

11 June 2019

Work Order: 1905292

Price: \$1,080.00

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



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

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

Project: GELMAN SCIENCES, INC
Site Code: 81000018/Location 6130
Project Manager: Dan Hamel

Reported:
06/11/2019

Analytical Report for Samples

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Qualifier
Allen Creek/West Park SW	1905292-01	Water	05/28/2019	05/29/2019	
Allen Creek/Chapin-West Park	1905292-02	Water	05/28/2019	05/29/2019	
Allen Creek/Maple Ridge-Arborview	1905292-03	Water	05/28/2019	05/29/2019	
Allen Creek/Murray-Washington	1905292-04	Water	05/28/2019	05/29/2019	
Allen Creek/Eighth-Waterworks	1905292-05	Water	05/28/2019	05/29/2019	
Allen Creek-Maryfield-Wildwood Park	1905292-06	Water	05/28/2019	05/29/2019	

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 °C. 2-Methylnaphthalene & naphthalene have boiling points above 200 °C and are better suited to analysis by methods 8270 & 625 as semivolatile organics.
- 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: 1905292-01

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	05/30/19	B9E3008	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/30/19	B9E3008	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	



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Client ID: Allen Creek/West Park SW

Lab ID: 1905292-01

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/30/19	B9E3008	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/30/19	B9E3008	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
<i>Surrogate: Bromofluorobenzene</i>			98.2 %	85-115		05/30/19	B9E3008	8260	
<i>Surrogate: Dibromofluoromethane</i>			99.3 %	82.7-115		05/30/19	B9E3008	8260	
<i>Surrogate: Toluene-d8</i>			97.8 %	85-115		05/30/19	B9E3008	8260	



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Organics-Dioxane

123-91-1	1,4-dioxane	16	1.0	ug/L	1	06/04/19	B9F0506	8260 Modified	
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Client ID: Allen Creek/Chapin-West Park

Lab ID: 1905292-02

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	05/30/19	B9E3008	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/30/19	B9E3008	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	



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CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/30/19	B9E3008	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/30/19	B9E3008	8260	
994-05-8	tertiaryAmylmeylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
<i>Surrogate: Bromofluorobenzene</i>			<i>101 %</i>	<i>85-115</i>		<i>05/30/19</i>	<i>B9E3008</i>	<i>8260</i>	
<i>Surrogate: Dibromofluoromethane</i>			<i>102 %</i>	<i>82.7-115</i>		<i>05/30/19</i>	<i>B9E3008</i>	<i>8260</i>	
<i>Surrogate: Toluene-d8</i>			<i>97.7 %</i>	<i>85-115</i>		<i>05/30/19</i>	<i>B9E3008</i>	<i>8260</i>	



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Lab ID: 1905292-03

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	05/30/19	B9E3008	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/30/19	B9E3008	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/30/19	B9E3008	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/Maple Ridge-Arborview

Lab ID: 1905292-03

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/30/19	B9E3008	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/30/19	B9E3008	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
<i>Surrogate: Bromofluorobenzene</i>			<i>103 %</i>	<i>85-115</i>		<i>05/30/19</i>	<i>B9E3008</i>	<i>8260</i>	
<i>Surrogate: Dibromofluoromethane</i>			<i>101 %</i>	<i>82.7-115</i>		<i>05/30/19</i>	<i>B9E3008</i>	<i>8260</i>	
<i>Surrogate: Toluene-d8</i>			<i>99.7 %</i>	<i>85-115</i>		<i>05/30/19</i>	<i>B9E3008</i>	<i>8260</i>	



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/Maple Ridge-Arborview

Lab ID: 1905292-03

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	06/04/19	B9F0506	8260 Modified	



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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: 1905292-04

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	05/30/19	B9E3008	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/30/19	B9E3008	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	



MICHIGAN DEPARTMENT OF
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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: 1905292-04

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/30/19	B9E3008	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/30/19	B9E3008	8260	
994-05-8	tertiaryAmylmehtylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-01-6	Trichloroethylene	1.0	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
<i>Surrogate: Bromofluorobenzene</i>			99.7 %	85-115		05/30/19	B9E3008	8260	
<i>Surrogate: Dibromofluoromethane</i>			101 %	82.7-115		05/30/19	B9E3008	8260	
<i>Surrogate: Toluene-d8</i>			97.6 %	85-115		05/30/19	B9E3008	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/Eighth-Waterworks

Lab ID: 1905292-05

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	05/30/19	B9E3008	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/30/19	B9E3008	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/30/19	B9E3008	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/Eighth-Waterworks

Lab ID: 1905292-05

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
100-41-4	Ethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/30/19	B9E3008	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
100-42-5	Styrene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/30/19	B9E3008	8260	
994-05-8	tertiaryAmylmethylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
Surrogate: Bromofluorobenzene			98.3 %	85-115		05/30/19	B9E3008	8260	
Surrogate: Dibromofluoromethane			102 %	82.7-115		05/30/19	B9E3008	8260	
Surrogate: Toluene-d8			97.2 %	85-115		05/30/19	B9E3008	8260	



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Client ID: Allen Creek/Eighth-Waterworks

Lab ID: 1905292-05

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	06/04/19	B9F0506	8260 Modified	



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Client ID: Allen Creek-Maryfield-Wildwood Park

