MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY**

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

01 May 2019

Work Order: 1904148

Price: $1,325.00

Dan Hamel
MDEQ-RRD-JACKSON
301 E. Louis Glick Highway
Jackson, MI 49201-1556

RE: GELMAN SCIENCES, INC

This is the official environmental laboratory report for testing conducted by the Michigan Department of Environment, Great Lakes, and Energy. Analyses performed by the laboratory were conducted using methods published by the U.S. Environmental Protection Agency, Standard Methods for the Examination of Water and Wastewater, ASTM, or other published or approved reference methods.

Kirby Shane
Laboratory Director

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MDEQ-RRD-JACKSON	Project: GELMAN SCIENCES, INC	
301 E. Louis Glick Highway	Site Code: 81000018	**Reported:**
Jackson MI, 49201-1556	Project Manager: Dan Hamel	05/01/2019

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
Allen Creek/West Park SW	1904148-01	Water	04/18/2019	04/18/2019	
Allen Creek/Chapin-West Park	1904148-02	Water	04/18/2019	04/18/2019	
Allen Creek/Maple Ridge-Arborview	1904148-03	Water	04/18/2019	04/18/2019	
Allen Creek/Wildwood Arborview	1904148-04	Water	04/18/2019	04/18/2019	
Allen Creek/Murray -Washington	1904148-05	Water	04/18/2019	04/18/2019	
Allen Creek/Eighth-Waterworks	1904148-06	Water	04/18/2019	04/18/2019	
Allen Creek-Maryfield-Wildwood Park	1904148-07	Water	04/18/2019	04/18/2019	

Notes and Definitions

Y28	1,4-dioxane analysis is performed using selective ion monitoring (SIM). Results reported below 5 ug/L (aqueous) or 1000 ug/Kg (solids) are estimated.
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200 ºC. 2-Methylnaphthalene & naphthalene have boiling points above 200 ºC and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
T	Reported value is less than the reporting limit (RL). Result is estimated.
A09	Result is estimated due to high recovery of batch quality control.
A06	Result is estimated due to high continuing calibration standard criteria failure.
A04	Result is estimated due to high matrix spike recovery.
A03	Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
ND	Indicates compound analyzed for but not detected at or above the reporting limit (RL).
RL	Reporting Limit
NA	Not Applicable

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Client ID: Allen Creek/West Park SW

Lab ID: 1904148-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/19/19	B9D1910	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	

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Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/19/19	B9D1910	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/19/19	B9D1910	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
Surrogate: Bromofluorobenzene			*96.5 %*	*85-115*		*04/19/19*	B9D1910	*8260*	
Surrogate: Dibromofluoromethane			*98.1 %*	*82.7-115*		*04/19/19*	B9D1910	*8260*	
Surrogate: Toluene-d8			*94.2 %*	*85-115*		*04/19/19*	B9D1910	*8260*	

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Lab ID: 1904148-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									
123-91-1	**1,4-dioxane**	**17**	1.0	ug/L	1	04/19/19	B9D2212	8260 Modified	

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Client ID: Allen Creek/Chapin-West Park

Lab ID: 1904148-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/19/19	B9D1910	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	

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Lab ID: 1904148-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/19/19	B9D1910	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/19/19	B9D1910	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
Surrogate: Bromofluorobenzene			*95.7 %*	*85-115*		*04/19/19*	B9D1910	*8260*	
Surrogate: Dibromofluoromethane			*101 %*	*82.7-115*		*04/19/19*	B9D1910	*8260*	
Surrogate: Toluene-d8			*94.1 %*	*85-115*		*04/19/19*	B9D1910	*8260*	

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Lab ID: 1904148-02

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									
123-91-1	**1,4-dioxane**	**10**	1.0	ug/L	1	04/19/19	B9D2212	8260 Modified	

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ENVIRONMENT, GREAT LAKES, AND ENERGY

**MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY**

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: Allen Creek/Maple Ridge-Arborview

Lab ID: 1904148-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/19/19	B9D1910	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	

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Client ID: Allen Creek/Maple Ridge-Arborview

Lab ID: 1904148-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/19/19	B9D1910	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/19/19	B9D1910	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/19/19	B9D1910	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/19/19	B9D1910	8260	
Surrogate: Bromofluorobenzene			*97.1 %*	*85-115*		*04/19/19*	B9D1910	*8260*	
Surrogate: Dibromofluoromethane			*100 %*	*82.7-115*		*04/19/19*	B9D1910	*8260*	
Surrogate: Toluene-d8			*94.5 %*	*85-115*		*04/19/19*	B9D1910	*8260*	

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Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: Allen Creek/Wildwood Arborview

Lab ID: 1904148-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/22/19	B9D2202	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	

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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
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Client ID: Allen Creek/Wildwood Arborview

Lab ID: 1904148-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/22/19	B9D2202	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/22/19	B9D2202	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
Surrogate: Bromofluorobenzene			*103 %*	*85-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Dibromofluoromethane			*109 %*	*82.7-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Toluene-d8			*109 %*	*85-115*		*04/22/19*	B9D2202	*8260*	

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ENVIRONMENTAL LABORATORY

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TEL: (517) 335-9800
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Client ID: Allen Creek/Murray -Washington

Lab ID: 1904148-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/22/19	B9D2202	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: Allen Creek/Murray -Washington

Lab ID: 1904148-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/22/19	B9D2202	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/22/19	B9D2202	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-01-6	**Trichloroethylene**	**1.1**	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
Surrogate: Bromofluorobenzene			*98.1 %*	*85-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*82.7-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Toluene-d8			*102 %*	*85-115*		*04/22/19*	B9D2202	*8260*	

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY**

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: Allen Creek/Murray -Washington

Lab ID: 1904148-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									**See note T, Y28**
123-91-1	**1,4-dioxane**	**0.98**	1.0	ug/L	1	04/19/19	B9D2212	8260 Modified	

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P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: Allen Creek/Eighth-Waterworks

Lab ID: 1904148-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/22/19	B9D2202	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: Allen Creek/Eighth-Waterworks

Lab ID: 1904148-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/22/19	B9D2202	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/22/19	B9D2202	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
Surrogate: Bromofluorobenzene			*95.8 %*	*85-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Dibromofluoromethane			*105 %*	*82.7-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Toluene-d8			*105 %*	*85-115*		*04/22/19*	B9D2202	*8260*	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Client ID: Allen Creek-Maryfield-Wildwood Park

Lab ID: 1904148-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	04/22/19	B9D2202	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Client ID: Allen Creek-Maryfield-Wildwood Park

Lab ID: 1904148-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
100-41-4	**Ethylbenzene**	**9.6**	1.0	ug/L	1	04/22/19	B9D2202	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	04/22/19	B9D2202	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
100-42-5	**Styrene**	**4.5**	1.0	ug/L	1	04/22/19	B9D2202	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	04/22/19	B9D2202	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	04/22/19	B9D2202	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	04/22/19	B9D2202	8260	
Surrogate: Bromofluorobenzene			*97.1 %*	*85-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Dibromofluoromethane			*107 %*	*82.7-115*		*04/22/19*	B9D2202	*8260*	
Surrogate: Toluene-d8			*106 %*	*85-115*		*04/22/19*	B9D2202	*8260*	

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P.O. Box 30270
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Client ID: Allen Creek-Maryfield-Wildwood Park

Lab ID: 1904148-07

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Dioxane									**See note Y28**
123-91-1	1,4-dioxane	ND	1.0	ug/L	1	04/19/19	B9D2212	8260 Modified	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
Blank (B9D1910-BLK1)											
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							04/19/2019	
1,1,1-Trichloroethane	ND	1.0	ug/L							04/19/2019	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							04/19/2019	
1,1,2-Trichloroethane	ND	1.0	ug/L							04/19/2019	
1,1-Dichloroethane	ND	1.0	ug/L							04/19/2019	
1,1-Dichloroethylene	ND	1.0	ug/L							04/19/2019	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							04/19/2019	
1,2,3-Trichloropropane	ND	1.0	ug/L							04/19/2019	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							04/19/2019	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							04/19/2019	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							04/19/2019	
1,2-Dibromoethane	ND	1.0	ug/L							04/19/2019	
1,2-Dichlorobenzene	ND	1.0	ug/L							04/19/2019	
1,2-Dichloroethane	ND	1.0	ug/L							04/19/2019	
1,2-Dichloropropane	ND	1.0	ug/L							04/19/2019	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							04/19/2019	
1,3-Dichlorobenzene	ND	1.0	ug/L							04/19/2019	
1,4-Dichlorobenzene	ND	1.0	ug/L							04/19/2019	
2,2,4-Trimethylpentane	ND	5.0	ug/L							04/19/2019	
2-Butanone (MEK)	ND	5.0	ug/L							04/19/2019	
2-Methylnaphthalene	ND	5.0	ug/L							04/19/2019	X
2-Propanone (acetone)	ND	20	ug/L							04/19/2019	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							04/19/2019	
Acrylonitrile	ND	5.0	ug/L							04/19/2019	
Benzene	ND	1.0	ug/L							04/19/2019	
Bromochloromethane	ND	1.0	ug/L							04/19/2019	
Bromodichloromethane	ND	1.0	ug/L							04/19/2019	
Bromoform	ND	1.0	ug/L							04/19/2019	
Bromomethane	ND	5.0	ug/L							04/19/2019	
Carbon disulfide	ND	1.0	ug/L							04/19/2019	
Carbon tetrachloride	ND	1.0	ug/L							04/19/2019	
Chlorobenzene	ND	1.0	ug/L							04/19/2019	
Chloroethane	ND	5.0	ug/L							04/19/2019	
Chloroform	ND	1.0	ug/L							04/19/2019	
Chloromethane	ND	5.0	ug/L							04/19/2019	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							04/19/2019	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							04/19/2019	
Cyclohexane	ND	5.0	ug/L							04/19/2019	
Dibromochloromethane	ND	1.0	ug/L							04/19/2019	
Dibromomethane	ND	1.0	ug/L							04/19/2019	
Dichlorodifluoromethane	ND	5.0	ug/L							04/19/2019	
Diethyl ether	ND	5.0	ug/L							04/19/2019	
Diisopropyl Ether	ND	5.0	ug/L							04/19/2019	
Ethylbenzene	ND	1.0	ug/L							04/19/2019	
Ethyltertiarybutylether	ND	5.0	ug/L							04/19/2019	
Hexachloroethane	ND	5.0	ug/L							04/19/2019	
Hexane	ND	1.0	ug/L							04/19/2019	

