	10/23/2019 1320
2,4-Dinitrophenol	80	58		1	72	11-126	10/23/2019 1320
2,4-Dinitrotoluene	40	35		1	87	30-130	10/23/2019 1320
2,6-Dinitrotoluene	40	33		1	83	30-130	10/23/2019 1320
2-Chloronaphthalene	40	33		1	82	30-130	10/23/2019 1320
2-Chlorophenol	40	34		1	85	30-130	10/23/2019 1320
2-Methylnaphthalene	40	30		1	75	40-132	10/23/2019 1320
2-Methylphenol	40	31		1	77	30-130	10/23/2019 1320
2-Nitroaniline	40	34		1	85	30-130	10/23/2019 1320
2-Nitrophenol	40	33		1	84	30-130	10/23/2019 1320
3,3'-Dichlorobenzidine	40	26		1	65	10-126	10/23/2019 1320
3+4-Methylphenol	40	34		1	84	30-130	10/23/2019 1320
3-Nitroaniline	40	26		1	66	30-130	10/23/2019 1320
4,6-Dinitro-2-methylphenol	40	33		1	84	30-130	10/23/2019 1320
4-Bromophenyl phenyl ether	40	30		1	76	30-124	10/23/2019 1320
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/23/2019 1320
4-Chloroaniline	40	25		1	63	12-157	10/23/2019 1320
4-Chlorophenyl phenyl ether	40	31		1	77	30-121	10/23/2019 1320
4-Nitroaniline	40	29		1	72	30-135	10/23/2019 1320
4-Nitrophenol	80	70		1	87	30-130	10/23/2019 1320
Acenaphthene	40	33		1	83	30-122	10/23/2019 1320
Acenaphthylene	40	35		1	86	30-130	10/23/2019 1320
Acetophenone	40	34		1	84	30-130	10/23/2019 1320
Anthracene	40	35		1	88	30-123	10/23/2019 1320
Atrazine	40	34		1	85	30-130	10/23/2019 1320
Benzaldehyde	40	21		1	54	20-115	10/23/2019 1320
Benzo(a)anthracene	40	33		1	82	40-125	10/23/2019 1320
Benzo(a)pyrene	40	33		1	84	40-128	10/23/2019 1320
Benzo(b)fluoranthene	40	33		1	84	30-130	10/23/2019 1320
Benzo(g,h,i)perylene	40	35		1	88	30-130	10/23/2019 1320
Benzo(k)fluoranthene	40	32		1	81	30-130	10/23/2019 1320
bis (2-Chloro-1-methylethyl) ether	40	27		1	67	30-130	10/23/2019 1320
bis(2-Chloroethoxy)methane	40	31		1	78	30-130	10/23/2019 1320
bis(2-Chloroethyl)ether	40	31		1	78	30-130	10/23/2019 1320
bis(2-Ethylhexyl)phthalate	40	34		1	85	30-130	10/23/2019 1320
Butyl benzyl phthalate	40	35		1	87	30-130	10/23/2019 1320
Caprolactam	40	33		1	82	30-130	10/23/2019 1320
Carbazole	40	32		1	81	30-130	10/23/2019 1320
Chrysene	40	32		1	81	30-130	10/23/2019 1320
Dibenzo(a,h)anthracene	40	35		1	88	30-130	10/23/2019 1320

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32710-002
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	32		1	80	30-118	10/23/2019 1320
Diethylphthalate	40	37		1	92	40-125	10/23/2019 1320
Dimethyl phthalate	40	34		1	85	40-127	10/23/2019 1320
Di-n-butyl phthalate	40	37		1	93	40-127	10/23/2019 1320
Di-n-octylphthalate	40	32		1	81	30-130	10/23/2019 1320
Fluoranthene	40	33		1	83	40-128	10/23/2019 1320
Fluorene	40	31		1	78	30-124	10/23/2019 1320
Hexachlorobenzene	40	32		1	79	30-125	10/23/2019 1320
Hexachlorobutadiene	40	30		1	74	24-110	10/23/2019 1320
Hexachlorocyclopentadiene	200	130		1	63	22-122	10/23/2019 1320
Hexachloroethane	40	28		1	71	30-130	10/23/2019 1320
Indeno(1,2,3-c,d)pyrene	40	35		1	87	30-130	10/23/2019 1320
Isophorone	40	30		1	76	30-130	10/23/2019 1320
Naphthalene	40	33		1	83	30-130	10/23/2019 1320
Nitrobenzene	40	31		1	78	30-130	10/23/2019 1320
N-Nitrosodi-n-propylamine	40	31		1	78	30-130	10/23/2019 1320
N-Nitrosodiphenylamine (Diphenylamine)	40	34		1	85	30-123	10/23/2019 1320
Pentachlorophenol	80	55		1	69	30-130	10/23/2019 1320
Phenanthrene	40	33		1	83	40-123	10/23/2019 1320
Phenol	40	31		1	78	30-130	10/23/2019 1320
Pyrene	40	33		1	83	40-126	10/23/2019 1320

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		80	24-127
Nitrobenzene-d5		79	38-127
Phenol-d5		77	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		79	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 099916

Client: WESTINGHOUSE	Report to Contact: DIANA JAYNES	Telephone No. / E-mail: JAYNESDD@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: X [signature] [signature]	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	Printed Name: JAMES LEGHART RANDY CRUM
Project Name: WESTINGHOUSE RI			
Project No.: 60595649	P.O. No.		

UJ14027
SRW

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Comp C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	NaS2O3	TCL VOCs 8260B	TCL SVOCs 8270D	Nitrates 353.2
W-26	10-14-19	1425	G	X			3			3			X	X	X
W-412		1345	G	X			3			3			X	X	X
W-44		1455	G	X			3			3			X	X	X
TB-01-101419		—		X						2			X		

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)	Sample Disposal: ☐ Return to Client ☒ Disposal by Lab	Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	QC Requirements (Specify)				
1. Relinquished by: [signature]	Date: 10-14-19	Time: 1624	1. Received by		Date		Time
2. Relinquished by	Date	Time	2. Received by		Date		Time
3. Relinquished by	Date	Time	3. Received by		Date		Time
4. Relinquished by	Date	Time	4. Laboratory received by: [signature]		Date: 10/14/19		Time: 1624

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack — Receipt Temp: 1.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page: 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: MEC / 10/14/19 Lot #: UJ14027

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

1.7 / 1.7 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: _____ Date: _____

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ15043**

Date Completed:10/24/2019

10/24/2019 3:13 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ15043

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ15043

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-94	Aqueous	10/15/2019 0900	10/15/2019
002	W-95	Aqueous	10/15/2019 1110	10/15/2019
003	W-20	Aqueous	10/15/2019 1235	10/15/2019
004	EB-01-101519	Aqueous	10/15/2019 0920	10/15/2019
005	W-50	Aqueous	10/15/2019 1105	10/15/2019
006	W-40	Aqueous	10/15/2019 1233	10/15/2019
007	WSW-01	Aqueous	10/15/2019 1325	10/15/2019
008	TB-01-101519	Aqueous	10/15/2019	10/15/2019

(8 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ15043

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-94	Aqueous	cis-1,2-Dichloroethene	8260B	5.3		ug/L	6
002	W-95	Aqueous	Nitrate - N	353.2	0.024		mg/L	10
002	W-95	Aqueous	cis-1,2-Dichloroethene	8260B	4.3		ug/L	11
002	W-95	Aqueous	Vinyl chloride	8260B	2.9		ug/L	12
006	W-40	Aqueous	Nitrate - N	353.2	4.3		mg/L	30
007	WSW-01	Aqueous	Nitrate - N	353.2	0.020		mg/L	35

(6 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-001
Description: W-94
Matrix: Aqueous
Date Sampled: 10/15/2019 0900
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/16/2019 1203	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-001
Description: W-94 | Matrix: Aqueous
Date Sampled:10/15/2019 0900 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0034	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	5.3		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-001
Description: W-94
Matrix: Aqueous
Date Sampled: 10/15/2019 0900
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0034	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-001
Description: W-94 | Matrix: Aqueous
Date Sampled:10/15/2019 0900 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/20/2019 0106	SCD	10/18/2019 1430	32517

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-001
Description: W-94 | Matrix: Aqueous
Date Sampled:10/15/2019 0900 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/20/2019 0106	SCD	10/18/2019 1430	32517

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		36	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		39	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-002
Description: W-95
Matrix: Aqueous
Date Sampled:10/15/2019 1110
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/16/2019 1207	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.024		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-002
Description: W-95 | Matrix: Aqueous
Date Sampled:10/15/2019 1110 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0058	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	4.3		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-002
Description: W-95 | Matrix: Aqueous
Date Sampled:10/15/2019 1110 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0058	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	2.9		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-002
Description: W-95 | Matrix: Aqueous
Date Sampled:10/15/2019 1110 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1521	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-002
Description: W-95 | Matrix: Aqueous
Date Sampled:10/15/2019 1110 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1521	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		35	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		58	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		66	35-144

LOQ = Limit of Quantitation
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ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-003
Description: W-20
Matrix: Aqueous
Date Sampled: 10/15/2019 1235
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/16/2019 1208	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-003
Description: W-20 | Matrix: Aqueous
Date Sampled:10/15/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0121	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-003
Description: W-20 | Matrix: Aqueous
Date Sampled:10/15/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0121	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-003
Description: W-20 | Matrix: Aqueous
Date Sampled:10/15/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1546	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-003
Description: W-20 | Matrix: Aqueous
Date Sampled:10/15/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1546	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		38	24-127
Nitrobenzene-d5		64	38-127
Phenol-d5		53	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company			Laboratory ID: UJ15043-004
Description: EB-01-101519			Matrix: Aqueous
Date Sampled: 10/15/2019 0920	Project Name: Westinghouse RI		
Date Received: 10/15/2019	Project Number: 60595649		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/16/2019 1209	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-004
Description: EB-01-101519 | Matrix: Aqueous
Date Sampled:10/15/2019 0920 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 2324	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-004
Description: EB-01-101519
Matrix: Aqueous
Date Sampled:10/15/2019 0920
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 2324	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-004
Description: EB-01-101519 | Matrix: Aqueous
Date Sampled: 10/15/2019 0920 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1610	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-004
Description: EB-01-101519
Matrix: Aqueous
Date Sampled: 10/15/2019 0920
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1610	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		50	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		44	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-005
Description: W-50
Matrix: Aqueous
Date Sampled: 10/15/2019 1105
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/16/2019 1211	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-005
Description: W-50 | Matrix: Aqueous
Date Sampled:10/15/2019 1105 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0144	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-005
Description: W-50 | Matrix: Aqueous
Date Sampled:10/15/2019 1105 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0144	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-005
Description: W-50 | Matrix: Aqueous
Date Sampled:10/15/2019 1105 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1635	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-005
Description: W-50 | Matrix: Aqueous
Date Sampled:10/15/2019 1105 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1635	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		39	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		55	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-006
Description: W-40
Matrix: Aqueous
Date Sampled:10/15/2019 1233
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/16/2019 1212	MSG		32199

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.3		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-006
Description: W-40 | Matrix: Aqueous
Date Sampled:10/15/2019 1233 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0207	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-006
Description: W-40 | Matrix: Aqueous
Date Sampled:10/15/2019 1233 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0207	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-006
Description: W-40 | Matrix: Aqueous
Date Sampled:10/15/2019 1233 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1659	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-006
Description: W-40 | Matrix: Aqueous
Date Sampled:10/15/2019 1233 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1659	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		41	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		53	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ15043-007
Description: WSW-01
Matrix: Aqueous
Date Sampled:10/15/2019 1325
Project Name: Westinghouse RI
Date Received: 10/15/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/16/2019 1220	MSG		32200

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.020		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-007
Description: WSW-01 | Matrix: Aqueous
Date Sampled:10/15/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0230	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-007
Description: WSW-01 | Matrix: Aqueous
Date Sampled:10/15/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/18/2019 0230	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-007
Description: WSW-01 | Matrix: Aqueous
Date Sampled:10/15/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1723	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-007
Description: WSW-01 | Matrix: Aqueous
Date Sampled:10/15/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1723	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		38	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		50	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ15043-008
Description: TB-01-101519 | Matrix: Aqueous
Date Sampled:10/15/2019 | Project Name: Westinghouse RI
Date Received: 10/15/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 2348	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company	Laboratory ID: UJ15043-008
Description: TB-01-101519	Matrix: Aqueous
Date Sampled:10/15/2019	Project Name: Westinghouse RI
Date Received: 10/15/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/17/2019 2348	STM		32441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ32199-001
Batch: 32199
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/16/2019 1117

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32199-002
Batch: 32199
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	97	90-110	10/16/2019 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ15043-001MS
Batch: 32199
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	0.45	N	1	56	90-110	10/16/2019 1204

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ15043-001MD
Batch: 32199
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	0.44	N	1	55	1.2	90-110	20	10/16/2019 1205

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: UQ32200-001
Batch: 32200
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/16/2019 1217

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32200-002
Batch: 32200
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	10/16/2019 1219

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ15043-007MS
Batch: 32200
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.020	0.80	0.81		1	99	90-110	10/16/2019 1221

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ15043-007MD
Batch: 32200
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.020	0.80	0.79		1	96	2.6	90-110	20	10/16/2019 1223

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32441-001
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/17/2019 2151
Benzene	ND		1	1.0	ug/L	10/17/2019 2151
Bromodichloromethane	ND		1	1.0	ug/L	10/17/2019 2151
Bromoform	ND		1	1.0	ug/L	10/17/2019 2151
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/17/2019 2151
2-Butanone (MEK)	ND		1	10	ug/L	10/17/2019 2151
Carbon disulfide	ND		1	1.0	ug/L	10/17/2019 2151
Carbon tetrachloride	ND		1	1.0	ug/L	10/17/2019 2151
Chlorobenzene	ND		1	1.0	ug/L	10/17/2019 2151
Chloroethane	ND		1	2.0	ug/L	10/17/2019 2151
Chloroform	ND		1	1.0	ug/L	10/17/2019 2151
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/17/2019 2151
Cyclohexane	ND		1	1.0	ug/L	10/17/2019 2151
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/17/2019 2151
Dibromochloromethane	ND		1	1.0	ug/L	10/17/2019 2151
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/17/2019 2151
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/17/2019 2151
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/17/2019 2151
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/17/2019 2151
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/17/2019 2151
1,1-Dichloroethane	ND		1	1.0	ug/L	10/17/2019 2151
1,2-Dichloroethane	ND		1	1.0	ug/L	10/17/2019 2151
1,1-Dichloroethene	ND		1	1.0	ug/L	10/17/2019 2151
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/17/2019 2151
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/17/2019 2151
1,2-Dichloropropane	ND		1	1.0	ug/L	10/17/2019 2151
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/17/2019 2151
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/17/2019 2151
Ethylbenzene	ND		1	1.0	ug/L	10/17/2019 2151
2-Hexanone	ND		1	10	ug/L	10/17/2019 2151
Isopropylbenzene	ND		1	1.0	ug/L	10/17/2019 2151
Methyl acetate	ND		1	1.0	ug/L	10/17/2019 2151
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/17/2019 2151
4-Methyl-2-pentanone	ND		1	10	ug/L	10/17/2019 2151
Methylcyclohexane	ND		1	5.0	ug/L	10/17/2019 2151
Methylene chloride	ND		1	1.0	ug/L	10/17/2019 2151
Styrene	ND		1	1.0	ug/L	10/17/2019 2151
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/17/2019 2151
Tetrachloroethene	ND		1	1.0	ug/L	10/17/2019 2151
Toluene	ND		1	1.0	ug/L	10/17/2019 2151
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/17/2019 2151
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/17/2019 2151
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/17/2019 2151
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/17/2019 2151

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32441-001
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/17/2019 2151
Trichlorofluoromethane	ND		1	1.0	ug/L	10/17/2019 2151
Vinyl chloride	ND		1	1.0	ug/L	10/17/2019 2151
Xylenes (total)	ND		1	1.0	ug/L	10/17/2019 2151

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32441-002
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	108	60-140	10/17/2019 2051
Benzene	50	50		1	101	70-130	10/17/2019 2051
Bromodichloromethane	50	50		1	100	70-130	10/17/2019 2051
Bromoform	50	50		1	99	70-130	10/17/2019 2051
Bromomethane (Methyl bromide)	50	48		1	96	70-130	10/17/2019 2051
2-Butanone (MEK)	100	100		1	104	70-130	10/17/2019 2051
Carbon disulfide	50	53		1	106	70-130	10/17/2019 2051
Carbon tetrachloride	50	49		1	99	70-130	10/17/2019 2051
Chlorobenzene	50	48		1	96	70-130	10/17/2019 2051
Chloroethane	50	51		1	102	70-130	10/17/2019 2051
Chloroform	50	49		1	98	70-130	10/17/2019 2051
Chloromethane (Methyl chloride)	50	47		1	93	60-140	10/17/2019 2051
Cyclohexane	50	39		1	78	70-130	10/17/2019 2051
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	90	70-130	10/17/2019 2051
Dibromochloromethane	50	51		1	102	70-130	10/17/2019 2051
1,2-Dibromoethane (EDB)	50	49		1	99	70-130	10/17/2019 2051
1,2-Dichlorobenzene	50	44		1	88	70-130	10/17/2019 2051
1,3-Dichlorobenzene	50	44		1	87	70-130	10/17/2019 2051
1,4-Dichlorobenzene	50	43		1	86	70-130	10/17/2019 2051
Dichlorodifluoromethane	50	54		1	108	60-140	10/17/2019 2051
1,1-Dichloroethane	50	48		1	97	70-130	10/17/2019 2051
1,2-Dichloroethane	50	50		1	100	70-130	10/17/2019 2051
1,1-Dichloroethene	50	51		1	103	70-130	10/17/2019 2051
cis-1,2-Dichloroethene	50	47		1	95	70-130	10/17/2019 2051
trans-1,2-Dichloroethene	50	50		1	100	70-130	10/17/2019 2051
1,2-Dichloropropane	50	50		1	100	70-130	10/17/2019 2051
cis-1,3-Dichloropropene	50	52		1	105	70-130	10/17/2019 2051
trans-1,3-Dichloropropene	50	54		1	108	70-130	10/17/2019 2051
Ethylbenzene	50	50		1	100	70-130	10/17/2019 2051
2-Hexanone	100	110		1	108	70-130	10/17/2019 2051
Isopropylbenzene	50	51		1	102	70-130	10/17/2019 2051
Methyl acetate	50	56		1	112	70-130	10/17/2019 2051
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	10/17/2019 2051
4-Methyl-2-pentanone	100	110		1	105	70-130	10/17/2019 2051
Methylcyclohexane	50	51		1	102	70-130	10/17/2019 2051
Methylene chloride	50	42		1	84	70-130	10/17/2019 2051
Styrene	50	50		1	100	70-130	10/17/2019 2051
1,1,2,2-Tetrachloroethane	50	48		1	95	70-130	10/17/2019 2051
Tetrachloroethene	50	51		1	101	70-130	10/17/2019 2051
Toluene	50	50		1	100	70-130	10/17/2019 2051
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	70-130	10/17/2019 2051
1,2,4-Trichlorobenzene	50	41		1	82	70-130	10/17/2019 2051
1,1,1-Trichloroethane	50	48		1	96	70-130	10/17/2019 2051
1,1,2-Trichloroethane	50	51		1	101	70-130	10/17/2019 2051

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32441-002
Batch: 32441
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	99	70-130	10/17/2019 2051
Trichlorofluoromethane	50	49		1	97	70-130	10/17/2019 2051
Vinyl chloride	50	48		1	95	70-130	10/17/2019 2051
Xylenes (total)	100	100		1	100	70-130	10/17/2019 2051

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32517-001
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/19/2019 1950
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/19/2019 1950
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/19/2019 1950
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/19/2019 1950
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/19/2019 1950
2,4-Dinitrophenol	ND		1	20	ug/L	10/19/2019 1950
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/19/2019 1950
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/19/2019 1950
2-Chloronaphthalene	ND		1	4.0	ug/L	10/19/2019 1950
2-Chlorophenol	ND		1	4.0	ug/L	10/19/2019 1950
2-Methylnaphthalene	ND		1	0.80	ug/L	10/19/2019 1950
2-Methylphenol	ND		1	4.0	ug/L	10/19/2019 1950
2-Nitroaniline	ND		1	8.0	ug/L	10/19/2019 1950
2-Nitrophenol	ND		1	4.0	ug/L	10/19/2019 1950
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/19/2019 1950
3+4-Methylphenol	ND		1	4.0	ug/L	10/19/2019 1950
3-Nitroaniline	ND		1	8.0	ug/L	10/19/2019 1950
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/19/2019 1950
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/19/2019 1950
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/19/2019 1950
4-Chloroaniline	ND		1	8.0	ug/L	10/19/2019 1950
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/19/2019 1950
4-Nitroaniline	ND		1	8.0	ug/L	10/19/2019 1950
4-Nitrophenol	ND		1	20	ug/L	10/19/2019 1950
Acenaphthene	ND		1	0.80	ug/L	10/19/2019 1950
Acenaphthylene	ND		1	0.80	ug/L	10/19/2019 1950
Acetophenone	ND		1	4.0	ug/L	10/19/2019 1950
Anthracene	ND		1	0.80	ug/L	10/19/2019 1950
Atrazine	ND		1	4.0	ug/L	10/19/2019 1950
Benzaldehyde	ND		1	8.0	ug/L	10/19/2019 1950
Benzo(a)anthracene	ND		1	0.80	ug/L	10/19/2019 1950
Benzo(a)pyrene	ND		1	0.80	ug/L	10/19/2019 1950
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/19/2019 1950
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/19/2019 1950
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/19/2019 1950
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/19/2019 1950
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/19/2019 1950
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/19/2019 1950
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/19/2019 1950
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/19/2019 1950
Caprolactam	ND		1	8.0	ug/L	10/19/2019 1950
Carbazole	ND		1	4.0	ug/L	10/19/2019 1950
Chrysene	ND		1	0.80	ug/L	10/19/2019 1950
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/19/2019 1950

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32517-001
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/19/2019 1950
Diethylphthalate	ND		1	4.0	ug/L	10/19/2019 1950
Dimethyl phthalate	ND		1	4.0	ug/L	10/19/2019 1950
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/19/2019 1950
Di-n-octylphthalate	ND		1	4.0	ug/L	10/19/2019 1950
Fluoranthene	ND		1	0.80	ug/L	10/19/2019 1950
Fluorene	ND		1	0.80	ug/L	10/19/2019 1950
Hexachlorobenzene	ND		1	4.0	ug/L	10/19/2019 1950
Hexachlorobutadiene	ND		1	4.0	ug/L	10/19/2019 1950
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/19/2019 1950
Hexachloroethane	ND		1	4.0	ug/L	10/19/2019 1950
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/19/2019 1950
Isophorone	ND		1	4.0	ug/L	10/19/2019 1950
Naphthalene	ND		1	0.80	ug/L	10/19/2019 1950
Nitrobenzene	ND		1	4.0	ug/L	10/19/2019 1950
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/19/2019 1950
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/19/2019 1950
Pentachlorophenol	ND		1	20	ug/L	10/19/2019 1950
Phenanthrene	ND		1	0.80	ug/L	10/19/2019 1950
Phenol	ND		1	4.0	ug/L	10/19/2019 1950
Pyrene	ND		1	0.80	ug/L	10/19/2019 1950

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		41	28-128
Terphenyl-d14		107	10-148
2,4,6-Tribromophenol		64	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32517-002
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	34		1	85	30-130	10/19/2019 2015
2,4,5-Trichlorophenol	40	31		1	77	30-123	10/19/2019 2015
2,4,6-Trichlorophenol	40	34		1	85	30-130	10/19/2019 2015
2,4-Dichlorophenol	40	28		1	69	30-121	10/19/2019 2015
2,4-Dimethylphenol	40	46		1	115	20-125	10/19/2019 2015
2,4-Dinitrophenol	80	66		1	82	11-126	10/19/2019 2015
2,4-Dinitrotoluene	40	39		1	98	30-130	10/19/2019 2015
2,6-Dinitrotoluene	40	38		1	94	30-130	10/19/2019 2015
2-Chloronaphthalene	40	34		1	84	30-130	10/19/2019 2015
2-Chlorophenol	40	32		1	80	30-130	10/19/2019 2015
2-Methylnaphthalene	40	31		1	78	40-132	10/19/2019 2015
2-Methylphenol	40	31		1	77	30-130	10/19/2019 2015
2-Nitroaniline	40	39		1	96	30-130	10/19/2019 2015
2-Nitrophenol	40	33		1	82	30-130	10/19/2019 2015
3,3'-Dichlorobenzidine	40	22		1	56	10-126	10/19/2019 2015
3+4-Methylphenol	40	38		1	94	30-130	10/19/2019 2015
3-Nitroaniline	40	32		1	80	30-130	10/19/2019 2015
4,6-Dinitro-2-methylphenol	40	36		1	89	30-130	10/19/2019 2015
4-Bromophenyl phenyl ether	40	32		1	80	30-124	10/19/2019 2015
4-Chloro-3-methyl phenol	40	35		1	88	30-123	10/19/2019 2015
4-Chloroaniline	40	22		1	56	12-157	10/19/2019 2015
4-Chlorophenyl phenyl ether	40	33		1	82	30-121	10/19/2019 2015
4-Nitroaniline	40	34		1	85	30-135	10/19/2019 2015
4-Nitrophenol	80	58		1	73	30-130	10/19/2019 2015
Acenaphthene	40	34		1	86	30-122	10/19/2019 2015
Acenaphthylene	40	36		1	90	30-130	10/19/2019 2015
Acetophenone	40	37		1	92	30-130	10/19/2019 2015
Anthracene	40	37		1	93	30-123	10/19/2019 2015
Atrazine	40	38		1	94	30-130	10/19/2019 2015
Benzaldehyde	40	37		1	92	20-115	10/19/2019 2015
Benzo(a)anthracene	40	36		1	90	40-125	10/19/2019 2015
Benzo(a)pyrene	40	38		1	94	40-128	10/19/2019 2015
Benzo(b)fluoranthene	40	38		1	96	30-130	10/19/2019 2015
Benzo(g,h,i)perylene	40	38		1	96	30-130	10/19/2019 2015
Benzo(k)fluoranthene	40	35		1	89	30-130	10/19/2019 2015
bis (2-Chloro-1-methylethyl) ether	40	34		1	84	30-130	10/19/2019 2015
bis(2-Chloroethoxy)methane	40	33		1	82	30-130	10/19/2019 2015
bis(2-Chloroethyl)ether	40	34		1	84	30-130	10/19/2019 2015
bis(2-Ethylhexyl)phthalate	40	40		1	99	30-130	10/19/2019 2015
Butyl benzyl phthalate	40	40		1	100	30-130	10/19/2019 2015
Caprolactam	40	16		1	39	30-130	10/19/2019 2015
Carbazole	40	39		1	98	30-130	10/19/2019 2015
Chrysene	40	36		1	89	30-130	10/19/2019 2015
Dibenzo(a,h)anthracene	40	39		1	97	30-130	10/19/2019 2015

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32517-002
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	34		1	85	30-118	10/19/2019 2015
Diethylphthalate	40	39		1	97	40-125	10/19/2019 2015
Dimethyl phthalate	40	37		1	93	40-127	10/19/2019 2015
Di-n-butyl phthalate	40	40		1	100	40-127	10/19/2019 2015
Di-n-octylphthalate	40	39		1	97	30-130	10/19/2019 2015
Fluoranthene	40	35		1	89	40-128	10/19/2019 2015
Fluorene	40	33		1	83	30-124	10/19/2019 2015
Hexachlorobenzene	40	33		1	84	30-125	10/19/2019 2015
Hexachlorobutadiene	40	28		1	69	24-110	10/19/2019 2015
Hexachlorocyclopentadiene	200	150		1	76	22-122	10/19/2019 2015
Hexachloroethane	40	29		1	72	30-130	10/19/2019 2015
Indeno(1,2,3-c,d)pyrene	40	38		1	96	30-130	10/19/2019 2015
Isophorone	40	34		1	86	30-130	10/19/2019 2015
Naphthalene	40	32		1	80	30-130	10/19/2019 2015
Nitrobenzene	40	32		1	80	30-130	10/19/2019 2015
N-Nitrosodi-n-propylamine	40	37		1	93	30-130	10/19/2019 2015
N-Nitrosodiphenylamine (Diphenylamine)	40	37		1	92	30-123	10/19/2019 2015
Pentachlorophenol	80	55		1	69	30-130	10/19/2019 2015
Phenanthrene	40	35		1	89	40-123	10/19/2019 2015
Phenol	40	25		1	63	30-130	10/19/2019 2015
Pyrene	40	39		1	97	40-126	10/19/2019 2015

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		66	24-127
Nitrobenzene-d5		81	38-127
Phenol-d5		62	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		84	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ15043-001MS
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	40	35		1	86	30-130	10/20/2019 0130
2,4,5-Trichlorophenol	ND	40	33		1	82	30-123	10/20/2019 0130
2,4,6-Trichlorophenol	ND	40	34		1	85	30-130	10/20/2019 0130
2,4-Dichlorophenol	ND	40	30		1	76	30-121	10/20/2019 0130
2,4-Dimethylphenol	ND	40	48		1	121	20-125	10/20/2019 0130
2,4-Dinitrophenol	ND	80	49		1	61	30-130	10/20/2019 0130
2,4-Dinitrotoluene	ND	40	38		1	95	30-130	10/20/2019 0130
2,6-Dinitrotoluene	ND	40	37		1	92	30-130	10/20/2019 0130
2-Chloronaphthalene	ND	40	34		1	85	30-130	10/20/2019 0130
2-Chlorophenol	ND	40	33		1	84	30-130	10/20/2019 0130
2-Methylnaphthalene	ND	40	31		1	78	40-132	10/20/2019 0130
2-Methylphenol	ND	40	44		1	110	30-130	10/20/2019 0130
2-Nitroaniline	ND	40	37		1	93	30-130	10/20/2019 0130
2-Nitrophenol	ND	40	33		1	84	30-130	10/20/2019 0130
3,3'-Dichlorobenzidine	ND	40	11		1	27	10-126	10/20/2019 0130
3+4-Methylphenol	ND	40	42		1	105	30-130	10/20/2019 0130
3-Nitroaniline	ND	40	23		1	57	30-130	10/20/2019 0130
4,6-Dinitro-2-methylphenol	ND	40	29		1	74	30-130	10/20/2019 0130
4-Bromophenyl phenyl ether	ND	40	33		1	83	30-124	10/20/2019 0130
4-Chloro-3-methyl phenol	ND	40	35		1	87	30-123	10/20/2019 0130
4-Chloroaniline	ND	40	19		1	48	10-130	10/20/2019 0130
4-Chlorophenyl phenyl ether	ND	40	33		1	83	30-121	10/20/2019 0130
4-Nitroaniline	ND	40	27		1	69	30-135	10/20/2019 0130
4-Nitrophenol	ND	80	60		1	75	30-130	10/20/2019 0130
Acenaphthene	ND	40	34		1	86	30-122	10/20/2019 0130
Acenaphthylene	ND	40	36		1	91	30-130	10/20/2019 0130
Acetophenone	ND	40	38		1	95	30-130	10/20/2019 0130
Anthracene	ND	40	37		1	93	30-123	10/20/2019 0130
Atrazine	ND	40	35		1	89	30-130	10/20/2019 0130
Benzaldehyde	ND	40	36		1	90	20-115	10/20/2019 0130
Benzo(a)anthracene	ND	40	35		1	88	40-125	10/20/2019 0130
Benzo(a)pyrene	ND	40	38		1	94	40-128	10/20/2019 0130
Benzo(b)fluoranthene	ND	40	37		1	93	30-130	10/20/2019 0130
Benzo(g,h,i)perylene	ND	40	40		1	99	30-130	10/20/2019 0130
Benzo(k)fluoranthene	ND	40	36		1	91	30-130	10/20/2019 0130
bis (2-Chloro-1-methylethyl) ether	ND	40	31		1	78	30-130	10/20/2019 0130
bis(2-Chloroethoxy)methane	ND	40	32		1	81	30-130	10/20/2019 0130
bis(2-Chloroethyl)ether	ND	40	31		1	79	30-130	10/20/2019 0130
bis(2-Ethylhexyl)phthalate	ND	40	40		1	99	70-131	10/20/2019 0130
Butyl benzyl phthalate	ND	40	39		1	98	30-130	10/20/2019 0130
Caprolactam	ND	40	16		1	40	30-130	10/20/2019 0130
Carbazole	ND	40	38		1	95	30-130	10/20/2019 0130
Chrysene	ND	40	35		1	88	30-130	10/20/2019 0130
Dibenzo(a,h)anthracene	ND	40	40		1	100	30-130	10/20/2019 0130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ15043-001MS
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	40	34		1	85	30-118	10/20/2019 0130
Diethylphthalate	ND	40	38		1	96	40-125	10/20/2019 0130
Dimethyl phthalate	ND	40	37		1	92	40-127	10/20/2019 0130
Di-n-butyl phthalate	ND	40	40		1	100	40-127	10/20/2019 0130
Di-n-octylphthalate	ND	40	38		1	95	30-130	10/20/2019 0130
Fluoranthene	ND	40	36		1	90	40-128	10/20/2019 0130
Fluorene	ND	40	33		1	83	30-124	10/20/2019 0130
Hexachlorobenzene	ND	40	34		1	86	30-125	10/20/2019 0130
Hexachlorobutadiene	ND	40	28		1	71	24-110	10/20/2019 0130
Hexachlorocyclopentadiene	ND	200	140		1	71	22-122	10/20/2019 0130
Hexachloroethane	ND	40	28		1	70	30-130	10/20/2019 0130
Indeno(1,2,3-c,d)pyrene	ND	40	40		1	99	30-130	10/20/2019 0130
Isophorone	ND	40	34		1	85	30-130	10/20/2019 0130
Naphthalene	ND	40	32		1	79	30-130	10/20/2019 0130
Nitrobenzene	ND	40	30		1	76	30-130	10/20/2019 0130
N-Nitrosodi-n-propylamine	ND	40	38		1	96	30-130	10/20/2019 0130
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	36		1	91	30-123	10/20/2019 0130
Pentachlorophenol	ND	80	46		1	57	30-130	10/20/2019 0130
Phenanthrene	ND	40	36		1	89	40-123	10/20/2019 0130
Phenol	ND	40	27		1	67	30-130	10/20/2019 0130
Pyrene	ND	40	38		1	95	40-126	10/20/2019 0130

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		66	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		64	28-128
Terphenyl-d14		101	10-148
2,4,6-Tribromophenol		85	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ15043-001MD
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	40	34		1	85	0.93	30-130	40	10/20/2019 0154
2,4,5-Trichlorophenol	ND	40	34		1	85	3.7	30-123	40	10/20/2019 0154
2,4,6-Trichlorophenol	ND	40	35		1	86	1.1	30-130	40	10/20/2019 0154
2,4-Dichlorophenol	ND	40	31		1	78	3.3	30-121	40	10/20/2019 0154
2,4-Dimethylphenol	ND	40	50		1	125	3.8	20-125	40	10/20/2019 0154
2,4-Dinitrophenol	ND	80	51		1	64	3.3	30-130	40	10/20/2019 0154
2,4-Dinitrotoluene	ND	40	39		1	97	1.8	30-130	40	10/20/2019 0154
2,6-Dinitrotoluene	ND	40	37		1	93	0.54	30-130	40	10/20/2019 0154
2-Chloronaphthalene	ND	40	34		1	84	1.0	30-130	40	10/20/2019 0154
2-Chlorophenol	ND	40	34		1	85	1.4	30-130	40	10/20/2019 0154
2-Methylnaphthalene	ND	40	31		1	78	0.16	40-132	40	10/20/2019 0154
2-Methylphenol	ND	40	46		1	115	4.3	30-130	40	10/20/2019 0154
2-Nitroaniline	ND	40	38		1	95	2.2	30-130	40	10/20/2019 0154
2-Nitrophenol	ND	40	36		1	89	6.1	30-130	40	10/20/2019 0154
3,3'-Dichlorobenzidine	ND	40	19	+	1	47	55	10-126	40	10/20/2019 0154
3+4-Methylphenol	ND	40	43		1	108	3.2	30-130	40	10/20/2019 0154
3-Nitroaniline	ND	40	30		1	74	26	30-130	40	10/20/2019 0154
4,6-Dinitro-2-methylphenol	ND	40	31		1	78	5.8	30-130	40	10/20/2019 0154
4-Bromophenyl phenyl ether	ND	40	34		1	84	0.60	30-124	40	10/20/2019 0154
4-Chloro-3-methyl phenol	ND	40	35		1	89	2.0	30-123	40	10/20/2019 0154
4-Chloroaniline	ND	40	22		1	55	13	10-130	40	10/20/2019 0154
4-Chlorophenyl phenyl ether	ND	40	33		1	83	0.50	30-121	40	10/20/2019 0154
4-Nitroaniline	ND	40	31		1	77	12	30-135	40	10/20/2019 0154
4-Nitrophenol	ND	80	57		1	71	5.5	30-130	40	10/20/2019 0154
Acenaphthene	ND	40	35		1	87	1.3	30-122	40	10/20/2019 0154
Acenaphthylene	ND	40	36		1	91	0.47	30-130	40	10/20/2019 0154
Acetophenone	ND	40	39		1	98	2.9	30-130	40	10/20/2019 0154
Anthracene	ND	40	38		1	94	1.2	30-123	40	10/20/2019 0154
Atrazine	ND	40	37		1	91	3.1	30-130	40	10/20/2019 0154
Benzaldehyde	ND	40	39		1	97	6.8	20-115	40	10/20/2019 0154
Benzo(a)anthracene	ND	40	36		1	90	2.4	40-125	40	10/20/2019 0154
Benzo(a)pyrene	ND	40	38		1	95	0.68	40-128	40	10/20/2019 0154
Benzo(b)fluoranthene	ND	40	37		1	92	1.3	30-130	40	10/20/2019 0154
Benzo(g,h,i)perylene	ND	40	38		1	96	3.3	30-130	40	10/20/2019 0154
Benzo(k)fluoranthene	ND	40	35		1	88	3.0	30-130	40	10/20/2019 0154
bis (2-Chloro-1-methylethyl) ether	ND	40	34		1	85	8.9	30-130	40	10/20/2019 0154
bis(2-Chloroethoxy)methane	ND	40	33		1	83	2.4	30-130	40	10/20/2019 0154
bis(2-Chloroethyl)ether	ND	40	34		1	86	9.1	30-130	40	10/20/2019 0154
bis(2-Ethylhexyl)phthalate	ND	40	39		1	99	0.33	70-131	40	10/20/2019 0154
Butyl benzyl phthalate	ND	40	40		1	100	1.9	30-130	40	10/20/2019 0154
Caprolactam	ND	40	15		1	38	5.2	30-130	40	10/20/2019 0154
Carbazole	ND	40	38		1	94	1.1	30-130	40	10/20/2019 0154
Chrysene	ND	40	36		1	89	1.7	30-130	40	10/20/2019 0154
Dibenzo(a,h)anthracene	ND	40	39		1	98	1.6	30-130	40	10/20/2019 0154

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ15043-001MD
Batch: 32517
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/18/2019 1430

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	40	34		1	86	1.3	30-118	40	10/20/2019 0154
Diethylphthalate	ND	40	38		1	96	0.18	40-125	40	10/20/2019 0154
Dimethyl phthalate	ND	40	37		1	93	0.71	40-127	40	10/20/2019 0154
Di-n-butyl phthalate	ND	40	40		1	101	0.69	40-127	40	10/20/2019 0154
Di-n-octylphthalate	ND	40	37		1	92	3.4	30-130	40	10/20/2019 0154
Fluoranthene	ND	40	36		1	89	1.0	40-128	40	10/20/2019 0154
Fluorene	ND	40	34		1	85	1.4	30-124	40	10/20/2019 0154
Hexachlorobenzene	ND	40	35		1	88	2.1	30-125	40	10/20/2019 0154
Hexachlorobutadiene	ND	40	28		1	70	1.6	24-110	40	10/20/2019 0154
Hexachlorocyclopentadiene	ND	200	140		1	71	0.45	22-122	40	10/20/2019 0154
Hexachloroethane	ND	40	27		1	68	3.7	30-130	40	10/20/2019 0154
Indeno(1,2,3-c,d)pyrene	ND	40	39		1	97	2.2	30-130	40	10/20/2019 0154
Isophorone	ND	40	35		1	86	1.2	30-130	40	10/20/2019 0154
Naphthalene	ND	40	32		1	81	2.1	30-130	40	10/20/2019 0154
Nitrobenzene	ND	40	32		1	79	4.6	30-130	40	10/20/2019 0154
N-Nitrosodi-n-propylamine	ND	40	39		1	98	2.0	30-130	40	10/20/2019 0154
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	36		1	90	0.075	30-123	40	10/20/2019 0154
Pentachlorophenol	ND	80	48		1	60	4.2	30-130	40	10/20/2019 0154
Phenanthrene	ND	40	36		1	90	0.68	40-123	40	10/20/2019 0154
Phenol	ND	40	27		1	67	0.18	30-130	40	10/20/2019 0154
Pyrene	ND	40	40		1	99	3.9	40-126	40	10/20/2019 0154