Lab ID: 1905292-06

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	05/30/19	B9E3008	8260	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
96-18-4	1,2,3-Trichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
526-73-8	1,2,3-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
540-84-1	2,2,4-Trimethylpentane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
67-64-1	2-Propanone (acetone)	ND	20	ug/L	1	05/30/19	B9E3008	8260	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
107-13-1	Acrylonitrile	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
71-43-2	Benzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-97-5	Bromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-27-4	Bromodichloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-25-2	Bromoform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-83-9	Bromomethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
75-15-0	Carbon disulfide	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
56-23-5	Carbon tetrachloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
108-90-7	Chlorobenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-00-3	Chloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-66-3	Chloroform	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-87-3	Chloromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-01-5	cis-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
110-82-7	Cyclohexane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
124-48-1	Dibromochloromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
74-95-3	Dibromomethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	



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P.O. Box 30270
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TEL: (517) 335-9800
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Client ID: Allen Creek-Maryfield-Wildwood Park

Lab ID: 1905292-06

CAS #	Analyte	Result	RL	Units	Dilution	Analyzed Date	QC Batch	Method	Qualifier
Organics-Volatiles									
75-71-8	Dichlorodifluoromethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
60-29-7	Diethyl ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-20-3	Diisopropyl Ether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
100-41-4	Ethylbenzene	13	1.0	ug/L	1	05/30/19	B9E3008	8260	
637-92-3	Ethyltertiarybutylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
67-72-1	Hexachloroethane	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
110-54-3	Hexane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-82-8	Isopropylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
1330-20-7	m & p - Xylene	ND	2.0	ug/L	1	05/30/19	B9E3008	8260	
75-09-2	Methylene chloride	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
1634-04-4	Methyltertiarybutylether	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
91-20-3	Naphthalene	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	X
104-51-8	n-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
103-65-1	n-Propylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
95-47-6	o-Xylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
135-98-8	sec-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
100-42-5	Styrene	12	1.0	ug/L	1	05/30/19	B9E3008	8260	
98-06-6	tert-Butylbenzene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-65-0	tertiary Butyl Alcohol	ND	50	ug/L	1	05/30/19	B9E3008	8260	
994-05-8	tertiaryAmylmehtylether	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
127-18-4	Tetrachloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
109-99-9	Tetrahydrofuran	ND	5.0	ug/L	1	05/30/19	B9E3008	8260	
108-88-3	Toluene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
10061-02-6	trans-1,3-Dichloropropylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
79-01-6	Trichloroethylene	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
75-01-4	Vinyl chloride	ND	1.0	ug/L	1	05/30/19	B9E3008	8260	
Surrogate: Bromofluorobenzene			107 %	85-115		05/30/19	B9E3008	8260	
Surrogate: Dibromofluoromethane			102 %	82.7-115		05/30/19	B9E3008	8260	
Surrogate: Toluene-d8			101 %	85-115		05/30/19	B9E3008	8260	



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P.O. Box 30270
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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
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

Blank (B9E3008-BLK1)

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L							05/30/2019	
1,1,1-Trichloroethane	ND	1.0	ug/L							05/30/2019	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L							05/30/2019	
1,1,2-Trichloroethane	ND	1.0	ug/L							05/30/2019	
1,1-Dichloroethane	ND	1.0	ug/L							05/30/2019	
1,1-Dichloroethylene	ND	1.0	ug/L							05/30/2019	
1,2,3-Trichlorobenzene	ND	5.0	ug/L							05/30/2019	
1,2,3-Trichloropropane	ND	1.0	ug/L							05/30/2019	
1,2,3-Trimethylbenzene	ND	1.0	ug/L							05/30/2019	
1,2,4-Trichlorobenzene	ND	5.0	ug/L							05/30/2019	
1,2,4-Trimethylbenzene	ND	1.0	ug/L							05/30/2019	
1,2-Dibromoethane	ND	1.0	ug/L							05/30/2019	
1,2-Dichlorobenzene	ND	1.0	ug/L							05/30/2019	
1,2-Dichloroethane	ND	1.0	ug/L							05/30/2019	
1,2-Dichloropropane	ND	1.0	ug/L							05/30/2019	
1,3,5-Trimethylbenzene	ND	1.0	ug/L							05/30/2019	
1,3-Dichlorobenzene	ND	1.0	ug/L							05/30/2019	
1,4-Dichlorobenzene	ND	1.0	ug/L							05/30/2019	
2,2,4-Trimethylpentane	ND	5.0	ug/L							05/30/2019	
2-Butanone (MEK)	ND	5.0	ug/L							05/30/2019	
2-Methylnaphthalene	ND	5.0	ug/L							05/30/2019	X
2-Propanone (acetone)	ND	20	ug/L							05/30/2019	
4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/L							05/30/2019	
Acrylonitrile	ND	5.0	ug/L							05/30/2019	
Benzene	ND	1.0	ug/L							05/30/2019	
Bromochloromethane	ND	1.0	ug/L							05/30/2019	
Bromodichloromethane	ND	1.0	ug/L							05/30/2019	
Bromoform	ND	1.0	ug/L							05/30/2019	
Bromomethane	ND	5.0	ug/L							05/30/2019	
Carbon disulfide	ND	1.0	ug/L							05/30/2019	
Carbon tetrachloride	ND	1.0	ug/L							05/30/2019	
Chlorobenzene	ND	1.0	ug/L							05/30/2019	
Chloroethane	ND	5.0	ug/L							05/30/2019	
Chloroform	ND	1.0	ug/L							05/30/2019	
Chloromethane	ND	5.0	ug/L							05/30/2019	
cis-1,2-Dichloroethylene	ND	1.0	ug/L							05/30/2019	
cis-1,3-Dichloropropylene	ND	1.0	ug/L							05/30/2019	
Cyclohexane	ND	5.0	ug/L							05/30/2019	
Dibromochloromethane	ND	1.0	ug/L							05/30/2019	
Dibromomethane	ND	1.0	ug/L							05/30/2019	
Dichlorodifluoromethane	ND	5.0	ug/L							05/30/2019	
Diethyl ether	ND	5.0	ug/L							05/30/2019	
Diisopropyl Ether	ND	5.0	ug/L							05/30/2019	
Ethylbenzene	ND	1.0	ug/L							05/30/2019	
Ethyltertiarybutylether	ND	5.0	ug/L							05/30/2019	
Hexachloroethane	ND	5.0	ug/L							05/30/2019	
Hexane	ND	1.0	ug/L							05/30/2019	