Lab Work Order # 1904148

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
Blank (B9D1910-BLK1)											
Isopropylbenzene	ND	1.0	ug/L							04/19/2019	
m & p - Xylene	ND	2.0	ug/L							04/19/2019	
Methylene chloride	ND	5.0	ug/L							04/19/2019	
Methyltertiarybutylether	ND	1.0	ug/L							04/19/2019	
Naphthalene	ND	5.0	ug/L							04/19/2019	X
n-Butylbenzene	ND	1.0	ug/L							04/19/2019	
n-Propylbenzene	ND	1.0	ug/L							04/19/2019	
o-Xylene	ND	1.0	ug/L							04/19/2019	
sec-Butylbenzene	ND	1.0	ug/L							04/19/2019	
Styrene	ND	1.0	ug/L							04/19/2019	
tert-Butylbenzene	ND	1.0	ug/L							04/19/2019	
tertiary Butyl Alcohol	ND	50	ug/L							04/19/2019	
tertiaryAmylmethylether	ND	5.0	ug/L							04/19/2019	
Tetrachloroethylene	ND	1.0	ug/L							04/19/2019	
Tetrahydrofuran	ND	5.0	ug/L							04/19/2019	
Toluene	ND	1.0	ug/L							04/19/2019	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							04/19/2019	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							04/19/2019	
Trichloroethylene	ND	1.0	ug/L							04/19/2019	
Trichlorofluoromethane	ND	1.0	ug/L							04/19/2019	
Vinyl chloride	ND	1.0	ug/L							04/19/2019	
Surrogate: Bromofluorobenzene	*45.7*		ug/L	*50.00*		*91.4*	*85-115*			04/19/2019	
Surrogate: Dibromofluoromethane	*47.9*		ug/L	*50.00*		*95.8*	*82.7-115*			04/19/2019	
Surrogate: Toluene-d8	*46.6*		ug/L	*50.00*		*93.2*	*85-115*			04/19/2019	
LCS (B9D1910-BS1)											
1,1,1,2-Tetrachloroethane	47.1	1.0	ug/L	50.00		94.2	70-130			04/19/2019	
1,1,1-Trichloroethane	45.9	1.0	ug/L	50.00		91.7	70-130			04/19/2019	
1,1,2,2-Tetrachloroethane	46.9	1.0	ug/L	50.00		93.8	70-130			04/19/2019	
1,1,2-Trichloroethane	46.6	1.0	ug/L	50.00		93.1	70-130			04/19/2019	
1,1-Dichloroethane	43.7	1.0	ug/L	50.00		87.4	70-130			04/19/2019	
1,1-Dichloroethylene	48.2	1.0	ug/L	50.00		96.5	70-130			04/19/2019	
1,2,3-Trichlorobenzene	48.4	5.0	ug/L	50.00		96.9	70-130			04/19/2019	
1,2,3-Trichloropropane	44.4	1.0	ug/L	50.00		88.7	70-130			04/19/2019	
1,2,3-Trimethylbenzene	48.2	1.0	ug/L	50.00		96.4	70-130			04/19/2019	
1,2,4-Trichlorobenzene	46.9	5.0	ug/L	50.00		93.7	70-130			04/19/2019	
1,2,4-Trimethylbenzene	46.9	1.0	ug/L	50.00		93.8	70-130			04/19/2019	
1,2-Dibromoethane	46.6	1.0	ug/L	50.00		93.2	70-130			04/19/2019	
1,2-Dichlorobenzene	48.0	1.0	ug/L	50.00		95.9	70-130			04/19/2019	
1,2-Dichloroethane	45.8	1.0	ug/L	50.00		91.7	70-130			04/19/2019	
1,2-Dichloropropane	46.6	1.0	ug/L	50.00		93.2	70-130			04/19/2019	
1,3,5-Trimethylbenzene	47.1	1.0	ug/L	50.00		94.3	70-130			04/19/2019	
1,3-Dichlorobenzene	47.9	1.0	ug/L	50.00		95.8	70-130			04/19/2019	
1,4-Dichlorobenzene	45.3	1.0	ug/L	50.00		90.5	70-130			04/19/2019	
2,2,4-Trimethylpentane	47.1	5.0	ug/L	50.00		94.3	70-130			04/19/2019	
2-Butanone (MEK)	47.4	5.0	ug/L	50.00		94.8	70-130			04/19/2019	
2-Methylnaphthalene	45.0	5.0	ug/L	50.00		90.0	70-130			04/19/2019	X