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		67	24-127
Nitrobenzene-d5		78	38-127
Phenol-d5		62	28-128
Terphenyl-d14		105	10-148
2,4,6-Tribromophenol		84	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32710-001
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/23/2019 1433
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/23/2019 1433
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4-Dinitrophenol	ND		1	20	ug/L	10/23/2019 1433
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/23/2019 1433
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/23/2019 1433
2-Chloronaphthalene	ND		1	4.0	ug/L	10/23/2019 1433
2-Chlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2-Methylnaphthalene	ND		1	0.80	ug/L	10/23/2019 1433
2-Methylphenol	ND		1	4.0	ug/L	10/23/2019 1433
2-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
2-Nitrophenol	ND		1	4.0	ug/L	10/23/2019 1433
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/23/2019 1433
3+4-Methylphenol	ND		1	4.0	ug/L	10/23/2019 1433
3-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/23/2019 1433
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/23/2019 1433
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/23/2019 1433
4-Chloroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/23/2019 1433
4-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4-Nitrophenol	ND		1	20	ug/L	10/23/2019 1433
Acenaphthene	ND		1	0.80	ug/L	10/23/2019 1433
Acenaphthylene	ND		1	0.80	ug/L	10/23/2019 1433
Acetophenone	ND		1	4.0	ug/L	10/23/2019 1433
Anthracene	ND		1	0.80	ug/L	10/23/2019 1433
Atrazine	ND		1	4.0	ug/L	10/23/2019 1433
Benzaldehyde	ND		1	8.0	ug/L	10/23/2019 1433
Benzo(a)anthracene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(a)pyrene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Caprolactam	ND		1	8.0	ug/L	10/23/2019 1433
Carbazole	ND		1	4.0	ug/L	10/23/2019 1433
Chrysene	ND		1	0.80	ug/L	10/23/2019 1433
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/23/2019 1433

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32710-001
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/23/2019 1433
Diethylphthalate	ND		1	4.0	ug/L	10/23/2019 1433
Dimethyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Di-n-octylphthalate	ND		1	4.0	ug/L	10/23/2019 1433
Fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
Fluorene	ND		1	0.80	ug/L	10/23/2019 1433
Hexachlorobenzene	ND		1	4.0	ug/L	10/23/2019 1433
Hexachlorobutadiene	ND		1	4.0	ug/L	10/23/2019 1433
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/23/2019 1433
Hexachloroethane	ND		1	4.0	ug/L	10/23/2019 1433
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/23/2019 1433
Isophorone	ND		1	4.0	ug/L	10/23/2019 1433
Naphthalene	ND		1	0.80	ug/L	10/23/2019 1433
Nitrobenzene	ND		1	4.0	ug/L	10/23/2019 1433
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/23/2019 1433
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/23/2019 1433
Pentachlorophenol	ND		1	20	ug/L	10/23/2019 1433
Phenanthrene	ND		1	0.80	ug/L	10/23/2019 1433
Phenol	ND		1	4.0	ug/L	10/23/2019 1433
Pyrene	ND		1	0.80	ug/L	10/23/2019 1433

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		74	37-129
2-Fluorophenol		32	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		62	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32710-002
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	33		1	83	30-130	10/23/2019 1320
2,4,5-Trichlorophenol	40	32		1	81	30-123	10/23/2019 1320
2,4,6-Trichlorophenol	40	33		1	81	30-130	10/23/2019 1320
2,4-Dichlorophenol	40	31		1	77	30-121	10/23/2019 1320
2,4-Dimethylphenol	40	36		1	91	20-125	10/23/2019 1320
2,4-Dinitrophenol	80	58		1	72	11-126	10/23/2019 1320
2,4-Dinitrotoluene	40	35		1	87	30-130	10/23/2019 1320
2,6-Dinitrotoluene	40	33		1	83	30-130	10/23/2019 1320
2-Chloronaphthalene	40	33		1	82	30-130	10/23/2019 1320
2-Chlorophenol	40	34		1	85	30-130	10/23/2019 1320
2-Methylnaphthalene	40	30		1	75	40-132	10/23/2019 1320
2-Methylphenol	40	31		1	77	30-130	10/23/2019 1320
2-Nitroaniline	40	34		1	85	30-130	10/23/2019 1320
2-Nitrophenol	40	33		1	84	30-130	10/23/2019 1320
3,3'-Dichlorobenzidine	40	26		1	65	10-126	10/23/2019 1320
3+4-Methylphenol	40	34		1	84	30-130	10/23/2019 1320
3-Nitroaniline	40	26		1	66	30-130	10/23/2019 1320
4,6-Dinitro-2-methylphenol	40	33		1	84	30-130	10/23/2019 1320
4-Bromophenyl phenyl ether	40	30		1	76	30-124	10/23/2019 1320
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/23/2019 1320
4-Chloroaniline	40	25		1	63	12-157	10/23/2019 1320
4-Chlorophenyl phenyl ether	40	31		1	77	30-121	10/23/2019 1320
4-Nitroaniline	40	29		1	72	30-135	10/23/2019 1320
4-Nitrophenol	80	70		1	87	30-130	10/23/2019 1320
Acenaphthene	40	33		1	83	30-122	10/23/2019 1320
Acenaphthylene	40	35		1	86	30-130	10/23/2019 1320
Acetophenone	40	34		1	84	30-130	10/23/2019 1320
Anthracene	40	35		1	88	30-123	10/23/2019 1320
Atrazine	40	34		1	85	30-130	10/23/2019 1320
Benzaldehyde	40	21		1	54	20-115	10/23/2019 1320
Benzo(a)anthracene	40	33		1	82	40-125	10/23/2019 1320
Benzo(a)pyrene	40	33		1	84	40-128	10/23/2019 1320
Benzo(b)fluoranthene	40	33		1	84	30-130	10/23/2019 1320
Benzo(g,h,i)perylene	40	35		1	88	30-130	10/23/2019 1320
Benzo(k)fluoranthene	40	32		1	81	30-130	10/23/2019 1320
bis (2-Chloro-1-methylethyl) ether	40	27		1	67	30-130	10/23/2019 1320
bis(2-Chloroethoxy)methane	40	31		1	78	30-130	10/23/2019 1320
bis(2-Chloroethyl)ether	40	31		1	78	30-130	10/23/2019 1320
bis(2-Ethylhexyl)phthalate	40	34		1	85	30-130	10/23/2019 1320
Butyl benzyl phthalate	40	35		1	87	30-130	10/23/2019 1320
Caprolactam	40	33		1	82	30-130	10/23/2019 1320
Carbazole	40	32		1	81	30-130	10/23/2019 1320
Chrysene	40	32		1	81	30-130	10/23/2019 1320
Dibenzo(a,h)anthracene	40	35		1	88	30-130	10/23/2019 1320

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32710-002
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	32		1	80	30-118	10/23/2019 1320
Diethylphthalate	40	37		1	92	40-125	10/23/2019 1320
Dimethyl phthalate	40	34		1	85	40-127	10/23/2019 1320
Di-n-butyl phthalate	40	37		1	93	40-127	10/23/2019 1320
Di-n-octylphthalate	40	32		1	81	30-130	10/23/2019 1320
Fluoranthene	40	33		1	83	40-128	10/23/2019 1320
Fluorene	40	31		1	78	30-124	10/23/2019 1320
Hexachlorobenzene	40	32		1	79	30-125	10/23/2019 1320
Hexachlorobutadiene	40	30		1	74	24-110	10/23/2019 1320
Hexachlorocyclopentadiene	200	130		1	63	22-122	10/23/2019 1320
Hexachloroethane	40	28		1	71	30-130	10/23/2019 1320
Indeno(1,2,3-c,d)pyrene	40	35		1	87	30-130	10/23/2019 1320
Isophorone	40	30		1	76	30-130	10/23/2019 1320
Naphthalene	40	33		1	83	30-130	10/23/2019 1320
Nitrobenzene	40	31		1	78	30-130	10/23/2019 1320
N-Nitrosodi-n-propylamine	40	31		1	78	30-130	10/23/2019 1320
N-Nitrosodiphenylamine (Diphenylamine)	40	34		1	85	30-123	10/23/2019 1320
Pentachlorophenol	80	55		1	69	30-130	10/23/2019 1320
Phenanthrene	40	33		1	83	40-123	10/23/2019 1320
Phenol	40	31		1	78	30-130	10/23/2019 1320
Pyrene	40	33		1	83	40-126	10/23/2019 1320

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		80	24-127
Nitrobenzene-d5		79	38-127
Phenol-d5		77	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		79	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.

106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099905

Client: WESTINGHOUSE	Report to Contact: D. Jaynes	Telephone No. / E-mail: 803 647 1920 Jaynesdp@westinghouse.com	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: Charles K. Subblett / R. Crews	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	
Project Name: WESTINGHOUSE RI	Printed Name: James Leaphart Chuck Subblett Randy Crews		
Project No.: 60595648	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	(G=Grab C=Composite)	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnOAc/NaOH	TCL VOCs 8260B	TCL SVOCs 8270D	Nitrates 353.2	Remarks / Cooler I.D.
W-94	10-15-19	0900	G	X			3			3			X	X	X	
W-94-MS		0900	G	X			3			3			X	X	X	
W-94-MSD		0900	G	X			3			3			X	X	X	
W-95		1110	G	X			3			3			X	X	X	
W-20		1235	G	X			3			3			X	X	X	
EB-01-101519		0920	G	X			3			3			X	X	X	
W-50		1105	G	X			3			3			X	X	X	
W-40		1233	G	X			3			3			X	X	X	
[redacted] WSW-01		1325	G	X			3			3			X	X	X	
TB-01-101519		—								2			X			

UJ15043

GRW

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☑ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: James Leaphart	10-15-19	1700	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: Dana Jaynes	10/15/19	1700

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on ice (Circle) (Yes) No Ice Pack — Receipt Temp. 3.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: BMG / 10/15/19 Lot #: UJ14043

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.4 / 3.4 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: 10/15/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ17037**

Date Completed:10/28/2019

10/28/2019 4:36 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ17037

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ17037

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-25	Aqueous	10/16/2019 1145	10/17/2019
002	W-60	Aqueous	10/17/2019 0910	10/17/2019
003	W-61	Aqueous	10/17/2019 1030	10/17/2019
004	W-47	Aqueous	10/17/2019 1210	10/17/2019
005	W-64	Aqueous	10/17/2019 1325	10/17/2019
006	W-33	Aqueous	10/17/2019 0918	10/17/2019
007	W-33-DUP	Aqueous	10/17/2019 0918	10/17/2019
008	W-66	Aqueous	10/17/2019 1133	10/17/2019
009	W-65	Aqueous	10/17/2019 1305	10/17/2019
010	TB-01-101719	Aqueous	10/17/2019	10/17/2019

(10 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ17037

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-25	Aqueous	Nitrate - N	353.2	0.067		mg/L	5
002	W-60	Aqueous	Nitrate - N	353.2	0.035		mg/L	10
003	W-61	Aqueous	Nitrate - N	353.2	2.5		mg/L	15
004	W-47	Aqueous	Nitrate - N	353.2	42		mg/L	20
004	W-47	Aqueous	Tetrachloroethene	8260B	1.6		ug/L	21
005	W-64	Aqueous	Nitrate - N	353.2	42		mg/L	25
005	W-64	Aqueous	Tetrachloroethene	8260B	1.3		ug/L	26
006	W-33	Aqueous	Nitrate - N	353.2	13		mg/L	30
006	W-33	Aqueous	cis-1,2-Dichloroethene	8260B	1.0		ug/L	31
006	W-33	Aqueous	Tetrachloroethene	8260B	300		ug/L	31
006	W-33	Aqueous	Trichloroethene	8260B	38		ug/L	32
007	W-33-DUP	Aqueous	Nitrate - N	353.2	13		mg/L	35
007	W-33-DUP	Aqueous	Tetrachloroethene	8260B	330		ug/L	36
007	W-33-DUP	Aqueous	Trichloroethene	8260B	24		ug/L	37
008	W-66	Aqueous	Nitrate - N	353.2	1.5		mg/L	40
008	W-66	Aqueous	cis-1,2-Dichloroethene	8260B	22		ug/L	41
008	W-66	Aqueous	Tetrachloroethene	8260B	480		ug/L	41
008	W-66	Aqueous	Trichloroethene	8260B	8.5		ug/L	42
009	W-65	Aqueous	Nitrate - N	353.2	0.64		mg/L	45
009	W-65	Aqueous	cis-1,2-Dichloroethene	8260B	13		ug/L	46
009	W-65	Aqueous	Tetrachloroethene	8260B	220		ug/L	46
009	W-65	Aqueous	Trichloroethene	8260B	84		ug/L	47

(22 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-001
Description: W-25
Matrix: Aqueous
Date Sampled:10/16/2019 1145
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/18/2019 1038	MSG		32481

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.067		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-001
Description: W-25 | Matrix: Aqueous
Date Sampled:10/16/2019 1145 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1150	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-001
Description: W-25 | Matrix: Aqueous
Date Sampled:10/16/2019 1145 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1150	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-001
Description: W-25 | Matrix: Aqueous
Date Sampled:10/16/2019 1145 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1950	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-001
Description: W-25 | Matrix: Aqueous
Date Sampled:10/16/2019 1145 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/23/2019 1950	SCD	10/21/2019 1811	32710

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		54	28-128
Terphenyl-d14		44	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-002
Description: W-60
Matrix: Aqueous
Date Sampled:10/17/2019 0910
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/18/2019 1039	MSG		32481

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.035		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-002
Description: W-60 | Matrix: Aqueous
Date Sampled:10/17/2019 0910 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1212	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-002
Description: W-60 | Matrix: Aqueous
Date Sampled:10/17/2019 0910 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1212	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-002
Description: W-60 | Matrix: Aqueous
Date Sampled:10/17/2019 0910 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1420	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-002
Description: W-60 | Matrix: Aqueous
Date Sampled:10/17/2019 0910 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1420	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		61	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		84	28-128
Terphenyl-d14		97	10-148
2,4,6-Tribromophenol		73	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-003
Description: W-61
Matrix: Aqueous
Date Sampled:10/17/2019 1030
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/18/2019 2219	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.5		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-003
Description: W-61 | Matrix: Aqueous
Date Sampled:10/17/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1234	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-003
Description: W-61 | Matrix: Aqueous
Date Sampled:10/17/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1234	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-003
Description: W-61 | Matrix: Aqueous
Date Sampled:10/17/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1445	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-003
Description: W-61 | Matrix: Aqueous
Date Sampled:10/17/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1445	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		80	37-129
2-Fluorophenol		65	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		68	28-128
Terphenyl-d14		98	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-004
Description: W-47
Matrix: Aqueous
Date Sampled:10/17/2019 1210
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	100	10/18/2019 2220	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	42		2.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-004
Description: W-47 | Matrix: Aqueous
Date Sampled:10/17/2019 1210 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1256	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.6		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-004
Description: W-47 | Matrix: Aqueous
Date Sampled:10/17/2019 1210 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1256	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-004
Description: W-47 | Matrix: Aqueous
Date Sampled:10/17/2019 1210 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1601	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-004
Description: W-47 | Matrix: Aqueous
Date Sampled:10/17/2019 1210 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1601	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		75	24-127
Nitrobenzene-d5		74	38-127
Phenol-d5		76	28-128
Terphenyl-d14		100	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-005
Description: W-64
Matrix: Aqueous
Date Sampled:10/17/2019 1325
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	50	10/18/2019 2305	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	42		1.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-005
Description: W-64 | Matrix: Aqueous
Date Sampled:10/17/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1318	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.3		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-005
Description: W-64 | Matrix: Aqueous
Date Sampled:10/17/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1318	TML		32671

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-005
Description: W-64 | Matrix: Aqueous
Date Sampled:10/17/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1834	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-005
Description: W-64 | Matrix: Aqueous
Date Sampled:10/17/2019 1325 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1834	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		58	24-127
Nitrobenzene-d5		74	38-127
Phenol-d5		78	28-128
Terphenyl-d14		99	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-006
Description: W-33
Matrix: Aqueous
Date Sampled:10/17/2019 0918
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	20	10/18/2019 2225	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	13		0.40	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-006
Description: W-33
Matrix: Aqueous
Date Sampled:10/17/2019 0918
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1740 TML		32671
2	5030B	8260B	5	10/23/2019 0501 JTH		32893

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.0		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	300		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-006
Description: W-33
Matrix: Aqueous
Date Sampled:10/17/2019 0918
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1740 TML		32671
2	5030B	8260B	5	10/23/2019 0501 JTH		32893

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	38		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130		104	70-130
Bromofluorobenzene		93	70-130		101	70-130
Toluene-d8		100	70-130		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-006
Description: W-33 | Matrix: Aqueous
Date Sampled:10/17/2019 0918 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1626	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-006
Description: W-33 | Matrix: Aqueous
Date Sampled:10/17/2019 0918 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1626	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		79	37-129
2-Fluorophenol		71	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		82	28-128
Terphenyl-d14		99	10-148
2,4,6-Tribromophenol		74	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-007
Description: W-33-DUP
Matrix: Aqueous
Date Sampled:10/17/2019 0918
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/18/2019 2227	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	13		0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-007

Description: W-33-DUP | Matrix: Aqueous

Date Sampled:10/17/2019 0918 | Project Name: Westinghouse RI

Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1802 TML		32671
2	5030B	8260B	5	10/23/2019 0524 JTH		32893

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	330		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-007

Description: W-33-DUP | Matrix: Aqueous

Date Sampled:10/17/2019 0918 | Project Name: Westinghouse RI

Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 1802 TML		32671
2	5030B	8260B	5	10/23/2019 0524 JTH		32893

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	24		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130		106	70-130
Bromofluorobenzene		93	70-130		100	70-130
Toluene-d8		101	70-130		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-007
Description: W-33-DUP | Matrix: Aqueous
Date Sampled:10/17/2019 0918 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1717	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-007
Description: W-33-DUP | Matrix: Aqueous
Date Sampled:10/17/2019 0918 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1717	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		78	37-129
2-Fluorophenol		61	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		68	28-128
Terphenyl-d14		94	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-008
Description: W-66
Matrix: Aqueous
Date Sampled:10/17/2019 1133
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/18/2019 2232	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	1.5		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-008
Description: W-66 | Matrix: Aqueous
Date Sampled:10/17/2019 1133 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	10/22/2019 0448	JTH		32761

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	22		5.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	480		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-008
Description: W-66 | Matrix: Aqueous
Date Sampled:10/17/2019 1133 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	10/22/2019 0448	JTH		32761

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	8.5		5.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-008
Description: W-66 | Matrix: Aqueous
Date Sampled:10/17/2019 1133 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1743	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-008
Description: W-66 | Matrix: Aqueous
Date Sampled:10/17/2019 1133 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1743	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		77	37-129
2-Fluorophenol		55	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		72	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-009
Description: W-65
Matrix: Aqueous
Date Sampled:10/17/2019 1305
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/18/2019 2233	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.64		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-009
Description: W-65
Matrix: Aqueous
Date Sampled:10/17/2019 1305
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/22/2019 0033 JTH		32761
2	5030B	8260B	5	10/24/2019 0416 STM		33091

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	13		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	220		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ17037-009
Description: W-65
Matrix: Aqueous
Date Sampled:10/17/2019 1305
Project Name: Westinghouse RI
Date Received: 10/17/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/22/2019 0033 JTH		32761
2	5030B	8260B	5	10/24/2019 0416 STM		33091

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	84		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130		94	70-130
Bromofluorobenzene		98	70-130		86	70-130
Toluene-d8		99	70-130		90	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-009
Description: W-65 | Matrix: Aqueous
Date Sampled:10/17/2019 1305 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1809	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-009
Description: W-65 | Matrix: Aqueous
Date Sampled:10/17/2019 1305 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1809	SCD	10/24/2019 1722	33225

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		79	37-129
2-Fluorophenol		58	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		73	28-128
Terphenyl-d14		97	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ17037-010
Description: TB-01-101719 | Matrix: Aqueous
Date Sampled:10/17/2019 | Project Name: Westinghouse RI
Date Received: 10/17/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 2323	JTH		32761

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company	Laboratory ID: UJ17037-010
Description: TB-01-101719	Matrix: Aqueous
Date Sampled:10/17/2019	Project Name: Westinghouse RI
Date Received: 10/17/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/21/2019 2323	JTH		32761

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ32481-001
Batch: 32481
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/18/2019 1035

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32481-002
Batch: 32481
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	90-110	10/18/2019 1037

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: UQ32543-001
Batch: 32543
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/18/2019 2216

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32543-002
Batch: 32543
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	10/18/2019 2217

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ17037-005MS
Batch: 32543
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	42	0.80	42	N	50	-43	90-110	10/18/2019 2307

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ17037-005MD
Batch: 32543
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	42	0.80	42	N	50	-40	0.055	90-110	20	10/18/2019 2308

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32671-001
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/21/2019 1032
Benzene	ND		1	1.0	ug/L	10/21/2019 1032
Bromodichloromethane	ND		1	1.0	ug/L	10/21/2019 1032
Bromoform	ND		1	1.0	ug/L	10/21/2019 1032
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/21/2019 1032
2-Butanone (MEK)	ND		1	10	ug/L	10/21/2019 1032
Carbon disulfide	ND		1	1.0	ug/L	10/21/2019 1032
Carbon tetrachloride	ND		1	1.0	ug/L	10/21/2019 1032
Chlorobenzene	ND		1	1.0	ug/L	10/21/2019 1032
Chloroethane	ND		1	2.0	ug/L	10/21/2019 1032
Chloroform	ND		1	1.0	ug/L	10/21/2019 1032
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/21/2019 1032
Cyclohexane	ND		1	1.0	ug/L	10/21/2019 1032
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/21/2019 1032
Dibromochloromethane	ND		1	1.0	ug/L	10/21/2019 1032
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/21/2019 1032
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/21/2019 1032
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/21/2019 1032
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/21/2019 1032
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/21/2019 1032
1,1-Dichloroethane	ND		1	1.0	ug/L	10/21/2019 1032
1,2-Dichloroethane	ND		1	1.0	ug/L	10/21/2019 1032
1,1-Dichloroethene	ND		1	1.0	ug/L	10/21/2019 1032
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/21/2019 1032
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/21/2019 1032
1,2-Dichloropropane	ND		1	1.0	ug/L	10/21/2019 1032
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/21/2019 1032
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/21/2019 1032
Ethylbenzene	ND		1	1.0	ug/L	10/21/2019 1032
2-Hexanone	ND		1	10	ug/L	10/21/2019 1032
Isopropylbenzene	ND		1	1.0	ug/L	10/21/2019 1032
Methyl acetate	ND		1	1.0	ug/L	10/21/2019 1032
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/21/2019 1032
4-Methyl-2-pentanone	ND		1	10	ug/L	10/21/2019 1032
Methylcyclohexane	ND		1	5.0	ug/L	10/21/2019 1032
Methylene chloride	ND		1	1.0	ug/L	10/21/2019 1032
Styrene	ND		1	1.0	ug/L	10/21/2019 1032
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/21/2019 1032
Tetrachloroethene	ND		1	1.0	ug/L	10/21/2019 1032
Toluene	ND		1	1.0	ug/L	10/21/2019 1032
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/21/2019 1032
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/21/2019 1032
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/21/2019 1032
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/21/2019 1032

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32671-001
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/21/2019 1032
Trichlorofluoromethane	ND		1	1.0	ug/L	10/21/2019 1032
Vinyl chloride	ND		1	1.0	ug/L	10/21/2019 1032
Xylenes (total)	ND		1	1.0	ug/L	10/21/2019 1032

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32671-002
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	61		1	61	60-140	10/21/2019 0933
Benzene	50	47		1	95	70-130	10/21/2019 0933
Bromodichloromethane	50	47		1	93	70-130	10/21/2019 0933
Bromoform	50	47		1	94	70-130	10/21/2019 0933
Bromomethane (Methyl bromide)	50	55		1	111	70-130	10/21/2019 0933
2-Butanone (MEK)	100	88		1	88	70-130	10/21/2019 0933
Carbon disulfide	50	47		1	94	70-130	10/21/2019 0933
Carbon tetrachloride	50	46		1	92	70-130	10/21/2019 0933
Chlorobenzene	50	47		1	94	70-130	10/21/2019 0933
Chloroethane	50	64		1	128	70-130	10/21/2019 0933
Chloroform	50	47		1	94	70-130	10/21/2019 0933
Chloromethane (Methyl chloride)	50	52		1	103	60-140	10/21/2019 0933
Cyclohexane	50	43		1	86	70-130	10/21/2019 0933
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	92	70-130	10/21/2019 0933
Dibromochloromethane	50	48		1	97	70-130	10/21/2019 0933
1,2-Dibromoethane (EDB)	50	47		1	94	70-130	10/21/2019 0933
1,2-Dichlorobenzene	50	47		1	94	70-130	10/21/2019 0933
1,3-Dichlorobenzene	50	46		1	92	70-130	10/21/2019 0933
1,4-Dichlorobenzene	50	45		1	91	70-130	10/21/2019 0933
Dichlorodifluoromethane	50	53		1	105	60-140	10/21/2019 0933
1,1-Dichloroethane	50	48		1	95	70-130	10/21/2019 0933
1,2-Dichloroethane	50	45		1	91	70-130	10/21/2019 0933
1,1-Dichloroethene	50	52		1	104	70-130	10/21/2019 0933
cis-1,2-Dichloroethene	50	48		1	95	70-130	10/21/2019 0933
trans-1,2-Dichloroethene	50	48		1	96	70-130	10/21/2019 0933
1,2-Dichloropropane	50	47		1	94	70-130	10/21/2019 0933
cis-1,3-Dichloropropene	50	47		1	95	70-130	10/21/2019 0933
trans-1,3-Dichloropropene	50	49		1	98	70-130	10/21/2019 0933
Ethylbenzene	50	48		1	96	70-130	10/21/2019 0933
2-Hexanone	100	99		1	99	70-130	10/21/2019 0933
Isopropylbenzene	50	51		1	101	70-130	10/21/2019 0933
Methyl acetate	50	45		1	91	70-130	10/21/2019 0933
Methyl tertiary butyl ether (MTBE)	50	44		1	89	70-130	10/21/2019 0933
4-Methyl-2-pentanone	100	91		1	91	70-130	10/21/2019 0933
Methylcyclohexane	50	49		1	97	70-130	10/21/2019 0933
Methylene chloride	50	42		1	84	70-130	10/21/2019 0933
Styrene	50	48		1	95	70-130	10/21/2019 0933
1,1,2,2-Tetrachloroethane	50	48		1	96	70-130	10/21/2019 0933
Tetrachloroethene	50	50		1	100	70-130	10/21/2019 0933
Toluene	50	48		1	96	70-130	10/21/2019 0933
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	10/21/2019 0933
1,2,4-Trichlorobenzene	50	47		1	94	70-130	10/21/2019 0933
1,1,1-Trichloroethane	50	46		1	92	70-130	10/21/2019 0933
1,1,2-Trichloroethane	50	48		1	96	70-130	10/21/2019 0933

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32671-002
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	10/21/2019 0933
Trichlorofluoromethane	50	54		1	108	70-130	10/21/2019 0933
Vinyl chloride	50	51		1	101	70-130	10/21/2019 0933
Xylenes (total)	100	98		1	98	70-130	10/21/2019 0933

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ17037-005MS
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	44	N	1	44	60-140	10/21/2019 1824
Benzene	ND	50	53		1	105	70-130	10/21/2019 1824
Bromodichloromethane	ND	50	50		1	99	70-130	10/21/2019 1824
Bromoform	ND	50	48		1	96	70-130	10/21/2019 1824
Bromomethane (Methyl bromide)	ND	50	63		1	126	70-130	10/21/2019 1824
2-Butanone (MEK)	ND	100	79		1	79	70-130	10/21/2019 1824
Carbon disulfide	ND	50	55		1	109	70-130	10/21/2019 1824
Carbon tetrachloride	ND	50	54		1	107	70-130	10/21/2019 1824
Chlorobenzene	ND	50	51		1	101	70-130	10/21/2019 1824
Chloroethane	ND	50	67	N	1	133	70-130	10/21/2019 1824
Chloroform	ND	50	51		1	103	70-130	10/21/2019 1824
Chloromethane (Methyl chloride)	ND	50	57		1	114	60-140	10/21/2019 1824
Cyclohexane	ND	50	51		1	103	70-130	10/21/2019 1824
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	45		1	90	70-130	10/21/2019 1824
Dibromochloromethane	ND	50	50		1	100	70-130	10/21/2019 1824
1,2-Dibromoethane (EDB)	ND	50	49		1	99	70-130	10/21/2019 1824
1,2-Dichlorobenzene	ND	50	49		1	98	70-130	10/21/2019 1824
1,3-Dichlorobenzene	ND	50	50		1	99	70-130	10/21/2019 1824
1,4-Dichlorobenzene	ND	50	48		1	96	70-130	10/21/2019 1824
Dichlorodifluoromethane	ND	50	60		1	121	60-140	10/21/2019 1824
1,1-Dichloroethane	ND	50	51		1	103	70-130	10/21/2019 1824
1,2-Dichloroethane	ND	50	48		1	97	70-130	10/21/2019 1824
1,1-Dichloroethene	ND	50	61		1	121	70-130	10/21/2019 1824
cis-1,2-Dichloroethene	ND	50	50		1	99	70-130	10/21/2019 1824
trans-1,2-Dichloroethene	ND	50	54		1	108	70-130	10/21/2019 1824
1,2-Dichloropropane	ND	50	51		1	102	70-130	10/21/2019 1824
cis-1,3-Dichloropropene	ND	50	49		1	98	70-130	10/21/2019 1824
trans-1,3-Dichloropropene	ND	50	50		1	99	70-130	10/21/2019 1824
Ethylbenzene	ND	50	53		1	105	70-130	10/21/2019 1824
2-Hexanone	ND	100	100		1	101	70-130	10/21/2019 1824
Isopropylbenzene	ND	50	56		1	111	70-130	10/21/2019 1824
Methyl acetate	ND	50	39		1	78	70-130	10/21/2019 1824
Methyl tertiary butyl ether (MTBE)	ND	50	45		1	90	70-130	10/21/2019 1824
4-Methyl-2-pentanone	ND	100	96		1	96	70-130	10/21/2019 1824
Methylcyclohexane	ND	50	56		1	112	70-130	10/21/2019 1824
Methylene chloride	ND	50	45		1	89	70-130	10/21/2019 1824
Styrene	ND	50	52		1	104	70-130	10/21/2019 1824
1,1,2,2-Tetrachloroethane	ND	50	50		1	101	70-130	10/21/2019 1824
Tetrachloroethene	1.3	50	56		1	109	70-130	10/21/2019 1824
Toluene	ND	50	53		1	106	70-130	10/21/2019 1824
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	56		1	113	70-130	10/21/2019 1824
1,2,4-Trichlorobenzene	ND	50	46		1	93	70-130	10/21/2019 1824
1,1,1-Trichloroethane	ND	50	52		1	104	70-130	10/21/2019 1824
1,1,2-Trichloroethane	ND	50	51		1	103	70-130	10/21/2019 1824

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ17037-005MS
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	50	51		1	103	70-130	10/21/2019 1824
Trichlorofluoromethane	ND	50	62		1	124	70-130	10/21/2019 1824
Vinyl chloride	ND	50	56		1	113	70-130	10/21/2019 1824
Xylenes (total)	ND	100	110		1	105	70-130	10/21/2019 1824

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ17037-005MD
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	54	N,+	1	54	21	60-140	20	10/21/2019 1845
Benzene	ND	50	53		1	106	0.63	70-130	20	10/21/2019 1845
Bromodichloromethane	ND	50	50		1	100	0.97	70-130	20	10/21/2019 1845
Bromoform	ND	50	49		1	98	1.9	70-130	20	10/21/2019 1845
Bromomethane (Methyl bromide)	ND	50	63		1	126	0.33	70-130	20	10/21/2019 1845
2-Butanone (MEK)	ND	100	84		1	84	6.9	70-130	20	10/21/2019 1845
Carbon disulfide	ND	50	58		1	116	5.6	70-130	20	10/21/2019 1845
Carbon tetrachloride	ND	50	55		1	111	3.0	70-130	20	10/21/2019 1845
Chlorobenzene	ND	50	51		1	102	0.23	70-130	20	10/21/2019 1845
Chloroethane	ND	50	70	N	1	139	4.7	70-130	20	10/21/2019 1845
Chloroform	ND	50	53		1	106	3.4	70-130	20	10/21/2019 1845
Chloromethane (Methyl chloride)	ND	50	60		1	119	4.9	60-140	20	10/21/2019 1845
Cyclohexane	ND	50	52		1	104	1.3	70-130	20	10/21/2019 1845
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	46		1	92	2.4	70-130	20	10/21/2019 1845
Dibromochloromethane	ND	50	51		1	102	2.4	70-130	20	10/21/2019 1845
1,2-Dibromoethane (EDB)	ND	50	50		1	99	0.40	70-130	20	10/21/2019 1845
1,2-Dichlorobenzene	ND	50	50		1	101	2.9	70-130	20	10/21/2019 1845
1,3-Dichlorobenzene	ND	50	50		1	99	0.10	70-130	20	10/21/2019 1845
1,4-Dichlorobenzene	ND	50	48		1	95	1.2	70-130	20	10/21/2019 1845
Dichlorodifluoromethane	ND	50	63		1	126	4.2	60-140	20	10/21/2019 1845
1,1-Dichloroethane	ND	50	54		1	108	4.9	70-130	20	10/21/2019 1845
1,2-Dichloroethane	ND	50	50		1	101	4.5	70-130	20	10/21/2019 1845
1,1-Dichloroethene	ND	50	64		1	127	4.7	70-130	20	10/21/2019 1845
cis-1,2-Dichloroethene	ND	50	53		1	105	5.9	70-130	20	10/21/2019 1845
trans-1,2-Dichloroethene	ND	50	57		1	114	5.2	70-130	20	10/21/2019 1845
1,2-Dichloropropane	ND	50	51		1	103	0.24	70-130	20	10/21/2019 1845
cis-1,3-Dichloropropene	ND	50	49		1	99	0.40	70-130	20	10/21/2019 1845
trans-1,3-Dichloropropene	ND	50	50		1	101	1.7	70-130	20	10/21/2019 1845
Ethylbenzene	ND	50	54		1	107	2.3	70-130	20	10/21/2019 1845
2-Hexanone	ND	100	100		1	100	1.6	70-130	20	10/21/2019 1845
Isopropylbenzene	ND	50	58		1	115	3.2	70-130	20	10/21/2019 1845
Methyl acetate	ND	50	43		1	86	9.3	70-130	20	10/21/2019 1845
Methyl tertiary butyl ether (MTBE)	ND	50	48		1	96	5.7	70-130	20	10/21/2019 1845
4-Methyl-2-pentanone	ND	100	95		1	95	0.60	70-130	20	10/21/2019 1845
Methylcyclohexane	ND	50	58		1	115	2.4	70-130	20	10/21/2019 1845
Methylene chloride	ND	50	49		1	97	8.2	70-130	20	10/21/2019 1845
Styrene	ND	50	53		1	105	1.1	70-130	20	10/21/2019 1845
1,1,2,2-Tetrachloroethane	ND	50	50		1	99	1.4	70-130	20	10/21/2019 1845
Tetrachloroethene	1.3	50	57		1	111	1.7	70-130	20	10/21/2019 1845
Toluene	ND	50	53		1	106	0.91	70-130	20	10/21/2019 1845
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	58		1	116	2.4	70-130	20	10/21/2019 1845
1,2,4-Trichlorobenzene	ND	50	52		1	103	11	70-130	20	10/21/2019 1845
1,1,1-Trichloroethane	ND	50	54		1	107	3.5	70-130	20	10/21/2019 1845
1,1,2-Trichloroethane	ND	50	52		1	104	1.1	70-130	20	10/21/2019 1845

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ17037-005MD
Batch: 32671
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	50	52		1	105	2.0	70-130	20	10/21/2019 1845
Trichlorofluoromethane	ND	50	64		1	127	2.6	70-130	20	10/21/2019 1845
Vinyl chloride	ND	50	59		1	119	5.2	70-130	20	10/21/2019 1845
Xylenes (total)	ND	100	110		1	107	1.9	70-130	20	10/21/2019 1845

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32761-001
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/21/2019 2157
Benzene	ND		1	1.0	ug/L	10/21/2019 2157
Bromodichloromethane	ND		1	1.0	ug/L	10/21/2019 2157
Bromoform	ND		1	1.0	ug/L	10/21/2019 2157
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/21/2019 2157
2-Butanone (MEK)	ND		1	10	ug/L	10/21/2019 2157
Carbon disulfide	ND		1	1.0	ug/L	10/21/2019 2157
Carbon tetrachloride	ND		1	1.0	ug/L	10/21/2019 2157
Chlorobenzene	ND		1	1.0	ug/L	10/21/2019 2157
Chloroethane	ND		1	2.0	ug/L	10/21/2019 2157
Chloroform	ND		1	1.0	ug/L	10/21/2019 2157
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/21/2019 2157
Cyclohexane	ND		1	1.0	ug/L	10/21/2019 2157
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/21/2019 2157
Dibromochloromethane	ND		1	1.0	ug/L	10/21/2019 2157
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/21/2019 2157
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/21/2019 2157
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/21/2019 2157
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/21/2019 2157
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/21/2019 2157
1,1-Dichloroethane	ND		1	1.0	ug/L	10/21/2019 2157
1,2-Dichloroethane	ND		1	1.0	ug/L	10/21/2019 2157
1,1-Dichloroethene	ND		1	1.0	ug/L	10/21/2019 2157
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/21/2019 2157
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/21/2019 2157
1,2-Dichloropropane	ND		1	1.0	ug/L	10/21/2019 2157
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/21/2019 2157
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/21/2019 2157
Ethylbenzene	ND		1	1.0	ug/L	10/21/2019 2157
2-Hexanone	ND		1	10	ug/L	10/21/2019 2157
Isopropylbenzene	ND		1	1.0	ug/L	10/21/2019 2157
Methyl acetate	ND		1	1.0	ug/L	10/21/2019 2157
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/21/2019 2157
4-Methyl-2-pentanone	ND		1	10	ug/L	10/21/2019 2157
Methylcyclohexane	ND		1	5.0	ug/L	10/21/2019 2157
Methylene chloride	ND		1	1.0	ug/L	10/21/2019 2157
Styrene	ND		1	1.0	ug/L	10/21/2019 2157
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/21/2019 2157
Tetrachloroethene	ND		1	1.0	ug/L	10/21/2019 2157
Toluene	ND		1	1.0	ug/L	10/21/2019 2157
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/21/2019 2157
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/21/2019 2157
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/21/2019 2157
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/21/2019 2157

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32761-001
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/21/2019 2157
Trichlorofluoromethane	ND		1	1.0	ug/L	10/21/2019 2157
Vinyl chloride	ND		1	1.0	ug/L	10/21/2019 2157
Xylenes (total)	ND		1	1.0	ug/L	10/21/2019 2157

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32761-002
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	103	60-140	10/21/2019 2051
Benzene	50	50		1	99	70-130	10/21/2019 2051
Bromodichloromethane	50	51		1	102	70-130	10/21/2019 2051
Bromoform	50	54		1	108	70-130	10/21/2019 2051
Bromomethane (Methyl bromide)	50	41		1	82	70-130	10/21/2019 2051
2-Butanone (MEK)	100	110		1	108	70-130	10/21/2019 2051
Carbon disulfide	50	44		1	88	70-130	10/21/2019 2051
Carbon tetrachloride	50	46		1	92	70-130	10/21/2019 2051
Chlorobenzene	50	51		1	103	70-130	10/21/2019 2051
Chloroethane	50	46		1	92	70-130	10/21/2019 2051
Chloroform	50	48		1	96	70-130	10/21/2019 2051
Chloromethane (Methyl chloride)	50	36		1	72	60-140	10/21/2019 2051
Cyclohexane	50	41		1	82	70-130	10/21/2019 2051
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	111	70-130	10/21/2019 2051
Dibromochloromethane	50	52		1	105	70-130	10/21/2019 2051
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	10/21/2019 2051
1,2-Dichlorobenzene	50	55		1	110	70-130	10/21/2019 2051
1,3-Dichlorobenzene	50	56		1	112	70-130	10/21/2019 2051
1,4-Dichlorobenzene	50	54		1	108	70-130	10/21/2019 2051
Dichlorodifluoromethane	50	37		1	75	60-140	10/21/2019 2051
1,1-Dichloroethane	50	47		1	94	70-130	10/21/2019 2051
1,2-Dichloroethane	50	48		1	96	70-130	10/21/2019 2051
1,1-Dichloroethene	50	53		1	107	70-130	10/21/2019 2051
cis-1,2-Dichloroethene	50	49		1	98	70-130	10/21/2019 2051
trans-1,2-Dichloroethene	50	51		1	102	70-130	10/21/2019 2051
1,2-Dichloropropane	50	51		1	102	70-130	10/21/2019 2051
cis-1,3-Dichloropropene	50	57		1	114	70-130	10/21/2019 2051
trans-1,3-Dichloropropene	50	58		1	117	70-130	10/21/2019 2051
Ethylbenzene	50	54		1	107	70-130	10/21/2019 2051
2-Hexanone	100	97		1	97	70-130	10/21/2019 2051
Isopropylbenzene	50	56		1	111	70-130	10/21/2019 2051
Methyl acetate	50	46		1	92	70-130	10/21/2019 2051
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	10/21/2019 2051
4-Methyl-2-pentanone	100	94		1	94	70-130	10/21/2019 2051
Methylcyclohexane	50	54		1	107	70-130	10/21/2019 2051
Methylene chloride	50	45		1	90	70-130	10/21/2019 2051
Styrene	50	55		1	110	70-130	10/21/2019 2051
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	10/21/2019 2051
Tetrachloroethene	50	53		1	107	70-130	10/21/2019 2051
Toluene	50	53		1	106	70-130	10/21/2019 2051
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	90	70-130	10/21/2019 2051
1,2,4-Trichlorobenzene	50	60		1	119	70-130	10/21/2019 2051
1,1,1-Trichloroethane	50	46		1	92	70-130	10/21/2019 2051
1,1,2-Trichloroethane	50	52		1	103	70-130	10/21/2019 2051