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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

Blank (B9E3008-BLK1)

Isopropylbenzene	ND	1.0	ug/L							05/30/2019	
m & p - Xylene	ND	2.0	ug/L							05/30/2019	
Methylene chloride	ND	5.0	ug/L							05/30/2019	
Methyltertiarybutylether	ND	1.0	ug/L							05/30/2019	
Naphthalene	ND	5.0	ug/L							05/30/2019	X
n-Butylbenzene	ND	1.0	ug/L							05/30/2019	
n-Propylbenzene	ND	1.0	ug/L							05/30/2019	
o-Xylene	ND	1.0	ug/L							05/30/2019	
sec-Butylbenzene	ND	1.0	ug/L							05/30/2019	
Styrene	ND	1.0	ug/L							05/30/2019	
tert-Butylbenzene	ND	1.0	ug/L							05/30/2019	
tertiary Butyl Alcohol	ND	50	ug/L							05/30/2019	
tertiaryAmylmethylether	ND	5.0	ug/L							05/30/2019	
Tetrachloroethylene	ND	1.0	ug/L							05/30/2019	
Tetrahydrofuran	ND	5.0	ug/L							05/30/2019	
Toluene	ND	1.0	ug/L							05/30/2019	
trans-1,2-Dichloroethylene	ND	1.0	ug/L							05/30/2019	
trans-1,3-Dichloropropylene	ND	1.0	ug/L							05/30/2019	
Trichloroethylene	ND	1.0	ug/L							05/30/2019	
Trichlorofluoromethane	ND	1.0	ug/L							05/30/2019	
Vinyl chloride	ND	1.0	ug/L							05/30/2019	
Surrogate: Bromofluorobenzene	50.4		ug/L	50.00		101	85-115			05/30/2019	
Surrogate: Dibromofluoromethane	50.5		ug/L	50.00		101	82.7-115			05/30/2019	
Surrogate: Toluene-d8	49.2		ug/L	50.00		98.4	85-115			05/30/2019	

LCS (B9E3008-BS1)

1,1,1,2-Tetrachloroethane	54.3	1.0	ug/L	50.00		109	70-130			05/30/2019	
1,1,1-Trichloroethane	48.9	1.0	ug/L	50.00		97.8	70-130			05/30/2019	
1,1,2,2-Tetrachloroethane	52.6	1.0	ug/L	50.00		105	70-130			05/30/2019	
1,1,2-Trichloroethane	49.1	1.0	ug/L	50.00		98.2	70-130			05/30/2019	
1,1-Dichloroethane	49.9	1.0	ug/L	50.00		99.8	70-130			05/30/2019	
1,1-Dichloroethylene	48.1	1.0	ug/L	50.00		96.2	70-130			05/30/2019	
1,2,3-Trichlorobenzene	49.3	5.0	ug/L	50.00		98.5	70-130			05/30/2019	
1,2,3-Trichloropropane	47.7	1.0	ug/L	50.00		95.3	70-130			05/30/2019	
1,2,3-Trimethylbenzene	50.0	1.0	ug/L	50.00		100	70-130			05/30/2019	
1,2,4-Trichlorobenzene	49.1	5.0	ug/L	50.00		98.3	70-130			05/30/2019	
1,2,4-Trimethylbenzene	49.9	1.0	ug/L	50.00		99.8	70-130			05/30/2019	
1,2-Dibromoethane	49.8	1.0	ug/L	50.00		99.5	70-130			05/30/2019	
1,2-Dichlorobenzene	49.8	1.0	ug/L	50.00		99.5	70-130			05/30/2019	
1,2-Dichloroethane	46.8	1.0	ug/L	50.00		93.5	70-130			05/30/2019	
1,2-Dichloropropane	51.7	1.0	ug/L	50.00		103	70-130			05/30/2019	
1,3,5-Trimethylbenzene	50.0	1.0	ug/L	50.00		100	70-130			05/30/2019	
1,3-Dichlorobenzene	49.7	1.0	ug/L	50.00		99.4	70-130			05/30/2019	
1,4-Dichlorobenzene	47.9	1.0	ug/L	50.00		95.8	70-130			05/30/2019	
2,2,4-Trimethylpentane	47.9	5.0	ug/L	50.00		95.8	70-130			05/30/2019	
2-Butanone (MEK)	53.8	5.0	ug/L	50.00		108	70-130			05/30/2019	
2-Methylnaphthalene	44.2	5.0	ug/L	50.00		88.5	70-130			05/30/2019	X