Lab Work Order # 1904148

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
LCS (B9D1910-BS1)											
2-Propanone (acetone)	51.6	20	ug/L	50.00		103	70-130			04/19/2019	
4-Methyl-2-pentanone (MIBK)	45.4	5.0	ug/L	50.00		90.9	70-130			04/19/2019	
Acrylonitrile	42.9	5.0	ug/L	50.00		85.9	70-130			04/19/2019	
Benzene	45.6	1.0	ug/L	50.00		91.2	70-130			04/19/2019	
Bromochloromethane	48.8	1.0	ug/L	50.00		97.6	70-130			04/19/2019	
Bromodichloromethane	46.6	1.0	ug/L	50.00		93.2	70-130			04/19/2019	
Bromoform	47.2	1.0	ug/L	50.00		94.3	70-130			04/19/2019	
Bromomethane	49.0	5.0	ug/L	50.00		98.0	70-130			04/19/2019	
Carbon disulfide	46.0	1.0	ug/L	50.00		92.0	70-130			04/19/2019	
Carbon tetrachloride	46.4	1.0	ug/L	50.00		92.8	70-130			04/19/2019	
Chlorobenzene	48.3	1.0	ug/L	50.00		96.7	70-130			04/19/2019	
Chloroethane	45.3	5.0	ug/L	50.00		90.6	70-130			04/19/2019	
Chloroform	44.0	1.0	ug/L	50.00		88.0	70-130			04/19/2019	
Chloromethane	46.3	5.0	ug/L	50.00		92.5	70-130			04/19/2019	
cis-1,2-Dichloroethylene	45.3	1.0	ug/L	50.00		90.7	70-130			04/19/2019	
cis-1,3-Dichloropropylene	46.1	1.0	ug/L	50.00		92.2	70-130			04/19/2019	
Cyclohexane	49.5	5.0	ug/L	50.00		99.0	70-130			04/19/2019	
Dibromochloromethane	48.6	1.0	ug/L	50.00		97.2	70-130			04/19/2019	
Dibromomethane	46.6	1.0	ug/L	50.00		93.2	70-130			04/19/2019	
Dichlorodifluoromethane	56.1	5.0	ug/L	50.00		112	70-130			04/19/2019	A06
Diethyl ether	49.2	5.0	ug/L	50.00		98.4	70-130			04/19/2019	
Diisopropyl Ether	42.6	5.0	ug/L	50.00		85.3	70-130			04/19/2019	
Ethylbenzene	47.3	1.0	ug/L	50.00		94.7	70-130			04/19/2019	
Ethyltertiarybutylether	43.6	5.0	ug/L	50.00		87.2	70-130			04/19/2019	
Hexachloroethane	44.1	5.0	ug/L	50.00		88.2	70-130			04/19/2019	
Hexane	41.2	1.0	ug/L	50.00		82.3	70-130			04/19/2019	
Isopropylbenzene	46.5	1.0	ug/L	50.00		93.1	70-130			04/19/2019	
m & p - Xylene	97.9	2.0	ug/L	100.0		97.9	70-130			04/19/2019	
Methylene chloride	41.9	5.0	ug/L	50.00		83.7	70-130			04/19/2019	
Methyltertiarybutylether	45.0	1.0	ug/L	50.00		90.0	70-130			04/19/2019	
Naphthalene	49.3	5.0	ug/L	50.00		98.6	70-130			04/19/2019	X
n-Butylbenzene	47.5	1.0	ug/L	50.00		95.0	70-130			04/19/2019	
n-Propylbenzene	45.8	1.0	ug/L	50.00		91.7	70-130			04/19/2019	
o-Xylene	48.7	1.0	ug/L	50.00		97.5	70-130			04/19/2019	
sec-Butylbenzene	51.1	1.0	ug/L	50.00		102	70-130			04/19/2019	
Styrene	50.0	1.0	ug/L	50.00		100	70-130			04/19/2019	
tert-Butylbenzene	47.5	1.0	ug/L	50.00		95.1	70-130			04/19/2019	
tertiary Butyl Alcohol	207	50	ug/L	250.0		82.8	70-130			04/19/2019	
tertiaryAmylmethylether	45.9	5.0	ug/L	50.00		91.9	70-130			04/19/2019	
Tetrachloroethylene	47.0	1.0	ug/L	50.00		94.1	70-130			04/19/2019	
Tetrahydrofuran	43.2	5.0	ug/L	50.00		86.3	70-130			04/19/2019	
Toluene	46.5	1.0	ug/L	50.00		93.0	70-130			04/19/2019	
trans-1,2-Dichloroethylene	43.3	1.0	ug/L	50.00		86.5	70-130			04/19/2019	
trans-1,3-Dichloropropylene	44.8	1.0	ug/L	50.00		89.5	70-130			04/19/2019	
Trichloroethylene	47.4	1.0	ug/L	50.00		94.8	70-130			04/19/2019	
Trichlorofluoromethane	54.6	1.0	ug/L	50.00		109	70-130			04/19/2019	
Vinyl chloride	47.7	1.0	ug/L	50.00		95.5	70-130			04/19/2019	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
LCS (B9D1910-BS1)											
Surrogate: Bromofluorobenzene	*46.9*		ug/L	*50.00*		*93.7*	*85-115*			04/19/2019	
Surrogate: Dibromofluoromethane	*48.2*		ug/L	*50.00*		*96.4*	*82.7-115*			04/19/2019	
Surrogate: Toluene-d8	*49.4*		ug/L	*50.00*		*98.8*	*85-115*			04/19/2019	
Matrix Spike (B9D1910-MS1)	**Source: 1904139-02**										
1,1,1,2-Tetrachloroethane	50.7	1.0	ug/L	50.00	ND	101	70-130			04/19/2019	
1,1,1-Trichloroethane	50.7	1.0	ug/L	50.00	ND	101	70-130			04/19/2019	
1,1,2,2-Tetrachloroethane	51.7	1.0	ug/L	50.00	ND	103	70-130			04/19/2019	
1,1,2-Trichloroethane	49.8	1.0	ug/L	50.00	ND	99.5	70-130			04/19/2019	
1,1-Dichloroethane	48.6	1.0	ug/L	50.00	ND	97.3	70-130			04/19/2019	
1,1-Dichloroethylene	54.8	1.0	ug/L	50.00	ND	110	70-130			04/19/2019	
1,2,3-Trichlorobenzene	53.0	5.0	ug/L	50.00	ND	106	70-130			04/19/2019	
1,2,3-Trichloropropane	47.1	1.0	ug/L	50.00	ND	94.2	70-130			04/19/2019	
1,2,3-Trimethylbenzene	53.0	1.0	ug/L	50.00	ND	106	70-130			04/19/2019	
1,2,4-Trichlorobenzene	51.6	5.0	ug/L	50.00	ND	103	70-130			04/19/2019	
1,2,4-Trimethylbenzene	52.4	1.0	ug/L	50.00	ND	105	70-130			04/19/2019	
1,2-Dibromoethane	48.6	1.0	ug/L	50.00	ND	97.2	70-130			04/19/2019	
1,2-Dichlorobenzene	51.9	1.0	ug/L	50.00	ND	104	70-130			04/19/2019	
1,2-Dichloroethane	48.4	1.0	ug/L	50.00	ND	96.7	70-130			04/19/2019	
1,2-Dichloropropane	50.1	1.0	ug/L	50.00	ND	100	70-130			04/19/2019	
1,3,5-Trimethylbenzene	52.4	1.0	ug/L	50.00	ND	105	70-130			04/19/2019	
1,3-Dichlorobenzene	51.0	1.0	ug/L	50.00	ND	102	70-130			04/19/2019	
1,4-Dichlorobenzene	49.3	1.0	ug/L	50.00	ND	98.6	70-130			04/19/2019	
2,2,4-Trimethylpentane	53.4	5.0	ug/L	50.00	ND	107	70-130			04/19/2019	
2-Butanone (MEK)	48.1	5.0	ug/L	50.00	ND	96.1	70-130			04/19/2019	
2-Methylnaphthalene	49.3	5.0	ug/L	50.00	ND	98.7	70-130			04/19/2019	X
2-Propanone (acetone)	56.2	20	ug/L	50.00	ND	112	70-130			04/19/2019	
4-Methyl-2-pentanone (MIBK)	47.5	5.0	ug/L	50.00	ND	95.1	70-130			04/19/2019	
Acrylonitrile	44.0	5.0	ug/L	50.00	ND	88.1	70-130			04/19/2019	
Benzene	49.7	1.0	ug/L	50.00	ND	99.3	70-130			04/19/2019	
Bromochloromethane	52.8	1.0	ug/L	50.00	ND	106	70-130			04/19/2019	
Bromodichloromethane	50.3	1.0	ug/L	50.00	ND	101	70-130			04/19/2019	
Bromoform	49.6	1.0	ug/L	50.00	ND	99.2	70-130			04/19/2019	
Bromomethane	54.2	5.0	ug/L	50.00	ND	108	70-130			04/19/2019	
Carbon disulfide	54.0	1.0	ug/L	50.00	ND	108	70-130			04/19/2019	
Carbon tetrachloride	53.2	1.0	ug/L	50.00	ND	106	70-130			04/19/2019	
Chlorobenzene	52.1	1.0	ug/L	50.00	ND	104	70-130			04/19/2019	
Chloroethane	54.2	5.0	ug/L	50.00	ND	108	70-130			04/19/2019	
Chloroform	48.2	1.0	ug/L	50.00	ND	96.4	70-130			04/19/2019	
Chloromethane	54.6	5.0	ug/L	50.00	ND	109	70-130			04/19/2019	
cis-1,2-Dichloroethylene	49.0	1.0	ug/L	50.00	ND	98.0	70-130			04/19/2019	
cis-1,3-Dichloropropylene	49.7	1.0	ug/L	50.00	ND	99.4	70-130			04/19/2019	
Cyclohexane	57.2	5.0	ug/L	50.00	ND	114	70-130			04/19/2019	
Dibromochloromethane	50.9	1.0	ug/L	50.00	ND	102	70-130			04/19/2019	
Dibromomethane	48.9	1.0	ug/L	50.00	ND	97.7	70-130			04/19/2019	
Dichlorodifluoromethane	65.2	5.0	ug/L	50.00	ND	130	70-130			04/19/2019	A04, A06
Diethyl ether	53.5	5.0	ug/L	50.00	ND	107	70-130			04/19/2019	

Lab Work Order # 1904148

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
Matrix Spike (B9D1910-MS1)	**Source: 1904139-02**										
Diisopropyl Ether	46.0	5.0	ug/L	50.00	ND	92.0	70-130			04/19/2019	
Ethylbenzene	52.4	1.0	ug/L	50.00	ND	105	70-130			04/19/2019	
Ethyltertiarybutylether	45.7	5.0	ug/L	50.00	ND	91.4	70-130			04/19/2019	
Hexachloroethane	49.8	5.0	ug/L	50.00	ND	99.7	70-130			04/19/2019	
Hexane	47.2	1.0	ug/L	50.00	ND	94.4	70-130			04/19/2019	
Isopropylbenzene	52.9	1.0	ug/L	50.00	ND	106	70-130			04/19/2019	
m & p - Xylene	106	2.0	ug/L	100.0	ND	106	70-130			04/19/2019	
Methylene chloride	48.4	5.0	ug/L	50.00	ND	96.9	70-130			04/19/2019	
Methyltertiarybutylether	48.0	1.0	ug/L	50.00	ND	96.0	70-130			04/19/2019	
Naphthalene	53.4	5.0	ug/L	50.00	ND	107	70-130			04/19/2019	X
n-Butylbenzene	53.0	1.0	ug/L	50.00	ND	106	70-130			04/19/2019	
n-Propylbenzene	52.1	1.0	ug/L	50.00	ND	104	70-130			04/19/2019	
o-Xylene	53.7	1.0	ug/L	50.00	ND	107	70-130			04/19/2019	
sec-Butylbenzene	58.3	1.0	ug/L	50.00	ND	117	70-130			04/19/2019	
Styrene	55.4	1.0	ug/L	50.00	ND	111	70-130			04/19/2019	
tert-Butylbenzene	55.0	1.0	ug/L	50.00	ND	110	70-130			04/19/2019	
tertiary Butyl Alcohol	218	50	ug/L	250.0	ND	87.1	70-130			04/19/2019	
tertiaryAmylmethylether	48.7	5.0	ug/L	50.00	ND	97.5	70-130			04/19/2019	
Tetrachloroethylene	51.0	1.0	ug/L	50.00	ND	102	70-130			04/19/2019	
Tetrahydrofuran	45.9	5.0	ug/L	50.00	ND	91.7	70-130			04/19/2019	
Toluene	50.8	1.0	ug/L	50.00	ND	102	70-130			04/19/2019	
trans-1,2-Dichloroethylene	48.0	1.0	ug/L	50.00	ND	96.0	70-130			04/19/2019	
trans-1,3-Dichloropropylene	48.3	1.0	ug/L	50.00	ND	96.7	70-130			04/19/2019	
Trichloroethylene	50.8	1.0	ug/L	50.00	ND	102	70-130			04/19/2019	
Trichlorofluoromethane	62.0	1.0	ug/L	50.00	ND	124	70-130			04/19/2019	
Vinyl chloride	53.7	1.0	ug/L	50.00	ND	107	70-130			04/19/2019	
Surrogate: Bromofluorobenzene	*49.8*		ug/L	*50.00*		*99.6*	*85-115*			04/19/2019	
Surrogate: Dibromofluoromethane	*48.8*		ug/L	*50.00*		*97.6*	*82.7-115*			04/19/2019	
Surrogate: Toluene-d8	*49.9*		ug/L	*50.00*		*99.9*	*85-115*			04/19/2019	
Matrix Spike Dup (B9D1910-MSD1)	**Source: 1904139-02**										
1,1,1,2-Tetrachloroethane	49.3	1.0	ug/L	50.00	ND	98.6	70-130	2.88	30	04/19/2019	
1,1,1-Trichloroethane	47.3	1.0	ug/L	50.00	ND	94.6	70-130	6.81	30	04/19/2019	
1,1,2,2-Tetrachloroethane	50.9	1.0	ug/L	50.00	ND	102	70-130	1.47	30	04/19/2019	
1,1,2-Trichloroethane	46.5	1.0	ug/L	50.00	ND	93.0	70-130	6.79	30	04/19/2019	
1,1-Dichloroethane	45.2	1.0	ug/L	50.00	ND	90.4	70-130	7.31	30	04/19/2019	
1,1-Dichloroethylene	50.9	1.0	ug/L	50.00	ND	102	70-130	7.45	30	04/19/2019	
1,2,3-Trichlorobenzene	52.5	5.0	ug/L	50.00	ND	105	70-130	1.07	30	04/19/2019	
1,2,3-Trichloropropane	46.0	1.0	ug/L	50.00	ND	91.9	70-130	2.40	30	04/19/2019	
1,2,3-Trimethylbenzene	50.3	1.0	ug/L	50.00	ND	101	70-130	5.26	30	04/19/2019	
1,2,4-Trichlorobenzene	49.6	5.0	ug/L	50.00	ND	99.3	70-130	3.91	30	04/19/2019	
1,2,4-Trimethylbenzene	47.9	1.0	ug/L	50.00	ND	95.9	70-130	8.93	30	04/19/2019	
1,2-Dibromoethane	47.6	1.0	ug/L	50.00	ND	95.3	70-130	2.02	30	04/19/2019	
1,2-Dichlorobenzene	49.8	1.0	ug/L	50.00	ND	99.5	70-130	4.15	30	04/19/2019	
1,2-Dichloroethane	47.8	1.0	ug/L	50.00	ND	95.6	70-130	1.13	30	04/19/2019	
1,2-Dichloropropane	48.6	1.0	ug/L	50.00	ND	97.2	70-130	2.99	30	04/19/2019	
1,3,5-Trimethylbenzene	49.5	1.0	ug/L	50.00	ND	99.1	70-130	5.71	30	04/19/2019	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
Matrix Spike Dup (B9D1910-MSD1)	**Source: 1904139-02**										
1,3-Dichlorobenzene	49.1	1.0	ug/L	50.00	ND	98.1	70-130	3.94	30	04/19/2019	
1,4-Dichlorobenzene	47.2	1.0	ug/L	50.00	ND	94.5	70-130	4.22	30	04/19/2019	
2,2,4-Trimethylpentane	47.2	5.0	ug/L	50.00	ND	94.3	70-130	12.4	30	04/19/2019	
2-Butanone (MEK)	49.3	5.0	ug/L	50.00	ND	98.6	70-130	2.50	30	04/19/2019	
2-Methylnaphthalene	48.7	5.0	ug/L	50.00	ND	97.3	70-130	1.37	30	04/19/2019	X
2-Propanone (acetone)	54.8	20	ug/L	50.00	ND	110	70-130	2.62	30	04/19/2019	
4-Methyl-2-pentanone (MIBK)	48.7	5.0	ug/L	50.00	ND	97.5	70-130	2.49	30	04/19/2019	
Acrylonitrile	45.6	5.0	ug/L	50.00	ND	91.1	70-130	3.42	30	04/19/2019	
Benzene	47.8	1.0	ug/L	50.00	ND	95.5	70-130	3.90	30	04/19/2019	
Bromochloromethane	51.1	1.0	ug/L	50.00	ND	102	70-130	3.35	30	04/19/2019	
Bromodichloromethane	48.6	1.0	ug/L	50.00	ND	97.3	70-130	3.43	30	04/19/2019	
Bromoform	47.3	1.0	ug/L	50.00	ND	94.6	70-130	4.72	30	04/19/2019	
Bromomethane	49.6	5.0	ug/L	50.00	ND	99.1	70-130	9.01	30	04/19/2019	
Carbon disulfide	47.9	1.0	ug/L	50.00	ND	95.9	70-130	11.8	30	04/19/2019	
Carbon tetrachloride	48.6	1.0	ug/L	50.00	ND	97.2	70-130	9.14	30	04/19/2019	
Chlorobenzene	49.3	1.0	ug/L	50.00	ND	98.6	70-130	5.41	30	04/19/2019	
Chloroethane	52.0	5.0	ug/L	50.00	ND	104	70-130	4.21	30	04/19/2019	
Chloroform	44.8	1.0	ug/L	50.00	ND	89.7	70-130	7.22	30	04/19/2019	
Chloromethane	50.0	5.0	ug/L	50.00	ND	100	70-130	8.76	30	04/19/2019	
cis-1,2-Dichloroethylene	45.9	1.0	ug/L	50.00	ND	91.8	70-130	6.46	30	04/19/2019	
cis-1,3-Dichloropropylene	47.9	1.0	ug/L	50.00	ND	95.8	70-130	3.71	30	04/19/2019	
Cyclohexane	52.6	5.0	ug/L	50.00	ND	105	70-130	8.31	30	04/19/2019	
Dibromochloromethane	50.6	1.0	ug/L	50.00	ND	101	70-130	0.560	30	04/19/2019	
Dibromomethane	48.4	1.0	ug/L	50.00	ND	96.8	70-130	0.909	30	04/19/2019	
Dichlorodifluoromethane	60.2	5.0	ug/L	50.00	ND	120	70-130	7.94	30	04/19/2019	A06
Diethyl ether	50.3	5.0	ug/L	50.00	ND	101	70-130	6.16	30	04/19/2019	
Diisopropyl Ether	44.5	5.0	ug/L	50.00	ND	89.0	70-130	3.35	30	04/19/2019	
Ethylbenzene	48.6	1.0	ug/L	50.00	ND	97.2	70-130	7.57	30	04/19/2019	
Ethyltertiarybutylether	45.8	5.0	ug/L	50.00	ND	91.6	70-130	0.227	30	04/19/2019	
Hexachloroethane	47.4	5.0	ug/L	50.00	ND	94.8	70-130	4.99	30	04/19/2019	
Hexane	39.9	1.0	ug/L	50.00	ND	79.8	70-130	16.8	30	04/19/2019	
Isopropylbenzene	49.6	1.0	ug/L	50.00	ND	99.2	70-130	6.38	30	04/19/2019	
m & p - Xylene	99.9	2.0	ug/L	100.0	ND	99.9	70-130	5.91	30	04/19/2019	
Methylene chloride	45.0	5.0	ug/L	50.00	ND	90.0	70-130	7.42	30	04/19/2019	
Methyltertiarybutylether	47.4	1.0	ug/L	50.00	ND	94.7	70-130	1.39	30	04/19/2019	
Naphthalene	52.3	5.0	ug/L	50.00	ND	105	70-130	1.96	30	04/19/2019	X
n-Butylbenzene	49.2	1.0	ug/L	50.00	ND	98.4	70-130	7.42	30	04/19/2019	
n-Propylbenzene	48.2	1.0	ug/L	50.00	ND	96.4	70-130	7.87	30	04/19/2019	
o-Xylene	50.2	1.0	ug/L	50.00	ND	100	70-130	6.77	30	04/19/2019	
sec-Butylbenzene	54.5	1.0	ug/L	50.00	ND	109	70-130	6.60	30	04/19/2019	
Styrene	52.6	1.0	ug/L	50.00	ND	105	70-130	5.31	30	04/19/2019	
tert-Butylbenzene	50.4	1.0	ug/L	50.00	ND	101	70-130	8.80	30	04/19/2019	
tertiary Butyl Alcohol	213	50	ug/L	250.0	ND	85.3	70-130	2.07	30	04/19/2019	
tertiaryAmylmethylether	48.3	5.0	ug/L	50.00	ND	96.6	70-130	0.888	30	04/19/2019	
Tetrachloroethylene	47.5	1.0	ug/L	50.00	ND	95.0	70-130	7.19	30	04/19/2019	
Tetrahydrofuran	46.4	5.0	ug/L	50.00	ND	92.7	70-130	1.09	30	04/19/2019	
Toluene	48.4	1.0	ug/L	50.00	ND	96.8	70-130	4.89	30	04/19/2019	

Lab Work Order # 1904148

Page 26 of 35

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D1910 - Method: 5030				**Prepared: 04/19/2019**							
Matrix Spike Dup (B9D1910-MSD1)	**Source: 1904139-02**										
trans-1,2-Dichloroethylene	43.8	1.0	ug/L	50.00	ND	87.5	70-130	9.27	30	04/19/2019	
trans-1,3-Dichloropropylene	47.6	1.0	ug/L	50.00	ND	95.1	70-130	1.59	30	04/19/2019	
Trichloroethylene	48.3	1.0	ug/L	50.00	ND	96.6	70-130	5.08	30	04/19/2019	
Trichlorofluoromethane	54.8	1.0	ug/L	50.00	ND	110	70-130	12.5	30	04/19/2019	
Vinyl chloride	49.1	1.0	ug/L	50.00	ND	98.3	70-130	8.80	30	04/19/2019	
Surrogate: Bromofluorobenzene	*47.7*		ug/L	*50.00*		*95.5*	*85-115*			04/19/2019	
Surrogate: Dibromofluoromethane	*49.1*		ug/L	*50.00*		*98.2*	*82.7-115*			04/19/2019	
Surrogate: Toluene-d8	*49.7*		ug/L	*50.00*		*99.4*	*85-115*			04/19/2019	
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
Blank (B9D2202-BLK1)											
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							04/22/2019	
1,1,1-Trichloroethane	ND	1.0	ug/L							04/22/2019	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							04/22/2019	
1,1,2-Trichloroethane	ND	1.0	ug/L							04/22/2019	
1,1-Dichloroethane	ND	1.0	ug/L							04/22/2019	
1,1-Dichloroethylene	ND	1.0	ug/L							04/22/2019	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							04/22/2019	
1,2,3-Trichloropropane	ND	1.0	ug/L							04/22/2019	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							04/22/2019	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							04/22/2019	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							04/22/2019	
1,2-Dibromoethane	ND	1.0	ug/L							04/22/2019	
1,2-Dichlorobenzene	ND	1.0	ug/L							04/22/2019	
1,2-Dichloroethane	ND	1.0	ug/L							04/22/2019	
1,2-Dichloropropane	ND	1.0	ug/L							04/22/2019	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							04/22/2019	
1,3-Dichlorobenzene	ND	1.0	ug/L							04/22/2019	
1,4-Dichlorobenzene	ND	1.0	ug/L							04/22/2019	
2,2,4-Trimethylpentane	ND	5.0	ug/L							04/22/2019	
2-Butanone (MEK)	ND	5.0	ug/L							04/22/2019	
2-Methylnaphthalene	ND	5.0	ug/L							04/22/2019	X
2-Propanone (acetone)	ND	20	ug/L							04/22/2019	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							04/22/2019	
Acrylonitrile	ND	5.0	ug/L							04/22/2019	
Benzene	ND	1.0	ug/L							04/22/2019	
Bromochloromethane	ND	1.0	ug/L							04/22/2019	
Bromodichloromethane	ND	1.0	ug/L							04/22/2019	
Bromoform	ND	1.0	ug/L							04/22/2019	
Bromomethane	ND	5.0	ug/L							04/22/2019	
Carbon disulfide	ND	1.0	ug/L							04/22/2019	
Carbon tetrachloride	ND	1.0	ug/L							04/22/2019	
Chlorobenzene	ND	1.0	ug/L							04/22/2019	
Chloroethane	ND	5.0	ug/L							04/22/2019	

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
Blank (B9D2202-BLK1)											
Chloroform	ND	1.0	ug/L							04/22/2019	
Chloromethane	ND	5.0	ug/L							04/22/2019	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							04/22/2019	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							04/22/2019	
Cyclohexane	ND	5.0	ug/L							04/22/2019	
Dibromochloromethane	ND	1.0	ug/L							04/22/2019	
Dibromomethane	ND	1.0	ug/L							04/22/2019	
Dichlorodifluoromethane	ND	5.0	ug/L							04/22/2019	
Diethyl ether	ND	5.0	ug/L							04/22/2019	
Diisopropyl Ether	ND	5.0	ug/L							04/22/2019	
Ethylbenzene	ND	1.0	ug/L							04/22/2019	
Ethyltertiarybutylether	ND	5.0	ug/L							04/22/2019	
Hexachloroethane	ND	5.0	ug/L							04/22/2019	
Hexane	ND	1.0	ug/L							04/22/2019	
Isopropylbenzene	ND	1.0	ug/L							04/22/2019	
m & p - Xylene	ND	2.0	ug/L							04/22/2019	
Methylene chloride	ND	5.0	ug/L							04/22/2019	
Methyltertiarybutylether	ND	1.0	ug/L							04/22/2019	
Naphthalene	ND	5.0	ug/L							04/22/2019	X
n-Butylbenzene	ND	1.0	ug/L							04/22/2019	
n-Propylbenzene	ND	1.0	ug/L							04/22/2019	
o-Xylene	ND	1.0	ug/L							04/22/2019	
sec-Butylbenzene	ND	1.0	ug/L							04/22/2019	
Styrene	ND	1.0	ug/L							04/22/2019	
tert-Butylbenzene	ND	1.0	ug/L							04/22/2019	
tertiary Butyl Alcohol	ND	50	ug/L							04/22/2019	
tertiaryAmylmethylether	ND	5.0	ug/L							04/22/2019	
Tetrachloroethylene	ND	1.0	ug/L							04/22/2019	
Tetrahydrofuran	ND	5.0	ug/L							04/22/2019	
Toluene	ND	1.0	ug/L							04/22/2019	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							04/22/2019	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							04/22/2019	
Trichloroethylene	ND	1.0	ug/L							04/22/2019	
Trichlorofluoromethane	ND	1.0	ug/L							04/22/2019	
Vinyl chloride	ND	1.0	ug/L							04/22/2019	
Surrogate: Bromofluorobenzene	*48.1*		ug/L	*50.00*		*96.3*	*85-115*			04/22/2019	
Surrogate: Dibromofluoromethane	*52.4*		ug/L	*50.00*		*105*	*82.7-115*			04/22/2019	
Surrogate: Toluene-d8	*52.2*		ug/L	*50.00*		*104*	*85-115*			04/22/2019	
LCS (B9D2202-BS1)											
1,1,1,2-Tetrachloroethane	50.0	1.0	ug/L	50.00		100	70-130			04/22/2019	
1,1,1-Trichloroethane	48.6	1.0	ug/L	50.00		97.1	70-130			04/22/2019	
1,1,2,2-Tetrachloroethane	50.3	1.0	ug/L	50.00		101	70-130			04/22/2019	
1,1,2-Trichloroethane	52.3	1.0	ug/L	50.00		105	70-130			04/22/2019	
1,1-Dichloroethane	52.5	1.0	ug/L	50.00		105	70-130			04/22/2019	
1,1-Dichloroethylene	51.3	1.0	ug/L	50.00		103	70-130			04/22/2019	
1,2,3-Trichlorobenzene	46.5	5.0	ug/L	50.00		93.0	70-130			04/22/2019	

MICHIGAN DEPARTMENT OF
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ENVIRONMENTAL LABORATORY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
LCS (B9D2202-BS1)											
1,2,3-Trichloropropane	46.6	1.0	ug/L	50.00		93.3	70-130			04/22/2019	
1,2,3-Trimethylbenzene	46.9	1.0	ug/L	50.00		93.9	70-130			04/22/2019	
1,2,4-Trichlorobenzene	46.5	5.0	ug/L	50.00		93.0	70-130			04/22/2019	
1,2,4-Trimethylbenzene	46.3	1.0	ug/L	50.00		92.7	70-130			04/22/2019	
1,2-Dibromoethane	46.9	1.0	ug/L	50.00		93.8	70-130			04/22/2019	
1,2-Dichlorobenzene	52.9	1.0	ug/L	50.00		106	70-130			04/22/2019	
1,2-Dichloroethane	48.8	1.0	ug/L	50.00		97.5	70-130			04/22/2019	
1,2-Dichloropropane	50.4	1.0	ug/L	50.00		101	70-130			04/22/2019	
1,3,5-Trimethylbenzene	46.6	1.0	ug/L	50.00		93.3	70-130			04/22/2019	
1,3-Dichlorobenzene	51.6	1.0	ug/L	50.00		103	70-130			04/22/2019	
1,4-Dichlorobenzene	52.4	1.0	ug/L	50.00		105	70-130			04/22/2019	
2,2,4-Trimethylpentane	48.3	5.0	ug/L	50.00		96.6	70-130			04/22/2019	
2-Butanone (MEK)	43.7	5.0	ug/L	50.00		87.5	70-130			04/22/2019	
2-Methylnaphthalene	48.4	5.0	ug/L	50.00		96.7	70-130			04/22/2019	X
2-Propanone (acetone)	48.6	20	ug/L	50.00		97.3	70-130			04/22/2019	
4-Methyl-2-pentanone (MIBK)	44.0	5.0	ug/L	50.00		88.0	70-130			04/22/2019	
Acrylonitrile	57.2	5.0	ug/L	50.00		114	70-130			04/22/2019	
Benzene	52.2	1.0	ug/L	50.00		104	70-130			04/22/2019	
Bromochloromethane	52.1	1.0	ug/L	50.00		104	70-130			04/22/2019	
Bromodichloromethane	49.7	1.0	ug/L	50.00		99.4	70-130			04/22/2019	
Bromoform	46.0	1.0	ug/L	50.00		92.0	70-130			04/22/2019	
Bromomethane	77.4	5.0	ug/L	50.00		155	70-130			04/22/2019	A09
Carbon disulfide	54.1	1.0	ug/L	50.00		108	70-130			04/22/2019	
Carbon tetrachloride	55.4	1.0	ug/L	50.00		111	70-130			04/22/2019	
Chlorobenzene	50.5	1.0	ug/L	50.00		101	70-130			04/22/2019	
Chloroethane	49.6	5.0	ug/L	50.00		99.3	70-130			04/22/2019	
Chloroform	52.1	1.0	ug/L	50.00		104	70-130			04/22/2019	
Chloromethane	56.6	5.0	ug/L	50.00		113	70-130			04/22/2019	
cis-1,2-Dichloroethylene	50.7	1.0	ug/L	50.00		101	70-130			04/22/2019	
cis-1,3-Dichloropropylene	49.9	1.0	ug/L	50.00		99.7	70-130			04/22/2019	
Cyclohexane	50.1	5.0	ug/L	50.00		100	70-130			04/22/2019	
Dibromochloromethane	48.8	1.0	ug/L	50.00		97.6	70-130			04/22/2019	
Dibromomethane	51.8	1.0	ug/L	50.00		104	70-130			04/22/2019	
Dichlorodifluoromethane	48.1	5.0	ug/L	50.00		96.2	70-130			04/22/2019	
Diethyl ether	53.9	5.0	ug/L	50.00		108	70-130			04/22/2019	
Diisopropyl Ether	55.1	5.0	ug/L	50.00		110	70-130			04/22/2019	
Ethylbenzene	51.7	1.0	ug/L	50.00		103	70-130			04/22/2019	
Ethyltertiarybutylether	50.9	5.0	ug/L	50.00		102	70-130			04/22/2019	
Hexachloroethane	44.5	5.0	ug/L	50.00		89.1	70-130			04/22/2019	
Hexane	49.9	1.0	ug/L	50.00		99.8	70-130			04/22/2019	
Isopropylbenzene	46.5	1.0	ug/L	50.00		93.1	70-130			04/22/2019	
m & p - Xylene	101	2.0	ug/L	100.0		101	70-130			04/22/2019	
Methylene chloride	57.1	5.0	ug/L	50.00		114	70-130			04/22/2019	
Methyltertiarybutylether	50.6	1.0	ug/L	50.00		101	70-130			04/22/2019	
Naphthalene	46.4	5.0	ug/L	50.00		92.7	70-130			04/22/2019	X
n-Butylbenzene	51.0	1.0	ug/L	50.00		102	70-130			04/22/2019	
n-Propylbenzene	49.7	1.0	ug/L	50.00		99.5	70-130			04/22/2019	

Lab Work Order # 1904148

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
LCS (B9D2202-BS1)											
o-Xylene	52.4	1.0	ug/L	50.00		105	70-130			04/22/2019	
sec-Butylbenzene	47.1	1.0	ug/L	50.00		94.1	70-130			04/22/2019	
Styrene	49.2	1.0	ug/L	50.00		98.4	70-130			04/22/2019	
tert-Butylbenzene	47.1	1.0	ug/L	50.00		94.3	70-130			04/22/2019	
tertiary Butyl Alcohol	254	50	ug/L	250.0		102	70-130			04/22/2019	
tertiaryAmylmethylether	48.5	5.0	ug/L	50.00		97.1	70-130			04/22/2019	
Tetrachloroethylene	47.5	1.0	ug/L	50.00		94.9	70-130			04/22/2019	
Tetrahydrofuran	47.1	5.0	ug/L	50.00		94.1	70-130			04/22/2019	
Toluene	52.5	1.0	ug/L	50.00		105	70-130			04/22/2019	
trans-1,2-Dichloroethylene	53.0	1.0	ug/L	50.00		106	70-130			04/22/2019	
trans-1,3-Dichloropropylene	48.6	1.0	ug/L	50.00		97.2	70-130			04/22/2019	
Trichloroethylene	51.5	1.0	ug/L	50.00		103	70-130			04/22/2019	
Trichlorofluoromethane	52.5	1.0	ug/L	50.00		105	70-130			04/22/2019	
Vinyl chloride	53.5	1.0	ug/L	50.00		107	70-130			04/22/2019	
Surrogate: Bromofluorobenzene	*47.3*		ug/L	*50.00*		*94.6*	*85-115*			04/22/2019	
Surrogate: Dibromofluoromethane	*49.2*		ug/L	*50.00*		*98.4*	*82.7-115*			04/22/2019	
Surrogate: Toluene-d8	*51.5*		ug/L	*50.00*		*103*	*85-115*			04/22/2019	
Matrix Spike (B9D2202-MS1)	**Source: 1904148-06**										
1,1,1,2-Tetrachloroethane	47.8	1.0	ug/L	50.00	ND	95.6	70-130			04/22/2019	
1,1,1-Trichloroethane	51.2	1.0	ug/L	50.00	ND	102	70-130			04/22/2019	
1,1,2,2-Tetrachloroethane	46.8	1.0	ug/L	50.00	ND	93.6	70-130			04/22/2019	
1,1,2-Trichloroethane	49.2	1.0	ug/L	50.00	ND	98.3	70-130			04/22/2019	
1,1-Dichloroethane	53.8	1.0	ug/L	50.00	ND	108	70-130			04/22/2019	
1,1-Dichloroethylene	57.5	1.0	ug/L	50.00	ND	115	70-130			04/22/2019	
1,2,3-Trichlorobenzene	44.1	5.0	ug/L	50.00	ND	88.1	70-130			04/22/2019	
1,2,3-Trichloropropane	42.5	1.0	ug/L	50.00	ND	85.0	70-130			04/22/2019	
1,2,3-Trimethylbenzene	46.6	1.0	ug/L	50.00	ND	93.3	70-130			04/22/2019	
1,2,4-Trichlorobenzene	44.1	5.0	ug/L	50.00	ND	88.1	70-130			04/22/2019	
1,2,4-Trimethylbenzene	47.5	1.0	ug/L	50.00	ND	95.1	70-130			04/22/2019	
1,2-Dibromoethane	43.3	1.0	ug/L	50.00	ND	86.6	70-130			04/22/2019	
1,2-Dichlorobenzene	51.4	1.0	ug/L	50.00	ND	103	70-130			04/22/2019	
1,2-Dichloroethane	43.7	1.0	ug/L	50.00	ND	87.4	70-130			04/22/2019	
1,2-Dichloropropane	51.3	1.0	ug/L	50.00	ND	103	70-130			04/22/2019	
1,3,5-Trimethylbenzene	48.4	1.0	ug/L	50.00	ND	96.7	70-130			04/22/2019	
1,3-Dichlorobenzene	51.1	1.0	ug/L	50.00	ND	102	70-130			04/22/2019	
1,4-Dichlorobenzene	51.1	1.0	ug/L	50.00	ND	102	70-130			04/22/2019	
2,2,4-Trimethylpentane	54.2	5.0	ug/L	50.00	ND	108	70-130			04/22/2019	
2-Butanone (MEK)	41.3	5.0	ug/L	50.00	ND	82.5	70-130			04/22/2019	
2-Methylnaphthalene	42.2	5.0	ug/L	50.00	ND	84.4	70-130			04/22/2019	X
2-Propanone (acetone)	47.4	20	ug/L	50.00	ND	94.7	70-130			04/22/2019	
4-Methyl-2-pentanone (MIBK)	43.5	5.0	ug/L	50.00	ND	87.0	70-130			04/22/2019	
Acrylonitrile	51.1	5.0	ug/L	50.00	ND	102	70-130			04/22/2019	
Benzene	55.1	1.0	ug/L	50.00	ND	110	70-130			04/22/2019	
Bromochloromethane	50.5	1.0	ug/L	50.00	ND	101	70-130			04/22/2019	
Bromodichloromethane	47.5	1.0	ug/L	50.00	ND	95.0	70-130			04/22/2019	
Bromoform	40.8	1.0	ug/L	50.00	ND	81.6	70-130			04/22/2019	

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
Matrix Spike (B9D2202-MS1)	**Source: 1904148-06**										
Bromomethane	40.3	5.0	ug/L	50.00	ND	80.6	70-130			04/22/2019	
Carbon disulfide	63.3	1.0	ug/L	50.00	ND	127	70-130			04/22/2019	
Carbon tetrachloride	64.7	1.0	ug/L	50.00	ND	129	70-130			04/22/2019	
Chlorobenzene	50.9	1.0	ug/L	50.00	ND	102	70-130			04/22/2019	
Chloroethane	51.2	5.0	ug/L	50.00	ND	102	70-130			04/22/2019	
Chloroform	50.9	1.0	ug/L	50.00	ND	102	70-130			04/22/2019	
Chloromethane	59.6	5.0	ug/L	50.00	ND	119	70-130			04/22/2019	
cis-1,2-Dichloroethylene	51.7	1.0	ug/L	50.00	ND	103	70-130			04/22/2019	
cis-1,3-Dichloropropylene	48.7	1.0	ug/L	50.00	ND	97.4	70-130			04/22/2019	
Cyclohexane	61.3	5.0	ug/L	50.00	ND	123	70-130			04/22/2019	
Dibromochloromethane	44.6	1.0	ug/L	50.00	ND	89.1	70-130			04/22/2019	
Dibromomethane	49.4	1.0	ug/L	50.00	ND	98.9	70-130			04/22/2019	
Dichlorodifluoromethane	57.3	5.0	ug/L	50.00	ND	115	70-130			04/22/2019	
Diethyl ether	51.7	5.0	ug/L	50.00	ND	103	70-130			04/22/2019	
Diisopropyl Ether	54.2	5.0	ug/L	50.00	ND	108	70-130			04/22/2019	
Ethylbenzene	54.9	1.0	ug/L	50.00	ND	110	70-130			04/22/2019	
Ethyltertiarybutylether	48.3	5.0	ug/L	50.00	ND	96.5	70-130			04/22/2019	
Hexachloroethane	42.8	5.0	ug/L	50.00	ND	85.7	70-130			04/22/2019	
Hexane	60.3	1.0	ug/L	50.00	ND	121	70-130			04/22/2019	
Isopropylbenzene	49.7	1.0	ug/L	50.00	ND	99.4	70-130			04/22/2019	
m & p - Xylene	106	2.0	ug/L	100.0	ND	106	70-130			04/22/2019	
Methylene chloride	56.9	5.0	ug/L	50.00	ND	114	70-130			04/22/2019	
Methyltertiarybutylether	45.7	1.0	ug/L	50.00	ND	91.4	70-130			04/22/2019	
Naphthalene	42.3	5.0	ug/L	50.00	ND	84.6	70-130			04/22/2019	X
n-Butylbenzene	55.2	1.0	ug/L	50.00	ND	110	70-130			04/22/2019	
n-Propylbenzene	53.1	1.0	ug/L	50.00	ND	106	70-130			04/22/2019	
o-Xylene	53.4	1.0	ug/L	50.00	ND	107	70-130			04/22/2019	
sec-Butylbenzene	51.1	1.0	ug/L	50.00	ND	102	70-130			04/22/2019	
Styrene	50.3	1.0	ug/L	50.00	ND	101	70-130			04/22/2019	
tert-Butylbenzene	49.3	1.0	ug/L	50.00	ND	98.7	70-130			04/22/2019	
tertiary Butyl Alcohol	241	50	ug/L	250.0	ND	96.5	70-130			04/22/2019	
tertiaryAmylmethylether	45.3	5.0	ug/L	50.00	ND	90.6	70-130			04/22/2019	
Tetrachloroethylene	53.3	1.0	ug/L	50.00	ND	107	70-130			04/22/2019	
Tetrahydrofuran	46.6	5.0	ug/L	50.00	ND	93.2	70-130			04/22/2019	
Toluene	55.4	1.0	ug/L	50.00	ND	111	70-130			04/22/2019	
trans-1,2-Dichloroethylene	56.2	1.0	ug/L	50.00	ND	112	70-130			04/22/2019	
trans-1,3-Dichloropropylene	44.8	1.0	ug/L	50.00	ND	89.5	70-130			04/22/2019	
Trichloroethylene	55.4	1.0	ug/L	50.00	ND	111	70-130			04/22/2019	
Trichlorofluoromethane	62.8	1.0	ug/L	50.00	ND	126	70-130			04/22/2019	
Vinyl chloride	60.8	1.0	ug/L	50.00	ND	122	70-130			04/22/2019	
Surrogate: Bromofluorobenzene	*44.9*		ug/L	*50.00*		*89.8*	*85-115*			04/22/2019	
Surrogate: Dibromofluoromethane	*46.8*		ug/L	*50.00*		*93.7*	*82.7-115*			04/22/2019	
Surrogate: Toluene-d8	*48.8*		ug/L	*50.00*		*97.6*	*85-115*			04/22/2019	
Matrix Spike Dup (B9D2202-MSD1)	**Source: 1904148-06**										
1,1,1,2-Tetrachloroethane	45.2	1.0	ug/L	50.00	ND	90.5	70-130	5.51	30	04/22/2019	
1,1,1-Trichloroethane	46.6	1.0	ug/L	50.00	ND	93.2	70-130	9.46	30	04/22/2019	

Lab Work Order # 1904148

MICHIGAN DEPARTMENT OF
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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
Matrix Spike Dup (B9D2202-MSD1)	**Source: 1904148-06**										
1,1,2,2-Tetrachloroethane	47.1	1.0	ug/L	50.00	ND	94.3	70-130	0.771	30	04/22/2019	
1,1,2-Trichloroethane	48.3	1.0	ug/L	50.00	ND	96.7	70-130	1.67	30	04/22/2019	
1,1-Dichloroethane	49.6	1.0	ug/L	50.00	ND	99.3	70-130	8.12	30	04/22/2019	
1,1-Dichloroethylene	52.5	1.0	ug/L	50.00	ND	105	70-130	9.00	30	04/22/2019	
1,2,3-Trichlorobenzene	41.6	5.0	ug/L	50.00	ND	83.3	70-130	5.65	30	04/22/2019	
1,2,3-Trichloropropane	43.0	1.0	ug/L	50.00	ND	86.1	70-130	1.27	30	04/22/2019	
1,2,3-Trimethylbenzene	44.5	1.0	ug/L	50.00	ND	89.0	70-130	4.70	30	04/22/2019	
1,2,4-Trichlorobenzene	41.6	5.0	ug/L	50.00	ND	83.3	70-130	5.65	30	04/22/2019	
1,2,4-Trimethylbenzene	44.7	1.0	ug/L	50.00	ND	89.5	70-130	6.10	30	04/22/2019	
1,2-Dibromoethane	43.0	1.0	ug/L	50.00	ND	86.0	70-130	0.713	30	04/22/2019	
1,2-Dichlorobenzene	49.7	1.0	ug/L	50.00	ND	99.3	70-130	3.46	30	04/22/2019	
1,2-Dichloroethane	42.6	1.0	ug/L	50.00	ND	85.3	70-130	2.40	30	04/22/2019	
1,2-Dichloropropane	49.5	1.0	ug/L	50.00	ND	99.0	70-130	3.56	30	04/22/2019	
1,3,5-Trimethylbenzene	45.2	1.0	ug/L	50.00	ND	90.3	70-130	6.84	30	04/22/2019	
1,3-Dichlorobenzene	48.6	1.0	ug/L	50.00	ND	97.2	70-130	5.03	30	04/22/2019	
1,4-Dichlorobenzene	48.3	1.0	ug/L	50.00	ND	96.7	70-130	5.62	30	04/22/2019	
2,2,4-Trimethylpentane	47.5	5.0	ug/L	50.00	ND	95.0	70-130	13.1	30	04/22/2019	
2-Butanone (MEK)	44.3	5.0	ug/L	50.00	ND	88.6	70-130	7.11	30	04/22/2019	
2-Methylnaphthalene	43.0	5.0	ug/L	50.00	ND	86.0	70-130	1.86	30	04/22/2019	X
2-Propanone (acetone)	50.5	20	ug/L	50.00	ND	101	70-130	6.46	30	04/22/2019	
4-Methyl-2-pentanone (MIBK)	49.3	5.0	ug/L	50.00	ND	98.6	70-130	12.6	30	04/22/2019	
Acrylonitrile	56.4	5.0	ug/L	50.00	ND	113	70-130	9.99	30	04/22/2019	
Benzene	51.3	1.0	ug/L	50.00	ND	103	70-130	7.27	30	04/22/2019	
Bromochloromethane	49.5	1.0	ug/L	50.00	ND	99.1	70-130	2.04	30	04/22/2019	
Bromodichloromethane	45.4	1.0	ug/L	50.00	ND	90.7	70-130	4.65	30	04/22/2019	
Bromoform	40.5	1.0	ug/L	50.00	ND	81.0	70-130	0.750	30	04/22/2019	
Bromomethane	39.8	5.0	ug/L	50.00	ND	79.6	70-130	1.27	30	04/22/2019	
Carbon disulfide	56.9	1.0	ug/L	50.00	ND	114	70-130	10.6	30	04/22/2019	
Carbon tetrachloride	58.8	1.0	ug/L	50.00	ND	118	70-130	9.64	30	04/22/2019	
Chlorobenzene	47.9	1.0	ug/L	50.00	ND	95.8	70-130	6.10	30	04/22/2019	
Chloroethane	57.6	5.0	ug/L	50.00	ND	115	70-130	11.9	30	04/22/2019	
Chloroform	47.9	1.0	ug/L	50.00	ND	95.9	70-130	6.03	30	04/22/2019	
Chloromethane	54.7	5.0	ug/L	50.00	ND	109	70-130	8.54	30	04/22/2019	
cis-1,2-Dichloroethylene	48.1	1.0	ug/L	50.00	ND	96.3	70-130	7.05	30	04/22/2019	
cis-1,3-Dichloropropylene	46.9	1.0	ug/L	50.00	ND	93.9	70-130	3.72	30	04/22/2019	
Cyclohexane	55.3	5.0	ug/L	50.00	ND	111	70-130	10.2	30	04/22/2019	
Dibromochloromethane	43.2	1.0	ug/L	50.00	ND	86.5	70-130	3.00	30	04/22/2019	
Dibromomethane	48.5	1.0	ug/L	50.00	ND	97.1	70-130	1.81	30	04/22/2019	
Dichlorodifluoromethane	50.8	5.0	ug/L	50.00	ND	102	70-130	11.9	30	04/22/2019	
Diethyl ether	51.8	5.0	ug/L	50.00	ND	104	70-130	0.127	30	04/22/2019	
Diisopropyl Ether	52.8	5.0	ug/L	50.00	ND	106	70-130	2.53	30	04/22/2019	
Ethylbenzene	50.5	1.0	ug/L	50.00	ND	101	70-130	8.42	30	04/22/2019	
Ethyltertiarybutylether	47.6	5.0	ug/L	50.00	ND	95.3	70-130	1.31	30	04/22/2019	
Hexachloroethane	40.3	5.0	ug/L	50.00	ND	80.5	70-130	6.18	30	04/22/2019	
Hexane	54.1	1.0	ug/L	50.00	ND	108	70-130	10.9	30	04/22/2019	
Isopropylbenzene	46.0	1.0	ug/L	50.00	ND	92.0	70-130	7.72	30	04/22/2019	
m & p - Xylene	99.1	2.0	ug/L	100.0	ND	99.1	70-130	6.53	30	04/22/2019	

Lab Work Order # 1904148

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2202 - Method: 5030				**Prepared: 04/22/2019**							
Matrix Spike Dup (B9D2202-MSD1)	**Source: 1904148-06**										
Methylene chloride	54.8	5.0	ug/L	50.00	ND	110	70-130	3.72	30	04/22/2019	
Methyltertiarybutylether	46.5	1.0	ug/L	50.00	ND	93.0	70-130	1.76	30	04/22/2019	
Naphthalene	41.6	5.0	ug/L	50.00	ND	83.2	70-130	1.61	30	04/22/2019	X
n-Butylbenzene	51.2	1.0	ug/L	50.00	ND	102	70-130	7.53	30	04/22/2019	
n-Propylbenzene	49.4	1.0	ug/L	50.00	ND	98.9	70-130	7.22	30	04/22/2019	
o-Xylene	50.0	1.0	ug/L	50.00	ND	100	70-130	6.51	30	04/22/2019	
sec-Butylbenzene	47.9	1.0	ug/L	50.00	ND	95.7	70-130	6.55	30	04/22/2019	
Styrene	48.1	1.0	ug/L	50.00	ND	96.1	70-130	4.49	30	04/22/2019	
tert-Butylbenzene	46.5	1.0	ug/L	50.00	ND	93.0	70-130	5.97	30	04/22/2019	
tertiary Butyl Alcohol	238	50	ug/L	250.0	ND	95.3	70-130	1.30	30	04/22/2019	
tertiaryAmylmethylether	46.1	5.0	ug/L	50.00	ND	92.3	70-130	1.82	30	04/22/2019	
Tetrachloroethylene	47.9	1.0	ug/L	50.00	ND	95.8	70-130	10.7	30	04/22/2019	
Tetrahydrofuran	50.7	5.0	ug/L	50.00	ND	101	70-130	8.53	30	04/22/2019	
Toluene	51.3	1.0	ug/L	50.00	ND	103	70-130	7.83	30	04/22/2019	
trans-1,2-Dichloroethylene	51.5	1.0	ug/L	50.00	ND	103	70-130	8.77	30	04/22/2019	
trans-1,3-Dichloropropylene	44.0	1.0	ug/L	50.00	ND	88.0	70-130	1.78	30	04/22/2019	
Trichloroethylene	51.0	1.0	ug/L	50.00	ND	102	70-130	8.14	30	04/22/2019	
Trichlorofluoromethane	56.7	1.0	ug/L	50.00	ND	113	70-130	10.3	30	04/22/2019	
Vinyl chloride	55.2	1.0	ug/L	50.00	ND	110	70-130	9.70	30	04/22/2019	
Surrogate: Bromofluorobenzene	*43.7*		ug/L	*50.00*		*87.5*	*85-115*			04/22/2019	
Surrogate: Dibromofluoromethane	*46.1*		ug/L	*50.00*		*92.3*	*82.7-115*			04/22/2019	
Surrogate: Toluene-d8	*47.8*		ug/L	*50.00*		*95.6*	*85-115*			04/22/2019	

MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

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Lansing, MI 48909
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Organics-Dioxane - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9D2212 - Method: 5030				**Prepared: 04/19/2019**							
Blank (B9D2212-BLK1)											
1,4-dioxane	ND	1.0	ug/L							04/19/2019	
LCS (B9D2212-BS1)											
1,4-dioxane	10.5	1.0	ug/L	10.00		105	70-130			04/19/2019	
Matrix Spike (B9D2212-MS1)	**Source: 1904148-02**										
1,4-dioxane	21.9	1.0	ug/L	10.00	10.4	115	70-130			04/19/2019	
Matrix Spike Dup (B9D2212-MSD1)	**Source: 1904148-02**										**A03**
1,4-dioxane	17.2	1.0	ug/L	10.00	10.4	67.8	70-130	24.1	30	04/19/2019	

Michigan Department of Environmental Quality
Laboratory Services Section

Analysis Request Sheet

Lab Work Order Number	Project Name	Matrix
1904148	Gelman Sciences	WATER

Site Code/Project Number: 81000018/Location 6130	AY: 19	CC Email 1: lundk@michigan.gov	Project TAT Days:	Sample Collector: Sara Nedrich	
Dept-Division-District: DEQ-RRD-Jackson	Index:	CC Email 2: NedrichS@michigan.gov	Project Due Date:	Sample Collector Phone: 517-281-1510	
State Project Manager: Dan Hamel	PCA:	CC Email 3:		Contract Firm:	
State Project Manager Email: hameld@michigan.gov	Project: Location-6130	Overflow Lab Choice 1:	Accept Analysis hold time codes:	Contract Firm Primary Contact:	
State Project Manager Phone: 517-745-6595	Phase:	Overflow Lab Choice 2:		Primary Contact Phone:	

	Lab Use Only	Field Sample Identification	Collection Date	Collection Time	Container Count	Comments
1	01	Allen Creek/West Park SW	4/18/19	9:49	5	Please include QA/QC with Lab Data Report(s)
2	02	Allen Creek/Chapin-West Park	4/18/19	9:38	5	✓
3	03	Allen Creek/Maple Ridge-Arborview	4/18/19	10:00	3	✓
4	04	Allen Creek/Wildwood-Arborview	4/18/19	10:15	3	✓
5	05	Allen Creek/Murray-Washington	4/18/19	10:55	5	✓
6	06	Allen Creek/Eighth-Waterworks	4/18/19	10:45	3	✓
7	07	Allen Creek-Maryfield-Wildwood Park	4/18/19	10:30	5	✓
8						
9						
10						

ORGANIC CHEMISTRY

VOA - Volatile Organic Acidic	
Volatiles - Full List	1 2 3 4 5 6 7 8 9 10
BTEX/MTBE/TMB only	1 2 3 4 5 6 7 8 9 10
Chlorinated only	1 2 3 4 5 6 7 8 9 10
GRO	1 2 3 4 5 6 7 8 9 10
1,4 Dioxane	1 2 3 4 5 6 7 8 9 10
METH - Methane, Ethane, Ethene	
Methane, Ethane, Ethene	1 2 3 4 5 6 7 8 9 10
ON - Pesticides, PCBs	
Pesticides & PCBs	1 2 3 4 5 6 7 8 9 10
Pesticides only	1 2 3 4 5 6 7 8 9 10
PCBs only	1 2 3 4 5 6 7 8 9 10
Toxaphene	1 2 3 4 5 6 7 8 9 10
Chlordane	1 2 3 4 5 6 7 8 9 10
BNA - Base Neutral Acids	
BNAs	1 2 3 4 5 6 7 8 9 10
Benzidines	1 2 3 4 5 6 7 8 9 10
PNAs only	1 2 3 4 5 6 7 8 9 10
BNs only	1 2 3 4 5 6 7 8 9 10
Acids only	1 2 3 4 5 6 7 8 9 10
Organic Specialty Requests	
Library search - Volatiles	1 2 3 4 5 6 7 8 9 10
Library search - SemiVols	1 2 3 4 5 6 7 8 9 10
Finger Print	1 2 3 4 5 6 7 8 9 10
DRO / ORO	1 2 3 4 5 6 7 8 9 10

METALS CHEMISTRY PACKAGES

OpMemo2 - Total	1 2 3 4 5 6 7 8 9 10
OpMemo2 - Dissolved	1 2 3 4 5 6 7 8 9 10
(Sb,As,Ba,Be,Cd,Cr,Cu,Co,Fe,Pb,Mn,Hg,Mo,Ni,Se,Ag,Tl,V,Zn)	
Michigan10 - Total	1 2 3 4 5 6 7 8 9 10
Michigan10 - Dissolved	1 2 3 4 5 6 7 8 9 10
(As,Ba,Cd,Cr,Cu,Pb,Hg,Se,Ag,Zn)	

MAD - DISSOLVED METALS

Diss - Silver - Ag	1 2 3 4 5 6 7 8 9 10
Diss - Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Diss - Arsenic - As	1 2 3 4 5 6 7 8 9 10
Diss - Boron - B	1 2 3 4 5 6 7 8 9 10
Diss - Barium - Ba	1 2 3 4 5 6 7 8 9 10
Diss - Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Diss - Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Diss - Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Diss - Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Diss - Copper - Cu	1 2 3 4 5 6 7 8 9 10
Diss - Iron - Fe	1 2 3 4 5 6 7 8 9 10
Diss - Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Diss - Lithium - Li	1 2 3 4 5 6 7 8 9 10
Diss - Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Diss - Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Diss - Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Diss - Lead - Pb	1 2 3 4 5 6 7 8 9 10
Diss - Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Diss - Selenium - Se	1 2 3 4 5 6 7 8 9 10
Diss - Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Diss - Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Diss - Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Diss - Uranium - U	1 2 3 4 5 6 7 8 9 10
Diss - Vanadium - V	1 2 3 4 5 6 7 8 9 10
Diss - Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Diss - Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Diss - Potassium - K	1 2 3 4 5 6 7 8 9 10
Diss - Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Diss - Sodium - Na	1 2 3 4 5 6 7 8 9 10
Diss - Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
MD - Metals Dissolved	
Lab Filtration	1 2 3 4 5 6 7 8 9 10

MA - TOTAL METALS

Silver - Ag	1 2 3 4 5 6 7 8 9 10
Aluminum - Al	1 2 3 4 5 6 7 8 9 10
Arsenic - As	1 2 3 4 5 6 7 8 9 10
Boron - B	1 2 3 4 5 6 7 8 9 10
Barium - Ba	1 2 3 4 5 6 7 8 9 10
Beryllium - Be	1 2 3 4 5 6 7 8 9 10
Cadmium - Cd	1 2 3 4 5 6 7 8 9 10
Cobalt - Co	1 2 3 4 5 6 7 8 9 10
Chromium - Cr	1 2 3 4 5 6 7 8 9 10
Copper - Cu	1 2 3 4 5 6 7 8 9 10
Iron - Fe	1 2 3 4 5 6 7 8 9 10
Mercury - Hg	1 2 3 4 5 6 7 8 9 10
Lithium - Li	1 2 3 4 5 6 7 8 9 10
Manganese - Mn	1 2 3 4 5 6 7 8 9 10
Molybdenum - Mo	1 2 3 4 5 6 7 8 9 10
Nickel - Ni	1 2 3 4 5 6 7 8 9 10
Lead - Pb	1 2 3 4 5 6 7 8 9 10
Antimony - Sb	1 2 3 4 5 6 7 8 9 10
Selenium - Se	1 2 3 4 5 6 7 8 9 10
Strontium - Sr	1 2 3 4 5 6 7 8 9 10
Titanium - Ti	1 2 3 4 5 6 7 8 9 10
Thallium - Tl	1 2 3 4 5 6 7 8 9 10
Uranium - U	1 2 3 4 5 6 7 8 9 10
Vanadium - V	1 2 3 4 5 6 7 8 9 10
Zinc - Zn	1 2 3 4 5 6 7 8 9 10
Calcium - Ca	1 2 3 4 5 6 7 8 9 10
Potassium - K	1 2 3 4 5 6 7 8 9 10
Magnesium - Mg	1 2 3 4 5 6 7 8 9 10
Sodium - Na	1 2 3 4 5 6 7 8 9 10
Hardness - Ca, Mg	1 2 3 4 5 6 7 8 9 10
LHG - Low Level Mercury	
Mercury Low Level - Hg	1 2 3 4 5 6 7 8 9 10

GENERAL CHEMISTRY

GB	Total Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GB	Amenable Cyanide - CN	1 2 3 4 5 6 7 8 9 10
GCN	Available Cyanide - CN	1 2 3 4 5 6 7 8 9 10
CA	Chlorophyll	1 2 3 4 5 6 7 8 9 10
GN	Ortho Phosphate - OP	1 2 3 4 5 6 7 8 9 10
GN	Nitrite - NO_2	1 2 3 4 5 6 7 8 9 10
GN	Nitrate - NO_3 (Calc.)	1 2 3 4 5 6 7 8 9 10
GN	Suspended Solids - SS	1 2 3 4 5 6 7 8 9 10
GN	Dissolved Solids - TDS	1 2 3 4 5 6 7 8 9 10
MN	Diss Solids - TDS (Calc.)	1 2 3 4 5 6 7 8 9 10
GN	Turbidity	1 2 3 4 5 6 7 8 9 10
MN	Total Alkalinity	1 2 3 4 5 6 7 8 9 10
MN	Bicarb/Carb Alkalinity (includes Total Alkalinity)	1 2 3 4 5 6 7 8 9 10
MN	Chloride - Cl	1 2 3 4 5 6 7 8 9 10
MN	Fluoride - F	1 2 3 4 5 6 7 8 9 10
MN	Sulfate - SO4	1 2 3 4 5 6 7 8 9 10
MN	Chromium 6 - Cr+6	1 2 3 4 5 6 7 8 9 10
MN	Conductivity	1 2 3 4 5 6 7 8 9 10
MN	pH	1 2 3 4 5 6 7 8 9 10
GA	Chem Oxyg Dem - COD	1 2 3 4 5 6 7 8 9 10
GA	Diss Org Carbon - DOC (FF) (Field - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GN	Diss Org Carbon - DOC (LF) (Lab - Filtered & Preserved)	1 2 3 4 5 6 7 8 9 10
GA	Total Org Carbon - TOC	1 2 3 4 5 6 7 8 9 10
GA	Ammonia - NH3	1 2 3 4 5 6 7 8 9 10
GA	Nitrate+Nitrite - NO3+NO2	1 2 3 4 5 6 7 8 9 10
GA	Kjeldahl Nitrogen - KN	1 2 3 4 5 6 7 8 9 10
GA	Total Phosphorus - TP	1 2 3 4 5 6 7 8 9 10

Chain of Custody

	Relinquished by	Received By	Date / Time
Print Name & Org.	Caitlin Bates	Melissa Smith	4/18/19 1605
Signature:	Caitlin Bates		
Print Name & Org.			
Signature:			
Print Name & Org.			
Signature:			