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32761-002
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	51		1	102	70-130	10/21/2019 2051
Trichlorofluoromethane	50	42		1	85	70-130	10/21/2019 2051
Vinyl chloride	50	37		1	73	70-130	10/21/2019 2051
Xylenes (total)	100	110		1	111	70-130	10/21/2019 2051

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ17037-008MS
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	370		5	75	60-140	10/22/2019 0643
Benzene	ND	250	260		5	103	70-130	10/22/2019 0643
Bromodichloromethane	ND	250	260		5	103	70-130	10/22/2019 0643
Bromoform	ND	250	260		5	105	70-130	10/22/2019 0643
Bromomethane (Methyl bromide)	ND	250	190		5	76	70-130	10/22/2019 0643
2-Butanone (MEK)	ND	500	440		5	88	70-130	10/22/2019 0643
Carbon disulfide	ND	250	240		5	95	70-130	10/22/2019 0643
Carbon tetrachloride	ND	250	260		5	104	70-130	10/22/2019 0643
Chlorobenzene	ND	250	260		5	104	70-130	10/22/2019 0643
Chloroethane	ND	250	220		5	87	70-130	10/22/2019 0643
Chloroform	ND	250	250		5	100	70-130	10/22/2019 0643
Chloromethane (Methyl chloride)	ND	250	170		5	69	60-140	10/22/2019 0643
Cyclohexane	ND	250	230		5	93	70-130	10/22/2019 0643
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	240		5	97	70-130	10/22/2019 0643
Dibromochloromethane	ND	250	250		5	102	70-130	10/22/2019 0643
1,2-Dibromoethane (EDB)	ND	250	250		5	102	70-130	10/22/2019 0643
1,2-Dichlorobenzene	ND	250	270		5	108	70-130	10/22/2019 0643
1,3-Dichlorobenzene	ND	250	280		5	110	70-130	10/22/2019 0643
1,4-Dichlorobenzene	ND	250	270		5	108	70-130	10/22/2019 0643
Dichlorodifluoromethane	ND	250	200		5	81	60-140	10/22/2019 0643
1,1-Dichloroethane	ND	250	250		5	98	70-130	10/22/2019 0643
1,2-Dichloroethane	ND	250	240		5	96	70-130	10/22/2019 0643
1,1-Dichloroethene	ND	250	300		5	118	70-130	10/22/2019 0643
cis-1,2-Dichloroethene	22	250	280		5	101	70-130	10/22/2019 0643
trans-1,2-Dichloroethene	ND	250	270		5	107	70-130	10/22/2019 0643
1,2-Dichloropropane	ND	250	250		5	102	70-130	10/22/2019 0643
cis-1,3-Dichloropropene	ND	250	280		5	111	70-130	10/22/2019 0643
trans-1,3-Dichloropropene	ND	250	280		5	111	70-130	10/22/2019 0643
Ethylbenzene	ND	250	280		5	112	70-130	10/22/2019 0643
2-Hexanone	ND	500	440		5	87	70-130	10/22/2019 0643
Isopropylbenzene	ND	250	290		5	117	70-130	10/22/2019 0643
Methyl acetate	ND	250	200		5	79	70-130	10/22/2019 0643
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	98	70-130	10/22/2019 0643
4-Methyl-2-pentanone	ND	500	420		5	84	70-130	10/22/2019 0643
Methylcyclohexane	ND	250	310		5	123	70-130	10/22/2019 0643
Methylene chloride	ND	250	220		5	90	70-130	10/22/2019 0643
Styrene	ND	250	280		5	111	70-130	10/22/2019 0643
1,1,2,2-Tetrachloroethane	ND	250	240		5	98	70-130	10/22/2019 0643
Tetrachloroethene	480	250	730		5	99	70-130	10/22/2019 0643
Toluene	ND	250	270		5	109	70-130	10/22/2019 0643
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	260		5	104	70-130	10/22/2019 0643
1,2,4-Trichlorobenzene	ND	250	290		5	114	70-130	10/22/2019 0643
1,1,1-Trichloroethane	ND	250	260		5	102	70-130	10/22/2019 0643
1,1,2-Trichloroethane	ND	250	250		5	101	70-130	10/22/2019 0643

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ17037-008MS
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	8.5	250	280		5	107	70-130	10/22/2019 0643
Trichlorofluoromethane	ND	250	220		5	88	70-130	10/22/2019 0643
Vinyl chloride	ND	250	200		5	79	70-130	10/22/2019 0643
Xylenes (total)	ND	500	570		5	114	70-130	10/22/2019 0643

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ17037-008MD
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	330		5	67	11	60-140	20	10/22/2019 0706
Benzene	ND	250	230		5	93	9.9	70-130	20	10/22/2019 0706
Bromodichloromethane	ND	250	230		5	92	12	70-130	20	10/22/2019 0706
Bromoform	ND	250	230		5	93	12	70-130	20	10/22/2019 0706
Bromomethane (Methyl bromide)	ND	250	220		5	86	12	70-130	20	10/22/2019 0706
2-Butanone (MEK)	ND	500	410		5	82	6.6	70-130	20	10/22/2019 0706
Carbon disulfide	ND	250	220		5	87	8.3	70-130	20	10/22/2019 0706
Carbon tetrachloride	ND	250	230		5	92	13	70-130	20	10/22/2019 0706
Chlorobenzene	ND	250	230		5	94	10	70-130	20	10/22/2019 0706
Chloroethane	ND	250	250		5	98	12	70-130	20	10/22/2019 0706
Chloroform	ND	250	230		5	91	10	70-130	20	10/22/2019 0706
Chloromethane (Methyl chloride)	ND	250	190		5	77	10	60-140	20	10/22/2019 0706
Cyclohexane	ND	250	210		5	82	12	70-130	20	10/22/2019 0706
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	220		5	88	9.3	70-130	20	10/22/2019 0706
Dibromochloromethane	ND	250	230		5	91	11	70-130	20	10/22/2019 0706
1,2-Dibromoethane (EDB)	ND	250	230		5	91	10	70-130	20	10/22/2019 0706
1,2-Dichlorobenzene	ND	250	240		5	97	11	70-130	20	10/22/2019 0706
1,3-Dichlorobenzene	ND	250	250		5	99	10	70-130	20	10/22/2019 0706
1,4-Dichlorobenzene	ND	250	240		5	97	11	70-130	20	10/22/2019 0706
Dichlorodifluoromethane	ND	250	220		5	89	8.5	60-140	20	10/22/2019 0706
1,1-Dichloroethane	ND	250	220		5	89	9.9	70-130	20	10/22/2019 0706
1,2-Dichloroethane	ND	250	210		5	85	12	70-130	20	10/22/2019 0706
1,1-Dichloroethene	ND	250	270		5	107	10	70-130	20	10/22/2019 0706
cis-1,2-Dichloroethene	22	250	250		5	92	8.4	70-130	20	10/22/2019 0706
trans-1,2-Dichloroethene	ND	250	240		5	98	9.1	70-130	20	10/22/2019 0706
1,2-Dichloropropane	ND	250	230		5	93	9.2	70-130	20	10/22/2019 0706
cis-1,3-Dichloropropene	ND	250	250		5	100	10	70-130	20	10/22/2019 0706
trans-1,3-Dichloropropene	ND	250	250		5	100	10	70-130	20	10/22/2019 0706
Ethylbenzene	ND	250	250		5	100	12	70-130	20	10/22/2019 0706
2-Hexanone	ND	500	400		5	79	10	70-130	20	10/22/2019 0706
Isopropylbenzene	ND	250	260		5	104	12	70-130	20	10/22/2019 0706
Methyl acetate	ND	250	200		5	79	0.28	70-130	20	10/22/2019 0706
Methyl tertiary butyl ether (MTBE)	ND	250	220		5	88	10	70-130	20	10/22/2019 0706
4-Methyl-2-pentanone	ND	500	380		5	77	9.7	70-130	20	10/22/2019 0706
Methylcyclohexane	ND	250	270		5	109	11	70-130	20	10/22/2019 0706
Methylene chloride	ND	250	200		5	82	9.1	70-130	20	10/22/2019 0706
Styrene	ND	250	250		5	99	12	70-130	20	10/22/2019 0706
1,1,2,2-Tetrachloroethane	ND	250	220		5	90	8.7	70-130	20	10/22/2019 0706
Tetrachloroethene	480	250	710		5	91	2.9	70-130	20	10/22/2019 0706
Toluene	ND	250	250		5	98	9.9	70-130	20	10/22/2019 0706
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	230		5	93	11	70-130	20	10/22/2019 0706
1,2,4-Trichlorobenzene	ND	250	250		5	102	12	70-130	20	10/22/2019 0706
1,1,1-Trichloroethane	ND	250	230		5	91	12	70-130	20	10/22/2019 0706
1,1,2-Trichloroethane	ND	250	230		5	91	10	70-130	20	10/22/2019 0706

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ17037-008MD
Batch: 32761
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	8.5	250	250		5	98	9.0	70-130	20	10/22/2019 0706
Trichlorofluoromethane	ND	250	240		5	97	10	70-130	20	10/22/2019 0706
Vinyl chloride	ND	250	220		5	86	8.6	70-130	20	10/22/2019 0706
Xylenes (total)	ND	500	510		5	102	12	70-130	20	10/22/2019 0706

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32893-001
Batch: 32893
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	ug/L	10/22/2019 2228

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32893-002
Batch: 32893
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	56		1	113	70-130	10/22/2019 2124

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33091-001
Batch: 33091
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	ug/L	10/23/2019 2102

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33091-002
Batch: 33091
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	50		1	100	70-130	10/23/2019 2003

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32710-001
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/23/2019 1433
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/23/2019 1433
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/23/2019 1433
2,4-Dinitrophenol	ND		1	20	ug/L	10/23/2019 1433
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/23/2019 1433
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/23/2019 1433
2-Chloronaphthalene	ND		1	4.0	ug/L	10/23/2019 1433
2-Chlorophenol	ND		1	4.0	ug/L	10/23/2019 1433
2-Methylnaphthalene	ND		1	0.80	ug/L	10/23/2019 1433
2-Methylphenol	ND		1	4.0	ug/L	10/23/2019 1433
2-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
2-Nitrophenol	ND		1	4.0	ug/L	10/23/2019 1433
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/23/2019 1433
3+4-Methylphenol	ND		1	4.0	ug/L	10/23/2019 1433
3-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/23/2019 1433
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/23/2019 1433
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/23/2019 1433
4-Chloroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/23/2019 1433
4-Nitroaniline	ND		1	8.0	ug/L	10/23/2019 1433
4-Nitrophenol	ND		1	20	ug/L	10/23/2019 1433
Acenaphthene	ND		1	0.80	ug/L	10/23/2019 1433
Acenaphthylene	ND		1	0.80	ug/L	10/23/2019 1433
Acetophenone	ND		1	4.0	ug/L	10/23/2019 1433
Anthracene	ND		1	0.80	ug/L	10/23/2019 1433
Atrazine	ND		1	4.0	ug/L	10/23/2019 1433
Benzaldehyde	ND		1	8.0	ug/L	10/23/2019 1433
Benzo(a)anthracene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(a)pyrene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/23/2019 1433
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/23/2019 1433
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Caprolactam	ND		1	8.0	ug/L	10/23/2019 1433
Carbazole	ND		1	4.0	ug/L	10/23/2019 1433
Chrysene	ND		1	0.80	ug/L	10/23/2019 1433
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/23/2019 1433

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ32710-001
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/23/2019 1433
Diethylphthalate	ND		1	4.0	ug/L	10/23/2019 1433
Dimethyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/23/2019 1433
Di-n-octylphthalate	ND		1	4.0	ug/L	10/23/2019 1433
Fluoranthene	ND		1	0.80	ug/L	10/23/2019 1433
Fluorene	ND		1	0.80	ug/L	10/23/2019 1433
Hexachlorobenzene	ND		1	4.0	ug/L	10/23/2019 1433
Hexachlorobutadiene	ND		1	4.0	ug/L	10/23/2019 1433
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/23/2019 1433
Hexachloroethane	ND		1	4.0	ug/L	10/23/2019 1433
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/23/2019 1433
Isophorone	ND		1	4.0	ug/L	10/23/2019 1433
Naphthalene	ND		1	0.80	ug/L	10/23/2019 1433
Nitrobenzene	ND		1	4.0	ug/L	10/23/2019 1433
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/23/2019 1433
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/23/2019 1433
Pentachlorophenol	ND		1	20	ug/L	10/23/2019 1433
Phenanthrene	ND		1	0.80	ug/L	10/23/2019 1433
Phenol	ND		1	4.0	ug/L	10/23/2019 1433
Pyrene	ND		1	0.80	ug/L	10/23/2019 1433

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		74	37-129
2-Fluorophenol		32	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		62	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32710-002
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	33		1	83	30-130	10/23/2019 1320
2,4,5-Trichlorophenol	40	32		1	81	30-123	10/23/2019 1320
2,4,6-Trichlorophenol	40	33		1	81	30-130	10/23/2019 1320
2,4-Dichlorophenol	40	31		1	77	30-121	10/23/2019 1320
2,4-Dimethylphenol	40	36		1	91	20-125	10/23/2019 1320
2,4-Dinitrophenol	80	58		1	72	11-126	10/23/2019 1320
2,4-Dinitrotoluene	40	35		1	87	30-130	10/23/2019 1320
2,6-Dinitrotoluene	40	33		1	83	30-130	10/23/2019 1320
2-Chloronaphthalene	40	33		1	82	30-130	10/23/2019 1320
2-Chlorophenol	40	34		1	85	30-130	10/23/2019 1320
2-Methylnaphthalene	40	30		1	75	40-132	10/23/2019 1320
2-Methylphenol	40	31		1	77	30-130	10/23/2019 1320
2-Nitroaniline	40	34		1	85	30-130	10/23/2019 1320
2-Nitrophenol	40	33		1	84	30-130	10/23/2019 1320
3,3'-Dichlorobenzidine	40	26		1	65	10-126	10/23/2019 1320
3+4-Methylphenol	40	34		1	84	30-130	10/23/2019 1320
3-Nitroaniline	40	26		1	66	30-130	10/23/2019 1320
4,6-Dinitro-2-methylphenol	40	33		1	84	30-130	10/23/2019 1320
4-Bromophenyl phenyl ether	40	30		1	76	30-124	10/23/2019 1320
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/23/2019 1320
4-Chloroaniline	40	25		1	63	12-157	10/23/2019 1320
4-Chlorophenyl phenyl ether	40	31		1	77	30-121	10/23/2019 1320
4-Nitroaniline	40	29		1	72	30-135	10/23/2019 1320
4-Nitrophenol	80	70		1	87	30-130	10/23/2019 1320
Acenaphthene	40	33		1	83	30-122	10/23/2019 1320
Acenaphthylene	40	35		1	86	30-130	10/23/2019 1320
Acetophenone	40	34		1	84	30-130	10/23/2019 1320
Anthracene	40	35		1	88	30-123	10/23/2019 1320
Atrazine	40	34		1	85	30-130	10/23/2019 1320
Benzaldehyde	40	21		1	54	20-115	10/23/2019 1320
Benzo(a)anthracene	40	33		1	82	40-125	10/23/2019 1320
Benzo(a)pyrene	40	33		1	84	40-128	10/23/2019 1320
Benzo(b)fluoranthene	40	33		1	84	30-130	10/23/2019 1320
Benzo(g,h,i)perylene	40	35		1	88	30-130	10/23/2019 1320
Benzo(k)fluoranthene	40	32		1	81	30-130	10/23/2019 1320
bis (2-Chloro-1-methylethyl) ether	40	27		1	67	30-130	10/23/2019 1320
bis(2-Chloroethoxy)methane	40	31		1	78	30-130	10/23/2019 1320
bis(2-Chloroethyl)ether	40	31		1	78	30-130	10/23/2019 1320
bis(2-Ethylhexyl)phthalate	40	34		1	85	30-130	10/23/2019 1320
Butyl benzyl phthalate	40	35		1	87	30-130	10/23/2019 1320
Caprolactam	40	33		1	82	30-130	10/23/2019 1320
Carbazole	40	32		1	81	30-130	10/23/2019 1320
Chrysene	40	32		1	81	30-130	10/23/2019 1320
Dibenzo(a,h)anthracene	40	35		1	88	30-130	10/23/2019 1320

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32710-002
Batch: 32710
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/21/2019 1811

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	32		1	80	30-118	10/23/2019 1320
Diethylphthalate	40	37		1	92	40-125	10/23/2019 1320
Dimethyl phthalate	40	34		1	85	40-127	10/23/2019 1320
Di-n-butyl phthalate	40	37		1	93	40-127	10/23/2019 1320
Di-n-octylphthalate	40	32		1	81	30-130	10/23/2019 1320
Fluoranthene	40	33		1	83	40-128	10/23/2019 1320
Fluorene	40	31		1	78	30-124	10/23/2019 1320
Hexachlorobenzene	40	32		1	79	30-125	10/23/2019 1320
Hexachlorobutadiene	40	30		1	74	24-110	10/23/2019 1320
Hexachlorocyclopentadiene	200	130		1	63	22-122	10/23/2019 1320
Hexachloroethane	40	28		1	71	30-130	10/23/2019 1320
Indeno(1,2,3-c,d)pyrene	40	35		1	87	30-130	10/23/2019 1320
Isophorone	40	30		1	76	30-130	10/23/2019 1320
Naphthalene	40	33		1	83	30-130	10/23/2019 1320
Nitrobenzene	40	31		1	78	30-130	10/23/2019 1320
N-Nitrosodi-n-propylamine	40	31		1	78	30-130	10/23/2019 1320
N-Nitrosodiphenylamine (Diphenylamine)	40	34		1	85	30-123	10/23/2019 1320
Pentachlorophenol	80	55		1	69	30-130	10/23/2019 1320
Phenanthrene	40	33		1	83	40-123	10/23/2019 1320
Phenol	40	31		1	78	30-130	10/23/2019 1320
Pyrene	40	33		1	83	40-126	10/23/2019 1320

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		80	24-127
Nitrobenzene-d5		79	38-127
Phenol-d5		77	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		79	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33225-001
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/26/2019 1239
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/26/2019 1239
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/26/2019 1239
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/26/2019 1239
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/26/2019 1239
2,4-Dinitrophenol	ND		1	20	ug/L	10/26/2019 1239
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/26/2019 1239
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/26/2019 1239
2-Chloronaphthalene	ND		1	4.0	ug/L	10/26/2019 1239
2-Chlorophenol	ND		1	4.0	ug/L	10/26/2019 1239
2-Methylnaphthalene	ND		1	0.80	ug/L	10/26/2019 1239
2-Methylphenol	ND		1	4.0	ug/L	10/26/2019 1239
2-Nitroaniline	ND		1	8.0	ug/L	10/26/2019 1239
2-Nitrophenol	ND		1	4.0	ug/L	10/26/2019 1239
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/26/2019 1239
3+4-Methylphenol	ND		1	4.0	ug/L	10/26/2019 1239
3-Nitroaniline	ND		1	8.0	ug/L	10/26/2019 1239
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/26/2019 1239
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/26/2019 1239
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/26/2019 1239
4-Chloroaniline	ND		1	8.0	ug/L	10/26/2019 1239
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/26/2019 1239
4-Nitroaniline	ND		1	8.0	ug/L	10/26/2019 1239
4-Nitrophenol	ND		1	20	ug/L	10/26/2019 1239
Acenaphthene	ND		1	0.80	ug/L	10/26/2019 1239
Acenaphthylene	ND		1	0.80	ug/L	10/26/2019 1239
Acetophenone	ND		1	4.0	ug/L	10/26/2019 1239
Anthracene	ND		1	0.80	ug/L	10/26/2019 1239
Atrazine	ND		1	4.0	ug/L	10/26/2019 1239
Benzaldehyde	ND		1	8.0	ug/L	10/26/2019 1239
Benzo(a)anthracene	ND		1	0.80	ug/L	10/26/2019 1239
Benzo(a)pyrene	ND		1	0.80	ug/L	10/26/2019 1239
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/26/2019 1239
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/26/2019 1239
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/26/2019 1239
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/26/2019 1239
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/26/2019 1239
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/26/2019 1239
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/26/2019 1239
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/26/2019 1239
Caprolactam	ND		1	8.0	ug/L	10/26/2019 1239
Carbazole	ND		1	4.0	ug/L	10/26/2019 1239
Chrysene	ND		1	0.80	ug/L	10/26/2019 1239
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/26/2019 1239

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33225-001
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/26/2019 1239
Diethylphthalate	ND		1	4.0	ug/L	10/26/2019 1239
Dimethyl phthalate	ND		1	4.0	ug/L	10/26/2019 1239
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/26/2019 1239
Di-n-octylphthalate	ND		1	4.0	ug/L	10/26/2019 1239
Fluoranthene	ND		1	0.80	ug/L	10/26/2019 1239
Fluorene	ND		1	0.80	ug/L	10/26/2019 1239
Hexachlorobenzene	ND		1	4.0	ug/L	10/26/2019 1239
Hexachlorobutadiene	ND		1	4.0	ug/L	10/26/2019 1239
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/26/2019 1239
Hexachloroethane	ND		1	4.0	ug/L	10/26/2019 1239
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/26/2019 1239
Isophorone	ND		1	4.0	ug/L	10/26/2019 1239
Naphthalene	ND		1	0.80	ug/L	10/26/2019 1239
Nitrobenzene	ND		1	4.0	ug/L	10/26/2019 1239
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/26/2019 1239
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/26/2019 1239
Pentachlorophenol	ND		1	20	ug/L	10/26/2019 1239
Phenanthrene	ND		1	0.80	ug/L	10/26/2019 1239
Phenol	ND		1	4.0	ug/L	10/26/2019 1239
Pyrene	ND		1	0.80	ug/L	10/26/2019 1239

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		50	24-127
Nitrobenzene-d5		69	38-127
Phenol-d5		63	28-128
Terphenyl-d14		94	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33225-002
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	34		1	86	30-130	10/26/2019 1304
2,4,5-Trichlorophenol	40	35		1	86	30-123	10/26/2019 1304
2,4,6-Trichlorophenol	40	35		1	88	30-130	10/26/2019 1304
2,4-Dichlorophenol	40	33		1	82	30-121	10/26/2019 1304
2,4-Dimethylphenol	40	27		1	69	20-125	10/26/2019 1304
2,4-Dinitrophenol	80	60		1	75	11-126	10/26/2019 1304
2,4-Dinitrotoluene	40	37		1	93	30-130	10/26/2019 1304
2,6-Dinitrotoluene	40	37		1	92	30-130	10/26/2019 1304
2-Chloronaphthalene	40	35		1	87	30-130	10/26/2019 1304
2-Chlorophenol	40	37		1	92	30-130	10/26/2019 1304
2-Methylnaphthalene	40	33		1	83	40-132	10/26/2019 1304
2-Methylphenol	40	38		1	94	30-130	10/26/2019 1304
2-Nitroaniline	40	39		1	97	30-130	10/26/2019 1304
2-Nitrophenol	40	35		1	88	30-130	10/26/2019 1304
3,3'-Dichlorobenzidine	40	29		1	72	10-126	10/26/2019 1304
3+4-Methylphenol	40	37		1	92	30-130	10/26/2019 1304
3-Nitroaniline	40	29		1	74	30-130	10/26/2019 1304
4,6-Dinitro-2-methylphenol	40	35		1	87	30-130	10/26/2019 1304
4-Bromophenyl phenyl ether	40	35		1	87	30-124	10/26/2019 1304
4-Chloro-3-methyl phenol	40	33		1	82	30-123	10/26/2019 1304
4-Chloroaniline	40	36		1	90	12-157	10/26/2019 1304
4-Chlorophenyl phenyl ether	40	34		1	86	30-121	10/26/2019 1304
4-Nitroaniline	40	40		1	99	30-135	10/26/2019 1304
4-Nitrophenol	80	53		1	66	30-130	10/26/2019 1304
Acenaphthene	40	34		1	84	30-122	10/26/2019 1304
Acenaphthylene	40	35		1	87	30-130	10/26/2019 1304
Acetophenone	40	35		1	88	30-130	10/26/2019 1304
Anthracene	40	34		1	86	30-123	10/26/2019 1304
Atrazine	40	39		1	99	30-130	10/26/2019 1304
Benzaldehyde	40	24		1	60	20-115	10/26/2019 1304
Benzo(a)anthracene	40	35		1	87	40-125	10/26/2019 1304
Benzo(a)pyrene	40	33		1	83	40-128	10/26/2019 1304
Benzo(b)fluoranthene	40	35		1	86	30-130	10/26/2019 1304
Benzo(g,h,i)perylene	40	39		1	97	30-130	10/26/2019 1304
Benzo(k)fluoranthene	40	27		1	69	30-130	10/26/2019 1304
bis (2-Chloro-1-methylethyl) ether	40	42		1	106	30-130	10/26/2019 1304
bis(2-Chloroethoxy)methane	40	32		1	79	30-130	10/26/2019 1304
bis(2-Chloroethyl)ether	40	34		1	86	30-130	10/26/2019 1304
bis(2-Ethylhexyl)phthalate	40	36		1	90	30-130	10/26/2019 1304
Butyl benzyl phthalate	40	37		1	93	30-130	10/26/2019 1304
Caprolactam	40	35		1	89	30-130	10/26/2019 1304
Carbazole	40	35		1	88	30-130	10/26/2019 1304
Chrysene	40	36		1	90	30-130	10/26/2019 1304
Dibenzo(a,h)anthracene	40	37		1	92	30-130	10/26/2019 1304

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33225-002
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	34		1	84	30-118	10/26/2019 1304
Diethylphthalate	40	36		1	91	40-125	10/26/2019 1304
Dimethyl phthalate	40	35		1	88	40-127	10/26/2019 1304
Di-n-butyl phthalate	40	36		1	91	40-127	10/26/2019 1304
Di-n-octylphthalate	40	30		1	76	30-130	10/26/2019 1304
Fluoranthene	40	35		1	87	40-128	10/26/2019 1304
Fluorene	40	34		1	85	30-124	10/26/2019 1304
Hexachlorobenzene	40	34		1	86	30-125	10/26/2019 1304
Hexachlorobutadiene	40	30		1	76	24-110	10/26/2019 1304
Hexachlorocyclopentadiene	200	110		1	57	22-122	10/26/2019 1304
Hexachloroethane	40	30		1	74	30-130	10/26/2019 1304
Indeno(1,2,3-c,d)pyrene	40	36		1	90	30-130	10/26/2019 1304
Isophorone	40	32		1	81	30-130	10/26/2019 1304
Naphthalene	40	34		1	85	30-130	10/26/2019 1304
Nitrobenzene	40	31		1	77	30-130	10/26/2019 1304
N-Nitrosodi-n-propylamine	40	35		1	87	30-130	10/26/2019 1304
N-Nitrosodiphenylamine (Diphenylamine)	40	35		1	87	30-123	10/26/2019 1304
Pentachlorophenol	80	62		1	77	30-130	10/26/2019 1304
Phenanthrene	40	34		1	84	40-123	10/26/2019 1304
Phenol	40	35		1	88	30-130	10/26/2019 1304
Pyrene	40	35		1	88	40-126	10/26/2019 1304

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		83	24-127
Nitrobenzene-d5		79	38-127
Phenol-d5		89	28-128
Terphenyl-d14		102	10-148
2,4,6-Tribromophenol		88	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ17037-005MS
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	40	34		1	86	30-130	10/26/2019 1900
2,4,5-Trichlorophenol	ND	40	35		1	89	30-123	10/26/2019 1900
2,4,6-Trichlorophenol	ND	40	36		1	90	30-130	10/26/2019 1900
2,4-Dichlorophenol	ND	40	33		1	82	30-121	10/26/2019 1900
2,4-Dimethylphenol	ND	40	30		1	75	20-125	10/26/2019 1900
2,4-Dinitrophenol	ND	80	66		1	82	30-130	10/26/2019 1900
2,4-Dinitrotoluene	ND	40	36		1	91	30-130	10/26/2019 1900
2,6-Dinitrotoluene	ND	40	37		1	92	30-130	10/26/2019 1900
2-Chloronaphthalene	ND	40	34		1	86	30-130	10/26/2019 1900
2-Chlorophenol	ND	40	37		1	93	30-130	10/26/2019 1900
2-Methylnaphthalene	ND	40	33		1	82	40-132	10/26/2019 1900
2-Methylphenol	ND	40	40		1	100	30-130	10/26/2019 1900
2-Nitroaniline	ND	40	38		1	96	30-130	10/26/2019 1900
2-Nitrophenol	ND	40	36		1	89	30-130	10/26/2019 1900
3,3'-Dichlorobenzidine	ND	40	26		1	64	10-126	10/26/2019 1900
3+4-Methylphenol	ND	40	40		1	100	30-130	10/26/2019 1900
3-Nitroaniline	ND	40	26		1	65	30-130	10/26/2019 1900
4,6-Dinitro-2-methylphenol	ND	40	35		1	88	30-130	10/26/2019 1900
4-Bromophenyl phenyl ether	ND	40	34		1	85	30-124	10/26/2019 1900
4-Chloro-3-methyl phenol	ND	40	34		1	84	30-123	10/26/2019 1900
4-Chloroaniline	ND	40	28		1	69	10-130	10/26/2019 1900
4-Chlorophenyl phenyl ether	ND	40	35		1	86	30-121	10/26/2019 1900
4-Nitroaniline	ND	40	40		1	101	30-135	10/26/2019 1900
4-Nitrophenol	ND	80	61		1	76	30-130	10/26/2019 1900
Acenaphthene	ND	40	33		1	84	30-122	10/26/2019 1900
Acenaphthylene	ND	40	35		1	87	30-130	10/26/2019 1900
Acetophenone	ND	40	37		1	92	30-130	10/26/2019 1900
Anthracene	ND	40	34		1	84	30-123	10/26/2019 1900
Atrazine	ND	40	38		1	95	30-130	10/26/2019 1900
Benzaldehyde	ND	40	19		1	47	20-115	10/26/2019 1900
Benzo(a)anthracene	ND	40	34		1	86	40-125	10/26/2019 1900
Benzo(a)pyrene	ND	40	33		1	83	40-128	10/26/2019 1900
Benzo(b)fluoranthene	ND	40	34		1	85	30-130	10/26/2019 1900
Benzo(g,h,i)perylene	ND	40	38		1	95	30-130	10/26/2019 1900
Benzo(k)fluoranthene	ND	40	25		1	63	30-130	10/26/2019 1900
bis (2-Chloro-1-methylethyl) ether	ND	40	43		1	108	30-130	10/26/2019 1900
bis(2-Chloroethoxy)methane	ND	40	32		1	79	30-130	10/26/2019 1900
bis(2-Chloroethyl)ether	ND	40	36		1	89	30-130	10/26/2019 1900
bis(2-Ethylhexyl)phthalate	ND	40	38		1	95	70-131	10/26/2019 1900
Butyl benzyl phthalate	ND	40	37		1	93	30-130	10/26/2019 1900
Caprolactam	ND	40	36		1	90	30-130	10/26/2019 1900
Carbazole	ND	40	35		1	88	30-130	10/26/2019 1900
Chrysene	ND	40	35		1	89	30-130	10/26/2019 1900
Dibenzo(a,h)anthracene	ND	40	36		1	90	30-130	10/26/2019 1900

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ17037-005MS
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	40	34		1	84	30-118	10/26/2019 1900
Diethylphthalate	ND	40	36		1	91	40-125	10/26/2019 1900
Dimethyl phthalate	ND	40	35		1	88	40-127	10/26/2019 1900
Di-n-butyl phthalate	ND	40	35		1	88	40-127	10/26/2019 1900
Di-n-octylphthalate	ND	40	32		1	80	30-130	10/26/2019 1900
Fluoranthene	ND	40	34		1	85	40-128	10/26/2019 1900
Fluorene	ND	40	34		1	85	30-124	10/26/2019 1900
Hexachlorobenzene	ND	40	33		1	84	30-125	10/26/2019 1900
Hexachlorobutadiene	ND	40	30		1	75	24-110	10/26/2019 1900
Hexachlorocyclopentadiene	ND	200	110		1	57	22-122	10/26/2019 1900
Hexachloroethane	ND	40	30		1	76	30-130	10/26/2019 1900
Indeno(1,2,3-c,d)pyrene	ND	40	35		1	88	30-130	10/26/2019 1900
Isophorone	ND	40	33		1	82	30-130	10/26/2019 1900
Naphthalene	ND	40	34		1	85	30-130	10/26/2019 1900
Nitrobenzene	ND	40	31		1	78	30-130	10/26/2019 1900
N-Nitrosodi-n-propylamine	ND	40	36		1	91	30-130	10/26/2019 1900
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	34		1	85	30-123	10/26/2019 1900
Pentachlorophenol	ND	80	62		1	78	30-130	10/26/2019 1900
Phenanthrene	ND	40	33		1	82	40-123	10/26/2019 1900
Phenol	ND	40	35		1	89	30-130	10/26/2019 1900
Pyrene	ND	40	34		1	86	40-126	10/26/2019 1900

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		78	24-127
Nitrobenzene-d5		78	38-127
Phenol-d5		89	28-128
Terphenyl-d14		97	10-148
2,4,6-Tribromophenol		87	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ17037-005MD
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	40	34		1	85	0.96	30-130	40	10/26/2019 1925
2,4,5-Trichlorophenol	ND	40	35		1	88	1.1	30-123	40	10/26/2019 1925
2,4,6-Trichlorophenol	ND	40	35		1	88	1.5	30-130	40	10/26/2019 1925
2,4-Dichlorophenol	ND	40	33		1	81	1.2	30-121	40	10/26/2019 1925
2,4-Dimethylphenol	ND	40	27		1	68	8.7	20-125	40	10/26/2019 1925
2,4-Dinitrophenol	ND	80	66		1	83	0.94	30-130	40	10/26/2019 1925
2,4-Dinitrotoluene	ND	40	36		1	90	1.4	30-130	40	10/26/2019 1925
2,6-Dinitrotoluene	ND	40	37		1	92	0.68	30-130	40	10/26/2019 1925
2-Chloronaphthalene	ND	40	34		1	85	1.3	30-130	40	10/26/2019 1925
2-Chlorophenol	ND	40	34		1	85	8.6	30-130	40	10/26/2019 1925
2-Methylnaphthalene	ND	40	33		1	82	0.00	40-132	40	10/26/2019 1925
2-Methylphenol	ND	40	38		1	94	6.4	30-130	40	10/26/2019 1925
2-Nitroaniline	ND	40	38		1	95	0.65	30-130	40	10/26/2019 1925
2-Nitrophenol	ND	40	36		1	90	0.54	30-130	40	10/26/2019 1925
3,3'-Dichlorobenzidine	ND	40	25		1	62	3.5	10-126	40	10/26/2019 1925
3+4-Methylphenol	ND	40	36		1	89	11	30-130	40	10/26/2019 1925
3-Nitroaniline	ND	40	26		1	66	0.54	30-130	40	10/26/2019 1925
4,6-Dinitro-2-methylphenol	ND	40	36		1	89	1.6	30-130	40	10/26/2019 1925
4-Bromophenyl phenyl ether	ND	40	34		1	85	0.67	30-124	40	10/26/2019 1925
4-Chloro-3-methyl phenol	ND	40	33		1	83	1.5	30-123	40	10/26/2019 1925
4-Chloroaniline	ND	40	35		1	89	25	10-130	40	10/26/2019 1925
4-Chlorophenyl phenyl ether	ND	40	34		1	85	1.9	30-121	40	10/26/2019 1925
4-Nitroaniline	ND	40	39		1	98	2.8	30-135	40	10/26/2019 1925
4-Nitrophenol	ND	80	59		1	74	3.0	30-130	40	10/26/2019 1925
Acenaphthene	ND	40	33		1	82	2.4	30-122	40	10/26/2019 1925
Acenaphthylene	ND	40	34		1	86	1.5	30-130	40	10/26/2019 1925
Acetophenone	ND	40	35		1	87	5.4	30-130	40	10/26/2019 1925
Anthracene	ND	40	33		1	83	1.4	30-123	40	10/26/2019 1925
Atrazine	ND	40	38		1	95	0.75	30-130	40	10/26/2019 1925
Benzaldehyde	ND	40	18		1	44	6.4	20-115	40	10/26/2019 1925
Benzo(a)anthracene	ND	40	34		1	84	1.9	40-125	40	10/26/2019 1925
Benzo(a)pyrene	ND	40	33		1	82	0.86	40-128	40	10/26/2019 1925
Benzo(b)fluoranthene	ND	40	33		1	82	3.3	30-130	40	10/26/2019 1925
Benzo(g,h,i)perylene	ND	40	38		1	95	0.47	30-130	40	10/26/2019 1925
Benzo(k)fluoranthene	ND	40	30		1	75	17	30-130	40	10/26/2019 1925
bis (2-Chloro-1-methylethyl) ether	ND	40	41		1	102	5.8	30-130	40	10/26/2019 1925
bis(2-Chloroethoxy)methane	ND	40	32		1	79	0.57	30-130	40	10/26/2019 1925
bis(2-Chloroethyl)ether	ND	40	32		1	81	9.8	30-130	40	10/26/2019 1925
bis(2-Ethylhexyl)phthalate	ND	40	38		1	94	0.68	70-131	40	10/26/2019 1925
Butyl benzyl phthalate	ND	40	37		1	93	0.37	30-130	40	10/26/2019 1925
Caprolactam	ND	40	37		1	93	4.0	30-130	40	10/26/2019 1925
Carbazole	ND	40	35		1	87	1.2	30-130	40	10/26/2019 1925
Chrysene	ND	40	35		1	87	2.1	30-130	40	10/26/2019 1925
Dibenzo(a,h)anthracene	ND	40	36		1	90	0.11	30-130	40	10/26/2019 1925

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ17037-005MD
Batch: 33225
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/24/2019 1722

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	40	33		1	84	0.71	30-118	40	10/26/2019 1925
Diethylphthalate	ND	40	36		1	90	1.0	40-125	40	10/26/2019 1925
Dimethyl phthalate	ND	40	35		1	88	1.0	40-127	40	10/26/2019 1925
Di-n-butyl phthalate	ND	40	35		1	89	0.37	40-127	40	10/26/2019 1925
Di-n-octylphthalate	ND	40	32		1	80	0.53	30-130	40	10/26/2019 1925
Fluoranthene	ND	40	34		1	84	1.4	40-128	40	10/26/2019 1925
Fluorene	ND	40	34		1	85	0.50	30-124	40	10/26/2019 1925
Hexachlorobenzene	ND	40	33		1	82	1.9	30-125	40	10/26/2019 1925
Hexachlorobutadiene	ND	40	30		1	75	0.21	24-110	40	10/26/2019 1925
Hexachlorocyclopentadiene	ND	200	110		1	56	0.75	22-122	40	10/26/2019 1925
Hexachloroethane	ND	40	28		1	71	6.8	30-130	40	10/26/2019 1925
Indeno(1,2,3-c,d)pyrene	ND	40	35		1	88	0.69	30-130	40	10/26/2019 1925
Isophorone	ND	40	33		1	83	0.70	30-130	40	10/26/2019 1925
Naphthalene	ND	40	33		1	84	1.7	30-130	40	10/26/2019 1925
Nitrobenzene	ND	40	31		1	77	0.46	30-130	40	10/26/2019 1925
N-Nitrosodi-n-propylamine	ND	40	34		1	85	6.3	30-130	40	10/26/2019 1925
N-Nitrosodiphenylamine (Diphenylamine)	ND	40	34		1	86	0.79	30-123	40	10/26/2019 1925
Pentachlorophenol	ND	80	63		1	79	2.2	30-130	40	10/26/2019 1925
Phenanthrene	ND	40	33		1	82	0.57	40-123	40	10/26/2019 1925
Phenol	ND	40	34		1	84	4.7	30-130	40	10/26/2019 1925
Pyrene	ND	40	34		1	86	0.61	40-126	40	10/26/2019 1925

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		81	37-129
2-Fluorophenol		79	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		85	28-128
Terphenyl-d14		96	10-148
2,4,6-Tribromophenol		86	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.