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
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

LCS (B9E3008-BS1)

2-Propanone (acetone)	48.1	20	ug/L	50.00		96.3	70-130			05/30/2019	
4-Methyl-2-pentanone (MIBK)	49.0	5.0	ug/L	50.00		98.0	70-130			05/30/2019	
Acrylonitrile	47.7	5.0	ug/L	50.00		95.3	70-130			05/30/2019	
Benzene	48.7	1.0	ug/L	50.00		97.4	70-130			05/30/2019	
Bromochloromethane	50.9	1.0	ug/L	50.00		102	70-130			05/30/2019	
Bromodichloromethane	50.7	1.0	ug/L	50.00		101	70-130			05/30/2019	
Bromoform	54.7	1.0	ug/L	50.00		109	70-130			05/30/2019	
Bromomethane	53.2	5.0	ug/L	50.00		106	70-130			05/30/2019	
Carbon disulfide	58.3	1.0	ug/L	50.00		117	70-130			05/30/2019	
Carbon tetrachloride	51.7	1.0	ug/L	50.00		103	70-130			05/30/2019	
Chlorobenzene	48.8	1.0	ug/L	50.00		97.6	70-130			05/30/2019	
Chloroethane	55.6	5.0	ug/L	50.00		111	70-130			05/30/2019	
Chloroform	49.7	1.0	ug/L	50.00		99.4	70-130			05/30/2019	
Chloromethane	56.9	5.0	ug/L	50.00		114	70-130			05/30/2019	
cis-1,2-Dichloroethylene	51.8	1.0	ug/L	50.00		104	70-130			05/30/2019	
cis-1,3-Dichloropropylene	51.3	1.0	ug/L	50.00		103	70-130			05/30/2019	
Cyclohexane	51.0	5.0	ug/L	50.00		102	70-130			05/30/2019	
Dibromochloromethane	55.0	1.0	ug/L	50.00		110	70-130			05/30/2019	
Dibromomethane	49.7	1.0	ug/L	50.00		99.4	70-130			05/30/2019	
Dichlorodifluoromethane	55.6	5.0	ug/L	50.00		111	70-130			05/30/2019	
Diethyl ether	50.2	5.0	ug/L	50.00		100	70-130			05/30/2019	
Diisopropyl Ether	51.3	5.0	ug/L	50.00		103	70-130			05/30/2019	
Ethylbenzene	49.6	1.0	ug/L	50.00		99.3	70-130			05/30/2019	
Ethyltertiarybutylether	47.7	5.0	ug/L	50.00		95.5	70-130			05/30/2019	
Hexachloroethane	55.2	5.0	ug/L	50.00		110	70-130			05/30/2019	
Hexane	48.3	1.0	ug/L	50.00		96.7	70-130			05/30/2019	
Isopropylbenzene	48.8	1.0	ug/L	50.00		97.5	70-130			05/30/2019	
m & p - Xylene	101	2.0	ug/L	100.0		101	70-130			05/30/2019	
Methylene chloride	50.0	5.0	ug/L	50.00		100	70-130			05/30/2019	
Methyltertiarybutylether	50.2	1.0	ug/L	50.00		100	70-130			05/30/2019	
Naphthalene	47.6	5.0	ug/L	50.00		95.1	70-130			05/30/2019	X
n-Butylbenzene	51.9	1.0	ug/L	50.00		104	70-130			05/30/2019	
n-Propylbenzene	50.7	1.0	ug/L	50.00		101	70-130			05/30/2019	
o-Xylene	50.4	1.0	ug/L	50.00		101	70-130			05/30/2019	
sec-Butylbenzene	54.0	1.0	ug/L	50.00		108	70-130			05/30/2019	
Styrene	50.1	1.0	ug/L	50.00		100	70-130			05/30/2019	
tert-Butylbenzene	50.0	1.0	ug/L	50.00		100	70-130			05/30/2019	
tertiary Butyl Alcohol	233	50	ug/L	250.0		93.3	70-130			05/30/2019	
tertiaryAmylmethylether	48.4	5.0	ug/L	50.00		96.9	70-130			05/30/2019	
Tetrachloroethylene	47.9	1.0	ug/L	50.00		95.8	70-130			05/30/2019	
Tetrahydrofuran	49.1	5.0	ug/L	50.00		98.3	70-130			05/30/2019	
Toluene	50.2	1.0	ug/L	50.00		100	70-130			05/30/2019	
trans-1,2-Dichloroethylene	49.4	1.0	ug/L	50.00		98.7	70-130			05/30/2019	
trans-1,3-Dichloropropylene	50.9	1.0	ug/L	50.00		102	70-130			05/30/2019	
Trichloroethylene	46.9	1.0	ug/L	50.00		93.8	70-130			05/30/2019	
Trichlorofluoromethane	51.7	1.0	ug/L	50.00		103	70-130			05/30/2019	
Vinyl chloride	53.5	1.0	ug/L	50.00		107	70-130			05/30/2019	