106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099906

Client WESTINGHOUSE	**Report to Contact** DIANA JOYNER	**Telephone No. / E-mail** 803 647 1420 JOYNERDP@WESTINGHOUSE.COM	**Quote No.**
Address 5801 BLUFF RD.	**Sampler's Signature** X	**Analysis (Attach list if more space is needed)**	**Page** 1 of 2
City HOPKINS **State** SC **Zip Code** 29061	**Printed Name** JAMES LEIGHAUSER TRACY CREWS		
Project Name WESTINGHOUSE RI			UJ17037 SRW
Project No. 605956049	**P.O. No.**		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	C-Comp G-Grab	Matrix: Aqueous	Soil	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnOAc/NaOH	TCL VOCs 8260B	TCL SVOCs 8270D	NITRATES 353.2	Remarks / Cooler I.D.
W-25	10-16-19	1145	G	X			3			3			X	X	X	
W-60	10-17-19	0910	G	X			3			3			X	X	X	
W-61		1030	G	X			3			3			X	X	X	
W-47		1210	G	X			3			3			X	X	X	
W-64		1325	G	X			3			3			X	X	X	
W-64-MS		1325	G	X			3			3			X	X	X	
W-64-MSD		1325	G	X			3			3			X	X	X	
W-33		0918	G	X			3			3			X	X	X	
W-33-DUP		0918	G	X			3			3			X	X	X	
W-66		1133	G	X			3			3			X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☒ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	10-17-19	1634	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	10/17/19	1634

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on Ice (Circle) Yes No Ice Pack: Receipt Temp. 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 06-01-2014

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www.shealylab.com

SHEALY Chain of Custody Record

Number 099919

Client: Westinghouse	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 803-649-1420 jjoyner@c.westinghouse.com	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: X R Carlos	Analysis (Attach list if more space is needed)	Page 2 of 2
City: Hopkins	State: SC	Zip Code: 29061	Printed Name: RANDY CARLOS
Project Name: WESTINGHOUSE RI			UJ17037 GRW
Project No.: 60596649	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Matrix: Aqueous	Matrix: Soil	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	HCl	TCL VOC's 8260B	TCL SVOC's 8270 D	Nitrate 353.2
W-65	10/17/19	1305	X			3	3	X	X	X
TB-01-101719	10/17/19	—	X			2	2	X		

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	10.17.19	1634	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	10/17/19	1634

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack

Receipt Temp. 3.1 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 02-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME00188C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: WESTINGHOUSE Cooler Inspected by/date: MEC / 10/17/19 Lot #: UJ17037

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: ____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.3 / 3.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: MEC /BMG Date: 10/17/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ18052**

Date Completed:10/28/2019

10/29/2019 4:47 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ18052

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ18052

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-67	Aqueous	10/18/2019 0905	10/18/2019
002	W-23R	Aqueous	10/18/2019 1030	10/18/2019
003	W-14	Aqueous	10/18/2019 1155	10/18/2019
004	W-39	Aqueous	10/18/2019 1121	10/18/2019
005	W-43	Aqueous	10/18/2019 1003	10/18/2019
006	EB-01-101819	Aqueous	10/18/2019 0905	10/18/2019
007	TB-01-101819	Aqueous	10/18/2019	10/18/2019

(7 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ18052

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-67	Aqueous	Nitrate - N	353.2	14		mg/L	5
001	W-67	Aqueous	cis-1,2-Dichloroethene	8260B	1.5		ug/L	6
001	W-67	Aqueous	Tetrachloroethene	8260B	49		ug/L	6
001	W-67	Aqueous	Trichloroethene	8260B	8.4		ug/L	7
002	W-23R	Aqueous	Nitrate - N	353.2	0.71		mg/L	10
003	W-14	Aqueous	Nitrate - N	353.2	0.061		mg/L	15
003	W-14	Aqueous	Tetrachloroethene	8260B	1.1		ug/L	16
004	W-39	Aqueous	Nitrate - N	353.2	73		mg/L	20
004	W-39	Aqueous	cis-1,2-Dichloroethene	8260B	13		ug/L	21
004	W-39	Aqueous	Tetrachloroethene	8260B	290		ug/L	21
004	W-39	Aqueous	Trichloroethene	8260B	5.2		ug/L	22
005	W-43	Aqueous	Nitrate - N	353.2	6.3		mg/L	25

(12 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-001
Description: W-67
Matrix: Aqueous
Date Sampled:10/18/2019 0905
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	15	10/18/2019 2235	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	14		0.30	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-001
Description: W-67 | Matrix: Aqueous
Date Sampled:10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1232	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.5		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	49		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-001
Description: W-67 | Matrix: Aqueous
Date Sampled: 10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1232	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	8.4		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-001
Description: W-67 | Matrix: Aqueous
Date Sampled:10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1950	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-001
Description: W-67 | Matrix: Aqueous
Date Sampled:10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 1950	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		77	37-129
2-Fluorophenol		51	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		67	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-002
Description: W-23R
Matrix: Aqueous
Date Sampled:10/18/2019 1030
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/18/2019 2236	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.71		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-002
Description: W-23R | Matrix: Aqueous
Date Sampled:10/18/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1255	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-002
Description: W-23R | Matrix: Aqueous
Date Sampled: 10/18/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1255	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-002
Description: W-23R | Matrix: Aqueous
Date Sampled:10/18/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2156	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-002
Description: W-23R | Matrix: Aqueous
Date Sampled:10/18/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2156	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		78	37-129
2-Fluorophenol		52	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		69	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-003
Description: W-14
Matrix: Aqueous
Date Sampled:10/18/2019 1155
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/18/2019 2237	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.061		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-003
Description: W-14 | Matrix: Aqueous
Date Sampled:10/18/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1318	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.1		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-003
Description: W-14 | Matrix: Aqueous
Date Sampled:10/18/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1318	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-003
Description: W-14 | Matrix: Aqueous
Date Sampled:10/18/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2015	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-003
Description: W-14 | Matrix: Aqueous
Date Sampled:10/18/2019 1155 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2015	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		77	37-129
2-Fluorophenol		62	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		76	28-128
Terphenyl-d14		93	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-004
Description: W-39
Matrix: Aqueous
Date Sampled:10/18/2019 1121
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	100	10/18/2019 2239	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	73		2.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-004
Description: W-39 | Matrix: Aqueous
Date Sampled:10/18/2019 1121 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	10/25/2019 0529	STM		33297

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		100	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		50	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		10	ug/L	2
Chloroform	67-66-3	8260B	ND		5.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		10	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	13		5.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		50	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		25	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	290		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	ug/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-004
Description: W-39 | Matrix: Aqueous
Date Sampled:10/18/2019 1121 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	10/25/2019 0529	STM		33297

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	5.2		5.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		5.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-004
Description: W-39 | Matrix: Aqueous
Date Sampled:10/18/2019 1121 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2040	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-004
Description: W-39 | Matrix: Aqueous
Date Sampled:10/18/2019 1121 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2040	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		80	37-129
2-Fluorophenol		71	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		69	28-128
Terphenyl-d14		97	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-005
Description: W-43
Matrix: Aqueous
Date Sampled:10/18/2019 1003
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/18/2019 2240	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	6.3		0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-005
Description: W-43 | Matrix: Aqueous
Date Sampled:10/18/2019 1003 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1342	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-005
Description: W-43 | Matrix: Aqueous
Date Sampled: 10/18/2019 1003 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1342	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-005
Description: W-43 | Matrix: Aqueous
Date Sampled:10/18/2019 1003 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2106	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-005
Description: W-43 | Matrix: Aqueous
Date Sampled:10/18/2019 1003 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2106	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		78	37-129
2-Fluorophenol		52	24-127
Nitrobenzene-d5		69	38-127
Phenol-d5		67	28-128
Terphenyl-d14		95	10-148
2,4,6-Tribromophenol		70	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-006
Description: EB-01-101819
Matrix: Aqueous
Date Sampled: 10/18/2019 0905
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/18/2019 2309	AMR		32543

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-006
Description: EB-01-101819 | Matrix: Aqueous
Date Sampled:10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1100	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-006
Description: EB-01-101819 | Matrix: Aqueous
Date Sampled:10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1100	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-006
Description: EB-01-101819 | Matrix: Aqueous
Date Sampled: 10/18/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2131	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ18052-006
Description: EB-01-101819
Matrix: Aqueous
Date Sampled: 10/18/2019 0905
Project Name: Westinghouse RI
Date Received: 10/18/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/26/2019 2131	SCD	10/25/2019 1447	33335

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		81	37-129
2-Fluorophenol		56	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		70	28-128
Terphenyl-d14		96	10-148
2,4,6-Tribromophenol		74	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-007
Description: TB-01-101819 | Matrix: Aqueous
Date Sampled:10/18/2019 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1123	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ18052-007
Description: TB-01-101819 | Matrix: Aqueous
Date Sampled:10/18/2019 | Project Name: Westinghouse RI
Date Received: 10/18/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/23/2019 1123	TML		32974

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ32543-001
Batch: 32543
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/18/2019 2216

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32543-002
Batch: 32543
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	10/18/2019 2217

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32974-001
Batch: 32974
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/23/2019 1020
Benzene	ND		1	1.0	ug/L	10/23/2019 1020
Bromodichloromethane	ND		1	1.0	ug/L	10/23/2019 1020
Bromoform	ND		1	1.0	ug/L	10/23/2019 1020
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/23/2019 1020
2-Butanone (MEK)	ND		1	10	ug/L	10/23/2019 1020
Carbon disulfide	ND		1	1.0	ug/L	10/23/2019 1020
Carbon tetrachloride	ND		1	1.0	ug/L	10/23/2019 1020
Chlorobenzene	ND		1	1.0	ug/L	10/23/2019 1020
Chloroethane	ND		1	2.0	ug/L	10/23/2019 1020
Chloroform	ND		1	1.0	ug/L	10/23/2019 1020
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/23/2019 1020
Cyclohexane	ND		1	1.0	ug/L	10/23/2019 1020
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/23/2019 1020
Dibromochloromethane	ND		1	1.0	ug/L	10/23/2019 1020
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/23/2019 1020
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/23/2019 1020
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/23/2019 1020
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/23/2019 1020
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/23/2019 1020
1,1-Dichloroethane	ND		1	1.0	ug/L	10/23/2019 1020
1,2-Dichloroethane	ND		1	1.0	ug/L	10/23/2019 1020
1,1-Dichloroethene	ND		1	1.0	ug/L	10/23/2019 1020
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/23/2019 1020
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/23/2019 1020
1,2-Dichloropropane	ND		1	1.0	ug/L	10/23/2019 1020
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/23/2019 1020
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/23/2019 1020
Ethylbenzene	ND		1	1.0	ug/L	10/23/2019 1020
2-Hexanone	ND		1	10	ug/L	10/23/2019 1020
Isopropylbenzene	ND		1	1.0	ug/L	10/23/2019 1020
Methyl acetate	ND		1	1.0	ug/L	10/23/2019 1020
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/23/2019 1020
4-Methyl-2-pentanone	ND		1	10	ug/L	10/23/2019 1020
Methylcyclohexane	ND		1	5.0	ug/L	10/23/2019 1020
Methylene chloride	ND		1	1.0	ug/L	10/23/2019 1020
Styrene	ND		1	1.0	ug/L	10/23/2019 1020
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/23/2019 1020
Tetrachloroethene	ND		1	1.0	ug/L	10/23/2019 1020
Toluene	ND		1	1.0	ug/L	10/23/2019 1020
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/23/2019 1020
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/23/2019 1020
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/23/2019 1020
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/23/2019 1020

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ32974-001
Batch: 32974
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/23/2019 1020
Trichlorofluoromethane	ND		1	1.0	ug/L	10/23/2019 1020
Vinyl chloride	ND		1	1.0	ug/L	10/23/2019 1020
Xylenes (total)	ND		1	1.0	ug/L	10/23/2019 1020

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32974-002
Batch: 32974
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	94		1	94	60-140	10/23/2019 0921
Benzene	50	48		1	95	70-130	10/23/2019 0921
Bromodichloromethane	50	57		1	115	70-130	10/23/2019 0921
Bromoform	50	63		1	126	70-130	10/23/2019 0921
Bromomethane (Methyl bromide)	50	44		1	88	70-130	10/23/2019 0921
2-Butanone (MEK)	100	85		1	85	70-130	10/23/2019 0921
Carbon disulfide	50	41		1	82	70-130	10/23/2019 0921
Carbon tetrachloride	50	57		1	114	70-130	10/23/2019 0921
Chlorobenzene	50	53		1	105	70-130	10/23/2019 0921
Chloroethane	50	43		1	86	70-130	10/23/2019 0921
Chloroform	50	50		1	101	70-130	10/23/2019 0921
Chloromethane (Methyl chloride)	50	33		1	66	60-140	10/23/2019 0921
Cyclohexane	50	39		1	79	70-130	10/23/2019 0921
1,2-Dibromo-3-chloropropane (DBCP)	50	59		1	117	70-130	10/23/2019 0921
Dibromochloromethane	50	60		1	120	70-130	10/23/2019 0921
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	10/23/2019 0921
1,2-Dichlorobenzene	50	53		1	106	70-130	10/23/2019 0921
1,3-Dichlorobenzene	50	53		1	107	70-130	10/23/2019 0921
1,4-Dichlorobenzene	50	53		1	105	70-130	10/23/2019 0921
Dichlorodifluoromethane	50	42		1	85	60-140	10/23/2019 0921
1,1-Dichloroethane	50	45		1	91	70-130	10/23/2019 0921
1,2-Dichloroethane	50	61		1	121	70-130	10/23/2019 0921
1,1-Dichloroethene	50	51		1	102	70-130	10/23/2019 0921
cis-1,2-Dichloroethene	50	45		1	89	70-130	10/23/2019 0921
trans-1,2-Dichloroethene	50	48		1	95	70-130	10/23/2019 0921
1,2-Dichloropropane	50	47		1	93	70-130	10/23/2019 0921
cis-1,3-Dichloropropene	50	56		1	113	70-130	10/23/2019 0921
trans-1,3-Dichloropropene	50	62		1	124	70-130	10/23/2019 0921
Ethylbenzene	50	55		1	110	70-130	10/23/2019 0921
2-Hexanone	100	95		1	95	70-130	10/23/2019 0921
Isopropylbenzene	50	59		1	117	70-130	10/23/2019 0921
Methyl acetate	50	44		1	88	70-130	10/23/2019 0921
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	10/23/2019 0921
4-Methyl-2-pentanone	100	91		1	91	70-130	10/23/2019 0921
Methylcyclohexane	50	51		1	103	70-130	10/23/2019 0921
Methylene chloride	50	39		1	79	70-130	10/23/2019 0921
Styrene	50	56		1	112	70-130	10/23/2019 0921
1,1,2,2-Tetrachloroethane	50	45		1	91	70-130	10/23/2019 0921
Tetrachloroethene	50	58		1	116	70-130	10/23/2019 0921
Toluene	50	53		1	105	70-130	10/23/2019 0921
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	10/23/2019 0921
1,2,4-Trichlorobenzene	50	58		1	115	70-130	10/23/2019 0921
1,1,1-Trichloroethane	50	55		1	110	70-130	10/23/2019 0921
1,1,2-Trichloroethane	50	51		1	101	70-130	10/23/2019 0921

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ32974-002
Batch: 32974
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	51		1	102	70-130	10/23/2019 0921
Trichlorofluoromethane	50	53		1	106	70-130	10/23/2019 0921
Vinyl chloride	50	38		1	76	70-130	10/23/2019 0921
Xylenes (total)	100	110		1	113	70-130	10/23/2019 0921

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33297-001
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/24/2019 2228
Benzene	ND		1	1.0	ug/L	10/24/2019 2228
Bromodichloromethane	ND		1	1.0	ug/L	10/24/2019 2228
Bromoform	ND		1	1.0	ug/L	10/24/2019 2228
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/24/2019 2228
2-Butanone (MEK)	ND		1	10	ug/L	10/24/2019 2228
Carbon disulfide	ND		1	1.0	ug/L	10/24/2019 2228
Carbon tetrachloride	ND		1	1.0	ug/L	10/24/2019 2228
Chlorobenzene	ND		1	1.0	ug/L	10/24/2019 2228
Chloroethane	ND		1	2.0	ug/L	10/24/2019 2228
Chloroform	ND		1	1.0	ug/L	10/24/2019 2228
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/24/2019 2228
Cyclohexane	ND		1	1.0	ug/L	10/24/2019 2228
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/24/2019 2228
Dibromochloromethane	ND		1	1.0	ug/L	10/24/2019 2228
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/24/2019 2228
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/24/2019 2228
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/24/2019 2228
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/24/2019 2228
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/24/2019 2228
1,1-Dichloroethane	ND		1	1.0	ug/L	10/24/2019 2228
1,2-Dichloroethane	ND		1	1.0	ug/L	10/24/2019 2228
1,1-Dichloroethene	ND		1	1.0	ug/L	10/24/2019 2228
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/24/2019 2228
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/24/2019 2228
1,2-Dichloropropane	ND		1	1.0	ug/L	10/24/2019 2228
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/24/2019 2228
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/24/2019 2228
Ethylbenzene	ND		1	1.0	ug/L	10/24/2019 2228
2-Hexanone	ND		1	10	ug/L	10/24/2019 2228
Isopropylbenzene	ND		1	1.0	ug/L	10/24/2019 2228
Methyl acetate	ND		1	1.0	ug/L	10/24/2019 2228
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/24/2019 2228
4-Methyl-2-pentanone	ND		1	10	ug/L	10/24/2019 2228
Methylcyclohexane	ND		1	5.0	ug/L	10/24/2019 2228
Methylene chloride	ND		1	1.0	ug/L	10/24/2019 2228
Styrene	ND		1	1.0	ug/L	10/24/2019 2228
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/24/2019 2228
Tetrachloroethene	ND		1	1.0	ug/L	10/24/2019 2228
Toluene	ND		1	1.0	ug/L	10/24/2019 2228
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/24/2019 2228
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/24/2019 2228
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/24/2019 2228
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/24/2019 2228

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33297-001
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/24/2019 2228
Trichlorofluoromethane	ND		1	1.0	ug/L	10/24/2019 2228
Vinyl chloride	ND		1	1.0	ug/L	10/24/2019 2228
Xylenes (total)	ND		1	1.0	ug/L	10/24/2019 2228

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33297-002
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	170	N	1	168	60-140	10/24/2019 2128
Benzene	50	53		1	105	70-130	10/24/2019 2128
Bromodichloromethane	50	55		1	110	70-130	10/24/2019 2128
Bromoform	50	57		1	113	70-130	10/24/2019 2128
Bromomethane (Methyl bromide)	50	49		1	99	70-130	10/24/2019 2128
2-Butanone (MEK)	100	140	N	1	139	70-130	10/24/2019 2128
Carbon disulfide	50	52		1	105	70-130	10/24/2019 2128
Carbon tetrachloride	50	52		1	105	70-130	10/24/2019 2128
Chlorobenzene	50	52		1	104	70-130	10/24/2019 2128
Chloroethane	50	54		1	107	70-130	10/24/2019 2128
Chloroform	50	53		1	106	70-130	10/24/2019 2128
Chloromethane (Methyl chloride)	50	47		1	93	60-140	10/24/2019 2128
Cyclohexane	50	54		1	108	70-130	10/24/2019 2128
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	109	70-130	10/24/2019 2128
Dibromochloromethane	50	56		1	112	70-130	10/24/2019 2128
1,2-Dibromoethane (EDB)	50	53		1	107	70-130	10/24/2019 2128
1,2-Dichlorobenzene	50	51		1	102	70-130	10/24/2019 2128
1,3-Dichlorobenzene	50	53		1	106	70-130	10/24/2019 2128
1,4-Dichlorobenzene	50	51		1	103	70-130	10/24/2019 2128
Dichlorodifluoromethane	50	46		1	92	60-140	10/24/2019 2128
1,1-Dichloroethane	50	52		1	104	70-130	10/24/2019 2128
1,2-Dichloroethane	50	50		1	100	70-130	10/24/2019 2128
1,1-Dichloroethene	50	60		1	120	70-130	10/24/2019 2128
cis-1,2-Dichloroethene	50	53		1	105	70-130	10/24/2019 2128
trans-1,2-Dichloroethene	50	56		1	112	70-130	10/24/2019 2128
1,2-Dichloropropane	50	53		1	107	70-130	10/24/2019 2128
cis-1,3-Dichloropropene	50	59		1	118	70-130	10/24/2019 2128
trans-1,3-Dichloropropene	50	58		1	116	70-130	10/24/2019 2128
Ethylbenzene	50	53		1	106	70-130	10/24/2019 2128
2-Hexanone	100	110		1	113	70-130	10/24/2019 2128
Isopropylbenzene	50	54		1	109	70-130	10/24/2019 2128
Methyl acetate	50	60		1	120	70-130	10/24/2019 2128
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	10/24/2019 2128
4-Methyl-2-pentanone	100	110		1	106	70-130	10/24/2019 2128
Methylcyclohexane	50	54		1	108	70-130	10/24/2019 2128
Methylene chloride	50	48		1	96	70-130	10/24/2019 2128
Styrene	50	55		1	109	70-130	10/24/2019 2128
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	10/24/2019 2128
Tetrachloroethene	50	54		1	108	70-130	10/24/2019 2128
Toluene	50	52		1	104	70-130	10/24/2019 2128
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	70-130	10/24/2019 2128
1,2,4-Trichlorobenzene	50	53		1	106	70-130	10/24/2019 2128
1,1,1-Trichloroethane	50	53		1	106	70-130	10/24/2019 2128
1,1,2-Trichloroethane	50	52		1	104	70-130	10/24/2019 2128

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33297-002
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	106	70-130	10/24/2019 2128
Trichlorofluoromethane	50	52		1	103	70-130	10/24/2019 2128
Vinyl chloride	50	46		1	92	70-130	10/24/2019 2128
Xylenes (total)	100	110		1	107	70-130	10/24/2019 2128

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ18052-004MS
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	470		5	93	60-140	10/25/2019 0553
Benzene	ND	250	270		5	108	70-130	10/25/2019 0553
Bromodichloromethane	ND	250	260		5	106	70-130	10/25/2019 0553
Bromoform	ND	250	250		5	99	70-130	10/25/2019 0553
Bromomethane (Methyl bromide)	ND	250	270		5	106	70-130	10/25/2019 0553
2-Butanone (MEK)	ND	500	510		5	101	70-130	10/25/2019 0553
Carbon disulfide	ND	250	270		5	108	70-130	10/25/2019 0553
Carbon tetrachloride	ND	250	290		5	115	70-130	10/25/2019 0553
Chlorobenzene	ND	250	260		5	104	70-130	10/25/2019 0553
Chloroethane	ND	250	290		5	116	70-130	10/25/2019 0553
Chloroform	ND	250	270		5	108	70-130	10/25/2019 0553
Chloromethane (Methyl chloride)	ND	250	270		5	107	60-140	10/25/2019 0553
Cyclohexane	ND	250	300		5	120	70-130	10/25/2019 0553
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	250		5	99	70-130	10/25/2019 0553
Dibromochloromethane	ND	250	260		5	103	70-130	10/25/2019 0553
1,2-Dibromoethane (EDB)	ND	250	250		5	102	70-130	10/25/2019 0553
1,2-Dichlorobenzene	ND	250	250		5	99	70-130	10/25/2019 0553
1,3-Dichlorobenzene	ND	250	260		5	103	70-130	10/25/2019 0553
1,4-Dichlorobenzene	ND	250	250		5	101	70-130	10/25/2019 0553
Dichlorodifluoromethane	ND	250	280		5	113	60-140	10/25/2019 0553
1,1-Dichloroethane	ND	250	270		5	109	70-130	10/25/2019 0553
1,2-Dichloroethane	ND	250	250		5	100	70-130	10/25/2019 0553
1,1-Dichloroethene	ND	250	320		5	129	70-130	10/25/2019 0553
cis-1,2-Dichloroethene	13	250	280		5	107	70-130	10/25/2019 0553
trans-1,2-Dichloroethene	ND	250	300		5	118	70-130	10/25/2019 0553
1,2-Dichloropropane	ND	250	260		5	105	70-130	10/25/2019 0553
cis-1,3-Dichloropropene	ND	250	280		5	111	70-130	10/25/2019 0553
trans-1,3-Dichloropropene	ND	250	270		5	107	70-130	10/25/2019 0553
Ethylbenzene	ND	250	270		5	107	70-130	10/25/2019 0553
2-Hexanone	ND	500	490		5	98	70-130	10/25/2019 0553
Isopropylbenzene	ND	250	280		5	112	70-130	10/25/2019 0553
Methyl acetate	ND	250	280		5	113	70-130	10/25/2019 0553
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	96	70-130	10/25/2019 0553
4-Methyl-2-pentanone	ND	500	500		5	100	70-130	10/25/2019 0553
Methylcyclohexane	ND	250	290		5	115	70-130	10/25/2019 0553
Methylene chloride	ND	250	250		5	99	70-130	10/25/2019 0553
Styrene	ND	250	270		5	109	70-130	10/25/2019 0553
1,1,2,2-Tetrachloroethane	ND	250	240		5	98	70-130	10/25/2019 0553
Tetrachloroethene	290	250	530		5	95	70-130	10/25/2019 0553
Toluene	ND	250	260		5	104	70-130	10/25/2019 0553
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	280		5	113	70-130	10/25/2019 0553
1,2,4-Trichlorobenzene	ND	250	260		5	103	70-130	10/25/2019 0553
1,1,1-Trichloroethane	ND	250	280		5	112	70-130	10/25/2019 0553
1,1,2-Trichloroethane	ND	250	250		5	101	70-130	10/25/2019 0553

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ18052-004MS
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	5.2	250	280		5	108	70-130	10/25/2019 0553
Trichlorofluoromethane	ND	250	290		5	117	70-130	10/25/2019 0553
Vinyl chloride	ND	250	270		5	107	70-130	10/25/2019 0553
Xylenes (total)	ND	500	540		5	108	70-130	10/25/2019 0553

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ18052-004MD
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	480		5	96	3.1	60-140	20	10/25/2019 0617
Benzene	ND	250	270		5	109	1.6	70-130	20	10/25/2019 0617
Bromodichloromethane	ND	250	270		5	108	2.1	70-130	20	10/25/2019 0617
Bromoform	ND	250	250		5	101	2.5	70-130	20	10/25/2019 0617
Bromomethane (Methyl bromide)	ND	250	260		5	104	1.9	70-130	20	10/25/2019 0617
2-Butanone (MEK)	ND	500	520		5	104	2.5	70-130	20	10/25/2019 0617
Carbon disulfide	ND	250	270		5	108	0.73	70-130	20	10/25/2019 0617
Carbon tetrachloride	ND	250	280		5	114	1.0	70-130	20	10/25/2019 0617
Chlorobenzene	ND	250	260		5	106	1.8	70-130	20	10/25/2019 0617
Chloroethane	ND	250	290		5	116	0.016	70-130	20	10/25/2019 0617
Chloroform	ND	250	270		5	109	0.41	70-130	20	10/25/2019 0617
Chloromethane (Methyl chloride)	ND	250	260		5	105	2.2	60-140	20	10/25/2019 0617
Cyclohexane	ND	250	300		5	119	0.39	70-130	20	10/25/2019 0617
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	260		5	103	4.0	70-130	20	10/25/2019 0617
Dibromochloromethane	ND	250	270		5	107	3.6	70-130	20	10/25/2019 0617
1,2-Dibromoethane (EDB)	ND	250	260		5	104	1.6	70-130	20	10/25/2019 0617
1,2-Dichlorobenzene	ND	250	250		5	102	2.3	70-130	20	10/25/2019 0617
1,3-Dichlorobenzene	ND	250	260		5	105	1.9	70-130	20	10/25/2019 0617
1,4-Dichlorobenzene	ND	250	260		5	103	2.1	70-130	20	10/25/2019 0617
Dichlorodifluoromethane	ND	250	280		5	112	0.97	60-140	20	10/25/2019 0617
1,1-Dichloroethane	ND	250	270		5	109	0.70	70-130	20	10/25/2019 0617
1,2-Dichloroethane	ND	250	250		5	101	0.88	70-130	20	10/25/2019 0617
1,1-Dichloroethene	ND	250	320		5	128	1.1	70-130	20	10/25/2019 0617
cis-1,2-Dichloroethene	13	250	280		5	107	0.59	70-130	20	10/25/2019 0617
trans-1,2-Dichloroethene	ND	250	300		5	119	0.68	70-130	20	10/25/2019 0617
1,2-Dichloropropane	ND	250	270		5	109	3.0	70-130	20	10/25/2019 0617
cis-1,3-Dichloropropene	ND	250	280		5	114	2.8	70-130	20	10/25/2019 0617
trans-1,3-Dichloropropene	ND	250	280		5	111	3.6	70-130	20	10/25/2019 0617
Ethylbenzene	ND	250	270		5	109	2.1	70-130	20	10/25/2019 0617
2-Hexanone	ND	500	510		5	102	3.3	70-130	20	10/25/2019 0617
Isopropylbenzene	ND	250	280		5	112	0.83	70-130	20	10/25/2019 0617
Methyl acetate	ND	250	290		5	115	2.3	70-130	20	10/25/2019 0617
Methyl tertiary butyl ether (MTBE)	ND	250	250		5	98	2.7	70-130	20	10/25/2019 0617
4-Methyl-2-pentanone	ND	500	510		5	102	2.2	70-130	20	10/25/2019 0617
Methylcyclohexane	ND	250	290		5	116	0.88	70-130	20	10/25/2019 0617
Methylene chloride	ND	250	240		5	95	4.0	70-130	20	10/25/2019 0617
Styrene	ND	250	280		5	110	1.4	70-130	20	10/25/2019 0617
1,1,2,2-Tetrachloroethane	ND	250	250		5	102	3.5	70-130	20	10/25/2019 0617
Tetrachloroethene	290	250	550		5	104	3.8	70-130	20	10/25/2019 0617
Toluene	ND	250	270		5	106	1.9	70-130	20	10/25/2019 0617
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	280		5	112	0.66	70-130	20	10/25/2019 0617
1,2,4-Trichlorobenzene	ND	250	260		5	105	2.1	70-130	20	10/25/2019 0617
1,1,1-Trichloroethane	ND	250	280		5	113	0.62	70-130	20	10/25/2019 0617
1,1,2-Trichloroethane	ND	250	260		5	102	1.1	70-130	20	10/25/2019 0617

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ18052-004MD
Batch: 33297
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	5.2	250	280		5	110	1.0	70-130	20	10/25/2019 0617
Trichlorofluoromethane	ND	250	290		5	115	1.9	70-130	20	10/25/2019 0617
Vinyl chloride	ND	250	260		5	104	2.9	70-130	20	10/25/2019 0617
Xylenes (total)	ND	500	550		5	109	1.5	70-130	20	10/25/2019 0617

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33335-001
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/26/2019 1510
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/26/2019 1510
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/26/2019 1510
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/26/2019 1510
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/26/2019 1510
2,4-Dinitrophenol	ND		1	20	ug/L	10/26/2019 1510
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/26/2019 1510
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/26/2019 1510
2-Chloronaphthalene	ND		1	4.0	ug/L	10/26/2019 1510
2-Chlorophenol	ND		1	4.0	ug/L	10/26/2019 1510
2-Methylnaphthalene	ND		1	0.80	ug/L	10/26/2019 1510
2-Methylphenol	ND		1	4.0	ug/L	10/26/2019 1510
2-Nitroaniline	ND		1	8.0	ug/L	10/26/2019 1510
2-Nitrophenol	ND		1	4.0	ug/L	10/26/2019 1510
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/26/2019 1510
3+4-Methylphenol	ND		1	4.0	ug/L	10/26/2019 1510
3-Nitroaniline	ND		1	8.0	ug/L	10/26/2019 1510
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/26/2019 1510
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/26/2019 1510
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/26/2019 1510
4-Chloroaniline	ND		1	8.0	ug/L	10/26/2019 1510
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/26/2019 1510
4-Nitroaniline	ND		1	8.0	ug/L	10/26/2019 1510
4-Nitrophenol	ND		1	20	ug/L	10/26/2019 1510
Acenaphthene	ND		1	0.80	ug/L	10/26/2019 1510
Acenaphthylene	ND		1	0.80	ug/L	10/26/2019 1510
Acetophenone	ND		1	4.0	ug/L	10/26/2019 1510
Anthracene	ND		1	0.80	ug/L	10/26/2019 1510
Atrazine	ND		1	4.0	ug/L	10/26/2019 1510
Benzaldehyde	ND		1	8.0	ug/L	10/26/2019 1510
Benzo(a)anthracene	ND		1	0.80	ug/L	10/26/2019 1510
Benzo(a)pyrene	ND		1	0.80	ug/L	10/26/2019 1510
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/26/2019 1510
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/26/2019 1510
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/26/2019 1510
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/26/2019 1510
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/26/2019 1510
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/26/2019 1510
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/26/2019 1510
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/26/2019 1510
Caprolactam	ND		1	8.0	ug/L	10/26/2019 1510
Carbazole	ND		1	4.0	ug/L	10/26/2019 1510
Chrysene	ND		1	0.80	ug/L	10/26/2019 1510
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/26/2019 1510

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33335-001
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/26/2019 1510
Diethylphthalate	ND		1	4.0	ug/L	10/26/2019 1510
Dimethyl phthalate	ND		1	4.0	ug/L	10/26/2019 1510
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/26/2019 1510
Di-n-octylphthalate	ND		1	4.0	ug/L	10/26/2019 1510
Fluoranthene	ND		1	0.80	ug/L	10/26/2019 1510
Fluorene	ND		1	0.80	ug/L	10/26/2019 1510
Hexachlorobenzene	ND		1	4.0	ug/L	10/26/2019 1510
Hexachlorobutadiene	ND		1	4.0	ug/L	10/26/2019 1510
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/26/2019 1510
Hexachloroethane	ND		1	4.0	ug/L	10/26/2019 1510
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/26/2019 1510
Isophorone	ND		1	4.0	ug/L	10/26/2019 1510
Naphthalene	ND		1	0.80	ug/L	10/26/2019 1510
Nitrobenzene	ND		1	4.0	ug/L	10/26/2019 1510
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/26/2019 1510
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/26/2019 1510
Pentachlorophenol	ND		1	20	ug/L	10/26/2019 1510
Phenanthrene	ND		1	0.80	ug/L	10/26/2019 1510
Phenol	ND		1	4.0	ug/L	10/26/2019 1510
Pyrene	ND		1	0.80	ug/L	10/26/2019 1510

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		61	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		67	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33335-002
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	32		1	81	30-130	10/26/2019 1535
2,4,5-Trichlorophenol	40	33		1	83	30-123	10/26/2019 1535
2,4,6-Trichlorophenol	40	34		1	85	30-130	10/26/2019 1535
2,4-Dichlorophenol	40	31		1	76	30-121	10/26/2019 1535
2,4-Dimethylphenol	40	28		1	70	20-125	10/26/2019 1535
2,4-Dinitrophenol	80	58		1	73	11-126	10/26/2019 1535
2,4-Dinitrotoluene	40	35		1	87	30-130	10/26/2019 1535
2,6-Dinitrotoluene	40	35		1	87	30-130	10/26/2019 1535
2-Chloronaphthalene	40	33		1	82	30-130	10/26/2019 1535
2-Chlorophenol	40	37		1	93	30-130	10/26/2019 1535
2-Methylnaphthalene	40	31		1	77	40-132	10/26/2019 1535
2-Methylphenol	40	42		1	105	30-130	10/26/2019 1535
2-Nitroaniline	40	36		1	91	30-130	10/26/2019 1535
2-Nitrophenol	40	33		1	82	30-130	10/26/2019 1535
3,3'-Dichlorobenzidine	40	24		1	61	10-126	10/26/2019 1535
3+4-Methylphenol	40	39		1	97	30-130	10/26/2019 1535
3-Nitroaniline	40	29		1	73	30-130	10/26/2019 1535
4,6-Dinitro-2-methylphenol	40	33		1	83	30-130	10/26/2019 1535
4-Bromophenyl phenyl ether	40	32		1	81	30-124	10/26/2019 1535
4-Chloro-3-methyl phenol	40	31		1	78	30-123	10/26/2019 1535
4-Chloroaniline	40	37		1	94	12-157	10/26/2019 1535
4-Chlorophenyl phenyl ether	40	32		1	81	30-121	10/26/2019 1535
4-Nitroaniline	40	34		1	86	30-135	10/26/2019 1535
4-Nitrophenol	80	58		1	72	30-130	10/26/2019 1535
Acenaphthene	40	31		1	78	30-122	10/26/2019 1535
Acenaphthylene	40	33		1	82	30-130	10/26/2019 1535
Acetophenone	40	38		1	96	30-130	10/26/2019 1535
Anthracene	40	32		1	80	30-123	10/26/2019 1535
Atrazine	40	37		1	92	30-130	10/26/2019 1535
Benzaldehyde	40	29		1	72	20-115	10/26/2019 1535
Benzo(a)anthracene	40	33		1	82	40-125	10/26/2019 1535
Benzo(a)pyrene	40	31		1	77	40-128	10/26/2019 1535
Benzo(b)fluoranthene	40	31		1	77	30-130	10/26/2019 1535
Benzo(g,h,i)perylene	40	35		1	88	30-130	10/26/2019 1535
Benzo(k)fluoranthene	40	32		1	81	30-130	10/26/2019 1535
bis (2-Chloro-1-methylethyl) ether	40	45		1	113	30-130	10/26/2019 1535
bis(2-Chloroethoxy)methane	40	29		1	73	30-130	10/26/2019 1535
bis(2-Chloroethyl)ether	40	36		1	90	30-130	10/26/2019 1535
bis(2-Ethylhexyl)phthalate	40	33		1	83	30-130	10/26/2019 1535
Butyl benzyl phthalate	40	35		1	87	30-130	10/26/2019 1535
Caprolactam	40	33		1	82	30-130	10/26/2019 1535
Carbazole	40	33		1	83	30-130	10/26/2019 1535
Chrysene	40	34		1	84	30-130	10/26/2019 1535
Dibenzo(a,h)anthracene	40	34		1	84	30-130	10/26/2019 1535

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33335-002
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	32		1	79	30-118	10/26/2019 1535
Diethylphthalate	40	34		1	85	40-125	10/26/2019 1535
Dimethyl phthalate	40	33		1	83	40-127	10/26/2019 1535
Di-n-butyl phthalate	40	34		1	85	40-127	10/26/2019 1535
Di-n-octylphthalate	40	28		1	70	30-130	10/26/2019 1535
Fluoranthene	40	33		1	82	40-128	10/26/2019 1535
Fluorene	40	32		1	80	30-124	10/26/2019 1535
Hexachlorobenzene	40	32		1	79	30-125	10/26/2019 1535
Hexachlorobutadiene	40	29		1	72	24-110	10/26/2019 1535
Hexachlorocyclopentadiene	200	110		1	55	22-122	10/26/2019 1535
Hexachloroethane	40	30		1	76	30-130	10/26/2019 1535
Indeno(1,2,3-c,d)pyrene	40	33		1	82	30-130	10/26/2019 1535
Isophorone	40	31		1	77	30-130	10/26/2019 1535
Naphthalene	40	32		1	80	30-130	10/26/2019 1535
Nitrobenzene	40	29		1	72	30-130	10/26/2019 1535
N-Nitrosodi-n-propylamine	40	38		1	95	30-130	10/26/2019 1535
N-Nitrosodiphenylamine (Diphenylamine)	40	32		1	80	30-123	10/26/2019 1535
Pentachlorophenol	80	59		1	73	30-130	10/26/2019 1535
Phenanthrene	40	32		1	80	40-123	10/26/2019 1535
Phenol	40	37		1	93	30-130	10/26/2019 1535
Pyrene	40	33		1	83	40-126	10/26/2019 1535