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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

LCS (B9E3008-BS1)

Surrogate: Bromofluorobenzene	48.8		ug/L	50.00		97.6	85-115			05/30/2019	
Surrogate: Dibromofluoromethane	49.2		ug/L	50.00		98.5	82.7-115			05/30/2019	
Surrogate: Toluene-d8	50.4		ug/L	50.00		101	85-115			05/30/2019	

Matrix Spike (B9E3008-MS1)

Source: 1905284-11

1,1,1,2-Tetrachloroethane	53.1	1.0	ug/L	50.00	ND	106	70-130			05/30/2019	
1,1,1-Trichloroethane	53.0	1.0	ug/L	50.00	ND	106	70-130			05/30/2019	
1,1,2,2-Tetrachloroethane	56.0	1.0	ug/L	50.00	ND	112	70-130			05/30/2019	
1,1,2-Trichloroethane	48.3	1.0	ug/L	50.00	ND	96.7	70-130			05/30/2019	
1,1-Dichloroethane	51.2	1.0	ug/L	50.00	ND	102	70-130			05/30/2019	
1,1-Dichloroethylene	51.5	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
1,2,3-Trichlorobenzene	50.5	5.0	ug/L	50.00	ND	101	70-130			05/30/2019	
1,2,3-Trichloropropane	49.6	1.0	ug/L	50.00	ND	99.3	70-130			05/30/2019	
1,2,3-Trimethylbenzene	51.5	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
1,2,4-Trichlorobenzene	49.0	5.0	ug/L	50.00	ND	97.9	70-130			05/30/2019	
1,2,4-Trimethylbenzene	52.6	1.0	ug/L	50.00	ND	105	70-130			05/30/2019	
1,2-Dibromoethane	49.1	1.0	ug/L	50.00	ND	98.1	70-130			05/30/2019	
1,2-Dichlorobenzene	49.7	1.0	ug/L	50.00	ND	99.4	70-130			05/30/2019	
1,2-Dichloroethane	47.9	1.0	ug/L	50.00	ND	95.7	70-130			05/30/2019	
1,2-Dichloropropane	53.0	1.0	ug/L	50.00	ND	106	70-130			05/30/2019	
1,3,5-Trimethylbenzene	52.7	1.0	ug/L	50.00	ND	105	70-130			05/30/2019	
1,3-Dichlorobenzene	50.1	1.0	ug/L	50.00	ND	100	70-130			05/30/2019	
1,4-Dichlorobenzene	48.4	1.0	ug/L	50.00	ND	96.9	70-130			05/30/2019	
2,2,4-Trimethylpentane	54.0	5.0	ug/L	50.00	ND	108	70-130			05/30/2019	
2-Butanone (MEK)	53.0	5.0	ug/L	50.00	ND	106	70-130			05/30/2019	
2-Methylnaphthalene	46.3	5.0	ug/L	50.00	ND	92.7	70-130			05/30/2019	X
2-Propanone (acetone)	48.3	20	ug/L	50.00	ND	96.7	70-130			05/30/2019	
4-Methyl-2-pentanone (MIBK)	49.6	5.0	ug/L	50.00	ND	99.3	70-130			05/30/2019	
Acrylonitrile	48.8	5.0	ug/L	50.00	ND	97.6	70-130			05/30/2019	
Benzene	51.1	1.0	ug/L	50.00	ND	102	70-130			05/30/2019	
Bromochloromethane	51.2	1.0	ug/L	50.00	ND	102	70-130			05/30/2019	
Bromodichloromethane	50.1	1.0	ug/L	50.00	ND	100	70-130			05/30/2019	
Bromoform	51.5	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
Bromomethane	55.0	5.0	ug/L	50.00	ND	110	70-130			05/30/2019	
Carbon disulfide	62.0	1.0	ug/L	50.00	ND	124	70-130			05/30/2019	
Carbon tetrachloride	54.8	1.0	ug/L	50.00	ND	110	70-130			05/30/2019	
Chlorobenzene	50.1	1.0	ug/L	50.00	ND	100	70-130			05/30/2019	
Chloroethane	55.4	5.0	ug/L	50.00	ND	111	70-130			05/30/2019	
Chloroform	50.4	1.0	ug/L	50.00	ND	101	70-130			05/30/2019	
Chloromethane	58.6	5.0	ug/L	50.00	ND	117	70-130			05/30/2019	
cis-1,2-Dichloroethylene	51.7	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
cis-1,3-Dichloropropylene	49.2	1.0	ug/L	50.00	ND	98.4	70-130			05/30/2019	
Cyclohexane	57.7	5.0	ug/L	50.00	ND	115	70-130			05/30/2019	
Dibromochloromethane	52.1	1.0	ug/L	50.00	ND	104	70-130			05/30/2019	
Dibromomethane	49.9	1.0	ug/L	50.00	ND	99.8	70-130			05/30/2019	
Dichlorodifluoromethane	60.9	5.0	ug/L	50.00	ND	122	70-130			05/30/2019	
Diethyl ether	49.9	5.0	ug/L	50.00	ND	99.9	70-130			05/30/2019	



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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

Matrix Spike (B9E3008-MS1)

Source: 1905284-11

Diisopropyl Ether	50.5	5.0	ug/L	50.00	ND	101	70-130			05/30/2019	
Ethylbenzene	50.8	1.0	ug/L	50.00	ND	102	70-130			05/30/2019	
Ethyltertiarybutylether	45.8	5.0	ug/L	50.00	ND	91.6	70-130			05/30/2019	
Hexachloroethane	52.5	5.0	ug/L	50.00	ND	105	70-130			05/30/2019	
Hexane	53.9	1.0	ug/L	50.00	ND	108	70-130			05/30/2019	
Isopropylbenzene	51.8	1.0	ug/L	50.00	ND	104	70-130			05/30/2019	
m & p - Xylene	103	2.0	ug/L	100.0	ND	103	70-130			05/30/2019	
Methylene chloride	51.0	5.0	ug/L	50.00	ND	102	70-130			05/30/2019	
Methyltertiarybutylether	48.6	1.0	ug/L	50.00	ND	97.1	70-130			05/30/2019	
Naphthalene	47.4	5.0	ug/L	50.00	ND	94.8	70-130			05/30/2019	X
n-Butylbenzene	54.8	1.0	ug/L	50.00	ND	110	70-130			05/30/2019	
n-Propylbenzene	53.5	1.0	ug/L	50.00	ND	107	70-130			05/30/2019	
o-Xylene	49.9	1.0	ug/L	50.00	ND	99.8	70-130			05/30/2019	
sec-Butylbenzene	57.7	1.0	ug/L	50.00	ND	115	70-130			05/30/2019	
Styrene	51.5	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
tert-Butylbenzene	52.3	1.0	ug/L	50.00	ND	105	70-130			05/30/2019	
tertiary Butyl Alcohol	230	50	ug/L	250.0	ND	91.9	70-130			05/30/2019	
tertiaryAmylmethylether	47.6	5.0	ug/L	50.00	ND	95.3	70-130			05/30/2019	
Tetrachloroethylene	52.1	1.0	ug/L	50.00	ND	104	70-130			05/30/2019	
Tetrahydrofuran	46.9	5.0	ug/L	50.00	ND	93.7	70-130			05/30/2019	
Toluene	51.5	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
trans-1,2-Dichloroethylene	51.3	1.0	ug/L	50.00	ND	103	70-130			05/30/2019	
trans-1,3-Dichloropropylene	48.1	1.0	ug/L	50.00	ND	96.1	70-130			05/30/2019	
Trichloroethylene	49.0	1.0	ug/L	50.00	ND	98.0	70-130			05/30/2019	
Trichlorofluoromethane	57.4	1.0	ug/L	50.00	ND	115	70-130			05/30/2019	
Vinyl chloride	56.4	1.0	ug/L	50.00	ND	113	70-130			05/30/2019	
Surrogate: Bromofluorobenzene	51.0		ug/L	50.00		102	85-115			05/30/2019	
Surrogate: Dibromofluoromethane	51.7		ug/L	50.00		103	82.7-115			05/30/2019	
Surrogate: Toluene-d8	50.7		ug/L	50.00		101	85-115			05/30/2019	

Matrix Spike Dup (B9E3008-MSD1)

Source: 1905284-11

1,1,1,2-Tetrachloroethane	51.7	1.0	ug/L	50.00	ND	103	70-130	2.72	30	05/30/2019	
1,1,1-Trichloroethane	48.6	1.0	ug/L	50.00	ND	97.3	70-130	8.66	30	05/30/2019	
1,1,2,2-Tetrachloroethane	55.1	1.0	ug/L	50.00	ND	110	70-130	1.70	30	05/30/2019	
1,1,2-Trichloroethane	47.7	1.0	ug/L	50.00	ND	95.5	70-130	1.25	30	05/30/2019	
1,1-Dichloroethane	48.5	1.0	ug/L	50.00	ND	97.0	70-130	5.38	30	05/30/2019	
1,1-Dichloroethylene	47.1	1.0	ug/L	50.00	ND	94.1	70-130	8.92	30	05/30/2019	
1,2,3-Trichlorobenzene	48.5	5.0	ug/L	50.00	ND	97.1	70-130	3.97	30	05/30/2019	
1,2,3-Trichloropropane	49.7	1.0	ug/L	50.00	ND	99.4	70-130	0.0964	30	05/30/2019	
1,2,3-Trimethylbenzene	49.3	1.0	ug/L	50.00	ND	98.5	70-130	4.44	30	05/30/2019	
1,2,4-Trichlorobenzene	47.4	5.0	ug/L	50.00	ND	94.8	70-130	3.28	30	05/30/2019	
1,2,4-Trimethylbenzene	49.0	1.0	ug/L	50.00	ND	97.9	70-130	7.13	30	05/30/2019	
1,2-Dibromoethane	48.5	1.0	ug/L	50.00	ND	97.1	70-130	1.08	30	05/30/2019	
1,2-Dichlorobenzene	48.8	1.0	ug/L	50.00	ND	97.7	70-130	1.72	30	05/30/2019	
1,2-Dichloroethane	46.4	1.0	ug/L	50.00	ND	92.9	70-130	3.01	30	05/30/2019	
1,2-Dichloropropane	49.7	1.0	ug/L	50.00	ND	99.4	70-130	6.42	30	05/30/2019	
1,3,5-Trimethylbenzene	49.5	1.0	ug/L	50.00	ND	99.0	70-130	6.33	30	05/30/2019	



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Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

Matrix Spike Dup (B9E3008-MSD1)

Source: 1905284-11

1,3-Dichlorobenzene	48.7	1.0	ug/L	50.00	ND	97.3	70-130	2.84	30	05/30/2019	
1,4-Dichlorobenzene	46.8	1.0	ug/L	50.00	ND	93.6	70-130	3.40	30	05/30/2019	
2,2,4-Trimethylpentane	45.9	5.0	ug/L	50.00	ND	91.8	70-130	16.2	30	05/30/2019	
2-Butanone (MEK)	54.0	5.0	ug/L	50.00	ND	108	70-130	1.78	30	05/30/2019	
2-Methylnaphthalene	46.3	5.0	ug/L	50.00	ND	92.5	70-130	0.200	30	05/30/2019	X
2-Propanone (acetone)	46.6	20	ug/L	50.00	ND	93.2	70-130	3.71	30	05/30/2019	
4-Methyl-2-pentanone (MIBK)	48.6	5.0	ug/L	50.00	ND	97.1	70-130	2.21	30	05/30/2019	
Acrylonitrile	46.9	5.0	ug/L	50.00	ND	93.8	70-130	3.94	30	05/30/2019	
Benzene	47.0	1.0	ug/L	50.00	ND	94.0	70-130	8.42	30	05/30/2019	
Bromochloromethane	48.4	1.0	ug/L	50.00	ND	96.9	70-130	5.49	30	05/30/2019	
Bromodichloromethane	47.5	1.0	ug/L	50.00	ND	95.1	70-130	5.25	30	05/30/2019	
Bromoform	51.3	1.0	ug/L	50.00	ND	103	70-130	0.420	30	05/30/2019	
Bromomethane	52.1	5.0	ug/L	50.00	ND	104	70-130	5.34	30	05/30/2019	
Carbon disulfide	57.5	1.0	ug/L	50.00	ND	115	70-130	7.43	30	05/30/2019	
Carbon tetrachloride	49.2	1.0	ug/L	50.00	ND	98.4	70-130	10.8	30	05/30/2019	
Chlorobenzene	48.1	1.0	ug/L	50.00	ND	96.3	70-130	4.10	30	05/30/2019	
Chloroethane	51.6	5.0	ug/L	50.00	ND	103	70-130	7.08	30	05/30/2019	
Chloroform	48.3	1.0	ug/L	50.00	ND	96.6	70-130	4.26	30	05/30/2019	
Chloromethane	54.9	5.0	ug/L	50.00	ND	110	70-130	6.44	30	05/30/2019	
cis-1,2-Dichloroethylene	49.9	1.0	ug/L	50.00	ND	99.8	70-130	3.47	30	05/30/2019	
cis-1,3-Dichloropropylene	47.7	1.0	ug/L	50.00	ND	95.5	70-130	3.04	30	05/30/2019	
Cyclohexane	51.7	5.0	ug/L	50.00	ND	103	70-130	11.0	30	05/30/2019	
Dibromochloromethane	51.2	1.0	ug/L	50.00	ND	102	70-130	1.74	30	05/30/2019	
Dibromomethane	48.1	1.0	ug/L	50.00	ND	96.3	70-130	3.60	30	05/30/2019	
Dichlorodifluoromethane	56.3	5.0	ug/L	50.00	ND	113	70-130	7.87	30	05/30/2019	
Diethyl ether	48.8	5.0	ug/L	50.00	ND	97.6	70-130	2.26	30	05/30/2019	
Diisopropyl Ether	49.8	5.0	ug/L	50.00	ND	99.7	70-130	1.29	30	05/30/2019	
Ethylbenzene	48.2	1.0	ug/L	50.00	ND	96.5	70-130	5.14	30	05/30/2019	
Ethyltertiarybutylether	45.4	5.0	ug/L	50.00	ND	90.8	70-130	0.870	30	05/30/2019	
Hexachloroethane	49.6	5.0	ug/L	50.00	ND	99.2	70-130	5.80	30	05/30/2019	
Hexane	45.5	1.0	ug/L	50.00	ND	91.0	70-130	16.8	30	05/30/2019	
Isopropylbenzene	49.3	1.0	ug/L	50.00	ND	98.5	70-130	4.99	30	05/30/2019	
m & p - Xylene	96.9	2.0	ug/L	100.0	ND	96.9	70-130	6.25	30	05/30/2019	
Methylene chloride	48.2	5.0	ug/L	50.00	ND	96.5	70-130	5.58	30	05/30/2019	
Methyltertiarybutylether	48.7	1.0	ug/L	50.00	ND	97.4	70-130	0.305	30	05/30/2019	
Naphthalene	47.3	5.0	ug/L	50.00	ND	94.6	70-130	0.189	30	05/30/2019	X
n-Butylbenzene	51.0	1.0	ug/L	50.00	ND	102	70-130	7.24	30	05/30/2019	
n-Propylbenzene	50.5	1.0	ug/L	50.00	ND	101	70-130	5.72	30	05/30/2019	
o-Xylene	48.0	1.0	ug/L	50.00	ND	96.0	70-130	3.86	30	05/30/2019	
sec-Butylbenzene	54.5	1.0	ug/L	50.00	ND	109	70-130	5.66	30	05/30/2019	
Styrene	49.1	1.0	ug/L	50.00	ND	98.3	70-130	4.79	30	05/30/2019	
tert-Butylbenzene	49.6	1.0	ug/L	50.00	ND	99.2	70-130	5.35	30	05/30/2019	
tertiary Butyl Alcohol	232	50	ug/L	250.0	ND	92.7	70-130	0.863	30	05/30/2019	
tertiaryAmylmeylether	46.8	5.0	ug/L	50.00	ND	93.6	70-130	1.82	30	05/30/2019	
Tetrachloroethylene	47.9	1.0	ug/L	50.00	ND	95.9	70-130	8.34	30	05/30/2019	
Tetrahydrofuran	49.7	5.0	ug/L	50.00	ND	99.4	70-130	5.86	30	05/30/2019	
Toluene	48.5	1.0	ug/L	50.00	ND	97.0	70-130	5.93	30	05/30/2019	



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

Organics-Volatiles - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
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Batch B9E3008 - Method: 5030

Prepared: 05/30/2019

Matrix Spike Dup (B9E3008-MSD1)	Source: 1905284-11										
trans-1,2-Dichloroethylene	47.2	1.0	ug/L	50.00	ND	94.4	70-130	8.23	30	05/30/2019	
trans-1,3-Dichloropropylene	46.2	1.0	ug/L	50.00	ND	92.4	70-130	3.95	30	05/30/2019	
Trichloroethylene	45.6	1.0	ug/L	50.00	ND	91.2	70-130	7.22	30	05/30/2019	
Trichlorofluoromethane	53.0	1.0	ug/L	50.00	ND	106	70-130	7.87	30	05/30/2019	
Vinyl chloride	52.2	1.0	ug/L	50.00	ND	104	70-130	7.75	30	05/30/2019	
<i>Surrogate: Bromofluorobenzene</i>	<i>50.8</i>		<i>ug/L</i>	<i>50.00</i>		<i>102</i>	<i>85-115</i>			<i>05/30/2019</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>50.7</i>		<i>ug/L</i>	<i>50.00</i>		<i>101</i>	<i>82.7-115</i>			<i>05/30/2019</i>	
<i>Surrogate: Toluene-d8</i>	<i>49.7</i>		<i>ug/L</i>	<i>50.00</i>		<i>99.4</i>	<i>85-115</i>			<i>05/30/2019</i>	



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FAX: (517) 335-9600

Organics-Dioxane - Quality Control

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyzed	Qualifier
Batch B9F0506 - Method: 5030				Prepared: 06/04/2019							
Blank (B9F0506-BLK1)											
1,4-dioxane	ND	1.0	ug/L							06/04/2019	
LCS (B9F0506-BS1)											
1,4-dioxane	8.19	1.0	ug/L	10.00		81.9	70-130			06/04/2019	
Matrix Spike (B9F0506-MS1) Source: 1905292-03											
1,4-dioxane	9.43	1.0	ug/L	10.00	ND	94.3	70-130			06/04/2019	
Matrix Spike Dup (B9F0506-MSD1) Source: 1905292-03											
1,4-dioxane	9.77	1.0	ug/L	10.00	ND	97.7	70-130	3.54	30	06/04/2019	



Analysis Request Sheet

Lab Work Order Number **92**

Project Name

Matrix

1905273

Gelman Sciences

WATER

Site Code/Project Number
8100018/Location 6130

AY
19

CC Email 1
lundk@michigan.gov

Project TAT Days

Sample Collector
Dan Hamel

Dept-Division-District
DEQ-RRD-Jackson

Index

CC Email 2

Project Due Date

Sample Collector Phone
517-754-6595

State Project Manager
Dan Hamel

PCA

CC Email 3

Accept Analysis hold time codes

Contract Firm

State Project Manager Email
hameld@michigan.gov

Project

Overflow Lab Choice 1

Contract Firm Primary Contact

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	5/28/19	0945	5	Please include QA/QC with Lab Data Report(s)
2	02 Allen Creek/Chapin-West Park	5/28/19	0929	3	
3	03 Allen Creek/Maple Ridge-Arborview	5/28/19	0956	5	
4	Allen Creek/Wildwood-Arborview	5/28/19		50	NO WATER - NO SAMPLES
5	04 Allen Creek/Murray-Washington	5/28/19	1028	3	
6	05 Allen Creek/Eighth-Waterworks	5/28/19	1030	5	
7	06 Allen Creek-Maryfield-Wildwood Park	5/28/19	1015	3	
8					
9					
10					

ORGANIC CHEMISTRY	MAD - DISSOLVED METALS	MA - TOTAL METALS	GENERAL 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)	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	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	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 - SO ₄ 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 - NH ₃ 1 2 3 4 5 6 7 8 9 10 GA Nitrate+Nitrite - NO ₃ +NO ₂ 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. Dan Hamel EGLE-RRD	Melissa Smith <i>MS</i>	5/29/19 1650
	Signature: <i>Dan Hamel</i>		
	Print Name & Org. Signature:		
Print Name & Org. Signature:			

SAFETY INFORMATION