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		79	37-129
2-Fluorophenol		79	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		94	28-128
Terphenyl-d14		95	10-148
2,4,6-Tribromophenol		83	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ18052-002MS
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	80	68		1	85	30-130	10/26/2019 2221
2,4,5-Trichlorophenol	ND	80	69		1	86	30-123	10/26/2019 2221
2,4,6-Trichlorophenol	ND	80	69		1	87	30-130	10/26/2019 2221
2,4-Dichlorophenol	ND	80	63		1	79	30-121	10/26/2019 2221
2,4-Dimethylphenol	ND	80	56		1	70	20-125	10/26/2019 2221
2,4-Dinitrophenol	ND	160	120		1	74	30-130	10/26/2019 2221
2,4-Dinitrotoluene	ND	80	71		1	88	30-130	10/26/2019 2221
2,6-Dinitrotoluene	ND	80	71		1	89	30-130	10/26/2019 2221
2-Chloronaphthalene	ND	80	68		1	86	30-130	10/26/2019 2221
2-Chlorophenol	ND	80	74		1	93	30-130	10/26/2019 2221
2-Methylnaphthalene	ND	80	64		1	80	40-132	10/26/2019 2221
2-Methylphenol	ND	80	79		1	99	30-130	10/26/2019 2221
2-Nitroaniline	ND	80	75		1	93	30-130	10/26/2019 2221
2-Nitrophenol	ND	80	70		1	87	30-130	10/26/2019 2221
3,3'-Dichlorobenzidine	ND	80	48		1	61	10-126	10/26/2019 2221
3+4-Methylphenol	ND	80	72		1	90	30-130	10/26/2019 2221
3-Nitroaniline	ND	80	58		1	72	30-130	10/26/2019 2221
4,6-Dinitro-2-methylphenol	ND	80	65		1	82	30-130	10/26/2019 2221
4-Bromophenyl phenyl ether	ND	80	66		1	83	30-124	10/26/2019 2221
4-Chloro-3-methyl phenol	ND	80	64		1	80	30-123	10/26/2019 2221
4-Chloroaniline	ND	80	72		1	89	10-130	10/26/2019 2221
4-Chlorophenyl phenyl ether	ND	80	67		1	84	30-121	10/26/2019 2221
4-Nitroaniline	ND	80	72		1	90	30-135	10/26/2019 2221
4-Nitrophenol	ND	160	120		1	72	30-130	10/26/2019 2221
Acenaphthene	ND	80	65		1	81	30-122	10/26/2019 2221
Acenaphthylene	ND	80	68		1	85	30-130	10/26/2019 2221
Acetophenone	ND	80	72		1	90	30-130	10/26/2019 2221
Anthracene	ND	80	65		1	81	30-123	10/26/2019 2221
Atrazine	ND	80	76		1	95	30-130	10/26/2019 2221
Benzaldehyde	ND	80	52		1	65	20-115	10/26/2019 2221
Benzo(a)anthracene	ND	80	67		1	84	40-125	10/26/2019 2221
Benzo(a)pyrene	ND	80	64		1	80	40-128	10/26/2019 2221
Benzo(b)fluoranthene	ND	80	65		1	82	30-130	10/26/2019 2221
Benzo(g,h,i)perylene	ND	80	72		1	90	30-130	10/26/2019 2221
Benzo(k)fluoranthene	ND	80	68		1	85	30-130	10/26/2019 2221
bis (2-Chloro-1-methylethyl) ether	ND	80	85		1	106	30-130	10/26/2019 2221
bis(2-Chloroethoxy)methane	ND	80	62		1	78	30-130	10/26/2019 2221
bis(2-Chloroethyl)ether	ND	80	70		1	87	30-130	10/26/2019 2221
bis(2-Ethylhexyl)phthalate	ND	80	73		1	91	70-131	10/26/2019 2221
Butyl benzyl phthalate	ND	80	72		1	90	30-130	10/26/2019 2221
Caprolactam	ND	80	70		1	87	30-130	10/26/2019 2221
Carbazole	ND	80	67		1	84	30-130	10/26/2019 2221
Chrysene	ND	80	68		1	85	30-130	10/26/2019 2221
Dibenzo(a,h)anthracene	ND	80	69		1	86	30-130	10/26/2019 2221

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ18052-002MS
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	80	65		1	81	30-118	10/26/2019 2221
Diethylphthalate	ND	80	70		1	88	40-125	10/26/2019 2221
Dimethyl phthalate	ND	80	69		1	87	40-127	10/26/2019 2221
Di-n-butyl phthalate	ND	80	70		1	88	40-127	10/26/2019 2221
Di-n-octylphthalate	ND	80	63		1	79	30-130	10/26/2019 2221
Fluoranthene	ND	80	67		1	83	40-128	10/26/2019 2221
Fluorene	ND	80	66		1	82	30-124	10/26/2019 2221
Hexachlorobenzene	ND	80	65		1	82	30-125	10/26/2019 2221
Hexachlorobutadiene	ND	80	62		1	77	24-110	10/26/2019 2221
Hexachlorocyclopentadiene	ND	400	230		1	58	22-122	10/26/2019 2221
Hexachloroethane	ND	80	61		1	76	30-130	10/26/2019 2221
Indeno(1,2,3-c,d)pyrene	ND	80	67		1	84	30-130	10/26/2019 2221
Isophorone	ND	80	63		1	79	30-130	10/26/2019 2221
Naphthalene	ND	80	67		1	83	30-130	10/26/2019 2221
Nitrobenzene	ND	80	60		1	76	30-130	10/26/2019 2221
N-Nitrosodi-n-propylamine	ND	80	70		1	88	30-130	10/26/2019 2221
N-Nitrosodiphenylamine (Diphenylamine)	ND	80	66		1	82	30-123	10/26/2019 2221
Pentachlorophenol	ND	160	120		1	76	30-130	10/26/2019 2221
Phenanthrene	ND	80	64		1	80	40-123	10/26/2019 2221
Phenol	ND	80	70		1	88	30-130	10/26/2019 2221
Pyrene	ND	80	67		1	84	40-126	10/26/2019 2221

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		80	37-129
2-Fluorophenol		81	24-127
Nitrobenzene-d5		75	38-127
Phenol-d5		88	28-128
Terphenyl-d14		93	10-148
2,4,6-Tribromophenol		83	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ18052-002MD
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	80	68		1	85	0.82	30-130	40	10/26/2019 2246
2,4,5-Trichlorophenol	ND	80	69		1	87	0.65	30-123	40	10/26/2019 2246
2,4,6-Trichlorophenol	ND	80	71		1	89	2.5	30-130	40	10/26/2019 2246
2,4-Dichlorophenol	ND	80	65		1	82	3.5	30-121	40	10/26/2019 2246
2,4-Dimethylphenol	ND	80	58		1	73	3.1	20-125	40	10/26/2019 2246
2,4-Dinitrophenol	ND	160	120		1	74	0.096	30-130	40	10/26/2019 2246
2,4-Dinitrotoluene	ND	80	71		1	89	1.3	30-130	40	10/26/2019 2246
2,6-Dinitrotoluene	ND	80	72		1	90	0.89	30-130	40	10/26/2019 2246
2-Chloronaphthalene	ND	80	69		1	86	0.68	30-130	40	10/26/2019 2246
2-Chlorophenol	ND	80	74		1	92	0.57	30-130	40	10/26/2019 2246
2-Methylnaphthalene	ND	80	66		1	82	2.9	40-132	40	10/26/2019 2246
2-Methylphenol	ND	80	76		1	95	4.1	30-130	40	10/26/2019 2246
2-Nitroaniline	ND	80	76		1	95	1.6	30-130	40	10/26/2019 2246
2-Nitrophenol	ND	80	70		1	87	0.14	30-130	40	10/26/2019 2246
3,3'-Dichlorobenzidine	ND	80	55		1	68	12	10-126	40	10/26/2019 2246
3+4-Methylphenol	ND	80	71		1	89	0.75	30-130	40	10/26/2019 2246
3-Nitroaniline	ND	80	57		1	71	0.79	30-130	40	10/26/2019 2246
4,6-Dinitro-2-methylphenol	ND	80	67		1	84	3.1	30-130	40	10/26/2019 2246
4-Bromophenyl phenyl ether	ND	80	67		1	84	0.66	30-124	40	10/26/2019 2246
4-Chloro-3-methyl phenol	ND	80	65		1	81	1.7	30-123	40	10/26/2019 2246
4-Chloroaniline	ND	80	72		1	91	1.2	10-130	40	10/26/2019 2246
4-Chlorophenyl phenyl ether	ND	80	68		1	86	2.1	30-121	40	10/26/2019 2246
4-Nitroaniline	ND	80	70		1	88	2.4	30-135	40	10/26/2019 2246
4-Nitrophenol	ND	160	120		1	73	0.99	30-130	40	10/26/2019 2246
Acenaphthene	ND	80	66		1	83	2.1	30-122	40	10/26/2019 2246
Acenaphthylene	ND	80	68		1	85	1.0	30-130	40	10/26/2019 2246
Acetophenone	ND	80	71		1	89	1.6	30-130	40	10/26/2019 2246
Anthracene	ND	80	66		1	82	1.1	30-123	40	10/26/2019 2246
Atrazine	ND	80	79		1	98	3.6	30-130	40	10/26/2019 2246
Benzaldehyde	ND	80	50		1	63	3.3	20-115	40	10/26/2019 2246
Benzo(a)anthracene	ND	80	68		1	85	1.4	40-125	40	10/26/2019 2246
Benzo(a)pyrene	ND	80	65		1	82	1.8	40-128	40	10/26/2019 2246
Benzo(b)fluoranthene	ND	80	66		1	83	1.2	30-130	40	10/26/2019 2246
Benzo(g,h,i)perylene	ND	80	73		1	92	1.3	30-130	40	10/26/2019 2246
Benzo(k)fluoranthene	ND	80	69		1	86	0.82	30-130	40	10/26/2019 2246
bis (2-Chloro-1-methylethyl) ether	ND	80	83		1	104	1.5	30-130	40	10/26/2019 2246
bis(2-Chloroethoxy)methane	ND	80	63		1	79	1.0	30-130	40	10/26/2019 2246
bis(2-Chloroethyl)ether	ND	80	71		1	88	1.1	30-130	40	10/26/2019 2246
bis(2-Ethylhexyl)phthalate	ND	80	74		1	93	1.7	70-131	40	10/26/2019 2246
Butyl benzyl phthalate	ND	80	74		1	92	2.3	30-130	40	10/26/2019 2246
Caprolactam	ND	80	72		1	90	2.7	30-130	40	10/26/2019 2246
Carbazole	ND	80	67		1	84	0.43	30-130	40	10/26/2019 2246
Chrysene	ND	80	70		1	88	3.3	30-130	40	10/26/2019 2246
Dibenzo(a,h)anthracene	ND	80	70		1	88	2.0	30-130	40	10/26/2019 2246

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ18052-002MD
Batch: 33335
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/25/2019 1447

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	80	66		1	83	1.9	30-118	40	10/26/2019 2246
Diethylphthalate	ND	80	71		1	89	1.0	40-125	40	10/26/2019 2246
Dimethyl phthalate	ND	80	70		1	87	0.42	40-127	40	10/26/2019 2246
Di-n-butyl phthalate	ND	80	71		1	88	0.64	40-127	40	10/26/2019 2246
Di-n-octylphthalate	ND	80	63		1	79	0.070	30-130	40	10/26/2019 2246
Fluoranthene	ND	80	66		1	83	0.21	40-128	40	10/26/2019 2246
Fluorene	ND	80	67		1	84	1.6	30-124	40	10/26/2019 2246
Hexachlorobenzene	ND	80	67		1	84	2.8	30-125	40	10/26/2019 2246
Hexachlorobutadiene	ND	80	63		1	79	2.3	24-110	40	10/26/2019 2246
Hexachlorocyclopentadiene	ND	400	230		1	58	1.1	22-122	40	10/26/2019 2246
Hexachloroethane	ND	80	64		1	80	5.1	30-130	40	10/26/2019 2246
Indeno(1,2,3-c,d)pyrene	ND	80	68		1	85	0.80	30-130	40	10/26/2019 2246
Isophorone	ND	80	65		1	81	3.0	30-130	40	10/26/2019 2246
Naphthalene	ND	80	68		1	84	1.5	30-130	40	10/26/2019 2246
Nitrobenzene	ND	80	61		1	77	1.4	30-130	40	10/26/2019 2246
N-Nitrosodi-n-propylamine	ND	80	69		1	87	1.1	30-130	40	10/26/2019 2246
N-Nitrosodiphenylamine (Diphenylamine)	ND	80	66		1	83	0.67	30-123	40	10/26/2019 2246
Pentachlorophenol	ND	160	120		1	77	0.76	30-130	40	10/26/2019 2246
Phenanthrene	ND	80	65		1	81	1.8	40-123	40	10/26/2019 2246
Phenol	ND	80	69		1	86	2.1	30-130	40	10/26/2019 2246
Pyrene	ND	80	69		1	86	3.0	40-126	40	10/26/2019 2246

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		81	37-129
2-Fluorophenol		81	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		87	28-128
Terphenyl-d14		96	10-148
2,4,6-Tribromophenol		84	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 099907

Client: WESTINGHOUSE	Report to Contact: Diana Joyner	Telephone No. / E-mail: 803 647 1920 JoynerDR@WestinghouseS.com	Quote No.
Address: 5801 Bluff Rd	Sampler's Signature: X [signature] R. Crews	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Hopkins	State: SC	Zip Code: 29061	
Project Name: Westinghouse RI	Printed Name: James Hayhurst Randy Crews		
Project No.: 60595649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	GeoSrb Grab/Composite	Matrix: Aqueous	Soil	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	NaTO3	TCL VOC's 8260B	TCL SVOC's 8270D	Arsenic 353.2	Remarks / Cooler I.D.
W-67	10-18-19	0905	G	X			3			3			X	X	X	
W-23R		1030	G	X			3			3			X	X	X	
W-14		1155	G	X			3			3			X	X	X	
W-39		1121	G	X			3			3			X	X	X	
W-43		1003	G	X			3			3			X	X	X	
EB-01-101819		0905	G	X			3			3			X	X	X	
TB-01-101819				X						2			X			

UJ18052

GRW

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)	Sample Disposal: ☐ Return to Client ☒ Disposal by Lab	Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature]	10-18-19	1411	1. Received by		
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: Erin Brown	Date: 10.18.19	Time: 1411

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp: 3.0 °C tb

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: WESTINGHOUSE Cooler Inspected by/date: ETB / 10/18/19 Lot #: UJ18052

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.0 / 3.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA .

SR barcode labels applied by: ETB Date: 10/17/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ21027**

Date Completed:10/30/2019

10/31/2019 11:43 AM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ21027

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ21027

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-15	Aqueous	10/21/2019 0905	10/21/2019
002	W-16	Aqueous	10/21/2019 1030	10/21/2019
003	W-46	Aqueous	10/21/2019 1200	10/21/2019
004	W-19B	Aqueous	10/21/2019 1335	10/21/2019
005	W-17	Aqueous	10/21/2019 0924	10/21/2019
006	W-63	Aqueous	10/21/2019 1120	10/21/2019
007	W-48	Aqueous	10/21/2019 1256	10/21/2019
008	W-48 Dup	Aqueous	10/21/2019 1256	10/21/2019
009	TB-01-102119	Aqueous	10/21/2019	10/21/2019

(9 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ21027

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-15	Aqueous	Nitrate - N	353.2	35	H	mg/L	5
001	W-15	Aqueous	cis-1,2-Dichloroethene	8260B	1.3		ug/L	6
001	W-15	Aqueous	Tetrachloroethene	8260B	12		ug/L	6
001	W-15	Aqueous	Trichloroethene	8260B	2.0		ug/L	7
002	W-16	Aqueous	Nitrate - N	353.2	3.2		mg/L	10
002	W-16	Aqueous	cis-1,2-Dichloroethene	8260B	1.5		ug/L	11
002	W-16	Aqueous	Tetrachloroethene	8260B	7.8		ug/L	11
002	W-16	Aqueous	Trichloroethene	8260B	2.2		ug/L	12
003	W-46	Aqueous	Nitrate - N	353.2	7.8		mg/L	15
003	W-46	Aqueous	Tetrachloroethene	8260B	2.5		ug/L	16
004	W-19B	Aqueous	Nitrate - N	353.2	3.8		mg/L	20
004	W-19B	Aqueous	Tetrachloroethene	8260B	150		ug/L	21
004	W-19B	Aqueous	Trichloroethene	8260B	2.5		ug/L	22
005	W-17	Aqueous	Nitrate - N	353.2	16	H	mg/L	25
005	W-17	Aqueous	Tetrachloroethene	8260B	4.3		ug/L	26
006	W-63	Aqueous	Nitrate - N	353.2	0.34		mg/L	30
006	W-63	Aqueous	Tetrachloroethene	8260B	1.0		ug/L	31
006	W-63	Aqueous	Trichloroethene	8260B	1.1		ug/L	32
007	W-48	Aqueous	Nitrate - N	353.2	5.3		mg/L	35
007	W-48	Aqueous	cis-1,2-Dichloroethene	8260B	2.1		ug/L	36
007	W-48	Aqueous	Tetrachloroethene	8260B	200		ug/L	36
007	W-48	Aqueous	Trichloroethene	8260B	4.9		ug/L	37
008	W-48 Dup	Aqueous	Nitrate - N	353.2	4.9		mg/L	40
008	W-48 Dup	Aqueous	cis-1,2-Dichloroethene	8260B	2.0		ug/L	41
008	W-48 Dup	Aqueous	Tetrachloroethene	8260B	200		ug/L	41
008	W-48 Dup	Aqueous	Trichloroethene	8260B	4.7		ug/L	42

(26 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-001
Description: W-15
Matrix: Aqueous
Date Sampled: 10/21/2019 0905
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	30	10/23/2019 1028	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	35	H	0.60	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-001
Description: W-15 | Matrix: Aqueous
Date Sampled:10/21/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1621	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.3		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	12		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-001
Description: W-15 | Matrix: Aqueous
Date Sampled:10/21/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1621	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	2.0		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
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H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-001
Description: W-15 | Matrix: Aqueous
Date Sampled:10/21/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1702	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-001
Description: W-15 | Matrix: Aqueous
Date Sampled:10/21/2019 0905 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1702	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		65	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		57	38-127
Phenol-d5		52	28-128
Terphenyl-d14		89	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-002
Description: W-16
Matrix: Aqueous
Date Sampled:10/21/2019 1030
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/23/2019 1026	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.2		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-002
Description: W-16 | Matrix: Aqueous
Date Sampled:10/21/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1643	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	1.5		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	7.8		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-002
Description: W-16 | Matrix: Aqueous
Date Sampled:10/21/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1643	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	2.2		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-002
Description: W-16 | Matrix: Aqueous
Date Sampled:10/21/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1727	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-002
Description: W-16 | Matrix: Aqueous
Date Sampled:10/21/2019 1030 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1727	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		61	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		55	38-127
Phenol-d5		45	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		65	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-003
Description: W-46
Matrix: Aqueous
Date Sampled: 10/21/2019 1200
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/23/2019 1036	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	7.8		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-003
Description: W-46 | Matrix: Aqueous
Date Sampled:10/21/2019 1200 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1704	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	2.5		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-003

Description: W-46 | Matrix: Aqueous

Date Sampled: 10/21/2019 1200 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1704	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-003
Description: W-46 | Matrix: Aqueous
Date Sampled:10/21/2019 1200 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1753	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-003
Description: W-46 | Matrix: Aqueous
Date Sampled:10/21/2019 1200 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1753	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		66	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		61	38-127
Phenol-d5		54	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		64	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-004
Description: W-19B
Matrix: Aqueous
Date Sampled:10/21/2019 1335
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/23/2019 1021	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.8		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-004
Description: W-19B | Matrix: Aqueous
Date Sampled:10/21/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1726	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	150		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
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H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-004
Description: W-19B | Matrix: Aqueous
Date Sampled:10/21/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1726	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	2.5		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-004
Description: W-19B | Matrix: Aqueous
Date Sampled:10/21/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1959	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-004
Description: W-19B | Matrix: Aqueous
Date Sampled:10/21/2019 1335 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1959	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		68	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		62	38-127
Phenol-d5		56	28-128
Terphenyl-d14		85	10-148
2,4,6-Tribromophenol		62	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-005
Description: W-17
Matrix: Aqueous
Date Sampled: 10/21/2019 0924
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	10	10/23/2019 1018	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	16	H	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-005
Description: W-17 | Matrix: Aqueous
Date Sampled:10/21/2019 0924 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1748	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.3		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-005
Description: W-17 | Matrix: Aqueous
Date Sampled: 10/21/2019 0924 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1748	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-005
Description: W-17 | Matrix: Aqueous
Date Sampled:10/21/2019 0924 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1818	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-005
Description: W-17 | Matrix: Aqueous
Date Sampled:10/21/2019 0924 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1818	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		72	37-129
2-Fluorophenol		45	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		55	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-006
Description: W-63
Matrix: Aqueous
Date Sampled:10/21/2019 1120
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/23/2019 1029	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.34		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-006
Description: W-63 | Matrix: Aqueous
Date Sampled:10/21/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1810	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.0		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-006

Description: W-63 | Matrix: Aqueous

Date Sampled: 10/21/2019 1120 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1810	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	1.1		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-006
Description: W-63 | Matrix: Aqueous
Date Sampled:10/21/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1843	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-006
Description: W-63 | Matrix: Aqueous
Date Sampled:10/21/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1843	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		52	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		63	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-007
Description: W-48
Matrix: Aqueous
Date Sampled:10/21/2019 1256
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/23/2019 1033	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	5.3		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-007

Description: W-48 | Matrix: Aqueous

Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1832 ALR1		33496
2	5030B	8260B	5	10/29/2019 1058 TML		33720

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.1		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	200		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-007

Description: W-48 | Matrix: Aqueous

Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1832 ALR1		33496
2	5030B	8260B	5	10/29/2019 1058 TML		33720

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	4.9		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130		92	70-130
Bromofluorobenzene		92	70-130		91	70-130
Toluene-d8		97	70-130		96	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-007

Description: W-48 | Matrix: Aqueous

Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1908	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40%

H = Out of holding time | W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-007
Description: W-48 | Matrix: Aqueous
Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1908	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		74	37-129
2-Fluorophenol		48	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		60	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ21027-008
Description: W-48 Dup
Matrix: Aqueous
Date Sampled:10/21/2019 1256
Project Name: Westinghouse RI
Date Received: 10/21/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/23/2019 1034	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.9		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-008

Description: W-48 Dup | Matrix: Aqueous

Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1853 ALR1		33496
2	5030B	8260B	5	10/29/2019 1122 TML		33720

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.0		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	200		5.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-008

Description: W-48 Dup | Matrix: Aqueous

Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI

Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1853 ALR1		33496
2	5030B	8260B	5	10/29/2019 1122 TML		33720

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	4.7		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130		95	70-130
Bromofluorobenzene		93	70-130		93	70-130
Toluene-d8		99	70-130		99	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-008
Description: W-48 Dup | Matrix: Aqueous
Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1933	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-008
Description: W-48 Dup | Matrix: Aqueous
Date Sampled:10/21/2019 1256 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/28/2019 1933	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		47	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		57	28-128
Terphenyl-d14		94	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-009
Description: TB-01-102119 | Matrix: Aqueous
Date Sampled:10/21/2019 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1537	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ21027-009
Description: TB-01-102119 | Matrix: Aqueous
Date Sampled:10/21/2019 | Project Name: Westinghouse RI
Date Received: 10/21/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/27/2019 1537	ALR1		33496

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ32986-001
Batch: 32986
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/23/2019 1013

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32986-002
Batch: 32986
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	10/23/2019 1014

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: UJ21027-006MS
Batch: 32986
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.34	0.80	1.0	N	1	86	90-110	10/23/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UJ21027-006MD
Batch: 32986
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.34	0.80	1.1		1	95	7.1	90-110	20	10/23/2019 1032

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33496-001
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/27/2019 1458
Benzene	ND		1	1.0	ug/L	10/27/2019 1458
Bromodichloromethane	ND		1	1.0	ug/L	10/27/2019 1458
Bromoform	ND		1	1.0	ug/L	10/27/2019 1458
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/27/2019 1458
2-Butanone (MEK)	ND		1	10	ug/L	10/27/2019 1458
Carbon disulfide	ND		1	1.0	ug/L	10/27/2019 1458
Carbon tetrachloride	ND		1	1.0	ug/L	10/27/2019 1458
Chlorobenzene	ND		1	1.0	ug/L	10/27/2019 1458
Chloroethane	ND		1	2.0	ug/L	10/27/2019 1458
Chloroform	ND		1	1.0	ug/L	10/27/2019 1458
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/27/2019 1458
Cyclohexane	ND		1	1.0	ug/L	10/27/2019 1458
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/27/2019 1458
Dibromochloromethane	ND		1	1.0	ug/L	10/27/2019 1458
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/27/2019 1458
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/27/2019 1458
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/27/2019 1458
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/27/2019 1458
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/27/2019 1458
1,1-Dichloroethane	ND		1	1.0	ug/L	10/27/2019 1458
1,2-Dichloroethane	ND		1	1.0	ug/L	10/27/2019 1458
1,1-Dichloroethene	ND		1	1.0	ug/L	10/27/2019 1458
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/27/2019 1458
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/27/2019 1458
1,2-Dichloropropane	ND		1	1.0	ug/L	10/27/2019 1458
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/27/2019 1458
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/27/2019 1458
Ethylbenzene	ND		1	1.0	ug/L	10/27/2019 1458
2-Hexanone	ND		1	10	ug/L	10/27/2019 1458
Isopropylbenzene	ND		1	1.0	ug/L	10/27/2019 1458
Methyl acetate	ND		1	1.0	ug/L	10/27/2019 1458
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/27/2019 1458
4-Methyl-2-pentanone	ND		1	10	ug/L	10/27/2019 1458
Methylcyclohexane	ND		1	5.0	ug/L	10/27/2019 1458
Methylene chloride	ND		1	1.0	ug/L	10/27/2019 1458
Styrene	ND		1	1.0	ug/L	10/27/2019 1458
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/27/2019 1458
Tetrachloroethene	ND		1	1.0	ug/L	10/27/2019 1458
Toluene	ND		1	1.0	ug/L	10/27/2019 1458
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/27/2019 1458
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/27/2019 1458
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/27/2019 1458
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/27/2019 1458

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33496-001
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/27/2019 1458
Trichlorofluoromethane	ND		1	1.0	ug/L	10/27/2019 1458
Vinyl chloride	ND		1	1.0	ug/L	10/27/2019 1458
Xylenes (total)	ND		1	1.0	ug/L	10/27/2019 1458

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33496-002
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	94		1	94	60-140	10/27/2019 1401
Benzene	50	45		1	91	70-130	10/27/2019 1401
Bromodichloromethane	50	46		1	91	70-130	10/27/2019 1401
Bromoform	50	51		1	103	70-130	10/27/2019 1401
Bromomethane (Methyl bromide)	50	46		1	92	70-130	10/27/2019 1401
2-Butanone (MEK)	100	100		1	104	70-130	10/27/2019 1401
Carbon disulfide	50	44		1	87	70-130	10/27/2019 1401
Carbon tetrachloride	50	44		1	89	70-130	10/27/2019 1401
Chlorobenzene	50	47		1	94	70-130	10/27/2019 1401
Chloroethane	50	57		1	114	70-130	10/27/2019 1401
Chloroform	50	45		1	91	70-130	10/27/2019 1401
Chloromethane (Methyl chloride)	50	46		1	91	60-140	10/27/2019 1401
Cyclohexane	50	41		1	83	70-130	10/27/2019 1401
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	89	70-130	10/27/2019 1401
Dibromochloromethane	50	49		1	99	70-130	10/27/2019 1401
1,2-Dibromoethane (EDB)	50	48		1	95	70-130	10/27/2019 1401
1,2-Dichlorobenzene	50	46		1	91	70-130	10/27/2019 1401
1,3-Dichlorobenzene	50	45		1	90	70-130	10/27/2019 1401
1,4-Dichlorobenzene	50	43		1	86	70-130	10/27/2019 1401
Dichlorodifluoromethane	50	46		1	91	60-140	10/27/2019 1401
1,1-Dichloroethane	50	45		1	91	70-130	10/27/2019 1401
1,2-Dichloroethane	50	46		1	92	70-130	10/27/2019 1401
1,1-Dichloroethene	50	48		1	97	70-130	10/27/2019 1401
cis-1,2-Dichloroethene	50	44		1	89	70-130	10/27/2019 1401
trans-1,2-Dichloroethene	50	46		1	92	70-130	10/27/2019 1401
1,2-Dichloropropane	50	45		1	90	70-130	10/27/2019 1401
cis-1,3-Dichloropropene	50	47		1	93	70-130	10/27/2019 1401
trans-1,3-Dichloropropene	50	50		1	99	70-130	10/27/2019 1401
Ethylbenzene	50	47		1	94	70-130	10/27/2019 1401
2-Hexanone	100	100		1	102	70-130	10/27/2019 1401
Isopropylbenzene	50	50		1	99	70-130	10/27/2019 1401
Methyl acetate	50	48		1	96	70-130	10/27/2019 1401
Methyl tertiary butyl ether (MTBE)	50	43		1	85	70-130	10/27/2019 1401
4-Methyl-2-pentanone	100	92		1	92	70-130	10/27/2019 1401
Methylcyclohexane	50	47		1	93	70-130	10/27/2019 1401
Methylene chloride	50	41		1	82	70-130	10/27/2019 1401
Styrene	50	48		1	96	70-130	10/27/2019 1401
1,1,2,2-Tetrachloroethane	50	47		1	94	70-130	10/27/2019 1401
Tetrachloroethene	50	49		1	98	70-130	10/27/2019 1401
Toluene	50	47		1	95	70-130	10/27/2019 1401
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	89	70-130	10/27/2019 1401
1,2,4-Trichlorobenzene	50	45		1	90	70-130	10/27/2019 1401
1,1,1-Trichloroethane	50	43		1	86	70-130	10/27/2019 1401
1,1,2-Trichloroethane	50	48		1	96	70-130	10/27/2019 1401

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33496-002
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	90	70-130	10/27/2019 1401
Trichlorofluoromethane	50	48		1	96	70-130	10/27/2019 1401
Vinyl chloride	50	43		1	87	70-130	10/27/2019 1401
Xylenes (total)	100	96		1	96	70-130	10/27/2019 1401

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ21027-004MS
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	64		1	64	60-140	10/27/2019 2254
Benzene	ND	50	51		1	102	70-130	10/27/2019 2254
Bromodichloromethane	ND	50	49		1	99	70-130	10/27/2019 2254
Bromoform	ND	50	48		1	97	70-130	10/27/2019 2254
Bromomethane (Methyl bromide)	ND	50	60		1	120	70-130	10/27/2019 2254
2-Butanone (MEK)	ND	100	87		1	87	70-130	10/27/2019 2254
Carbon disulfide	ND	50	53		1	105	70-130	10/27/2019 2254
Carbon tetrachloride	ND	50	52		1	104	70-130	10/27/2019 2254
Chlorobenzene	ND	50	50		1	100	70-130	10/27/2019 2254
Chloroethane	ND	50	67	N	1	134	70-130	10/27/2019 2254
Chloroform	ND	50	50		1	101	70-130	10/27/2019 2254
Chloromethane (Methyl chloride)	ND	50	56		1	111	60-140	10/27/2019 2254
Cyclohexane	ND	50	51		1	101	70-130	10/27/2019 2254
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	47		1	93	70-130	10/27/2019 2254
Dibromochloromethane	ND	50	50		1	100	70-130	10/27/2019 2254
1,2-Dibromoethane (EDB)	ND	50	49		1	97	70-130	10/27/2019 2254
1,2-Dichlorobenzene	ND	50	49		1	97	70-130	10/27/2019 2254
1,3-Dichlorobenzene	ND	50	47		1	95	70-130	10/27/2019 2254
1,4-Dichlorobenzene	ND	50	45		1	91	70-130	10/27/2019 2254
Dichlorodifluoromethane	ND	50	55		1	109	60-140	10/27/2019 2254
1,1-Dichloroethane	ND	50	52		1	104	70-130	10/27/2019 2254
1,2-Dichloroethane	ND	50	49		1	98	70-130	10/27/2019 2254
1,1-Dichloroethene	ND	50	59		1	118	70-130	10/27/2019 2254
cis-1,2-Dichloroethene	ND	50	51		1	101	70-130	10/27/2019 2254
trans-1,2-Dichloroethene	ND	50	54		1	109	70-130	10/27/2019 2254
1,2-Dichloropropane	ND	50	51		1	102	70-130	10/27/2019 2254
cis-1,3-Dichloropropene	ND	50	48		1	97	70-130	10/27/2019 2254
trans-1,3-Dichloropropene	ND	50	50		1	99	70-130	10/27/2019 2254
Ethylbenzene	ND	50	51		1	103	70-130	10/27/2019 2254
2-Hexanone	ND	100	97		1	97	70-130	10/27/2019 2254
Isopropylbenzene	ND	50	54		1	108	70-130	10/27/2019 2254
Methyl acetate	ND	50	47		1	95	70-130	10/27/2019 2254
Methyl tertiary butyl ether (MTBE)	ND	50	47		1	94	70-130	10/27/2019 2254
4-Methyl-2-pentanone	ND	100	94		1	94	70-130	10/27/2019 2254
Methylcyclohexane	ND	50	55		1	109	70-130	10/27/2019 2254
Methylene chloride	ND	50	46		1	93	70-130	10/27/2019 2254
Styrene	ND	50	50		1	101	70-130	10/27/2019 2254
1,1,2,2-Tetrachloroethane	ND	50	50		1	100	70-130	10/27/2019 2254
Tetrachloroethene	150	50	210	E	1	112	70-130	10/27/2019 2254
Toluene	ND	50	51		1	102	70-130	10/27/2019 2254
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	55		1	110	70-130	10/27/2019 2254
1,2,4-Trichlorobenzene	ND	50	48		1	95	70-130	10/27/2019 2254
1,1,1-Trichloroethane	ND	50	51		1	102	70-130	10/27/2019 2254
1,1,2-Trichloroethane	ND	50	51		1	101	70-130	10/27/2019 2254

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ21027-004MS
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	2.5	50	53		1	100	70-130	10/27/2019 2254
Trichlorofluoromethane	ND	50	61		1	121	70-130	10/27/2019 2254
Vinyl chloride	ND	50	55		1	110	70-130	10/27/2019 2254
Xylenes (total)	ND	100	100		1	103	70-130	10/27/2019 2254

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ21027-004MD
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	65		1	65	1.0	60-140	20	10/27/2019 2316
Benzene	ND	50	52		1	105	2.8	70-130	20	10/27/2019 2316
Bromodichloromethane	ND	50	50		1	100	0.94	70-130	20	10/27/2019 2316
Bromoform	ND	50	49		1	98	1.7	70-130	20	10/27/2019 2316
Bromomethane (Methyl bromide)	ND	50	62		1	124	3.7	70-130	20	10/27/2019 2316
2-Butanone (MEK)	ND	100	89		1	89	2.2	70-130	20	10/27/2019 2316
Carbon disulfide	ND	50	55		1	109	3.8	70-130	20	10/27/2019 2316
Carbon tetrachloride	ND	50	54		1	109	3.8	70-130	20	10/27/2019 2316
Chlorobenzene	ND	50	51		1	102	2.7	70-130	20	10/27/2019 2316
Chloroethane	ND	50	70	N	1	141	5.0	70-130	20	10/27/2019 2316
Chloroform	ND	50	53		1	106	5.0	70-130	20	10/27/2019 2316
Chloromethane (Methyl chloride)	ND	50	59		1	119	6.6	60-140	20	10/27/2019 2316
Cyclohexane	ND	50	52		1	105	3.3	70-130	20	10/27/2019 2316
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	47		1	95	1.7	70-130	20	10/27/2019 2316
Dibromochloromethane	ND	50	52		1	104	4.0	70-130	20	10/27/2019 2316
1,2-Dibromoethane (EDB)	ND	50	50		1	100	2.7	70-130	20	10/27/2019 2316
1,2-Dichlorobenzene	ND	50	50		1	99	2.0	70-130	20	10/27/2019 2316
1,3-Dichlorobenzene	ND	50	49		1	98	3.4	70-130	20	10/27/2019 2316
1,4-Dichlorobenzene	ND	50	48		1	96	5.4	70-130	20	10/27/2019 2316
Dichlorodifluoromethane	ND	50	55		1	110	1.1	60-140	20	10/27/2019 2316
1,1-Dichloroethane	ND	50	54		1	108	3.7	70-130	20	10/27/2019 2316
1,2-Dichloroethane	ND	50	50		1	100	2.0	70-130	20	10/27/2019 2316
1,1-Dichloroethene	ND	50	61		1	122	3.8	70-130	20	10/27/2019 2316
cis-1,2-Dichloroethene	ND	50	53		1	106	4.1	70-130	20	10/27/2019 2316
trans-1,2-Dichloroethene	ND	50	56		1	111	2.3	70-130	20	10/27/2019 2316
1,2-Dichloropropane	ND	50	51		1	103	0.96	70-130	20	10/27/2019 2316
cis-1,3-Dichloropropene	ND	50	49		1	98	0.97	70-130	20	10/27/2019 2316
trans-1,3-Dichloropropene	ND	50	51		1	102	2.2	70-130	20	10/27/2019 2316
Ethylbenzene	ND	50	53		1	106	2.8	70-130	20	10/27/2019 2316
2-Hexanone	ND	100	99		1	99	1.7	70-130	20	10/27/2019 2316
Isopropylbenzene	ND	50	56		1	113	4.5	70-130	20	10/27/2019 2316
Methyl acetate	ND	50	50		1	100	5.6	70-130	20	10/27/2019 2316
Methyl tertiary butyl ether (MTBE)	ND	50	49		1	98	4.7	70-130	20	10/27/2019 2316
4-Methyl-2-pentanone	ND	100	95		1	95	0.32	70-130	20	10/27/2019 2316
Methylcyclohexane	ND	50	55		1	110	0.94	70-130	20	10/27/2019 2316
Methylene chloride	ND	50	49		1	97	4.5	70-130	20	10/27/2019 2316
Styrene	ND	50	53		1	105	4.5	70-130	20	10/27/2019 2316
1,1,2,2-Tetrachloroethane	ND	50	50		1	101	1.0	70-130	20	10/27/2019 2316
Tetrachloroethene	150	50	210	E	1	130	4.3	70-130	20	10/27/2019 2316
Toluene	ND	50	53		1	106	3.8	70-130	20	10/27/2019 2316
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	56		1	112	1.7	70-130	20	10/27/2019 2316
1,2,4-Trichlorobenzene	ND	50	49		1	98	2.6	70-130	20	10/27/2019 2316
1,1,1-Trichloroethane	ND	50	52		1	105	2.6	70-130	20	10/27/2019 2316
1,1,2-Trichloroethane	ND	50	52		1	104	2.3	70-130	20	10/27/2019 2316

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ21027-004MD
Batch: 33496
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	2.5	50	54		1	102	2.1	70-130	20	10/27/2019 2316
Trichlorofluoromethane	ND	50	61		1	123	1.3	70-130	20	10/27/2019 2316
Vinyl chloride	ND	50	59		1	117	6.6	70-130	20	10/27/2019 2316
Xylenes (total)	ND	100	110		1	107	4.0	70-130	20	10/27/2019 2316

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33720-001
Batch: 33720
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	ug/L	10/29/2019 1023

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33720-002
Batch: 33720
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	56		1	112	70-130	10/29/2019 0919

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33455-001
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/28/2019 1456
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/28/2019 1456
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/28/2019 1456
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/28/2019 1456
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/28/2019 1456
2,4-Dinitrophenol	ND		1	20	ug/L	10/28/2019 1456
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/28/2019 1456
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/28/2019 1456
2-Chloronaphthalene	ND		1	4.0	ug/L	10/28/2019 1456
2-Chlorophenol	ND		1	4.0	ug/L	10/28/2019 1456
2-Methylnaphthalene	ND		1	0.80	ug/L	10/28/2019 1456
2-Methylphenol	ND		1	4.0	ug/L	10/28/2019 1456
2-Nitroaniline	ND		1	8.0	ug/L	10/28/2019 1456
2-Nitrophenol	ND		1	4.0	ug/L	10/28/2019 1456
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/28/2019 1456
3+4-Methylphenol	ND		1	4.0	ug/L	10/28/2019 1456
3-Nitroaniline	ND		1	8.0	ug/L	10/28/2019 1456
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/28/2019 1456
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/28/2019 1456
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/28/2019 1456
4-Chloroaniline	ND		1	8.0	ug/L	10/28/2019 1456
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/28/2019 1456
4-Nitroaniline	ND		1	8.0	ug/L	10/28/2019 1456
4-Nitrophenol	ND		1	20	ug/L	10/28/2019 1456
Acenaphthene	ND		1	0.80	ug/L	10/28/2019 1456
Acenaphthylene	ND		1	0.80	ug/L	10/28/2019 1456
Acetophenone	ND		1	4.0	ug/L	10/28/2019 1456
Anthracene	ND		1	0.80	ug/L	10/28/2019 1456
Atrazine	ND		1	4.0	ug/L	10/28/2019 1456
Benzaldehyde	ND		1	8.0	ug/L	10/28/2019 1456
Benzo(a)anthracene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(a)pyrene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/28/2019 1456
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/28/2019 1456
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/28/2019 1456
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/28/2019 1456
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Caprolactam	ND		1	8.0	ug/L	10/28/2019 1456
Carbazole	ND		1	4.0	ug/L	10/28/2019 1456
Chrysene	ND		1	0.80	ug/L	10/28/2019 1456
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/28/2019 1456

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33455-001
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/28/2019 1456
Diethylphthalate	ND		1	4.0	ug/L	10/28/2019 1456
Dimethyl phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Di-n-octylphthalate	ND		1	4.0	ug/L	10/28/2019 1456
Fluoranthene	ND		1	0.80	ug/L	10/28/2019 1456
Fluorene	ND		1	0.80	ug/L	10/28/2019 1456
Hexachlorobenzene	ND		1	4.0	ug/L	10/28/2019 1456
Hexachlorobutadiene	ND		1	4.0	ug/L	10/28/2019 1456
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/28/2019 1456
Hexachloroethane	ND		1	4.0	ug/L	10/28/2019 1456
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/28/2019 1456
Isophorone	ND		1	4.0	ug/L	10/28/2019 1456
Naphthalene	ND		1	0.80	ug/L	10/28/2019 1456
Nitrobenzene	ND		1	4.0	ug/L	10/28/2019 1456
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/28/2019 1456
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/28/2019 1456
Pentachlorophenol	ND		1	20	ug/L	10/28/2019 1456
Phenanthrene	ND		1	0.80	ug/L	10/28/2019 1456
Phenol	ND		1	4.0	ug/L	10/28/2019 1456
Pyrene	ND		1	0.80	ug/L	10/28/2019 1456

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		51	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		70	28-128
Terphenyl-d14		94	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33455-002
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	31		1	78	30-130	10/28/2019 1522
2,4,5-Trichlorophenol	40	32		1	81	30-123	10/28/2019 1522
2,4,6-Trichlorophenol	40	33		1	82	30-130	10/28/2019 1522
2,4-Dichlorophenol	40	31		1	78	30-121	10/28/2019 1522
2,4-Dimethylphenol	40	29		1	72	20-125	10/28/2019 1522
2,4-Dinitrophenol	80	56		1	70	11-126	10/28/2019 1522
2,4-Dinitrotoluene	40	36		1	89	30-130	10/28/2019 1522
2,6-Dinitrotoluene	40	35		1	86	30-130	10/28/2019 1522
2-Chloronaphthalene	40	31		1	78	30-130	10/28/2019 1522
2-Chlorophenol	40	37		1	92	30-130	10/28/2019 1522
2-Methylnaphthalene	40	31		1	77	40-132	10/28/2019 1522
2-Methylphenol	40	42		1	106	30-130	10/28/2019 1522
2-Nitroaniline	40	37		1	92	30-130	10/28/2019 1522
2-Nitrophenol	40	35		1	86	30-130	10/28/2019 1522
3,3'-Dichlorobenzidine	40	22		1	56	10-126	10/28/2019 1522
3+4-Methylphenol	40	39		1	99	30-130	10/28/2019 1522
3-Nitroaniline	40	28		1	69	30-130	10/28/2019 1522
4,6-Dinitro-2-methylphenol	40	32		1	81	30-130	10/28/2019 1522
4-Bromophenyl phenyl ether	40	31		1	78	30-124	10/28/2019 1522
4-Chloro-3-methyl phenol	40	32		1	80	30-123	10/28/2019 1522
4-Chloroaniline	40	36		1	89	12-157	10/28/2019 1522
4-Chlorophenyl phenyl ether	40	32		1	80	30-121	10/28/2019 1522
4-Nitroaniline	40	37		1	91	30-135	10/28/2019 1522
4-Nitrophenol	80	55		1	69	30-130	10/28/2019 1522
Acenaphthene	40	31		1	77	30-122	10/28/2019 1522
Acenaphthylene	40	32		1	81	30-130	10/28/2019 1522
Acetophenone	40	40		1	100	30-130	10/28/2019 1522
Anthracene	40	32		1	79	30-123	10/28/2019 1522
Atrazine	40	38		1	94	30-130	10/28/2019 1522
Benzaldehyde	40	26		1	65	20-115	10/28/2019 1522
Benzo(a)anthracene	40	31		1	78	40-125	10/28/2019 1522
Benzo(a)pyrene	40	29		1	71	40-128	10/28/2019 1522
Benzo(b)fluoranthene	40	30		1	75	30-130	10/28/2019 1522
Benzo(g,h,i)perylene	40	30		1	74	30-130	10/28/2019 1522
Benzo(k)fluoranthene	40	26		1	64	30-130	10/28/2019 1522
bis (2-Chloro-1-methylethyl) ether	40	45		1	113	30-130	10/28/2019 1522
bis(2-Chloroethoxy)methane	40	31		1	77	30-130	10/28/2019 1522
bis(2-Chloroethyl)ether	40	36		1	90	30-130	10/28/2019 1522
bis(2-Ethylhexyl)phthalate	40	33		1	82	30-130	10/28/2019 1522
Butyl benzyl phthalate	40	36		1	89	30-130	10/28/2019 1522
Caprolactam	40	35		1	88	30-130	10/28/2019 1522
Carbazole	40	32		1	81	30-130	10/28/2019 1522
Chrysene	40	32		1	79	30-130	10/28/2019 1522
Dibenzo(a,h)anthracene	40	30		1	74	30-130	10/28/2019 1522

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33455-002
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	32		1	79	30-118	10/28/2019 1522
Diethylphthalate	40	35		1	88	40-125	10/28/2019 1522
Dimethyl phthalate	40	34		1	84	40-127	10/28/2019 1522
Di-n-butyl phthalate	40	34		1	84	40-127	10/28/2019 1522
Di-n-octylphthalate	40	28		1	69	30-130	10/28/2019 1522
Fluoranthene	40	31		1	78	40-128	10/28/2019 1522
Fluorene	40	32		1	80	30-124	10/28/2019 1522
Hexachlorobenzene	40	31		1	78	30-125	10/28/2019 1522
Hexachlorobutadiene	40	25		1	62	24-110	10/28/2019 1522
Hexachlorocyclopentadiene	200	81		1	40	22-122	10/28/2019 1522
Hexachloroethane	40	24		1	59	30-130	10/28/2019 1522
Indeno(1,2,3-c,d)pyrene	40	29		1	72	30-130	10/28/2019 1522
Isophorone	40	33		1	83	30-130	10/28/2019 1522
Naphthalene	40	31		1	79	30-130	10/28/2019 1522
Nitrobenzene	40	30		1	75	30-130	10/28/2019 1522
N-Nitrosodi-n-propylamine	40	41		1	103	30-130	10/28/2019 1522
N-Nitrosodiphenylamine (Diphenylamine)	40	31		1	78	30-123	10/28/2019 1522
Pentachlorophenol	80	56		1	70	30-130	10/28/2019 1522
Phenanthrene	40	31		1	78	40-123	10/28/2019 1522
Phenol	40	37		1	92	30-130	10/28/2019 1522
Pyrene	40	33		1	82	40-126	10/28/2019 1522

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		75	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		94	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		82	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ21027-004MS
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	ND	80	64		1	80	30-130	10/28/2019 2025
2,4,5-Trichlorophenol	ND	80	66		1	82	30-123	10/28/2019 2025
2,4,6-Trichlorophenol	ND	80	66		1	82	30-130	10/28/2019 2025
2,4-Dichlorophenol	ND	80	63		1	79	30-121	10/28/2019 2025
2,4-Dimethylphenol	ND	80	55		1	69	20-125	10/28/2019 2025
2,4-Dinitrophenol	ND	160	92		1	58	30-130	10/28/2019 2025
2,4-Dinitrotoluene	ND	80	69		1	87	30-130	10/28/2019 2025
2,6-Dinitrotoluene	ND	80	71		1	88	30-130	10/28/2019 2025
2-Chloronaphthalene	ND	80	64		1	80	30-130	10/28/2019 2025
2-Chlorophenol	ND	80	73		1	92	30-130	10/28/2019 2025
2-Methylnaphthalene	ND	80	63		1	79	40-132	10/28/2019 2025
2-Methylphenol	ND	80	96		1	120	30-130	10/28/2019 2025
2-Nitroaniline	ND	80	72		1	90	30-130	10/28/2019 2025
2-Nitrophenol	ND	80	68		1	85	30-130	10/28/2019 2025
3,3'-Dichlorobenzidine	ND	80	17		1	22	10-126	10/28/2019 2025
3+4-Methylphenol	ND	80	78		1	98	30-130	10/28/2019 2025
3-Nitroaniline	ND	80	44		1	55	30-130	10/28/2019 2025
4,6-Dinitro-2-methylphenol	ND	80	53		1	66	30-130	10/28/2019 2025
4-Bromophenyl phenyl ether	ND	80	64		1	80	30-124	10/28/2019 2025
4-Chloro-3-methyl phenol	ND	80	67		1	83	30-123	10/28/2019 2025
4-Chloroaniline	ND	80	51		1	64	10-130	10/28/2019 2025
4-Chlorophenyl phenyl ether	ND	80	65		1	81	30-121	10/28/2019 2025
4-Nitroaniline	ND	80	50		1	62	30-135	10/28/2019 2025
4-Nitrophenol	ND	160	120		1	73	30-130	10/28/2019 2025
Acenaphthene	ND	80	62		1	78	30-122	10/28/2019 2025
Acenaphthylene	ND	80	65		1	81	30-130	10/28/2019 2025
Acetophenone	ND	80	75		1	93	30-130	10/28/2019 2025
Anthracene	ND	80	62		1	78	30-123	10/28/2019 2025
Atrazine	ND	80	56		1	70	30-130	10/28/2019 2025
Benzaldehyde	ND	80	69		1	87	20-115	10/28/2019 2025
Benzo(a)anthracene	ND	80	66		1	82	40-125	10/28/2019 2025
Benzo(a)pyrene	ND	80	64		1	80	40-128	10/28/2019 2025
Benzo(b)fluoranthene	ND	80	67		1	84	30-130	10/28/2019 2025
Benzo(g,h,i)perylene	ND	80	53		1	66	30-130	10/28/2019 2025
Benzo(k)fluoranthene	ND	80	57		1	72	30-130	10/28/2019 2025
bis (2-Chloro-1-methylethyl) ether	ND	80	87		1	108	30-130	10/28/2019 2025
bis(2-Chloroethoxy)methane	ND	80	61		1	77	30-130	10/28/2019 2025
bis(2-Chloroethyl)ether	ND	80	70		1	88	30-130	10/28/2019 2025
bis(2-Ethylhexyl)phthalate	ND	80	76		1	95	70-131	10/28/2019 2025
Butyl benzyl phthalate	ND	80	76		1	95	30-130	10/28/2019 2025
Caprolactam	ND	80	79		1	98	30-130	10/28/2019 2025
Carbazole	ND	80	67		1	83	30-130	10/28/2019 2025
Chrysene	ND	80	68		1	85	30-130	10/28/2019 2025
Dibenzo(a,h)anthracene	ND	80	56		1	70	30-130	10/28/2019 2025

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: UJ21027-004MS
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	ND	80	64		1	79	30-118	10/28/2019 2025
Diethylphthalate	ND	80	71		1	89	40-125	10/28/2019 2025
Dimethyl phthalate	ND	80	68		1	85	40-127	10/28/2019 2025
Di-n-butyl phthalate	ND	80	70		1	88	40-127	10/28/2019 2025
Di-n-octylphthalate	ND	80	66		1	82	30-130	10/28/2019 2025
Fluoranthene	ND	80	63		1	78	40-128	10/28/2019 2025
Fluorene	ND	80	64		1	81	30-124	10/28/2019 2025
Hexachlorobenzene	ND	80	61		1	76	30-125	10/28/2019 2025
Hexachlorobutadiene	ND	80	56		1	71	24-110	10/28/2019 2025
Hexachlorocyclopentadiene	ND	400	190		1	47	22-122	10/28/2019 2025
Hexachloroethane	ND	80	55		1	69	30-130	10/28/2019 2025
Indeno(1,2,3-c,d)pyrene	ND	80	54		1	67	30-130	10/28/2019 2025
Isophorone	ND	80	67		1	83	30-130	10/28/2019 2025
Naphthalene	ND	80	64		1	79	30-130	10/28/2019 2025
Nitrobenzene	ND	80	61		1	76	30-130	10/28/2019 2025
N-Nitrosodi-n-propylamine	ND	80	77		1	96	30-130	10/28/2019 2025
N-Nitrosodiphenylamine (Diphenylamine)	ND	80	59		1	74	30-123	10/28/2019 2025
Pentachlorophenol	ND	160	110		1	71	30-130	10/28/2019 2025
Phenanthrene	ND	80	63		1	78	40-123	10/28/2019 2025
Phenol	ND	80	73		1	91	30-130	10/28/2019 2025
Pyrene	ND	80	65		1	81	40-126	10/28/2019 2025

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		75	37-129
2-Fluorophenol		77	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		92	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		78	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ21027-004MD
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
1,1'-Biphenyl	ND	80	65		1	81	1.4	30-130	40	10/28/2019 2051
2,4,5-Trichlorophenol	ND	80	67		1	84	2.4	30-123	40	10/28/2019 2051
2,4,6-Trichlorophenol	ND	80	67		1	84	1.7	30-130	40	10/28/2019 2051
2,4-Dichlorophenol	ND	80	63		1	79	0.10	30-121	40	10/28/2019 2051
2,4-Dimethylphenol	ND	80	57		1	71	3.2	20-125	40	10/28/2019 2051
2,4-Dinitrophenol	ND	160	88		1	55	5.2	30-130	40	10/28/2019 2051
2,4-Dinitrotoluene	ND	80	71		1	89	3.0	30-130	40	10/28/2019 2051
2,6-Dinitrotoluene	ND	80	72		1	90	1.4	30-130	40	10/28/2019 2051
2-Chloronaphthalene	ND	80	64		1	80	0.26	30-130	40	10/28/2019 2051
2-Chlorophenol	ND	80	71		1	89	3.2	30-130	40	10/28/2019 2051
2-Methylnaphthalene	ND	80	62		1	78	1.7	40-132	40	10/28/2019 2051
2-Methylphenol	ND	80	88		1	110	8.3	30-130	40	10/28/2019 2051
2-Nitroaniline	ND	80	77		1	96	6.2	30-130	40	10/28/2019 2051
2-Nitrophenol	ND	80	69		1	86	1.6	30-130	40	10/28/2019 2051
3,3'-Dichlorobenzidine	ND	80	49	+	1	61	95	10-126	40	10/28/2019 2051
3+4-Methylphenol	ND	80	78		1	98	0.029	30-130	40	10/28/2019 2051
3-Nitroaniline	ND	80	58		1	72	27	30-130	40	10/28/2019 2051
4,6-Dinitro-2-methylphenol	ND	80	54		1	68	3.4	30-130	40	10/28/2019 2051
4-Bromophenyl phenyl ether	ND	80	65		1	81	2.3	30-124	40	10/28/2019 2051
4-Chloro-3-methyl phenol	ND	80	65		1	81	2.9	30-123	40	10/28/2019 2051
4-Chloroaniline	ND	80	67		1	84	27	10-130	40	10/28/2019 2051
4-Chlorophenyl phenyl ether	ND	80	66		1	82	1.1	30-121	40	10/28/2019 2051
4-Nitroaniline	ND	80	72		1	90	36	30-135	40	10/28/2019 2051
4-Nitrophenol	ND	160	93		1	58	22	30-130	40	10/28/2019 2051
Acenaphthene	ND	80	64		1	79	2.3	30-122	40	10/28/2019 2051
Acenaphthylene	ND	80	66		1	82	1.9	30-130	40	10/28/2019 2051
Acetophenone	ND	80	76		1	95	2.1	30-130	40	10/28/2019 2051
Anthracene	ND	80	65		1	81	3.2	30-123	40	10/28/2019 2051
Atrazine	ND	80	78		1	98	33	30-130	40	10/28/2019 2051
Benzaldehyde	ND	80	56		1	70	21	20-115	40	10/28/2019 2051
Benzo(a)anthracene	ND	80	66		1	83	0.67	40-125	40	10/28/2019 2051
Benzo(a)pyrene	ND	80	64		1	80	0.49	40-128	40	10/28/2019 2051
Benzo(b)fluoranthene	ND	80	69		1	86	2.3	30-130	40	10/28/2019 2051
Benzo(g,h,i)perylene	ND	80	50		1	62	5.1	30-130	40	10/28/2019 2051
Benzo(k)fluoranthene	ND	80	58		1	72	0.15	30-130	40	10/28/2019 2051
bis (2-Chloro-1-methylethyl) ether	ND	80	86		1	108	0.38	30-130	40	10/28/2019 2051
bis(2-Chloroethoxy)methane	ND	80	62		1	77	0.74	30-130	40	10/28/2019 2051
bis(2-Chloroethyl)ether	ND	80	70		1	88	0.39	30-130	40	10/28/2019 2051
bis(2-Ethylhexyl)phthalate	ND	80	73		1	91	4.0	70-131	40	10/28/2019 2051
Butyl benzyl phthalate	ND	80	74		1	93	1.8	30-130	40	10/28/2019 2051
Caprolactam	ND	80	75		1	94	4.6	30-130	40	10/28/2019 2051
Carbazole	ND	80	67		1	84	0.33	30-130	40	10/28/2019 2051
Chrysene	ND	80	68		1	84	0.34	30-130	40	10/28/2019 2051
Dibenzo(a,h)anthracene	ND	80	55		1	69	1.8	30-130	40	10/28/2019 2051

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: UJ21027-004MD
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Dibenzofuran	ND	80	64		1	81	1.4	30-118	40	10/28/2019 2051
Diethylphthalate	ND	80	72		1	90	1.3	40-125	40	10/28/2019 2051
Dimethyl phthalate	ND	80	70		1	87	2.3	40-127	40	10/28/2019 2051
Di-n-butyl phthalate	ND	80	72		1	90	2.4	40-127	40	10/28/2019 2051
Di-n-octylphthalate	ND	80	64		1	80	3.0	30-130	40	10/28/2019 2051
Fluoranthene	ND	80	65		1	81	3.6	40-128	40	10/28/2019 2051
Fluorene	ND	80	65		1	82	1.4	30-124	40	10/28/2019 2051
Hexachlorobenzene	ND	80	65		1	81	5.7	30-125	40	10/28/2019 2051
Hexachlorobutadiene	ND	80	56		1	69	1.5	24-110	40	10/28/2019 2051
Hexachlorocyclopentadiene	ND	400	190		1	48	0.41	22-122	40	10/28/2019 2051
Hexachloroethane	ND	80	54		1	68	2.1	30-130	40	10/28/2019 2051
Indeno(1,2,3-c,d)pyrene	ND	80	54		1	67	0.16	30-130	40	10/28/2019 2051
Isophorone	ND	80	67		1	83	0.053	30-130	40	10/28/2019 2051
Naphthalene	ND	80	65		1	81	1.6	30-130	40	10/28/2019 2051
Nitrobenzene	ND	80	61		1	77	0.70	30-130	40	10/28/2019 2051
N-Nitrosodi-n-propylamine	ND	80	76		1	95	0.67	30-130	40	10/28/2019 2051
N-Nitrosodiphenylamine (Diphenylamine)	ND	80	66		1	82	10	30-123	40	10/28/2019 2051
Pentachlorophenol	ND	160	110		1	70	0.79	30-130	40	10/28/2019 2051
Phenanthrene	ND	80	64		1	80	2.1	40-123	40	10/28/2019 2051
Phenol	ND	80	73		1	91	0.43	30-130	40	10/28/2019 2051
Pyrene	ND	80	65		1	82	0.71	40-126	40	10/28/2019 2051

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		77	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		91	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		80	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099909

Client: WESTINGHOUSE	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 803 647 1920 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature: x [signature] JAMES [illegible]	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	Printed Name: RANDY CALLUS
Project Name: WESTINGHOUSE RI			
Project No.: 60595649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Aqueous	Soil/Sed	Non-Aqueous	Matrix: Liquids	No. of Containers by Preservative Type: H2SO4	HNO3	Raw	NaOH	ZnAc/NaOH	TCL VOC's 8260B	TCL SVOC's 8270D	NITRATES 353.2	Remarks / Cooler I.D.
W-15	10-21-19	0905	G	X			3			3			X	X	X	(TB-01-102119 TCL VOC's)
W-16		1030	G	X			3			3			X	X	X	
W-46		1200	G	X			3			3			X	X	X	
W-19B		1335	G	X			3			3			X	X	X	
W-19B-MS		1336	G	X			3			3			X	X	X	
W-19B-MSD		1335	G	X			3			3			X	X	X	
W-17		0924	G	X			3			3			X	X	X	
W-63		1120	G	X			3			3			X	X	X	
W-48		1256	G	X			3			3			X	X	X	
W-48-DUP		1256	G	X			3			3			X	X	X	

UJ21027
GRW

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished by: [signature]	10-21-19	1548	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: Darby N Lights	10/21/19	1548

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle): Yes / No Ice Pack Receipt Temp. 2.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: DMN / 10/21/19 Lot #: UJ21027

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.8 / 2.8 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☑ Yes	☐ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA .

Time of preservation NA . If more than one preservative is needed, please note in the comments below.

Sample(s) UJ21027-008/Trip Blank (1) were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA .

SR barcode labels applied by: DMN Date: 10/21/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ22050**

Date Completed:10/30/2019

10/31/2019 2:18 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ22050

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ22050

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-62	Aqueous	10/22/2019 0855	10/22/2019
002	WSW-02	Aqueous	10/22/2019 1045	10/22/2019
003	W-90	Aqueous	10/22/2019 1245	10/22/2019
004	W-42	Aqueous	10/22/2019 1415	10/22/2019
005	W-89	Aqueous	10/22/2019 1040	10/22/2019
006	W-88	Aqueous	10/22/2019 1153	10/22/2019
007	W-68	Aqueous	10/22/2019 1354	10/22/2019
008	EB-01-102219	Aqueous	10/22/2019 0948	10/22/2019
009	TB-01-102219	Aqueous	10/22/2019	10/22/2019

(9 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ22050

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-62	Aqueous	Nitrate - N	353.2	4.0		mg/L	5
001	W-62	Aqueous	Tetrachloroethene	8260B	42		ug/L	6
003	W-90	Aqueous	Nitrate - N	353.2	2.3		mg/L	15
004	W-42	Aqueous	Nitrate - N	353.2	4.7		mg/L	20
005	W-89	Aqueous	Nitrate - N	353.2	2.5		mg/L	25
005	W-89	Aqueous	Tetrachloroethene	8260B	2.1		ug/L	26
006	W-88	Aqueous	Nitrate - N	353.2	4.5		mg/L	30
006	W-88	Aqueous	Tetrachloroethene	8260B	4.1		ug/L	31
007	W-68	Aqueous	Nitrate - N	353.2	3.0		mg/L	35
007	W-68	Aqueous	Tetrachloroethene	8260B	110		ug/L	36
007	W-68	Aqueous	Trichloroethene	8260B	1.8		ug/L	37

(11 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-001
Description: W-62
Matrix: Aqueous
Date Sampled: 10/22/2019 0855
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/23/2019 1115	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.0		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-001
Description: W-62 | Matrix: Aqueous
Date Sampled:10/22/2019 0855 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1312	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	42		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-001
Description: W-62 | Matrix: Aqueous
Date Sampled: 10/22/2019 0855 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1312	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-001
Description: W-62 | Matrix: Aqueous
Date Sampled:10/22/2019 0855 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1147	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-001
Description: W-62 | Matrix: Aqueous
Date Sampled:10/22/2019 0855 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1147	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		35	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		65	28-128
Terphenyl-d14		89	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-002
Description: WSW-02
Matrix: Aqueous
Date Sampled:10/22/2019 1045
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/23/2019 1125	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-002
Description: WSW-02 | Matrix: Aqueous
Date Sampled:10/22/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1335	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-002
Description: WSW-02 | Matrix: Aqueous
Date Sampled:10/22/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1335	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-002
Description: WSW-02 | Matrix: Aqueous
Date Sampled:10/22/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1213	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-002
Description: WSW-02 | Matrix: Aqueous
Date Sampled:10/22/2019 1045 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1213	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		67	37-129
2-Fluorophenol		51	24-127
Nitrobenzene-d5		60	38-127
Phenol-d5		50	28-128
Terphenyl-d14		89	10-148
2,4,6-Tribromophenol		67	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-003
Description: W-90
Matrix: Aqueous
Date Sampled: 10/22/2019 1245
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/23/2019 1127	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.3		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-003
Description: W-90 | Matrix: Aqueous
Date Sampled:10/22/2019 1245 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1358	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-003
Description: W-90 | Matrix: Aqueous
Date Sampled:10/22/2019 1245 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1358	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-003
Description: W-90 | Matrix: Aqueous
Date Sampled:10/22/2019 1245 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1239	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-003
Description: W-90 | Matrix: Aqueous
Date Sampled:10/22/2019 1245 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1239	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		72	37-129
2-Fluorophenol		73	24-127
Nitrobenzene-d5		69	38-127
Phenol-d5		86	28-128
Terphenyl-d14		92	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-004
Description: W-42
Matrix: Aqueous
Date Sampled: 10/22/2019 1415
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/23/2019 1116	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.7		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-004
Description: W-42 | Matrix: Aqueous
Date Sampled:10/22/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1421	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-004
Description: W-42 | Matrix: Aqueous
Date Sampled:10/22/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1421	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-004
Description: W-42 | Matrix: Aqueous
Date Sampled:10/22/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1305	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-004
Description: W-42 | Matrix: Aqueous
Date Sampled:10/22/2019 1415 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1305	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		68	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		65	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-005
Description: W-89
Matrix: Aqueous
Date Sampled:10/22/2019 1040
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/23/2019 1117	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	2.5		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-005
Description: W-89 | Matrix: Aqueous
Date Sampled:10/22/2019 1040 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1444	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	2.1		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-005
Description: W-89 | Matrix: Aqueous
Date Sampled: 10/22/2019 1040 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1444	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-005
Description: W-89 | Matrix: Aqueous
Date Sampled:10/22/2019 1040 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1330	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-005
Description: W-89 | Matrix: Aqueous
Date Sampled:10/22/2019 1040 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1330	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		44	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		52	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		68	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-006
Description: W-88
Matrix: Aqueous
Date Sampled:10/22/2019 1153
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	10/23/2019 1119	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	4.5		0.10	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-006
Description: W-88 | Matrix: Aqueous
Date Sampled:10/22/2019 1153 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	10/30/2019 0230	ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	2
Benzene	71-43-2	8260B	ND		1.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	2
Bromoform	75-25-2	8260B	ND		1.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	2
Chloroform	67-66-3	8260B	ND		1.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	2
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	2
Styrene	100-42-5	8260B	ND		1.0	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	4.1		1.0	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-006
Description: W-88 | Matrix: Aqueous
Date Sampled:10/22/2019 1153 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	10/30/2019 0230	ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-006

Description: W-88 | Matrix: Aqueous

Date Sampled:10/22/2019 1153 | Project Name: Westinghouse RI

Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1356	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40%

H = Out of holding time | W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-006
Description: W-88 | Matrix: Aqueous
Date Sampled:10/22/2019 1153 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1356	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		49	24-127
Nitrobenzene-d5		66	38-127
Phenol-d5		61	28-128
Terphenyl-d14		91	10-148
2,4,6-Tribromophenol		67	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-007
Description: W-68
Matrix: Aqueous
Date Sampled: 10/22/2019 1354
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/23/2019 1120	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	3.0		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-007
Description: W-68 | Matrix: Aqueous
Date Sampled:10/22/2019 1354 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1508	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	110		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-007
Description: W-68 | Matrix: Aqueous
Date Sampled: 10/22/2019 1354 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1508	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	1.8		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-007
Description: W-68 | Matrix: Aqueous
Date Sampled:10/22/2019 1354 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1421	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-007
Description: W-68 | Matrix: Aqueous
Date Sampled:10/22/2019 1354 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1421	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		46	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		56	28-128
Terphenyl-d14		93	10-148
2,4,6-Tribromophenol		67	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ22050-008
Description: EB-01-102219
Matrix: Aqueous
Date Sampled: 10/22/2019 0948
Project Name: Westinghouse RI
Date Received: 10/22/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/23/2019 1128	MSG		32986

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-008
Description: EB-01-102219 | Matrix: Aqueous
Date Sampled:10/22/2019 0948 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1053	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-008
Description: EB-01-102219 | Matrix: Aqueous
Date Sampled:10/22/2019 0948 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1053	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-008
Description: EB-01-102219 | Matrix: Aqueous
Date Sampled: 10/22/2019 0948 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1447	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-008
Description: EB-01-102219 | Matrix: Aqueous
Date Sampled: 10/22/2019 0948 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/29/2019 1447	JCG	10/26/2019 2223	33455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		45	24-127
Nitrobenzene-d5		65	38-127
Phenol-d5		56	28-128
Terphenyl-d14		88	10-148
2,4,6-Tribromophenol		64	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-009
Description: TB-01-102219 | Matrix: Aqueous
Date Sampled:10/22/2019 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1116	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ22050-009
Description: TB-01-102219 | Matrix: Aqueous
Date Sampled:10/22/2019 | Project Name: Westinghouse RI
Date Received: 10/22/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/28/2019 1116	TML		33544

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ32986-001
Batch: 32986
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/23/2019 1013

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ32986-002
Batch: 32986
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	10/23/2019 1014

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33544-001
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/28/2019 0953
Benzene	ND		1	1.0	ug/L	10/28/2019 0953
Bromodichloromethane	ND		1	1.0	ug/L	10/28/2019 0953
Bromoform	ND		1	1.0	ug/L	10/28/2019 0953
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/28/2019 0953
2-Butanone (MEK)	ND		1	10	ug/L	10/28/2019 0953
Carbon disulfide	ND		1	1.0	ug/L	10/28/2019 0953
Carbon tetrachloride	ND		1	1.0	ug/L	10/28/2019 0953
Chlorobenzene	ND		1	1.0	ug/L	10/28/2019 0953
Chloroethane	ND		1	2.0	ug/L	10/28/2019 0953
Chloroform	ND		1	1.0	ug/L	10/28/2019 0953
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/28/2019 0953
Cyclohexane	ND		1	1.0	ug/L	10/28/2019 0953
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/28/2019 0953
Dibromochloromethane	ND		1	1.0	ug/L	10/28/2019 0953
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/28/2019 0953
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/28/2019 0953
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/28/2019 0953
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/28/2019 0953
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/28/2019 0953
1,1-Dichloroethane	ND		1	1.0	ug/L	10/28/2019 0953
1,2-Dichloroethane	ND		1	1.0	ug/L	10/28/2019 0953
1,1-Dichloroethene	ND		1	1.0	ug/L	10/28/2019 0953
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/28/2019 0953
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/28/2019 0953
1,2-Dichloropropane	ND		1	1.0	ug/L	10/28/2019 0953
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/28/2019 0953
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/28/2019 0953
Ethylbenzene	ND		1	1.0	ug/L	10/28/2019 0953
2-Hexanone	ND		1	10	ug/L	10/28/2019 0953
Isopropylbenzene	ND		1	1.0	ug/L	10/28/2019 0953
Methyl acetate	ND		1	1.0	ug/L	10/28/2019 0953
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/28/2019 0953
4-Methyl-2-pentanone	ND		1	10	ug/L	10/28/2019 0953
Methylcyclohexane	ND		1	5.0	ug/L	10/28/2019 0953
Methylene chloride	ND		1	1.0	ug/L	10/28/2019 0953
Styrene	ND		1	1.0	ug/L	10/28/2019 0953
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/28/2019 0953
Tetrachloroethene	ND		1	1.0	ug/L	10/28/2019 0953
Toluene	ND		1	1.0	ug/L	10/28/2019 0953
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/28/2019 0953
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/28/2019 0953
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/28/2019 0953
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/28/2019 0953

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33544-001
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/28/2019 0953
Trichlorofluoromethane	ND		1	1.0	ug/L	10/28/2019 0953
Vinyl chloride	ND		1	1.0	ug/L	10/28/2019 0953
Xylenes (total)	ND		1	1.0	ug/L	10/28/2019 0953

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33544-002
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	72		1	72	60-140	10/28/2019 0853
Benzene	50	49		1	98	70-130	10/28/2019 0853
Bromodichloromethane	50	47		1	95	70-130	10/28/2019 0853
Bromoform	50	45		1	90	70-130	10/28/2019 0853
Bromomethane (Methyl bromide)	50	48		1	97	70-130	10/28/2019 0853
2-Butanone (MEK)	100	70		1	70	70-130	10/28/2019 0853
Carbon disulfide	50	52		1	103	70-130	10/28/2019 0853
Carbon tetrachloride	50	45		1	90	70-130	10/28/2019 0853
Chlorobenzene	50	46		1	91	70-130	10/28/2019 0853
Chloroethane	50	52		1	105	70-130	10/28/2019 0853
Chloroform	50	47		1	94	70-130	10/28/2019 0853
Chloromethane (Methyl chloride)	50	49		1	99	60-140	10/28/2019 0853
Cyclohexane	50	47		1	94	70-130	10/28/2019 0853
1,2-Dibromo-3-chloropropane (DBCP)	50	41		1	82	70-130	10/28/2019 0853
Dibromochloromethane	50	47		1	94	70-130	10/28/2019 0853
1,2-Dibromoethane (EDB)	50	46		1	92	70-130	10/28/2019 0853
1,2-Dichlorobenzene	50	41		1	83	70-130	10/28/2019 0853
1,3-Dichlorobenzene	50	42		1	83	70-130	10/28/2019 0853
1,4-Dichlorobenzene	50	41		1	82	70-130	10/28/2019 0853
Dichlorodifluoromethane	50	53		1	106	60-140	10/28/2019 0853
1,1-Dichloroethane	50	47		1	94	70-130	10/28/2019 0853
1,2-Dichloroethane	50	46		1	92	70-130	10/28/2019 0853
1,1-Dichloroethene	50	50		1	100	70-130	10/28/2019 0853
cis-1,2-Dichloroethene	50	47		1	94	70-130	10/28/2019 0853
trans-1,2-Dichloroethene	50	48		1	97	70-130	10/28/2019 0853
1,2-Dichloropropane	50	48		1	97	70-130	10/28/2019 0853
cis-1,3-Dichloropropene	50	50		1	100	70-130	10/28/2019 0853
trans-1,3-Dichloropropene	50	50		1	100	70-130	10/28/2019 0853
Ethylbenzene	50	47		1	94	70-130	10/28/2019 0853
2-Hexanone	100	74		1	74	70-130	10/28/2019 0853
Isopropylbenzene	50	46		1	93	70-130	10/28/2019 0853
Methyl acetate	50	54		1	108	70-130	10/28/2019 0853
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	10/28/2019 0853
4-Methyl-2-pentanone	100	96		1	96	70-130	10/28/2019 0853
Methylcyclohexane	50	47		1	94	70-130	10/28/2019 0853
Methylene chloride	50	42		1	85	70-130	10/28/2019 0853
Styrene	50	47		1	94	70-130	10/28/2019 0853
1,1,2,2-Tetrachloroethane	50	46		1	92	70-130	10/28/2019 0853
Tetrachloroethene	50	48		1	97	70-130	10/28/2019 0853
Toluene	50	48		1	96	70-130	10/28/2019 0853
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	88	70-130	10/28/2019 0853
1,2,4-Trichlorobenzene	50	41		1	82	70-130	10/28/2019 0853
1,1,1-Trichloroethane	50	44		1	87	70-130	10/28/2019 0853
1,1,2-Trichloroethane	50	48		1	97	70-130	10/28/2019 0853

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33544-002
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	10/28/2019 0853
Trichlorofluoromethane	50	48		1	96	70-130	10/28/2019 0853
Vinyl chloride	50	51		1	102	70-130	10/28/2019 0853
Xylenes (total)	100	94		1	94	70-130	10/28/2019 0853

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ22050-006MS
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	400		5	80	60-140	10/28/2019 1812
Benzene	ND	250	250		5	99	70-130	10/28/2019 1812
Bromodichloromethane	ND	250	230		5	91	70-130	10/28/2019 1812
Bromoform	ND	250	200		5	78	70-130	10/28/2019 1812
Bromomethane (Methyl bromide)	ND	250	240		5	94	70-130	10/28/2019 1812
2-Butanone (MEK)	ND	500	460		5	92	70-130	10/28/2019 1812
Carbon disulfide	ND	250	220		5	88	70-130	10/28/2019 1812
Carbon tetrachloride	ND	250	230		5	91	70-130	10/28/2019 1812
Chlorobenzene	ND	250	230		5	93	70-130	10/28/2019 1812
Chloroethane	ND	250	260		5	103	70-130	10/28/2019 1812
Chloroform	ND	250	240		5	95	70-130	10/28/2019 1812
Chloromethane (Methyl chloride)	ND	250	250		5	100	60-140	10/28/2019 1812
Cyclohexane	ND	250	170	N	5	68	70-130	10/28/2019 1812
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	200		5	79	70-130	10/28/2019 1812
Dibromochloromethane	ND	250	230		5	90	70-130	10/28/2019 1812
1,2-Dibromoethane (EDB)	ND	250	230		5	93	70-130	10/28/2019 1812
1,2-Dichlorobenzene	ND	250	220		5	87	70-130	10/28/2019 1812
1,3-Dichlorobenzene	ND	250	220		5	87	70-130	10/28/2019 1812
1,4-Dichlorobenzene	ND	250	210		5	86	70-130	10/28/2019 1812
Dichlorodifluoromethane	ND	250	270		5	109	60-140	10/28/2019 1812
1,1-Dichloroethane	ND	250	230		5	94	70-130	10/28/2019 1812
1,2-Dichloroethane	ND	250	230		5	90	70-130	10/28/2019 1812
1,1-Dichloroethene	ND	250	250		5	99	70-130	10/28/2019 1812
cis-1,2-Dichloroethene	ND	250	230		5	93	70-130	10/28/2019 1812
trans-1,2-Dichloroethene	ND	250	240		5	95	70-130	10/28/2019 1812
1,2-Dichloropropane	ND	250	240		5	96	70-130	10/28/2019 1812
cis-1,3-Dichloropropene	ND	250	230		5	90	70-130	10/28/2019 1812
trans-1,3-Dichloropropene	ND	250	230		5	92	70-130	10/28/2019 1812
Ethylbenzene	ND	250	240		5	96	70-130	10/28/2019 1812
2-Hexanone	ND	500	460		5	93	70-130	10/28/2019 1812
Isopropylbenzene	ND	250	240		5	97	70-130	10/28/2019 1812
Methyl acetate	ND	250	250		5	100	70-130	10/28/2019 1812
Methyl tertiary butyl ether (MTBE)	ND	250	200		5	81	70-130	10/28/2019 1812
4-Methyl-2-pentanone	ND	500	460		5	91	70-130	10/28/2019 1812
Methylcyclohexane	ND	250	240		5	95	70-130	10/28/2019 1812
Methylene chloride	ND	250	200		5	82	70-130	10/28/2019 1812
Styrene	ND	250	240		5	95	70-130	10/28/2019 1812
1,1,2,2-Tetrachloroethane	ND	250	240		5	96	70-130	10/28/2019 1812
Tetrachloroethene	ND	250	250		5	99	70-130	10/28/2019 1812
Toluene	ND	250	240		5	98	70-130	10/28/2019 1812
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	180		5	72	70-130	10/28/2019 1812
1,2,4-Trichlorobenzene	ND	250	200		5	81	70-130	10/28/2019 1812
1,1,1-Trichloroethane	ND	250	210		5	84	70-130	10/28/2019 1812
1,1,2-Trichloroethane	ND	250	240		5	97	70-130	10/28/2019 1812

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: UJ22050-006MS
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	250	240		5	96	70-130	10/28/2019 1812
Trichlorofluoromethane	ND	250	240		5	97	70-130	10/28/2019 1812
Vinyl chloride	ND	250	260		5	103	70-130	10/28/2019 1812
Xylenes (total)	ND	500	480		5	95	70-130	10/28/2019 1812

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ22050-006MD
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	410		5	82	2.1	60-140	20	10/28/2019 1835
Benzene	ND	250	250		5	100	1.5	70-130	20	10/28/2019 1835
Bromodichloromethane	ND	250	230		5	91	0.36	70-130	20	10/28/2019 1835
Bromoform	ND	250	210		5	83	5.7	70-130	20	10/28/2019 1835
Bromomethane (Methyl bromide)	ND	250	240		5	97	2.6	70-130	20	10/28/2019 1835
2-Butanone (MEK)	ND	500	460		5	93	0.29	70-130	20	10/28/2019 1835
Carbon disulfide	ND	250	220		5	89	1.7	70-130	20	10/28/2019 1835
Carbon tetrachloride	ND	250	230		5	92	1.8	70-130	20	10/28/2019 1835
Chlorobenzene	ND	250	240		5	96	3.1	70-130	20	10/28/2019 1835
Chloroethane	ND	250	270		5	110	6.8	70-130	20	10/28/2019 1835
Chloroform	ND	250	230		5	94	1.1	70-130	20	10/28/2019 1835
Chloromethane (Methyl chloride)	ND	250	250		5	99	0.88	60-140	20	10/28/2019 1835
Cyclohexane	ND	250	170	N	5	67	1.9	70-130	20	10/28/2019 1835
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	85	7.0	70-130	20	10/28/2019 1835
Dibromochloromethane	ND	250	230		5	92	1.7	70-130	20	10/28/2019 1835
1,2-Dibromoethane (EDB)	ND	250	240		5	95	2.5	70-130	20	10/28/2019 1835
1,2-Dichlorobenzene	ND	250	220		5	90	3.2	70-130	20	10/28/2019 1835
1,3-Dichlorobenzene	ND	250	220		5	90	3.0	70-130	20	10/28/2019 1835
1,4-Dichlorobenzene	ND	250	220		5	87	1.6	70-130	20	10/28/2019 1835
Dichlorodifluoromethane	ND	250	270		5	108	0.42	60-140	20	10/28/2019 1835
1,1-Dichloroethane	ND	250	230		5	94	0.33	70-130	20	10/28/2019 1835
1,2-Dichloroethane	ND	250	220		5	89	1.5	70-130	20	10/28/2019 1835
1,1-Dichloroethene	ND	250	250		5	99	0.46	70-130	20	10/28/2019 1835
cis-1,2-Dichloroethene	ND	250	230		5	93	0.0095	70-130	20	10/28/2019 1835
trans-1,2-Dichloroethene	ND	250	240		5	96	0.91	70-130	20	10/28/2019 1835
1,2-Dichloropropane	ND	250	250		5	99	2.9	70-130	20	10/28/2019 1835
cis-1,3-Dichloropropene	ND	250	230		5	93	2.4	70-130	20	10/28/2019 1835
trans-1,3-Dichloropropene	ND	250	230		5	94	1.4	70-130	20	10/28/2019 1835
Ethylbenzene	ND	250	250		5	99	2.9	70-130	20	10/28/2019 1835
2-Hexanone	ND	500	500		5	99	7.0	70-130	20	10/28/2019 1835
Isopropylbenzene	ND	250	250		5	100	3.4	70-130	20	10/28/2019 1835
Methyl acetate	ND	250	250		5	101	0.51	70-130	20	10/28/2019 1835
Methyl tertiary butyl ether (MTBE)	ND	250	210		5	86	6.1	70-130	20	10/28/2019 1835
4-Methyl-2-pentanone	ND	500	470		5	93	2.2	70-130	20	10/28/2019 1835
Methylcyclohexane	ND	250	250		5	99	4.4	70-130	20	10/28/2019 1835
Methylene chloride	ND	250	200		5	82	0.0093	70-130	20	10/28/2019 1835
Styrene	ND	250	240		5	98	3.3	70-130	20	10/28/2019 1835
1,1,2,2-Tetrachloroethane	ND	250	250		5	98	2.0	70-130	20	10/28/2019 1835
Tetrachloroethene	ND	250	260		5	102	3.1	70-130	20	10/28/2019 1835
Toluene	ND	250	260		5	102	4.5	70-130	20	10/28/2019 1835
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	220		5	88	20	70-130	20	10/28/2019 1835
1,2,4-Trichlorobenzene	ND	250	210		5	85	4.7	70-130	20	10/28/2019 1835
1,1,1-Trichloroethane	ND	250	220		5	90	6.9	70-130	20	10/28/2019 1835
1,1,2-Trichloroethane	ND	250	250		5	99	1.8	70-130	20	10/28/2019 1835

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UJ22050-006MD
Batch: 33544
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	240		5	96	0.89	70-130	20	10/28/2019 1835
Trichlorofluoromethane	ND	250	250		5	101	3.8	70-130	20	10/28/2019 1835
Vinyl chloride	ND	250	270		5	107	3.9	70-130	20	10/28/2019 1835
Xylenes (total)	ND	500	500		5	100	4.7	70-130	20	10/28/2019 1835

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33820-001
Batch: 33820
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/29/2019 2016
Benzene	ND		1	1.0	ug/L	10/29/2019 2016
Bromodichloromethane	ND		1	1.0	ug/L	10/29/2019 2016
Bromoform	ND		1	1.0	ug/L	10/29/2019 2016
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/29/2019 2016
2-Butanone (MEK)	ND		1	10	ug/L	10/29/2019 2016
Carbon disulfide	ND		1	1.0	ug/L	10/29/2019 2016
Carbon tetrachloride	ND		1	1.0	ug/L	10/29/2019 2016
Chlorobenzene	ND		1	1.0	ug/L	10/29/2019 2016
Chloroethane	ND		1	2.0	ug/L	10/29/2019 2016
Chloroform	ND		1	1.0	ug/L	10/29/2019 2016
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/29/2019 2016
Cyclohexane	ND		1	1.0	ug/L	10/29/2019 2016
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/29/2019 2016
Dibromochloromethane	ND		1	1.0	ug/L	10/29/2019 2016
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/29/2019 2016
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2016
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2016
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2016
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/29/2019 2016
1,1-Dichloroethane	ND		1	1.0	ug/L	10/29/2019 2016
1,2-Dichloroethane	ND		1	1.0	ug/L	10/29/2019 2016
1,1-Dichloroethene	ND		1	1.0	ug/L	10/29/2019 2016
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/29/2019 2016
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/29/2019 2016
1,2-Dichloropropane	ND		1	1.0	ug/L	10/29/2019 2016
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/29/2019 2016
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/29/2019 2016
Ethylbenzene	ND		1	1.0	ug/L	10/29/2019 2016
2-Hexanone	ND		1	10	ug/L	10/29/2019 2016
Isopropylbenzene	ND		1	1.0	ug/L	10/29/2019 2016
Methyl acetate	ND		1	1.0	ug/L	10/29/2019 2016
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/29/2019 2016
4-Methyl-2-pentanone	ND		1	10	ug/L	10/29/2019 2016
Methylcyclohexane	ND		1	5.0	ug/L	10/29/2019 2016
Methylene chloride	ND		1	1.0	ug/L	10/29/2019 2016
Styrene	ND		1	1.0	ug/L	10/29/2019 2016
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/29/2019 2016
Tetrachloroethene	ND		1	1.0	ug/L	10/29/2019 2016
Toluene	ND		1	1.0	ug/L	10/29/2019 2016
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/29/2019 2016
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2016
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/29/2019 2016
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/29/2019 2016

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33820-001
Batch: 33820
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/29/2019 2016
Trichlorofluoromethane	ND		1	1.0	ug/L	10/29/2019 2016
Vinyl chloride	ND		1	1.0	ug/L	10/29/2019 2016
Xylenes (total)	ND		1	1.0	ug/L	10/29/2019 2016

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33820-002
Batch: 33820
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	119	60-140	10/29/2019 1905
Benzene	50	50		1	99	70-130	10/29/2019 1905
Bromodichloromethane	50	49		1	97	70-130	10/29/2019 1905
Bromoform	50	50		1	101	70-130	10/29/2019 1905
Bromomethane (Methyl bromide)	50	51		1	101	70-130	10/29/2019 1905
2-Butanone (MEK)	100	120		1	118	70-130	10/29/2019 1905
Carbon disulfide	50	49		1	99	70-130	10/29/2019 1905
Carbon tetrachloride	50	50		1	99	70-130	10/29/2019 1905
Chlorobenzene	50	49		1	98	70-130	10/29/2019 1905
Chloroethane	50	62		1	123	70-130	10/29/2019 1905
Chloroform	50	49		1	97	70-130	10/29/2019 1905
Chloromethane (Methyl chloride)	50	51		1	102	60-140	10/29/2019 1905
Cyclohexane	50	48		1	97	70-130	10/29/2019 1905
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	10/29/2019 1905
Dibromochloromethane	50	51		1	102	70-130	10/29/2019 1905
1,2-Dibromoethane (EDB)	50	49		1	99	70-130	10/29/2019 1905
1,2-Dichlorobenzene	50	49		1	97	70-130	10/29/2019 1905
1,3-Dichlorobenzene	50	48		1	96	70-130	10/29/2019 1905
1,4-Dichlorobenzene	50	47		1	94	70-130	10/29/2019 1905
Dichlorodifluoromethane	50	50		1	100	60-140	10/29/2019 1905
1,1-Dichloroethane	50	50		1	101	70-130	10/29/2019 1905
1,2-Dichloroethane	50	49		1	98	70-130	10/29/2019 1905
1,1-Dichloroethene	50	56		1	112	70-130	10/29/2019 1905
cis-1,2-Dichloroethene	50	49		1	97	70-130	10/29/2019 1905
trans-1,2-Dichloroethene	50	51		1	101	70-130	10/29/2019 1905
1,2-Dichloropropane	50	49		1	98	70-130	10/29/2019 1905
cis-1,3-Dichloropropene	50	50		1	101	70-130	10/29/2019 1905
trans-1,3-Dichloropropene	50	51		1	103	70-130	10/29/2019 1905
Ethylbenzene	50	49		1	98	70-130	10/29/2019 1905
2-Hexanone	100	110		1	112	70-130	10/29/2019 1905
Isopropylbenzene	50	52		1	105	70-130	10/29/2019 1905
Methyl acetate	50	46		1	92	70-130	10/29/2019 1905
Methyl tertiary butyl ether (MTBE)	50	46		1	92	70-130	10/29/2019 1905
4-Methyl-2-pentanone	100	99		1	99	70-130	10/29/2019 1905
Methylcyclohexane	50	52		1	105	70-130	10/29/2019 1905
Methylene chloride	50	45		1	89	70-130	10/29/2019 1905
Styrene	50	50		1	100	70-130	10/29/2019 1905
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	10/29/2019 1905
Tetrachloroethene	50	52		1	104	70-130	10/29/2019 1905
Toluene	50	49		1	99	70-130	10/29/2019 1905
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	70-130	10/29/2019 1905
1,2,4-Trichlorobenzene	50	49		1	97	70-130	10/29/2019 1905
1,1,1-Trichloroethane	50	48		1	96	70-130	10/29/2019 1905
1,1,2-Trichloroethane	50	50		1	99	70-130	10/29/2019 1905

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33820-002
Batch: 33820
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	10/29/2019 1905
Trichlorofluoromethane	50	52		1	104	70-130	10/29/2019 1905
Vinyl chloride	50	48		1	95	70-130	10/29/2019 1905
Xylenes (total)	100	100		1	101	70-130	10/29/2019 1905

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33455-001
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/28/2019 1456
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/28/2019 1456
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/28/2019 1456
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/28/2019 1456
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/28/2019 1456
2,4-Dinitrophenol	ND		1	20	ug/L	10/28/2019 1456
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/28/2019 1456
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/28/2019 1456
2-Chloronaphthalene	ND		1	4.0	ug/L	10/28/2019 1456
2-Chlorophenol	ND		1	4.0	ug/L	10/28/2019 1456
2-Methylnaphthalene	ND		1	0.80	ug/L	10/28/2019 1456
2-Methylphenol	ND		1	4.0	ug/L	10/28/2019 1456
2-Nitroaniline	ND		1	8.0	ug/L	10/28/2019 1456
2-Nitrophenol	ND		1	4.0	ug/L	10/28/2019 1456
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/28/2019 1456
3+4-Methylphenol	ND		1	4.0	ug/L	10/28/2019 1456
3-Nitroaniline	ND		1	8.0	ug/L	10/28/2019 1456
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/28/2019 1456
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/28/2019 1456
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/28/2019 1456
4-Chloroaniline	ND		1	8.0	ug/L	10/28/2019 1456
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/28/2019 1456
4-Nitroaniline	ND		1	8.0	ug/L	10/28/2019 1456
4-Nitrophenol	ND		1	20	ug/L	10/28/2019 1456
Acenaphthene	ND		1	0.80	ug/L	10/28/2019 1456
Acenaphthylene	ND		1	0.80	ug/L	10/28/2019 1456
Acetophenone	ND		1	4.0	ug/L	10/28/2019 1456
Anthracene	ND		1	0.80	ug/L	10/28/2019 1456
Atrazine	ND		1	4.0	ug/L	10/28/2019 1456
Benzaldehyde	ND		1	8.0	ug/L	10/28/2019 1456
Benzo(a)anthracene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(a)pyrene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/28/2019 1456
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/28/2019 1456
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/28/2019 1456
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/28/2019 1456
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/28/2019 1456
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Caprolactam	ND		1	8.0	ug/L	10/28/2019 1456
Carbazole	ND		1	4.0	ug/L	10/28/2019 1456
Chrysene	ND		1	0.80	ug/L	10/28/2019 1456
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/28/2019 1456

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33455-001
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/28/2019 1456
Diethylphthalate	ND		1	4.0	ug/L	10/28/2019 1456
Dimethyl phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/28/2019 1456
Di-n-octylphthalate	ND		1	4.0	ug/L	10/28/2019 1456
Fluoranthene	ND		1	0.80	ug/L	10/28/2019 1456
Fluorene	ND		1	0.80	ug/L	10/28/2019 1456
Hexachlorobenzene	ND		1	4.0	ug/L	10/28/2019 1456
Hexachlorobutadiene	ND		1	4.0	ug/L	10/28/2019 1456
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/28/2019 1456
Hexachloroethane	ND		1	4.0	ug/L	10/28/2019 1456
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/28/2019 1456
Isophorone	ND		1	4.0	ug/L	10/28/2019 1456
Naphthalene	ND		1	0.80	ug/L	10/28/2019 1456
Nitrobenzene	ND		1	4.0	ug/L	10/28/2019 1456
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/28/2019 1456
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/28/2019 1456
Pentachlorophenol	ND		1	20	ug/L	10/28/2019 1456
Phenanthrene	ND		1	0.80	ug/L	10/28/2019 1456
Phenol	ND		1	4.0	ug/L	10/28/2019 1456
Pyrene	ND		1	0.80	ug/L	10/28/2019 1456

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		73	37-129
2-Fluorophenol		51	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		70	28-128
Terphenyl-d14		94	10-148
2,4,6-Tribromophenol		71	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33455-002
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	31		1	78	30-130	10/28/2019 1522
2,4,5-Trichlorophenol	40	32		1	81	30-123	10/28/2019 1522
2,4,6-Trichlorophenol	40	33		1	82	30-130	10/28/2019 1522
2,4-Dichlorophenol	40	31		1	78	30-121	10/28/2019 1522
2,4-Dimethylphenol	40	29		1	72	20-125	10/28/2019 1522
2,4-Dinitrophenol	80	56		1	70	11-126	10/28/2019 1522
2,4-Dinitrotoluene	40	36		1	89	30-130	10/28/2019 1522
2,6-Dinitrotoluene	40	35		1	86	30-130	10/28/2019 1522
2-Chloronaphthalene	40	31		1	78	30-130	10/28/2019 1522
2-Chlorophenol	40	37		1	92	30-130	10/28/2019 1522
2-Methylnaphthalene	40	31		1	77	40-132	10/28/2019 1522
2-Methylphenol	40	42		1	106	30-130	10/28/2019 1522
2-Nitroaniline	40	37		1	92	30-130	10/28/2019 1522
2-Nitrophenol	40	35		1	86	30-130	10/28/2019 1522
3,3'-Dichlorobenzidine	40	22		1	56	10-126	10/28/2019 1522
3+4-Methylphenol	40	39		1	99	30-130	10/28/2019 1522
3-Nitroaniline	40	28		1	69	30-130	10/28/2019 1522
4,6-Dinitro-2-methylphenol	40	32		1	81	30-130	10/28/2019 1522
4-Bromophenyl phenyl ether	40	31		1	78	30-124	10/28/2019 1522
4-Chloro-3-methyl phenol	40	32		1	80	30-123	10/28/2019 1522
4-Chloroaniline	40	36		1	89	12-157	10/28/2019 1522
4-Chlorophenyl phenyl ether	40	32		1	80	30-121	10/28/2019 1522
4-Nitroaniline	40	37		1	91	30-135	10/28/2019 1522
4-Nitrophenol	80	55		1	69	30-130	10/28/2019 1522
Acenaphthene	40	31		1	77	30-122	10/28/2019 1522
Acenaphthylene	40	32		1	81	30-130	10/28/2019 1522
Acetophenone	40	40		1	100	30-130	10/28/2019 1522
Anthracene	40	32		1	79	30-123	10/28/2019 1522
Atrazine	40	38		1	94	30-130	10/28/2019 1522
Benzaldehyde	40	26		1	65	20-115	10/28/2019 1522
Benzo(a)anthracene	40	31		1	78	40-125	10/28/2019 1522
Benzo(a)pyrene	40	29		1	71	40-128	10/28/2019 1522
Benzo(b)fluoranthene	40	30		1	75	30-130	10/28/2019 1522
Benzo(g,h,i)perylene	40	30		1	74	30-130	10/28/2019 1522
Benzo(k)fluoranthene	40	26		1	64	30-130	10/28/2019 1522
bis (2-Chloro-1-methylethyl) ether	40	45		1	113	30-130	10/28/2019 1522
bis(2-Chloroethoxy)methane	40	31		1	77	30-130	10/28/2019 1522
bis(2-Chloroethyl)ether	40	36		1	90	30-130	10/28/2019 1522
bis(2-Ethylhexyl)phthalate	40	33		1	82	30-130	10/28/2019 1522
Butyl benzyl phthalate	40	36		1	89	30-130	10/28/2019 1522
Caprolactam	40	35		1	88	30-130	10/28/2019 1522
Carbazole	40	32		1	81	30-130	10/28/2019 1522
Chrysene	40	32		1	79	30-130	10/28/2019 1522
Dibenzo(a,h)anthracene	40	30		1	74	30-130	10/28/2019 1522

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33455-002
Batch: 33455
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/26/2019 2223

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	32		1	79	30-118	10/28/2019 1522
Diethylphthalate	40	35		1	88	40-125	10/28/2019 1522
Dimethyl phthalate	40	34		1	84	40-127	10/28/2019 1522
Di-n-butyl phthalate	40	34		1	84	40-127	10/28/2019 1522
Di-n-octylphthalate	40	28		1	69	30-130	10/28/2019 1522
Fluoranthene	40	31		1	78	40-128	10/28/2019 1522
Fluorene	40	32		1	80	30-124	10/28/2019 1522
Hexachlorobenzene	40	31		1	78	30-125	10/28/2019 1522
Hexachlorobutadiene	40	25		1	62	24-110	10/28/2019 1522
Hexachlorocyclopentadiene	200	81		1	40	22-122	10/28/2019 1522
Hexachloroethane	40	24		1	59	30-130	10/28/2019 1522
Indeno(1,2,3-c,d)pyrene	40	29		1	72	30-130	10/28/2019 1522
Isophorone	40	33		1	83	30-130	10/28/2019 1522
Naphthalene	40	31		1	79	30-130	10/28/2019 1522
Nitrobenzene	40	30		1	75	30-130	10/28/2019 1522
N-Nitrosodi-n-propylamine	40	41		1	103	30-130	10/28/2019 1522
N-Nitrosodiphenylamine (Diphenylamine)	40	31		1	78	30-123	10/28/2019 1522
Pentachlorophenol	80	56		1	70	30-130	10/28/2019 1522
Phenanthrene	40	31		1	78	40-123	10/28/2019 1522
Phenol	40	37		1	92	30-130	10/28/2019 1522
Pyrene	40	33		1	82	40-126	10/28/2019 1522

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		75	24-127
Nitrobenzene-d5		76	38-127
Phenol-d5		94	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		82	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 099908

Client	Report to Contact	Telephone No. / E-mail	Quote No.
WESTINGHOUSE	DIANA JOYNER	803 647 1920 JOYNERD1@WESTINGHOUSE.COM	
Address 5801 BLUFF RD	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	Page 1 of 1
City HOPKINS **State** SC **Zip Code** 29061	**Printed Name** RANDY CREWS / JAMES LEIGHTY		
Project Name WESTINGHOUSE RI			
Project No. 60575649	**P.O. No.**		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Matrix: Aqueous	Soil	Other (Specify)	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	Na2S2O3	TCL VOC's 8240B	TCL SVOC's 8270D	NJ Metals 3535.2	
W-62	10-22-19	0855	G	X			3			3			X	X	X	
[redacted] WSW-02		1045	G	X			3			3			X	X	X	
W-90		1245	G	X			3			3			X	X	X	
W-42		1415	G	X			3			3			X	X	X	
W-89		1040	G	X			3			3			X	X	X	
W-88		1153	G	X			3			3			X	X	X	
W-68		1354	G	X			3			3			X	X	X	
EB-01-102219		0948	G	X			3			3			X	X	X	
TB-01-102219	↓	—		X						2			X			

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☑ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☑ Disposal by Lab

Possible Hazard Identification ☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Relinquished by	Date	Time	Received by	Date	Time
1.		10-22-19	1538			
2.						
3.						
4.				Laboratory received by: L Hite	10/22/19	1538

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-139 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: JSH / 10/22/19 Lot #: UJ22050

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.8 / 2.8 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one)
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 10/22/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ23047**

Date Completed:10/31/2019

11/01/2019 12:23 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

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Case Narrative
Westinghouse Electric Company
Lot Number: UJ23047

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ23047

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-69	Aqueous	10/23/2019 0910	10/23/2019
002	W-70	Aqueous	10/23/2019 1020	10/23/2019
003	W-71	Aqueous	10/23/2019 1125	10/23/2019
004	W-85	Aqueous	10/23/2019 1255	10/23/2019
005	W-86	Aqueous	10/23/2019 1405	10/23/2019
006	TB-01-102319	Aqueous	10/23/2019	10/23/2019

(6 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ23047

Project Name: Westinghouse RI

Project Number: 60595649

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	W-69	Aqueous	Nitrate - N	353.2	0.16		mg/L	5
002	W-70	Aqueous	Nitrate - N	353.2	1.4		mg/L	10
003	W-71	Aqueous	Nitrate - N	353.2	0.021		mg/L	15
004	W-85	Aqueous	Nitrate - N	353.2	0.039		mg/L	20

(4 detections)

Inorganic non-metals

Client: Westinghouse Electric Company			Laboratory ID: UJ23047-001
Description: W-69			Matrix: Aqueous
Date Sampled: 10/23/2019 0910	Project Name: Westinghouse RI		
Date Received: 10/23/2019	Project Number: 60595649		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/23/2019 2333	AMR		33078

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.16		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-001

Description: W-69 | Matrix: Aqueous

Date Sampled:10/23/2019 0910 | Project Name: Westinghouse RI

Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0145 ALR1		33682
2	5030B	8260B	1	10/29/2019 2059 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-001
Description: W-69
Matrix: Aqueous
Date Sampled:10/23/2019 0910
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0145 ALR1		33682
2	5030B	8260B	1	10/29/2019 2059 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130		89	70-130
Bromofluorobenzene		93	70-130		94	70-130
Toluene-d8		90	70-130		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-001
Description: W-69 | Matrix: Aqueous
Date Sampled:10/23/2019 0910 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1142	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-001
Description: W-69 | Matrix: Aqueous
Date Sampled:10/23/2019 0910 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1142	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		52	24-127
Nitrobenzene-d5		83	38-127
Phenol-d5		55	28-128
Terphenyl-d14		114	10-148
2,4,6-Tribromophenol		78	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-002
Description: W-70
Matrix: Aqueous
Date Sampled: 10/23/2019 1020
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	10/23/2019 2335	AMR		33078

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	1.4		0.040	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-002

Description: W-70 | Matrix: Aqueous

Date Sampled:10/23/2019 1020 | Project Name: Westinghouse RI

Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0208 ALR1		33682
2	5030B	8260B	1	10/29/2019 2121 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-002
Description: W-70
Matrix: Aqueous
Date Sampled:10/23/2019 1020
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0208 ALR1		33682
2	5030B	8260B	1	10/29/2019 2121 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130		90	70-130
Bromofluorobenzene		92	70-130		94	70-130
Toluene-d8		91	70-130		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-002
Description: W-70 | Matrix: Aqueous
Date Sampled:10/23/2019 1020 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1208	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-002
Description: W-70 | Matrix: Aqueous
Date Sampled:10/23/2019 1020 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1208	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		81	37-129
2-Fluorophenol		49	24-127
Nitrobenzene-d5		78	38-127
Phenol-d5		49	28-128
Terphenyl-d14		107	10-148
2,4,6-Tribromophenol		74	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-003
Description: W-71
Matrix: Aqueous
Date Sampled:10/23/2019 1125
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/24/2019 0056	AMR		33078

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.021		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-003

Description: W-71 | Matrix: Aqueous

Date Sampled:10/23/2019 1125 | Project Name: Westinghouse RI

Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0232 ALR1		33682
2	5030B	8260B	1	10/29/2019 2143 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-003
Description: W-71
Matrix: Aqueous
Date Sampled:10/23/2019 1125
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0232 ALR1		33682
2	5030B	8260B	1	10/29/2019 2143 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130		89	70-130
Bromofluorobenzene		84	70-130		93	70-130
Toluene-d8		89	70-130		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-003
Description: W-71 | Matrix: Aqueous
Date Sampled:10/23/2019 1125 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1233	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-003
Description: W-71 | Matrix: Aqueous
Date Sampled:10/23/2019 1125 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1233	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		85	37-129
2-Fluorophenol		55	24-127
Nitrobenzene-d5		81	38-127
Phenol-d5		61	28-128
Terphenyl-d14		109	10-148
2,4,6-Tribromophenol		79	35-144

LOQ = Limit of Quantitation
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-004
Description: W-85
Matrix: Aqueous
Date Sampled: 10/23/2019 1255
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/23/2019 2337	AMR		33078

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.039		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-004
Description: W-85
Matrix: Aqueous
Date Sampled:10/23/2019 1255
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0255 ALR1		33682
2	5030B	8260B	1	10/29/2019 2205 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-004
Description: W-85
Matrix: Aqueous
Date Sampled:10/23/2019 1255
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0255 ALR1		33682
2	5030B	8260B	1	10/29/2019 2205 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130		90	70-130
Bromofluorobenzene		89	70-130		94	70-130
Toluene-d8		90	70-130		99	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-004
Description: W-85 | Matrix: Aqueous
Date Sampled:10/23/2019 1255 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1258	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-004
Description: W-85 | Matrix: Aqueous
Date Sampled:10/23/2019 1255 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1258	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		77	37-129
2-Fluorophenol		41	24-127
Nitrobenzene-d5		72	38-127
Phenol-d5		51	28-128
Terphenyl-d14		103	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ23047-005
Description: W-86
Matrix: Aqueous
Date Sampled: 10/23/2019 1405
Project Name: Westinghouse RI
Date Received: 10/23/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/23/2019 2343	AMR		33078

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-005

Description: W-86 | Matrix: Aqueous

Date Sampled:10/23/2019 1405 | Project Name: Westinghouse RI

Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0319 ALR1		33682
2	5030B	8260B	1	10/29/2019 2227 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range

ND = Not detected at or above the LOQ | N = Recovery is out of criteria | P = The RPD between two GC columns exceeds 40%

H = Out of holding time | W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-005

Description: W-86 | Matrix: Aqueous

Date Sampled:10/23/2019 1405 | Project Name: Westinghouse RI

Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0319 ALR1		33682
2	5030B	8260B	1	10/29/2019 2227 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130		88	70-130
Bromofluorobenzene		89	70-130		94	70-130
Toluene-d8		90	70-130		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-005
Description: W-86 | Matrix: Aqueous
Date Sampled:10/23/2019 1405 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1324	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-005
Description: W-86 | Matrix: Aqueous
Date Sampled:10/23/2019 1405 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1324	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		77	38-127
Phenol-d5		40	28-128
Terphenyl-d14		107	10-148
2,4,6-Tribromophenol		76	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-006
Description: TB-01-102319 | Matrix: Aqueous
Date Sampled:10/23/2019 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0012 ALR1		33682
2	5030B	8260B	1	10/29/2019 2249 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ23047-006
Description: TB-01-102319 | Matrix: Aqueous
Date Sampled:10/23/2019 | Project Name: Westinghouse RI
Date Received: 10/23/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 0012 ALR1		33682
2	5030B	8260B	1	10/29/2019 2249 ALR1		33820

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130		89	70-130
Bromofluorobenzene		88	70-130		95	70-130
Toluene-d8		91	70-130		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ33078-001
Batch: 33078
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/23/2019 2329

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ33078-002
Batch: 33078
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	10/23/2019 2331

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33682-001
Batch: 33682
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/28/2019 2318
Benzene	ND		1	1.0	ug/L	10/28/2019 2318
Bromodichloromethane	ND		1	1.0	ug/L	10/28/2019 2318
Bromoform	ND		1	1.0	ug/L	10/28/2019 2318
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/28/2019 2318
2-Butanone (MEK)	ND		1	10	ug/L	10/28/2019 2318
Carbon disulfide	ND		1	1.0	ug/L	10/28/2019 2318
Carbon tetrachloride	ND		1	1.0	ug/L	10/28/2019 2318
Chlorobenzene	ND		1	1.0	ug/L	10/28/2019 2318
Chloroethane	ND		1	2.0	ug/L	10/28/2019 2318
Chloroform	ND		1	1.0	ug/L	10/28/2019 2318
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/28/2019 2318
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/28/2019 2318
Dibromochloromethane	ND		1	1.0	ug/L	10/28/2019 2318
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/28/2019 2318
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/28/2019 2318
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/28/2019 2318
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/28/2019 2318
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/28/2019 2318
1,1-Dichloroethane	ND		1	1.0	ug/L	10/28/2019 2318
1,2-Dichloroethane	ND		1	1.0	ug/L	10/28/2019 2318
1,1-Dichloroethene	ND		1	1.0	ug/L	10/28/2019 2318
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/28/2019 2318
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/28/2019 2318
1,2-Dichloropropane	ND		1	1.0	ug/L	10/28/2019 2318
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/28/2019 2318
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/28/2019 2318
Ethylbenzene	ND		1	1.0	ug/L	10/28/2019 2318
2-Hexanone	ND		1	10	ug/L	10/28/2019 2318
Isopropylbenzene	ND		1	1.0	ug/L	10/28/2019 2318
Methyl acetate	ND		1	1.0	ug/L	10/28/2019 2318
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/28/2019 2318
4-Methyl-2-pentanone	ND		1	10	ug/L	10/28/2019 2318
Methylcyclohexane	ND		1	5.0	ug/L	10/28/2019 2318
Methylene chloride	ND		1	1.0	ug/L	10/28/2019 2318
Styrene	ND		1	1.0	ug/L	10/28/2019 2318
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/28/2019 2318
Tetrachloroethene	ND		1	1.0	ug/L	10/28/2019 2318
Toluene	ND		1	1.0	ug/L	10/28/2019 2318
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/28/2019 2318
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/28/2019 2318
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/28/2019 2318
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/28/2019 2318
Trichloroethene	ND		1	1.0	ug/L	10/28/2019 2318

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33682-001
Batch: 33682
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	ug/L	10/28/2019 2318
Vinyl chloride	ND		1	1.0	ug/L	10/28/2019 2318
Xylenes (total)	ND		1	1.0	ug/L	10/28/2019 2318

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33682-002
Batch: 33682
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	93		1	93	60-140	10/28/2019 2049
Benzene	50	48		1	97	70-130	10/28/2019 2049
Bromodichloromethane	50	47		1	94	70-130	10/28/2019 2049
Bromoform	50	45		1	90	70-130	10/28/2019 2049
Bromomethane (Methyl bromide)	50	43		1	85	70-130	10/28/2019 2049
2-Butanone (MEK)	100	100		1	100	70-130	10/28/2019 2049
Carbon disulfide	50	48		1	95	70-130	10/28/2019 2049
Carbon tetrachloride	50	42		1	84	70-130	10/28/2019 2049
Chlorobenzene	50	46		1	92	70-130	10/28/2019 2049
Chloroethane	50	45		1	90	70-130	10/28/2019 2049
Chloroform	50	46		1	92	70-130	10/28/2019 2049
Chloromethane (Methyl chloride)	50	44		1	88	60-140	10/28/2019 2049
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	87	70-130	10/28/2019 2049
Dibromochloromethane	50	48		1	96	70-130	10/28/2019 2049
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	10/28/2019 2049
1,2-Dichlorobenzene	50	44		1	87	70-130	10/28/2019 2049
1,3-Dichlorobenzene	50	45		1	91	70-130	10/28/2019 2049
1,4-Dichlorobenzene	50	45		1	90	70-130	10/28/2019 2049
Dichlorodifluoromethane	50	46		1	93	60-140	10/28/2019 2049
1,1-Dichloroethane	50	46		1	91	70-130	10/28/2019 2049
1,2-Dichloroethane	50	47		1	93	70-130	10/28/2019 2049
1,1-Dichloroethene	50	46		1	92	70-130	10/28/2019 2049
cis-1,2-Dichloroethene	50	46		1	92	70-130	10/28/2019 2049
trans-1,2-Dichloroethene	50	46		1	92	70-130	10/28/2019 2049
1,2-Dichloropropane	50	48		1	95	70-130	10/28/2019 2049
cis-1,3-Dichloropropene	50	49		1	98	70-130	10/28/2019 2049
trans-1,3-Dichloropropene	50	51		1	103	70-130	10/28/2019 2049
Ethylbenzene	50	46		1	92	70-130	10/28/2019 2049
2-Hexanone	100	100		1	102	70-130	10/28/2019 2049
Isopropylbenzene	50	46		1	92	70-130	10/28/2019 2049
Methyl acetate	50	50		1	100	70-130	10/28/2019 2049
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	10/28/2019 2049
4-Methyl-2-pentanone	100	100		1	100	70-130	10/28/2019 2049
Methylcyclohexane	50	43		1	85	70-130	10/28/2019 2049
Methylene chloride	50	41		1	83	70-130	10/28/2019 2049
Styrene	50	47		1	93	70-130	10/28/2019 2049
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	10/28/2019 2049
Tetrachloroethene	50	47		1	93	70-130	10/28/2019 2049
Toluene	50	48		1	96	70-130	10/28/2019 2049
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	38		1	76	70-130	10/28/2019 2049
1,2,4-Trichlorobenzene	50	43		1	85	70-130	10/28/2019 2049
1,1,1-Trichloroethane	50	40		1	80	70-130	10/28/2019 2049
1,1,2-Trichloroethane	50	50		1	101	70-130	10/28/2019 2049
Trichloroethene	50	46		1	92	70-130	10/28/2019 2049

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33682-002
Batch: 33682
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	43		1	86	70-130	10/28/2019 2049
Vinyl chloride	50	44		1	88	70-130	10/28/2019 2049
Xylenes (total)	100	93		1	93	70-130	10/28/2019 2049

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33820-001
Batch: 33820
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Cyclohexane	ND		1	1.0	ug/L	10/29/2019 2016

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33820-002
Batch: 33820
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Cyclohexane	50	48		1	97	70-130	10/29/2019 1905

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33871-001
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/31/2019 1027
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/31/2019 1027
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/31/2019 1027
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/31/2019 1027
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/31/2019 1027
2,4-Dinitrophenol	ND		1	20	ug/L	10/31/2019 1027
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/31/2019 1027
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/31/2019 1027
2-Chloronaphthalene	ND		1	4.0	ug/L	10/31/2019 1027
2-Chlorophenol	ND		1	4.0	ug/L	10/31/2019 1027
2-Methylnaphthalene	ND		1	0.80	ug/L	10/31/2019 1027
2-Methylphenol	ND		1	4.0	ug/L	10/31/2019 1027
2-Nitroaniline	ND		1	8.0	ug/L	10/31/2019 1027
2-Nitrophenol	ND		1	4.0	ug/L	10/31/2019 1027
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/31/2019 1027
3+4-Methylphenol	ND		1	4.0	ug/L	10/31/2019 1027
3-Nitroaniline	ND		1	8.0	ug/L	10/31/2019 1027
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/31/2019 1027
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/31/2019 1027
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/31/2019 1027
4-Chloroaniline	ND		1	8.0	ug/L	10/31/2019 1027
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/31/2019 1027
4-Nitroaniline	ND		1	8.0	ug/L	10/31/2019 1027
4-Nitrophenol	ND		1	20	ug/L	10/31/2019 1027
Acenaphthene	ND		1	0.80	ug/L	10/31/2019 1027
Acenaphthylene	ND		1	0.80	ug/L	10/31/2019 1027
Acetophenone	ND		1	4.0	ug/L	10/31/2019 1027
Anthracene	ND		1	0.80	ug/L	10/31/2019 1027
Atrazine	ND		1	4.0	ug/L	10/31/2019 1027
Benzaldehyde	ND		1	8.0	ug/L	10/31/2019 1027
Benzo(a)anthracene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(a)pyrene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/31/2019 1027
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/31/2019 1027
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/31/2019 1027
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/31/2019 1027
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Caprolactam	ND		1	8.0	ug/L	10/31/2019 1027
Carbazole	ND		1	4.0	ug/L	10/31/2019 1027
Chrysene	ND		1	0.80	ug/L	10/31/2019 1027
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/31/2019 1027

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33871-001
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/31/2019 1027
Diethylphthalate	ND		1	4.0	ug/L	10/31/2019 1027
Dimethyl phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Di-n-octylphthalate	ND		1	4.0	ug/L	10/31/2019 1027
Fluoranthene	ND		1	0.80	ug/L	10/31/2019 1027
Fluorene	ND		1	0.80	ug/L	10/31/2019 1027
Hexachlorobenzene	ND		1	4.0	ug/L	10/31/2019 1027
Hexachlorobutadiene	ND		1	4.0	ug/L	10/31/2019 1027
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/31/2019 1027
Hexachloroethane	ND		1	4.0	ug/L	10/31/2019 1027
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/31/2019 1027
Isophorone	ND		1	4.0	ug/L	10/31/2019 1027
Naphthalene	ND		1	0.80	ug/L	10/31/2019 1027
Nitrobenzene	ND		1	4.0	ug/L	10/31/2019 1027
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/31/2019 1027
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/31/2019 1027
Pentachlorophenol	ND		1	20	ug/L	10/31/2019 1027
Phenanthrene	ND		1	0.80	ug/L	10/31/2019 1027
Phenol	ND		1	4.0	ug/L	10/31/2019 1027
Pyrene	ND		1	0.80	ug/L	10/31/2019 1027

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		70	24-127
Nitrobenzene-d5		80	38-127
Phenol-d5		75	28-128
Terphenyl-d14		107	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33871-002
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	36		1	90	30-130	10/31/2019 1052
2,4,5-Trichlorophenol	40	37		1	93	30-123	10/31/2019 1052
2,4,6-Trichlorophenol	40	38		1	96	30-130	10/31/2019 1052
2,4-Dichlorophenol	40	35		1	87	30-121	10/31/2019 1052
2,4-Dimethylphenol	40	38		1	95	20-125	10/31/2019 1052
2,4-Dinitrophenol	80	73		1	91	11-126	10/31/2019 1052
2,4-Dinitrotoluene	40	39		1	99	30-130	10/31/2019 1052
2,6-Dinitrotoluene	40	38		1	96	30-130	10/31/2019 1052
2-Chloronaphthalene	40	36		1	90	30-130	10/31/2019 1052
2-Chlorophenol	40	40		1	100	30-130	10/31/2019 1052
2-Methylnaphthalene	40	35		1	87	40-132	10/31/2019 1052
2-Methylphenol	40	44		1	111	30-130	10/31/2019 1052
2-Nitroaniline	40	41		1	102	30-130	10/31/2019 1052
2-Nitrophenol	40	36		1	91	30-130	10/31/2019 1052
3,3'-Dichlorobenzidine	40	23		1	57	10-126	10/31/2019 1052
3+4-Methylphenol	40	44		1	109	30-130	10/31/2019 1052
3-Nitroaniline	40	34		1	84	30-130	10/31/2019 1052
4,6-Dinitro-2-methylphenol	40	37		1	92	30-130	10/31/2019 1052
4-Bromophenyl phenyl ether	40	34		1	84	30-124	10/31/2019 1052
4-Chloro-3-methyl phenol	40	38		1	95	30-123	10/31/2019 1052
4-Chloroaniline	40	25		1	63	12-157	10/31/2019 1052
4-Chlorophenyl phenyl ether	40	35		1	87	30-121	10/31/2019 1052
4-Nitroaniline	40	39		1	97	30-135	10/31/2019 1052
4-Nitrophenol	80	73		1	92	30-130	10/31/2019 1052
Acenaphthene	40	36		1	90	30-122	10/31/2019 1052
Acenaphthylene	40	36		1	90	30-130	10/31/2019 1052
Acetophenone	40	43		1	108	30-130	10/31/2019 1052
Anthracene	40	36		1	90	30-123	10/31/2019 1052
Atrazine	40	42		1	104	30-130	10/31/2019 1052
Benzaldehyde	40	42		1	105	20-115	10/31/2019 1052
Benzo(a)anthracene	40	38		1	95	40-125	10/31/2019 1052
Benzo(a)pyrene	40	37		1	91	40-128	10/31/2019 1052
Benzo(b)fluoranthene	40	37		1	93	30-130	10/31/2019 1052
Benzo(g,h,i)perylene	40	42		1	106	30-130	10/31/2019 1052
Benzo(k)fluoranthene	40	32		1	79	30-130	10/31/2019 1052
bis (2-Chloro-1-methylethyl) ether	40	44		1	111	30-130	10/31/2019 1052
bis(2-Chloroethoxy)methane	40	33		1	84	30-130	10/31/2019 1052
bis(2-Chloroethyl)ether	40	37		1	92	30-130	10/31/2019 1052
bis(2-Ethylhexyl)phthalate	40	45		1	112	30-130	10/31/2019 1052
Butyl benzyl phthalate	40	43		1	109	30-130	10/31/2019 1052
Caprolactam	40	9.5	N	1	24	30-130	10/31/2019 1052
Carbazole	40	37		1	91	30-130	10/31/2019 1052
Chrysene	40	38		1	96	30-130	10/31/2019 1052
Dibenzo(a,h)anthracene	40	41		1	103	30-130	10/31/2019 1052

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33871-002
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	35		1	88	30-118	10/31/2019 1052
Diethylphthalate	40	40		1	101	40-125	10/31/2019 1052
Dimethyl phthalate	40	38		1	94	40-127	10/31/2019 1052
Di-n-butyl phthalate	40	40		1	99	40-127	10/31/2019 1052
Di-n-octylphthalate	40	38		1	94	30-130	10/31/2019 1052
Fluoranthene	40	35		1	87	40-128	10/31/2019 1052
Fluorene	40	36		1	90	30-124	10/31/2019 1052
Hexachlorobenzene	40	32		1	80	30-125	10/31/2019 1052
Hexachlorobutadiene	40	33		1	83	24-110	10/31/2019 1052
Hexachlorocyclopentadiene	200	150		1	73	22-122	10/31/2019 1052
Hexachloroethane	40	35		1	87	30-130	10/31/2019 1052
Indeno(1,2,3-c,d)pyrene	40	39		1	98	30-130	10/31/2019 1052
Isophorone	40	35		1	89	30-130	10/31/2019 1052
Naphthalene	40	36		1	91	30-130	10/31/2019 1052
Nitrobenzene	40	35		1	88	30-130	10/31/2019 1052
N-Nitrosodi-n-propylamine	40	45		1	113	30-130	10/31/2019 1052
N-Nitrosodiphenylamine (Diphenylamine)	40	36		1	90	30-123	10/31/2019 1052
Pentachlorophenol	80	61		1	76	30-130	10/31/2019 1052
Phenanthrene	40	36		1	89	40-123	10/31/2019 1052
Phenol	40	34		1	85	30-130	10/31/2019 1052
Pyrene	40	38		1	96	40-126	10/31/2019 1052

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		86	24-127
Nitrobenzene-d5		87	38-127
Phenol-d5		81	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		81	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 099910

(SL) 647

Client	Report to Contact	Telephone No. / E-mail	Quote No.
WESTINGHOUSE	DIANA JOYNER	803-688-1920 JOYNERDP@WESTINGHOUSE.COM	
Address 5801 BLUFF RD.	**Sampler's Signature** X	**Analysis (Attach list if more space is needed)**	Page 1 of 1
City HOPKINS **State** SC **Zip Code** 29061	**Printed Name** JAMES LOCKHART		
Project Name WESTINGHOUSE RI			
Project No. 60575649	**P.O. No.**		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Sample Composition (Grab=G, Composite=C)	Matrix: Aqueous	Matrix: Soil	Matrix: Other (Specify)	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	NaOH/ZnAc	TCL VOC's 8260B	TCL SVOC's 8270D	NJ Metals 3631	Remarks / Cooler I.D.
W-69	10-23-19	0910	G	X			3			3			X	X	X	
W-70		1020	G	X			3			3			X	X	X	
W-71		1125	G	X			3			3			X	X	X	
W-85		1255	G	X			3			3			X	X	X	
W-86		1405	G	X			3			3			X	X	X	
TB-01-102319				X						2			X			

UJ23047 GRW

Turn Around Time Required (Prior lab approval required for expedited TAT.)	Sample Disposal	Possible Hazard Identification	QC Requirements (Specify)
☒ Standard ☐ Rush (Specify)	☐ Return to Client ☒ Disposal by Lab	☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by	10-23-19	1519	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	10/23/19	1519

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 2.5 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: WESTINGHOUSE Cooler Inspected by/date: LKH / 10-23-2019 Lot #: UJ23047

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.5 / 2.5 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 10-23-2019

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Westinghouse Electric Company
5801 Bluff Rd.
Hopkins, SC 29061
Attention: Diana Joyner

Project Name: Westinghouse RI

Project Number: 60595649

Lot Number:**UJ24037**

Date Completed:10/31/2019

11/01/2019 3:42 PM
Approved and released by:
Project Manager: Grant Wilton

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Case Narrative
Westinghouse Electric Company
Lot Number: UJ24037

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Westinghouse Electric Company

Lot Number: UJ24037

Project Name: Westinghouse RI

Project Number: 60595649

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	W-49	Aqueous	10/24/2019 1120	10/24/2019
002	W-49-DUP	Aqueous	10/24/2019 1120	10/24/2019
003	WSW-03	Aqueous	10/24/2019 1235	10/24/2019
004	WSW-04	Aqueous	10/24/2019 1330	10/24/2019
005	EB-01-102419	Aqueous	10/24/2019 0920	10/24/2019
006	TB-01-102419	Aqueous	10/24/2019	10/24/2019

(6 samples)

Detection Summary

Westinghouse Electric Company

Lot Number: UJ24037

Project Name: Westinghouse RI

Project Number: 60595649

Sample Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
004 WSW-04	Aqueous	Nitrate - N	353.2	0.067		mg/L	20
005 EB-01-102419	Aqueous	bis(2-Ethylhexyl)phthalate	8270D	6.8		ug/L	28

(2 detections)

Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-001
Description: W-49
Matrix: Aqueous
Date Sampled:10/24/2019 1120
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/25/2019 0014	AMR		33257

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-001
Description: W-49 | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1709	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

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B = Detected in the method blank
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W = Reported on wet weight basis

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-001
Description: W-49 | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1709	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-001
Description: W-49 | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1349	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-001
Description: W-49 | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1349	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	37-129
2-Fluorophenol		38	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		43	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: Westinghouse Electric Company			Laboratory ID: UJ24037-002
Description: W-49-DUP			Matrix: Aqueous
Date Sampled:10/24/2019 1120	Project Name: Westinghouse RI		
Date Received: 10/24/2019	Project Number: 60595649		

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/25/2019 0015	AMR		33257

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-002
Description: W-49-DUP | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1732	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-002
Description: W-49-DUP | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1732	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-002
Description: W-49-DUP | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1414	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-002
Description: W-49-DUP | Matrix: Aqueous
Date Sampled:10/24/2019 1120 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1414	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		56	24-127
Nitrobenzene-d5		81	38-127
Phenol-d5		66	28-128
Terphenyl-d14		108	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-003
Description: WSW-03
Matrix: Aqueous
Date Sampled:10/24/2019 1235
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/25/2019 0016	AMR		33257

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-003
Description: WSW-03 | Matrix: Aqueous
Date Sampled:10/24/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1756	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-003
Description: WSW-03 | Matrix: Aqueous
Date Sampled:10/24/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1756	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-003
Description: WSW-03 | Matrix: Aqueous
Date Sampled:10/24/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1440	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-003
Description: WSW-03 | Matrix: Aqueous
Date Sampled:10/24/2019 1235 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1440	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		85	37-129
2-Fluorophenol		43	24-127
Nitrobenzene-d5		80	38-127
Phenol-d5		51	28-128
Terphenyl-d14		111	10-148
2,4,6-Tribromophenol		75	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-004
Description: WSW-04
Matrix: Aqueous
Date Sampled:10/24/2019 1330
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/25/2019 0018	AMR		33257

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	0.067		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-004
Description: WSW-04 | Matrix: Aqueous
Date Sampled:10/24/2019 1330 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1821	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-004
Description: WSW-04 | Matrix: Aqueous
Date Sampled:10/24/2019 1330 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/30/2019 1821	TML		33904

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-004
Description: WSW-04 | Matrix: Aqueous
Date Sampled:10/24/2019 1330 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1505	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	ND		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-004
Description: WSW-04 | Matrix: Aqueous
Date Sampled:10/24/2019 1330 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1505	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		83	37-129
2-Fluorophenol		41	24-127
Nitrobenzene-d5		82	38-127
Phenol-d5		55	28-128
Terphenyl-d14		114	10-148
2,4,6-Tribromophenol		79	35-144

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Inorganic non-metals

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-005
Description: EB-01-102419
Matrix: Aqueous
Date Sampled: 10/24/2019 0920
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	10/25/2019 0019	AMR		33257

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Nitrate - N		353.2	ND		0.020	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-005
Description: EB-01-102419
Matrix: Aqueous
Date Sampled:10/24/2019 0920
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 2317 JTH		33837
2	5030B	8260B	1	10/30/2019 2027 STM		34024

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-005
Description: EB-01-102419
Matrix: Aqueous
Date Sampled:10/24/2019 0920
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 2317 JTH		33837
2	5030B	8260B	1	10/30/2019 2027 STM		34024

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130		91	70-130
Bromofluorobenzene		114	70-130		91	70-130
Toluene-d8		111	70-130		93	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-005
Description: EB-01-102419 | Matrix: Aqueous
Date Sampled: 10/24/2019 0920 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1530	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
1,1'-Biphenyl	92-52-4	8270D	ND		4.0	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270D	ND		4.0	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270D	ND		4.0	ug/L	1
2,4-Dichlorophenol	120-83-2	8270D	ND		8.0	ug/L	1
2,4-Dimethylphenol	105-67-9	8270D	ND		4.0	ug/L	1
2,4-Dinitrophenol	51-28-5	8270D	ND		20	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270D	ND		8.0	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270D	ND		8.0	ug/L	1
2-Chloronaphthalene	91-58-7	8270D	ND		4.0	ug/L	1
2-Chlorophenol	95-57-8	8270D	ND		4.0	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		0.80	ug/L	1
2-Methylphenol	95-48-7	8270D	ND		4.0	ug/L	1
2-Nitroaniline	88-74-4	8270D	ND		8.0	ug/L	1
2-Nitrophenol	88-75-5	8270D	ND		4.0	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270D	ND		4.0	ug/L	1
3+4-Methylphenol	106-44-5	8270D	ND		4.0	ug/L	1
3-Nitroaniline	99-09-2	8270D	ND		8.0	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270D	ND		20	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270D	ND		4.0	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270D	ND		4.0	ug/L	1
4-Chloroaniline	106-47-8	8270D	ND		8.0	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270D	ND		4.0	ug/L	1
4-Nitroaniline	100-01-6	8270D	ND		8.0	ug/L	1
4-Nitrophenol	100-02-7	8270D	ND		20	ug/L	1
Acenaphthene	83-32-9	8270D	ND		0.80	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		0.80	ug/L	1
Acetophenone	98-86-2	8270D	ND		4.0	ug/L	1
Anthracene	120-12-7	8270D	ND		0.80	ug/L	1
Atrazine	1912-24-9	8270D	ND		4.0	ug/L	1
Benzaldehyde	100-52-7	8270D	ND		8.0	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		0.80	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		0.80	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.80	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		0.80	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.80	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270D	ND		4.0	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270D	ND		4.0	ug/L	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270D	6.8		4.0	ug/L	1
Butyl benzyl phthalate	85-68-7	8270D	ND		4.0	ug/L	1
Caprolactam	105-60-2	8270D	ND		8.0	ug/L	1
Carbazole	86-74-8	8270D	ND		4.0	ug/L	1
Chrysene	218-01-9	8270D	ND		0.80	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.80	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Semivolatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company
Laboratory ID: UJ24037-005
Description: EB-01-102419
Matrix: Aqueous
Date Sampled: 10/24/2019 0920
Project Name: Westinghouse RI
Date Received: 10/24/2019
Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	10/31/2019 1530	SCD	10/30/2019 1225	33871

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Dibenzofuran	132-64-9	8270D	ND		4.0	ug/L	1
Diethylphthalate	84-66-2	8270D	ND		4.0	ug/L	1
Dimethyl phthalate	131-11-3	8270D	ND		4.0	ug/L	1
Di-n-butyl phthalate	84-74-2	8270D	ND		4.0	ug/L	1
Di-n-octylphthalate	117-84-0	8270D	ND		4.0	ug/L	1
Fluoranthene	206-44-0	8270D	ND		0.80	ug/L	1
Fluorene	86-73-7	8270D	ND		0.80	ug/L	1
Hexachlorobenzene	118-74-1	8270D	ND		4.0	ug/L	1
Hexachlorobutadiene	87-68-3	8270D	ND		4.0	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270D	ND		20	ug/L	1
Hexachloroethane	67-72-1	8270D	ND		4.0	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		0.80	ug/L	1
Isophorone	78-59-1	8270D	ND		4.0	ug/L	1
Naphthalene	91-20-3	8270D	ND		0.80	ug/L	1
Nitrobenzene	98-95-3	8270D	ND		4.0	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270D	ND		4.0	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270D	ND		4.0	ug/L	1
Pentachlorophenol	87-86-5	8270D	ND		20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		0.80	ug/L	1
Phenol	108-95-2	8270D	ND		4.0	ug/L	1
Pyrene	129-00-0	8270D	ND		0.80	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		85	37-129
2-Fluorophenol		54	24-127
Nitrobenzene-d5		83	38-127
Phenol-d5		55	28-128
Terphenyl-d14		108	10-148
2,4,6-Tribromophenol		77	35-144

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
ND = Not detected at or above the LOQ
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company | Laboratory ID: UJ24037-006
Description: TB-01-102419 | Matrix: Aqueous
Date Sampled:10/24/2019 | Project Name: Westinghouse RI
Date Received: 10/24/2019 | Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 2340	JTH		33837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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Volatile Organic Compounds by GC/MS

Client: Westinghouse Electric Company	Laboratory ID: UJ24037-006
Description: TB-01-102419	Matrix: Aqueous
Date Sampled:10/24/2019	Project Name: Westinghouse RI
Date Received: 10/24/2019	Project Number: 60595649

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	10/29/2019 2340	JTH		33837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	Units	Run
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the LOQ
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ33257-001
Batch: 33257
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Nitrate - N	ND		1	0.020	mg/L	10/24/2019 2357

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ33257-002
Batch: 33257
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.74		1	93	90-110	10/24/2019 2359

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33837-001
Batch: 33837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/29/2019 2154
Benzene	ND		1	1.0	ug/L	10/29/2019 2154
Bromodichloromethane	ND		1	1.0	ug/L	10/29/2019 2154
Bromoform	ND		1	1.0	ug/L	10/29/2019 2154
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/29/2019 2154
2-Butanone (MEK)	ND		1	10	ug/L	10/29/2019 2154
Carbon disulfide	ND		1	1.0	ug/L	10/29/2019 2154
Carbon tetrachloride	ND		1	1.0	ug/L	10/29/2019 2154
Chlorobenzene	ND		1	1.0	ug/L	10/29/2019 2154
Chloroethane	ND		1	2.0	ug/L	10/29/2019 2154
Chloroform	ND		1	1.0	ug/L	10/29/2019 2154
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/29/2019 2154
Cyclohexane	ND		1	1.0	ug/L	10/29/2019 2154
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/29/2019 2154
Dibromochloromethane	ND		1	1.0	ug/L	10/29/2019 2154
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/29/2019 2154
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2154
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2154
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2154
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/29/2019 2154
1,1-Dichloroethane	ND		1	1.0	ug/L	10/29/2019 2154
1,2-Dichloroethane	ND		1	1.0	ug/L	10/29/2019 2154
1,1-Dichloroethene	ND		1	1.0	ug/L	10/29/2019 2154
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/29/2019 2154
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/29/2019 2154
1,2-Dichloropropane	ND		1	1.0	ug/L	10/29/2019 2154
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/29/2019 2154
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/29/2019 2154
Ethylbenzene	ND		1	1.0	ug/L	10/29/2019 2154
2-Hexanone	ND		1	10	ug/L	10/29/2019 2154
Isopropylbenzene	ND		1	1.0	ug/L	10/29/2019 2154
Methyl acetate	ND		1	1.0	ug/L	10/29/2019 2154
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/29/2019 2154
4-Methyl-2-pentanone	ND		1	10	ug/L	10/29/2019 2154
Methylcyclohexane	ND		1	5.0	ug/L	10/29/2019 2154
Methylene chloride	ND		1	1.0	ug/L	10/29/2019 2154
Styrene	ND		1	1.0	ug/L	10/29/2019 2154
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/29/2019 2154
Tetrachloroethene	ND		1	1.0	ug/L	10/29/2019 2154
Toluene	ND		1	1.0	ug/L	10/29/2019 2154
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/29/2019 2154
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/29/2019 2154
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/29/2019 2154
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/29/2019 2154

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33837-001
Batch: 33837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/29/2019 2154
Trichlorofluoromethane	ND		1	1.0	ug/L	10/29/2019 2154
Vinyl chloride	ND		1	1.0	ug/L	10/29/2019 2154
Xylenes (total)	ND		1	1.0	ug/L	10/29/2019 2154

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33837-002
Batch: 33837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	68		1	68	60-140	10/29/2019 2049
Benzene	50	50		1	100	70-130	10/29/2019 2049
Bromodichloromethane	50	49		1	98	70-130	10/29/2019 2049
Bromoform	50	52		1	103	70-130	10/29/2019 2049
Bromomethane (Methyl bromide)	50	56		1	111	70-130	10/29/2019 2049
2-Butanone (MEK)	100	74		1	74	70-130	10/29/2019 2049
Carbon disulfide	50	48		1	95	70-130	10/29/2019 2049
Carbon tetrachloride	50	50		1	100	70-130	10/29/2019 2049
Chlorobenzene	50	50		1	101	70-130	10/29/2019 2049
Chloroethane	50	54		1	107	70-130	10/29/2019 2049
Chloroform	50	51		1	101	70-130	10/29/2019 2049
Chloromethane (Methyl chloride)	50	48		1	97	60-140	10/29/2019 2049
Cyclohexane	50	60		1	120	70-130	10/29/2019 2049
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	101	70-130	10/29/2019 2049
Dibromochloromethane	50	51		1	103	70-130	10/29/2019 2049
1,2-Dibromoethane (EDB)	50	51		1	101	70-130	10/29/2019 2049
1,2-Dichlorobenzene	50	53		1	106	70-130	10/29/2019 2049
1,3-Dichlorobenzene	50	52		1	103	70-130	10/29/2019 2049
1,4-Dichlorobenzene	50	52		1	103	70-130	10/29/2019 2049
Dichlorodifluoromethane	50	43		1	85	60-140	10/29/2019 2049
1,1-Dichloroethane	50	51		1	102	70-130	10/29/2019 2049
1,2-Dichloroethane	50	51		1	102	70-130	10/29/2019 2049
1,1-Dichloroethene	50	56		1	113	70-130	10/29/2019 2049
cis-1,2-Dichloroethene	50	51		1	102	70-130	10/29/2019 2049
trans-1,2-Dichloroethene	50	54		1	109	70-130	10/29/2019 2049
1,2-Dichloropropane	50	50		1	99	70-130	10/29/2019 2049
cis-1,3-Dichloropropene	50	53		1	105	70-130	10/29/2019 2049
trans-1,3-Dichloropropene	50	53		1	105	70-130	10/29/2019 2049
Ethylbenzene	50	51		1	103	70-130	10/29/2019 2049
2-Hexanone	100	80		1	80	70-130	10/29/2019 2049
Isopropylbenzene	50	50		1	100	70-130	10/29/2019 2049
Methyl acetate	50	49		1	98	70-130	10/29/2019 2049
Methyl tertiary butyl ether (MTBE)	50	51		1	103	70-130	10/29/2019 2049
4-Methyl-2-pentanone	100	90		1	90	70-130	10/29/2019 2049
Methylcyclohexane	50	45		1	90	70-130	10/29/2019 2049
Methylene chloride	50	47		1	94	70-130	10/29/2019 2049
Styrene	50	50		1	100	70-130	10/29/2019 2049
1,1,2,2-Tetrachloroethane	50	46		1	93	70-130	10/29/2019 2049
Tetrachloroethene	50	52		1	105	70-130	10/29/2019 2049
Toluene	50	50		1	101	70-130	10/29/2019 2049
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	10/29/2019 2049
1,2,4-Trichlorobenzene	50	52		1	105	70-130	10/29/2019 2049
1,1,1-Trichloroethane	50	50		1	100	70-130	10/29/2019 2049
1,1,2-Trichloroethane	50	49		1	99	70-130	10/29/2019 2049

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33837-002
Batch: 33837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	10/29/2019 2049
Trichlorofluoromethane	50	50		1	100	70-130	10/29/2019 2049
Vinyl chloride	50	48		1	95	70-130	10/29/2019 2049
Xylenes (total)	100	100		1	101	70-130	10/29/2019 2049

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		109	70-130
Bromofluorobenzene		115	70-130
Toluene-d8		113	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33904-001
Batch: 33904
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Acetone	ND		1	20	ug/L	10/30/2019 1008
Benzene	ND		1	1.0	ug/L	10/30/2019 1008
Bromodichloromethane	ND		1	1.0	ug/L	10/30/2019 1008
Bromoform	ND		1	1.0	ug/L	10/30/2019 1008
Bromomethane (Methyl bromide)	ND		1	2.0	ug/L	10/30/2019 1008
2-Butanone (MEK)	ND		1	10	ug/L	10/30/2019 1008
Carbon disulfide	ND		1	1.0	ug/L	10/30/2019 1008
Carbon tetrachloride	ND		1	1.0	ug/L	10/30/2019 1008
Chlorobenzene	ND		1	1.0	ug/L	10/30/2019 1008
Chloroethane	ND		1	2.0	ug/L	10/30/2019 1008
Chloroform	ND		1	1.0	ug/L	10/30/2019 1008
Chloromethane (Methyl chloride)	ND		1	1.0	ug/L	10/30/2019 1008
Cyclohexane	ND		1	1.0	ug/L	10/30/2019 1008
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	ug/L	10/30/2019 1008
Dibromochloromethane	ND		1	1.0	ug/L	10/30/2019 1008
1,2-Dibromoethane (EDB)	ND		1	1.0	ug/L	10/30/2019 1008
1,2-Dichlorobenzene	ND		1	1.0	ug/L	10/30/2019 1008
1,3-Dichlorobenzene	ND		1	1.0	ug/L	10/30/2019 1008
1,4-Dichlorobenzene	ND		1	1.0	ug/L	10/30/2019 1008
Dichlorodifluoromethane	ND		1	2.0	ug/L	10/30/2019 1008
1,1-Dichloroethane	ND		1	1.0	ug/L	10/30/2019 1008
1,2-Dichloroethane	ND		1	1.0	ug/L	10/30/2019 1008
1,1-Dichloroethene	ND		1	1.0	ug/L	10/30/2019 1008
cis-1,2-Dichloroethene	ND		1	1.0	ug/L	10/30/2019 1008
trans-1,2-Dichloroethene	ND		1	1.0	ug/L	10/30/2019 1008
1,2-Dichloropropane	ND		1	1.0	ug/L	10/30/2019 1008
cis-1,3-Dichloropropene	ND		1	1.0	ug/L	10/30/2019 1008
trans-1,3-Dichloropropene	ND		1	1.0	ug/L	10/30/2019 1008
Ethylbenzene	ND		1	1.0	ug/L	10/30/2019 1008
2-Hexanone	ND		1	10	ug/L	10/30/2019 1008
Isopropylbenzene	ND		1	1.0	ug/L	10/30/2019 1008
Methyl acetate	ND		1	1.0	ug/L	10/30/2019 1008
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	ug/L	10/30/2019 1008
4-Methyl-2-pentanone	ND		1	10	ug/L	10/30/2019 1008
Methylcyclohexane	ND		1	5.0	ug/L	10/30/2019 1008
Methylene chloride	ND		1	1.0	ug/L	10/30/2019 1008
Styrene	ND		1	1.0	ug/L	10/30/2019 1008
1,1,2,2-Tetrachloroethane	ND		1	1.0	ug/L	10/30/2019 1008
Tetrachloroethene	ND		1	1.0	ug/L	10/30/2019 1008
Toluene	ND		1	1.0	ug/L	10/30/2019 1008
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	ug/L	10/30/2019 1008
1,2,4-Trichlorobenzene	ND		1	1.0	ug/L	10/30/2019 1008
1,1,1-Trichloroethane	ND		1	1.0	ug/L	10/30/2019 1008
1,1,2-Trichloroethane	ND		1	1.0	ug/L	10/30/2019 1008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ33904-001
Batch: 33904
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Trichloroethene	ND		1	1.0	ug/L	10/30/2019 1008
Trichlorofluoromethane	ND		1	1.0	ug/L	10/30/2019 1008
Vinyl chloride	ND		1	1.0	ug/L	10/30/2019 1008
Xylenes (total)	ND		1	1.0	ug/L	10/30/2019 1008

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33904-002
Batch: 33904
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	160	N	1	158	60-140	10/30/2019 0908
Benzene	50	52		1	104	70-130	10/30/2019 0908
Bromodichloromethane	50	54		1	107	70-130	10/30/2019 0908
Bromoform	50	54		1	108	70-130	10/30/2019 0908
Bromomethane (Methyl bromide)	50	45		1	89	70-130	10/30/2019 0908
2-Butanone (MEK)	100	130		1	129	70-130	10/30/2019 0908
Carbon disulfide	50	51		1	102	70-130	10/30/2019 0908
Carbon tetrachloride	50	53		1	106	70-130	10/30/2019 0908
Chlorobenzene	50	51		1	102	70-130	10/30/2019 0908
Chloroethane	50	50		1	100	70-130	10/30/2019 0908
Chloroform	50	52		1	104	70-130	10/30/2019 0908
Chloromethane (Methyl chloride)	50	46		1	93	60-140	10/30/2019 0908
Cyclohexane	50	55		1	109	70-130	10/30/2019 0908
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	106	70-130	10/30/2019 0908
Dibromochloromethane	50	54		1	108	70-130	10/30/2019 0908
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	10/30/2019 0908
1,2-Dichlorobenzene	50	49		1	98	70-130	10/30/2019 0908
1,3-Dichlorobenzene	50	51		1	102	70-130	10/30/2019 0908
1,4-Dichlorobenzene	50	50		1	100	70-130	10/30/2019 0908
Dichlorodifluoromethane	50	46		1	91	60-140	10/30/2019 0908
1,1-Dichloroethane	50	52		1	104	70-130	10/30/2019 0908
1,2-Dichloroethane	50	48		1	96	70-130	10/30/2019 0908
1,1-Dichloroethene	50	59		1	118	70-130	10/30/2019 0908
cis-1,2-Dichloroethene	50	51		1	102	70-130	10/30/2019 0908
trans-1,2-Dichloroethene	50	55		1	110	70-130	10/30/2019 0908
1,2-Dichloropropane	50	53		1	107	70-130	10/30/2019 0908
cis-1,3-Dichloropropene	50	59		1	118	70-130	10/30/2019 0908
trans-1,3-Dichloropropene	50	57		1	114	70-130	10/30/2019 0908
Ethylbenzene	50	52		1	103	70-130	10/30/2019 0908
2-Hexanone	100	110		1	111	70-130	10/30/2019 0908
Isopropylbenzene	50	53		1	106	70-130	10/30/2019 0908
Methyl acetate	50	53		1	105	70-130	10/30/2019 0908
Methyl tertiary butyl ether (MTBE)	50	48		1	95	70-130	10/30/2019 0908
4-Methyl-2-pentanone	100	110		1	106	70-130	10/30/2019 0908
Methylcyclohexane	50	54		1	108	70-130	10/30/2019 0908
Methylene chloride	50	47		1	95	70-130	10/30/2019 0908
Styrene	50	53		1	107	70-130	10/30/2019 0908
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	10/30/2019 0908
Tetrachloroethene	50	52		1	104	70-130	10/30/2019 0908
Toluene	50	51		1	101	70-130	10/30/2019 0908
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	101	70-130	10/30/2019 0908
1,2,4-Trichlorobenzene	50	52		1	104	70-130	10/30/2019 0908
1,1,1-Trichloroethane	50	52		1	104	70-130	10/30/2019 0908
1,1,2-Trichloroethane	50	51		1	102	70-130	10/30/2019 0908

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33904-002
Batch: 33904
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	103	70-130	10/30/2019 0908
Trichlorofluoromethane	50	49		1	98	70-130	10/30/2019 0908
Vinyl chloride	50	46		1	91	70-130	10/30/2019 0908
Xylenes (total)	100	100		1	104	70-130	10/30/2019 0908

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ34024-001
Batch: 34024
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1-Dichloroethene	ND		1	1.0	ug/L	10/30/2019 1949

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		85	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ34024-002
Batch: 34024
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1-Dichloroethene	50	45		1	90	70-130	10/30/2019 1837

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33871-001
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
1,1'-Biphenyl	ND		1	4.0	ug/L	10/31/2019 1027
2,4,5-Trichlorophenol	ND		1	4.0	ug/L	10/31/2019 1027
2,4,6-Trichlorophenol	ND		1	4.0	ug/L	10/31/2019 1027
2,4-Dichlorophenol	ND		1	8.0	ug/L	10/31/2019 1027
2,4-Dimethylphenol	ND		1	4.0	ug/L	10/31/2019 1027
2,4-Dinitrophenol	ND		1	20	ug/L	10/31/2019 1027
2,4-Dinitrotoluene	ND		1	8.0	ug/L	10/31/2019 1027
2,6-Dinitrotoluene	ND		1	8.0	ug/L	10/31/2019 1027
2-Chloronaphthalene	ND		1	4.0	ug/L	10/31/2019 1027
2-Chlorophenol	ND		1	4.0	ug/L	10/31/2019 1027
2-Methylnaphthalene	ND		1	0.80	ug/L	10/31/2019 1027
2-Methylphenol	ND		1	4.0	ug/L	10/31/2019 1027
2-Nitroaniline	ND		1	8.0	ug/L	10/31/2019 1027
2-Nitrophenol	ND		1	4.0	ug/L	10/31/2019 1027
3,3'-Dichlorobenzidine	ND		1	4.0	ug/L	10/31/2019 1027
3+4-Methylphenol	ND		1	4.0	ug/L	10/31/2019 1027
3-Nitroaniline	ND		1	8.0	ug/L	10/31/2019 1027
4,6-Dinitro-2-methylphenol	ND		1	20	ug/L	10/31/2019 1027
4-Bromophenyl phenyl ether	ND		1	4.0	ug/L	10/31/2019 1027
4-Chloro-3-methyl phenol	ND		1	4.0	ug/L	10/31/2019 1027
4-Chloroaniline	ND		1	8.0	ug/L	10/31/2019 1027
4-Chlorophenyl phenyl ether	ND		1	4.0	ug/L	10/31/2019 1027
4-Nitroaniline	ND		1	8.0	ug/L	10/31/2019 1027
4-Nitrophenol	ND		1	20	ug/L	10/31/2019 1027
Acenaphthene	ND		1	0.80	ug/L	10/31/2019 1027
Acenaphthylene	ND		1	0.80	ug/L	10/31/2019 1027
Acetophenone	ND		1	4.0	ug/L	10/31/2019 1027
Anthracene	ND		1	0.80	ug/L	10/31/2019 1027
Atrazine	ND		1	4.0	ug/L	10/31/2019 1027
Benzaldehyde	ND		1	8.0	ug/L	10/31/2019 1027
Benzo(a)anthracene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(a)pyrene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(b)fluoranthene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(g,h,i)perylene	ND		1	0.80	ug/L	10/31/2019 1027
Benzo(k)fluoranthene	ND		1	0.80	ug/L	10/31/2019 1027
bis (2-Chloro-1-methylethyl) ether	ND		1	4.0	ug/L	10/31/2019 1027
bis(2-Chloroethoxy)methane	ND		1	4.0	ug/L	10/31/2019 1027
bis(2-Chloroethyl)ether	ND		1	4.0	ug/L	10/31/2019 1027
bis(2-Ethylhexyl)phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Butyl benzyl phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Caprolactam	ND		1	8.0	ug/L	10/31/2019 1027
Carbazole	ND		1	4.0	ug/L	10/31/2019 1027
Chrysene	ND		1	0.80	ug/L	10/31/2019 1027
Dibenzo(a,h)anthracene	ND		1	0.80	ug/L	10/31/2019 1027

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: UQ33871-001
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Result	Q	Dil	LOQ	Units	Analysis Date
Dibenzofuran	ND		1	4.0	ug/L	10/31/2019 1027
Diethylphthalate	ND		1	4.0	ug/L	10/31/2019 1027
Dimethyl phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Di-n-butyl phthalate	ND		1	4.0	ug/L	10/31/2019 1027
Di-n-octylphthalate	ND		1	4.0	ug/L	10/31/2019 1027
Fluoranthene	ND		1	0.80	ug/L	10/31/2019 1027
Fluorene	ND		1	0.80	ug/L	10/31/2019 1027
Hexachlorobenzene	ND		1	4.0	ug/L	10/31/2019 1027
Hexachlorobutadiene	ND		1	4.0	ug/L	10/31/2019 1027
Hexachlorocyclopentadiene	ND		1	20	ug/L	10/31/2019 1027
Hexachloroethane	ND		1	4.0	ug/L	10/31/2019 1027
Indeno(1,2,3-c,d)pyrene	ND		1	0.80	ug/L	10/31/2019 1027
Isophorone	ND		1	4.0	ug/L	10/31/2019 1027
Naphthalene	ND		1	0.80	ug/L	10/31/2019 1027
Nitrobenzene	ND		1	4.0	ug/L	10/31/2019 1027
N-Nitrosodi-n-propylamine	ND		1	4.0	ug/L	10/31/2019 1027
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	4.0	ug/L	10/31/2019 1027
Pentachlorophenol	ND		1	20	ug/L	10/31/2019 1027
Phenanthrene	ND		1	0.80	ug/L	10/31/2019 1027
Phenol	ND		1	4.0	ug/L	10/31/2019 1027
Pyrene	ND		1	0.80	ug/L	10/31/2019 1027

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		84	37-129
2-Fluorophenol		70	24-127
Nitrobenzene-d5		80	38-127
Phenol-d5		75	28-128
Terphenyl-d14		107	10-148
2,4,6-Tribromophenol		72	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33871-002
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,1'-Biphenyl	40	36		1	90	30-130	10/31/2019 1052
2,4,5-Trichlorophenol	40	37		1	93	30-123	10/31/2019 1052
2,4,6-Trichlorophenol	40	38		1	96	30-130	10/31/2019 1052
2,4-Dichlorophenol	40	35		1	87	30-121	10/31/2019 1052
2,4-Dimethylphenol	40	38		1	95	20-125	10/31/2019 1052
2,4-Dinitrophenol	80	73		1	91	11-126	10/31/2019 1052
2,4-Dinitrotoluene	40	39		1	99	30-130	10/31/2019 1052
2,6-Dinitrotoluene	40	38		1	96	30-130	10/31/2019 1052
2-Chloronaphthalene	40	36		1	90	30-130	10/31/2019 1052
2-Chlorophenol	40	40		1	100	30-130	10/31/2019 1052
2-Methylnaphthalene	40	35		1	87	40-132	10/31/2019 1052
2-Methylphenol	40	44		1	111	30-130	10/31/2019 1052
2-Nitroaniline	40	41		1	102	30-130	10/31/2019 1052
2-Nitrophenol	40	36		1	91	30-130	10/31/2019 1052
3,3'-Dichlorobenzidine	40	23		1	57	10-126	10/31/2019 1052
3+4-Methylphenol	40	44		1	109	30-130	10/31/2019 1052
3-Nitroaniline	40	34		1	84	30-130	10/31/2019 1052
4,6-Dinitro-2-methylphenol	40	37		1	92	30-130	10/31/2019 1052
4-Bromophenyl phenyl ether	40	34		1	84	30-124	10/31/2019 1052
4-Chloro-3-methyl phenol	40	38		1	95	30-123	10/31/2019 1052
4-Chloroaniline	40	25		1	63	12-157	10/31/2019 1052
4-Chlorophenyl phenyl ether	40	35		1	87	30-121	10/31/2019 1052
4-Nitroaniline	40	39		1	97	30-135	10/31/2019 1052
4-Nitrophenol	80	73		1	92	30-130	10/31/2019 1052
Acenaphthene	40	36		1	90	30-122	10/31/2019 1052
Acenaphthylene	40	36		1	90	30-130	10/31/2019 1052
Acetophenone	40	43		1	108	30-130	10/31/2019 1052
Anthracene	40	36		1	90	30-123	10/31/2019 1052
Atrazine	40	42		1	104	30-130	10/31/2019 1052
Benzaldehyde	40	42		1	105	20-115	10/31/2019 1052
Benzo(a)anthracene	40	38		1	95	40-125	10/31/2019 1052
Benzo(a)pyrene	40	37		1	91	40-128	10/31/2019 1052
Benzo(b)fluoranthene	40	37		1	93	30-130	10/31/2019 1052
Benzo(g,h,i)perylene	40	42		1	106	30-130	10/31/2019 1052
Benzo(k)fluoranthene	40	32		1	79	30-130	10/31/2019 1052
bis (2-Chloro-1-methylethyl) ether	40	44		1	111	30-130	10/31/2019 1052
bis(2-Chloroethoxy)methane	40	33		1	84	30-130	10/31/2019 1052
bis(2-Chloroethyl)ether	40	37		1	92	30-130	10/31/2019 1052
bis(2-Ethylhexyl)phthalate	40	45		1	112	30-130	10/31/2019 1052
Butyl benzyl phthalate	40	43		1	109	30-130	10/31/2019 1052
Caprolactam	40	9.5	N	1	24	30-130	10/31/2019 1052
Carbazole	40	37		1	91	30-130	10/31/2019 1052
Chrysene	40	38		1	96	30-130	10/31/2019 1052
Dibenzo(a,h)anthracene	40	41		1	103	30-130	10/31/2019 1052

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: UQ33871-002
Batch: 33871
Analytical Method: 8270D

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 10/30/2019 1225

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Dibenzofuran	40	35		1	88	30-118	10/31/2019 1052
Diethylphthalate	40	40		1	101	40-125	10/31/2019 1052
Dimethyl phthalate	40	38		1	94	40-127	10/31/2019 1052
Di-n-butyl phthalate	40	40		1	99	40-127	10/31/2019 1052
Di-n-octylphthalate	40	38		1	94	30-130	10/31/2019 1052
Fluoranthene	40	35		1	87	40-128	10/31/2019 1052
Fluorene	40	36		1	90	30-124	10/31/2019 1052
Hexachlorobenzene	40	32		1	80	30-125	10/31/2019 1052
Hexachlorobutadiene	40	33		1	83	24-110	10/31/2019 1052
Hexachlorocyclopentadiene	200	150		1	73	22-122	10/31/2019 1052
Hexachloroethane	40	35		1	87	30-130	10/31/2019 1052
Indeno(1,2,3-c,d)pyrene	40	39		1	98	30-130	10/31/2019 1052
Isophorone	40	35		1	89	30-130	10/31/2019 1052
Naphthalene	40	36		1	91	30-130	10/31/2019 1052
Nitrobenzene	40	35		1	88	30-130	10/31/2019 1052
N-Nitrosodi-n-propylamine	40	45		1	113	30-130	10/31/2019 1052
N-Nitrosodiphenylamine (Diphenylamine)	40	36		1	90	30-123	10/31/2019 1052
Pentachlorophenol	80	61		1	76	30-130	10/31/2019 1052
Phenanthrene	40	36		1	89	40-123	10/31/2019 1052
Phenol	40	34		1	85	30-130	10/31/2019 1052
Pyrene	40	38		1	96	40-126	10/31/2019 1052

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		86	37-129
2-Fluorophenol		86	24-127
Nitrobenzene-d5		87	38-127
Phenol-d5		81	28-128
Terphenyl-d14		106	10-148
2,4,6-Tribromophenol		81	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the LOQ

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY

Chain of Custody Record

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Number 099915

Client: WESTINGHOUSE	Report to Contact: DIANA JOYNER	Telephone No. / E-mail: 803 649 1420 JOYNERDP@WESTINGHOUSE.COM	Quote No.
Address: 5801 BLUFF RD	Sampler's Signature:	Analysis (Attach list if more space is needed)	Page 1 of 1
City: HOPKINS	State: SC	Zip Code: 29061	
Project Name: WESTINGHOUSE RI	Printed Name: JAMES LEIGHTY RANDY CREWS		
Project No.: 60595649	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-aqueous	No of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	Na2S2O3	TCL VOC's 8260B	TCL SVOC's 8270D	Nitrates 353.2
W-49	10-24-19	1120	G	X			3			3			X	X	X
W-49-DUP		1120	G	X			3			3			X	X	X
[redacted] WSW-03		1255	G	X			3			3			X	X	X
WSW-04		1330	G	X			3			3			X	X	X
EB-01-102419		0920	G	X			3			3			X	X	X
TB-01-102419	↓	—	—	X						2			X		

UJ24037

GRW

Remarks / Cooler I.D.

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	10-24-19	1456	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by	10/24/19	1456

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.9 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

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Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Westinghouse Cooler Inspected by/date: BMG / 10/24/19 Lot #: UJ24037

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.9 / 2.9 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☑ Yes	☐ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) UJ24037-006/TB-01-102419 (1) _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA _____.

SR barcode labels applied by: BMG/JSH _____ Date: 10/24/19

Comments: