



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY**

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

24 January 2018

Work Order: 1712231

Price: \$245.00

Dan Hamel

MDEQ-RRD-JACKSON

301 E. Louis Glick Highway

Jackson, MI 49201-1556

RE: GELMAN SCIENCES, INC

I certify that the analyses performed by the MDEQ Environmental Laboratory were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies .

Sincerely,

Kirby Shane

Laboratory Director



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

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

Reported:
 01/24/2018

Analytical Report for Samples

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received | Qualifier |
|--------------------------|---------------|--------|--------------|---------------|-----------|
| Allen Creek-West Park SW | 1712231-01 | Water | 12/19/2017 | 12/21/2017 | |

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.
- A11 Result is estimated due to high initial verification standard criteria failure.
- A08 Result(s) and reporting limits(s) are estimated due to low recovery of batch QC.
- A07 Result(s) and reporting limit(s) are estimated due to poor precision.
- A06 Result is estimated due to high continuing calibration standard criteria failure.
- A05 Result and reporting limit are estimated due to low continuing calibration standard criteria failure.
- A03 Result(s) and reporting limit(s) are estimated due to low matrix spike recovery.
- ND Indicates compound analyzed for but not detected
- RL Reporting Limit
- NA Not Applicable



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Client ID: Allen Creek-West Park SW

Lab ID: 1712231-01

| 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 | 01/02/18 | B8A0202 | 8260 | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-35-4 | 1,1-Dichloroethylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 87-61-6 | 1,2,3-Trichlorobenzene | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 96-18-4 | 1,2,3-Trichloropropane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 526-73-8 | 1,2,3-Trimethylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 95-63-6 | 1,2,4-Trimethylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 106-93-4 | 1,2-Dibromoethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 108-67-8 | 1,3,5-Trimethylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 540-84-1 | 2,2,4-Trimethylpentane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 78-93-3 | 2-Butanone (MEK) | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | X |
| 67-64-1 | 2-Propanone (acetone) | ND | 20 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | A08 |
| 108-10-1 | 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 107-13-1 | Acrylonitrile | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 71-43-2 | Benzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 74-97-5 | Bromochloromethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-25-2 | Bromoform | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 74-83-9 | Bromomethane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | A05 |
| 75-15-0 | Carbon disulfide | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-00-3 | Chloroethane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 67-66-3 | Chloroform | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 74-87-3 | Chloromethane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 156-59-2 | cis-1,2-Dichloroethylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 10061-01-5 | cis-1,3-Dichloropropylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 110-82-7 | Cyclohexane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 74-95-3 | Dibromomethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |



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Client ID: Allen Creek-West Park SW

Lab ID: 1712231-01

| CAS # | Analyte | Result | RL | Units | Dilution | Analyzed Date | QC Batch | Method | Qualifier |
|----------------------------------------|-----------------------------|------------|--------------|-----------------|----------|-----------------|----------------|-------------|-----------|
| Organics-Volatiles | | | | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 60-29-7 | Diethyl ether | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 108-20-3 | Diisopropyl Ether | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 100-41-4 | Ethylbenzene | 1.9 | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 637-92-3 | Ethyltertiarybutylether | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 110-54-3 | Hexane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 98-82-8 | Isopropylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 1330-20-7 | m & p - Xylene | ND | 2.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-09-2 | Methylene chloride | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 1634-04-4 | Methyltertiarybutylether | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 91-20-3 | Naphthalene | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | X |
| 104-51-8 | n-Butylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 103-65-1 | n-Propylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 95-47-6 | o-Xylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 135-98-8 | sec-Butylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 100-42-5 | Styrene | 5.1 | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 98-06-6 | tert-Butylbenzene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-65-0 | tertiary Butyl Alcohol | ND | 50 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | A07, A08 |
| 994-05-8 | tertiaryAmylmethylether | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 127-18-4 | Tetrachloroethylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 109-99-9 | Tetrahydrofuran | ND | 5.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 108-88-3 | Toluene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 156-60-5 | trans-1,2-Dichloroethylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 10061-02-6 | trans-1,3-Dichloropropylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 79-01-6 | Trichloroethylene | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-69-4 | Trichlorofluoromethane | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | ug/L | 1 | 01/02/18 | B8A0202 | 8260 | |
| <i>Surrogate: Bromofluorobenzene</i> | | | <i>103 %</i> | <i>85-115</i> | | <i>01/02/18</i> | <i>B8A0202</i> | <i>8260</i> | |
| <i>Surrogate: Dibromofluoromethane</i> | | | <i>106 %</i> | <i>82.7-115</i> | | <i>01/02/18</i> | <i>B8A0202</i> | <i>8260</i> | |
| <i>Surrogate: Toluene-d8</i> | | | <i>101 %</i> | <i>85-115</i> | | <i>01/02/18</i> | <i>B8A0202</i> | <i>8260</i> | |



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Client ID: Allen Creek-West Park SW

Lab ID: 1712231-01

| CAS # | Analyte | Result | RL | Units | Dilution | Analyzed Date | QC Batch | Method | Qualifier |
|-------------------------|-------------|--------|-----|-------|----------|---------------|----------|---------------|-----------|
| Organics-Dioxane | | | | | | | | | |
| 123-91-1 | 1,4-dioxane | 4.4 | 1.0 | ug/L | 1 | 12/28/17 | B8A0211 | 8260 Modified | Y28 |



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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 B8A0202 - Method: 5030

Prepared: 01/02/2018

Blank (B8A0202-BLK1)

| | | | | | | | | | | | |
|-----------------------------|----|-----|------|--|--|--|--|--|--|------------|-----|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,1,1-Trichloroethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,1,2-Trichloroethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,1-Dichloroethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,1-Dichloroethylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2,3-Trichlorobenzene | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2,3-Trichloropropane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2,3-Trimethylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2,4-Trichlorobenzene | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2,4-Trimethylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2-Dibromoethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2-Dichlorobenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2-Dichloroethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,2-Dichloropropane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,3,5-Trimethylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,3-Dichlorobenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 1,4-Dichlorobenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| 2,2,4-Trimethylpentane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| 2-Butanone (MEK) | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| 2-Methylnaphthalene | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | X |
| 2-Propanone (acetone) | ND | 20 | ug/L | | | | | | | 01/02/2018 | A08 |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Acrylonitrile | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Benzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Bromochloromethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Bromodichloromethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Bromoform | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Bromomethane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | A05 |
| Carbon disulfide | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Carbon tetrachloride | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Chlorobenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Chloroethane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Chloroform | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Chloromethane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| cis-1,2-Dichloroethylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| cis-1,3-Dichloropropylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Cyclohexane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Dibromochloromethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Dibromomethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Dichlorodifluoromethane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Diethyl ether | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Diisopropyl Ether | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Ethylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Ethyltertiarybutylether | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Hexachloroethane | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Hexane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |



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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 B8A0202 - Method: 5030

Prepared: 01/02/2018

Blank (B8A0202-BLK1)

| | | | | | | | | | | | |
|---------------------------------|------|-----|------|-------|--|-----|----------|--|--|------------|----------|
| Isopropylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| m & p - Xylene | ND | 2.0 | ug/L | | | | | | | 01/02/2018 | |
| Methylene chloride | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Methyltertiarybutylether | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Naphthalene | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | X |
| n-Butylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| n-Propylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| o-Xylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| sec-Butylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Styrene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| tert-Butylbenzene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| tertiary Butyl Alcohol | ND | 50 | ug/L | | | | | | | 01/02/2018 | A07, A08 |
| tertiaryAmylmethylether | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Tetrachloroethylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Tetrahydrofuran | ND | 5.0 | ug/L | | | | | | | 01/02/2018 | |
| Toluene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| trans-1,2-Dichloroethylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| trans-1,3-Dichloropropylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Trichloroethylene | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Trichlorofluoromethane | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Vinyl chloride | ND | 1.0 | ug/L | | | | | | | 01/02/2018 | |
| Surrogate: Bromofluorobenzene | 52.1 | | ug/L | 50.00 | | 104 | 85-115 | | | 01/02/2018 | |
| Surrogate: Dibromofluoromethane | 51.9 | | ug/L | 50.00 | | 104 | 82.7-115 | | | 01/02/2018 | |
| Surrogate: Toluene-d8 | 51.1 | | ug/L | 50.00 | | 102 | 85-115 | | | 01/02/2018 | |

LCS (B8A0202-BS1)

| | | | | | | | | | | | |
|---------------------------|------|-----|------|-------|--|------|--------|--|--|------------|----------|
| 1,1,1,2-Tetrachloroethane | 48.3 | 1.0 | ug/L | 50.00 | | 96.6 | 70-130 | | | 01/02/2018 | |
| 1,1,1-Trichloroethane | 48.3 | 1.0 | ug/L | 50.00 | | 96.7 | 70-130 | | | 01/02/2018 | |
| 1,1,2,2-Tetrachloroethane | 47.9 | 1.0 | ug/L | 50.00 | | 95.9 | 70-130 | | | 01/02/2018 | |
| 1,1,2-Trichloroethane | 50.0 | 1.0 | ug/L | 50.00 | | 100 | 70-130 | | | 01/02/2018 | |
| 1,1-Dichloroethane | 46.5 | 1.0 | ug/L | 50.00 | | 93.1 | 70-130 | | | 01/02/2018 | |
| 1,1-Dichloroethylene | 53.7 | 1.0 | ug/L | 50.00 | | 107 | 70-130 | | | 01/02/2018 | |
| 1,2,3-Trichlorobenzene | 48.9 | 5.0 | ug/L | 50.00 | | 97.8 | 70-130 | | | 01/02/2018 | |
| 1,2,3-Trichloropropane | 48.2 | 1.0 | ug/L | 50.00 | | 96.4 | 70-130 | | | 01/02/2018 | |
| 1,2,3-Trimethylbenzene | 47.5 | 1.0 | ug/L | 50.00 | | 95.1 | 70-130 | | | 01/02/2018 | |
| 1,2,4-Trichlorobenzene | 49.4 | 5.0 | ug/L | 50.00 | | 98.8 | 70-130 | | | 01/02/2018 | |
| 1,2,4-Trimethylbenzene | 48.9 | 1.0 | ug/L | 50.00 | | 97.7 | 70-130 | | | 01/02/2018 | |
| 1,2-Dibromoethane | 50.5 | 1.0 | ug/L | 50.00 | | 101 | 70-130 | | | 01/02/2018 | |
| 1,2-Dichlorobenzene | 48.3 | 1.0 | ug/L | 50.00 | | 96.7 | 70-130 | | | 01/02/2018 | |
| 1,2-Dichloroethane | 49.7 | 1.0 | ug/L | 50.00 | | 99.5 | 70-130 | | | 01/02/2018 | |
| 1,2-Dichloropropane | 48.3 | 1.0 | ug/L | 50.00 | | 96.6 | 70-130 | | | 01/02/2018 | |
| 1,3,5-Trimethylbenzene | 48.4 | 1.0 | ug/L | 50.00 | | 96.7 | 70-130 | | | 01/02/2018 | |
| 1,3-Dichlorobenzene | 48.9 | 1.0 | ug/L | 50.00 | | 97.9 | 70-130 | | | 01/02/2018 | |
| 1,4-Dichlorobenzene | 48.1 | 1.0 | ug/L | 50.00 | | 96.2 | 70-130 | | | 01/02/2018 | |
| 2,2,4-Trimethylpentane | 46.6 | 5.0 | ug/L | 50.00 | | 93.3 | 70-130 | | | 01/02/2018 | |
| 2-Butanone (MEK) | 47.6 | 5.0 | ug/L | 50.00 | | 95.1 | 70-130 | | | 01/02/2018 | A06, A11 |
| 2-Methylnaphthalene | 46.4 | 5.0 | ug/L | 50.00 | | 92.7 | 70-130 | | | 01/02/2018 | X |



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
 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 B8A0202 - Method: 5030

Prepared: 01/02/2018

LCS (B8A0202-BS1)

| | | | | | | | | | | | |
|-----------------------------|------|-----|------|-------|--|------|--------|--|--|------------|----------|
| 2-Propanone (acetone) | 34.2 | 20 | ug/L | 50.00 | | 68.3 | 70-130 | | | 01/02/2018 | A08, A11 |
| 4-Methyl-2-pentanone (MIBK) | 47.3 | 5.0 | ug/L | 50.00 | | 94.5 | 70-130 | | | 01/02/2018 | |
| Acrylonitrile | 47.1 | 5.0 | ug/L | 50.00 | | 94.2 | 70-130 | | | 01/02/2018 | |
| Benzene | 47.4 | 1.0 | ug/L | 50.00 | | 94.8 | 70-130 | | | 01/02/2018 | |
| Bromochloromethane | 45.5 | 1.0 | ug/L | 50.00 | | 91.1 | 70-130 | | | 01/02/2018 | |
| Bromodichloromethane | 52.3 | 1.0 | ug/L | 50.00 | | 105 | 70-130 | | | 01/02/2018 | |
| Bromoform | 45.1 | 1.0 | ug/L | 50.00 | | 90.3 | 70-130 | | | 01/02/2018 | |
| Bromomethane | 37.3 | 5.0 | ug/L | 50.00 | | 74.5 | 70-130 | | | 01/02/2018 | A05 |
| Carbon disulfide | 48.2 | 1.0 | ug/L | 50.00 | | 96.3 | 70-130 | | | 01/02/2018 | |
| Carbon tetrachloride | 48.6 | 1.0 | ug/L | 50.00 | | 97.1 | 70-130 | | | 01/02/2018 | |
| Chlorobenzene | 48.7 | 1.0 | ug/L | 50.00 | | 97.4 | 70-130 | | | 01/02/2018 | |
| Chloroethane | 53.3 | 5.0 | ug/L | 50.00 | | 107 | 70-130 | | | 01/02/2018 | |
| Chloroform | 48.8 | 1.0 | ug/L | 50.00 | | 97.5 | 70-130 | | | 01/02/2018 | |
| Chloromethane | 43.4 | 5.0 | ug/L | 50.00 | | 86.7 | 70-130 | | | 01/02/2018 | |
| cis-1,2-Dichloroethylene | 49.4 | 1.0 | ug/L | 50.00 | | 98.8 | 70-130 | | | 01/02/2018 | |
| cis-1,3-Dichloropropylene | 49.5 | 1.0 | ug/L | 50.00 | | 99.0 | 70-130 | | | 01/02/2018 | |
| Cyclohexane | 44.6 | 5.0 | ug/L | 50.00 | | 89.1 | 70-130 | | | 01/02/2018 | |
| Dibromochloromethane | 52.4 | 1.0 | ug/L | 50.00 | | 105 | 70-130 | | | 01/02/2018 | |
| Dibromomethane | 46.3 | 1.0 | ug/L | 50.00 | | 92.6 | 70-130 | | | 01/02/2018 | |
| Dichlorodifluoromethane | 54.2 | 5.0 | ug/L | 50.00 | | 108 | 70-130 | | | 01/02/2018 | |
| Diethyl ether | 49.0 | 5.0 | ug/L | 50.00 | | 97.9 | 70-130 | | | 01/02/2018 | |
| Diisopropyl Ether | 48.0 | 5.0 | ug/L | 50.00 | | 96.1 | 70-130 | | | 01/02/2018 | |
| Ethylbenzene | 49.6 | 1.0 | ug/L | 50.00 | | 99.2 | 70-130 | | | 01/02/2018 | |
| Ethyltertiarybutylether | 45.3 | 5.0 | ug/L | 50.00 | | 90.7 | 70-130 | | | 01/02/2018 | |
| Hexachloroethane | 41.3 | 5.0 | ug/L | 50.00 | | 82.5 | 70-130 | | | 01/02/2018 | |
| Hexane | 46.0 | 1.0 | ug/L | 50.00 | | 91.9 | 70-130 | | | 01/02/2018 | |
| Isopropylbenzene | 50.1 | 1.0 | ug/L | 50.00 | | 100 | 70-130 | | | 01/02/2018 | |
| m & p - Xylene | 101 | 2.0 | ug/L | 100.0 | | 101 | 70-130 | | | 01/02/2018 | |
| Methylene chloride | 50.0 | 5.0 | ug/L | 50.00 | | 99.9 | 70-130 | | | 01/02/2018 | |
| Methyltertiarybutylether | 47.4 | 1.0 | ug/L | 50.00 | | 94.9 | 70-130 | | | 01/02/2018 | |
| Naphthalene | 48.6 | 5.0 | ug/L | 50.00 | | 97.3 | 70-130 | | | 01/02/2018 | X |
| n-Butylbenzene | 50.4 | 1.0 | ug/L | 50.00 | | 101 | 70-130 | | | 01/02/2018 | |
| n-Propylbenzene | 50.4 | 1.0 | ug/L | 50.00 | | 101 | 70-130 | | | 01/02/2018 | |
| o-Xylene | 49.2 | 1.0 | ug/L | 50.00 | | 98.5 | 70-130 | | | 01/02/2018 | |
| sec-Butylbenzene | 49.3 | 1.0 | ug/L | 50.00 | | 98.6 | 70-130 | | | 01/02/2018 | |
| Styrene | 48.3 | 1.0 | ug/L | 50.00 | | 96.6 | 70-130 | | | 01/02/2018 | |
| tert-Butylbenzene | 46.6 | 1.0 | ug/L | 50.00 | | 93.2 | 70-130 | | | 01/02/2018 | |
| tertiary Butyl Alcohol | 150 | 50 | ug/L | 250.0 | | 60.0 | 70-130 | | | 01/02/2018 | A07, A08 |
| tertiaryAmylmethylether | 43.8 | 5.0 | ug/L | 50.00 | | 87.7 | 70-130 | | | 01/02/2018 | |
| Tetrachloroethylene | 47.8 | 1.0 | ug/L | 50.00 | | 95.6 | 70-130 | | | 01/02/2018 | |
| Tetrahydrofuran | 42.2 | 5.0 | ug/L | 50.00 | | 84.3 | 70-130 | | | 01/02/2018 | |
| Toluene | 49.6 | 1.0 | ug/L | 50.00 | | 99.3 | 70-130 | | | 01/02/2018 | |
| trans-1,2-Dichloroethylene | 49.4 | 1.0 | ug/L | 50.00 | | 98.9 | 70-130 | | | 01/02/2018 | |
| trans-1,3-Dichloropropylene | 48.6 | 1.0 | ug/L | 50.00 | | 97.1 | 70-130 | | | 01/02/2018 | |
| Trichloroethylene | 47.5 | 1.0 | ug/L | 50.00 | | 94.9 | 70-130 | | | 01/02/2018 | |
| Trichlorofluoromethane | 61.7 | 1.0 | ug/L | 50.00 | | 123 | 70-130 | | | 01/02/2018 | A06 |
| Vinyl chloride | 48.5 | 1.0 | ug/L | 50.00 | | 96.9 | 70-130 | | | 01/02/2018 | |



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 Lansing, MI 48909
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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 B8A0202 - Method: 5030

Prepared: 01/02/2018

LCS (B8A0202-BS1)

| | | | | | | | | | | | |
|---------------------------------|------|--|------|-------|--|------|----------|--|--|------------|--|
| Surrogate: Bromofluorobenzene | 48.6 | | ug/L | 50.00 | | 97.3 | 85-115 | | | 01/02/2018 | |
| Surrogate: Dibromofluoromethane | 51.2 | | ug/L | 50.00 | | 102 | 82.7-115 | | | 01/02/2018 | |
| Surrogate: Toluene-d8 | 51.3 | | ug/L | 50.00 | | 103 | 85-115 | | | 01/02/2018 | |

Matrix Spike (B8A0202-MS1)

Source: 1712222-01

| | | | | | | | | | | | |
|-----------------------------|------|-----|------|-------|------|------|--------|--|--|------------|----------|
| 1,1,1,2-Tetrachloroethane | 45.2 | 1.0 | ug/L | 50.00 | ND | 90.4 | 70-130 | | | 01/02/2018 | |
| 1,1,1-Trichloroethane | 50.5 | 1.0 | ug/L | 50.00 | 4.52 | 92.0 | 70-130 | | | 01/02/2018 | |
| 1,1,2,2-Tetrachloroethane | 51.2 | 1.0 | ug/L | 50.00 | ND | 102 | 70-130 | | | 01/02/2018 | |
| 1,1,2-Trichloroethane | 49.3 | 1.0 | ug/L | 50.00 | ND | 98.6 | 70-130 | | | 01/02/2018 | |
| 1,1-Dichloroethane | 46.2 | 1.0 | ug/L | 50.00 | ND | 92.4 | 70-130 | | | 01/02/2018 | |
| 1,1-Dichloroethylene | 53.4 | 1.0 | ug/L | 50.00 | ND | 107 | 70-130 | | | 01/02/2018 | |
| 1,2,3-Trichlorobenzene | 47.8 | 5.0 | ug/L | 50.00 | ND | 95.6 | 70-130 | | | 01/02/2018 | |
| 1,2,3-Trichloropropane | 48.7 | 1.0 | ug/L | 50.00 | ND | 97.4 | 70-130 | | | 01/02/2018 | |
| 1,2,3-Trimethylbenzene | 47.2 | 1.0 | ug/L | 50.00 | ND | 94.4 | 70-130 | | | 01/02/2018 | |
| 1,2,4-Trichlorobenzene | 47.3 | 5.0 | ug/L | 50.00 | ND | 94.7 | 70-130 | | | 01/02/2018 | |
| 1,2,4-Trimethylbenzene | 48.4 | 1.0 | ug/L | 50.00 | ND | 96.8 | 70-130 | | | 01/02/2018 | |
| 1,2-Dibromoethane | 50.0 | 1.0 | ug/L | 50.00 | ND | 100 | 70-130 | | | 01/02/2018 | |
| 1,2-Dichlorobenzene | 48.8 | 1.0 | ug/L | 50.00 | ND | 97.6 | 70-130 | | | 01/02/2018 | |
| 1,2-Dichloroethane | 51.0 | 1.0 | ug/L | 50.00 | ND | 102 | 70-130 | | | 01/02/2018 | |
| 1,2-Dichloropropane | 47.9 | 1.0 | ug/L | 50.00 | ND | 95.9 | 70-130 | | | 01/02/2018 | |
| 1,3,5-Trimethylbenzene | 47.9 | 1.0 | ug/L | 50.00 | ND | 95.8 | 70-130 | | | 01/02/2018 | |
| 1,3-Dichlorobenzene | 48.2 | 1.0 | ug/L | 50.00 | ND | 96.5 | 70-130 | | | 01/02/2018 | |
| 1,4-Dichlorobenzene | 47.7 | 1.0 | ug/L | 50.00 | ND | 95.3 | 70-130 | | | 01/02/2018 | |
| 2,2,4-Trimethylpentane | 48.1 | 5.0 | ug/L | 50.00 | ND | 96.2 | 70-130 | | | 01/02/2018 | |
| 2-Butanone (MEK) | 36.4 | 5.0 | ug/L | 50.00 | ND | 72.9 | 70-130 | | | 01/02/2018 | A06, A11 |
| 2-Methylnaphthalene | 45.0 | 5.0 | ug/L | 50.00 | ND | 90.1 | 70-130 | | | 01/02/2018 | X |
| 2-Propanone (acetone) | 23.9 | 20 | ug/L | 50.00 | ND | 47.7 | 70-130 | | | 01/02/2018 | A03, A11 |
| 4-Methyl-2-pentanone (MIBK) | 45.6 | 5.0 | ug/L | 50.00 | ND | 91.2 | 70-130 | | | 01/02/2018 | |
| Acrylonitrile | 48.1 | 5.0 | ug/L | 50.00 | ND | 96.3 | 70-130 | | | 01/02/2018 | |
| Benzene | 47.4 | 1.0 | ug/L | 50.00 | ND | 94.9 | 70-130 | | | 01/02/2018 | |
| Bromochloromethane | 45.5 | 1.0 | ug/L | 50.00 | ND | 91.0 | 70-130 | | | 01/02/2018 | |
| Bromodichloromethane | 51.2 | 1.0 | ug/L | 50.00 | ND | 102 | 70-130 | | | 01/02/2018 | |
| Bromoform | 41.8 | 1.0 | ug/L | 50.00 | ND | 83.7 | 70-130 | | | 01/02/2018 | |
| Bromomethane | 33.7 | 5.0 | ug/L | 50.00 | ND | 67.4 | 70-130 | | | 01/02/2018 | A03, A05 |
| Carbon disulfide | 47.5 | 1.0 | ug/L | 50.00 | ND | 94.9 | 70-130 | | | 01/02/2018 | |
| Carbon tetrachloride | 43.9 | 1.0 | ug/L | 50.00 | ND | 87.7 | 70-130 | | | 01/02/2018 | |
| Chlorobenzene | 48.6 | 1.0 | ug/L | 50.00 | ND | 97.1 | 70-130 | | | 01/02/2018 | |
| Chloroethane | 56.7 | 5.0 | ug/L | 50.00 | ND | 113 | 70-130 | | | 01/02/2018 | |
| Chloroform | 48.5 | 1.0 | ug/L | 50.00 | ND | 96.9 | 70-130 | | | 01/02/2018 | |
| Chloromethane | 51.5 | 5.0 | ug/L | 50.00 | ND | 103 | 70-130 | | | 01/02/2018 | |
| cis-1,2-Dichloroethylene | 49.5 | 1.0 | ug/L | 50.00 | ND | 99.0 | 70-130 | | | 01/02/2018 | |
| cis-1,3-Dichloropropylene | 45.9 | 1.0 | ug/L | 50.00 | ND | 91.8 | 70-130 | | | 01/02/2018 | |
| Cyclohexane | 44.5 | 5.0 | ug/L | 50.00 | ND | 89.0 | 70-130 | | | 01/02/2018 | |
| Dibromochloromethane | 49.7 | 1.0 | ug/L | 50.00 | ND | 99.3 | 70-130 | | | 01/02/2018 | |
| Dibromomethane | 45.8 | 1.0 | ug/L | 50.00 | ND | 91.6 | 70-130 | | | 01/02/2018 | |
| Dichlorodifluoromethane | 53.1 | 5.0 | ug/L | 50.00 | ND | 106 | 70-130 | | | 01/02/2018 | |
| Diethyl ether | 50.2 | 5.0 | ug/L | 50.00 | ND | 100 | 70-130 | | | 01/02/2018 | |



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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 B8A0202 - Method: 5030

Prepared: 01/02/2018

| Matrix Spike (B8A0202-MS1) | Source: 1712222-01 | | | | | | | | | | |
|---------------------------------|--------------------|-----|------|-------|------|------|----------|--|--|------------|----------|
| Diisopropyl Ether | 46.7 | 5.0 | ug/L | 50.00 | ND | 93.5 | 70-130 | | | 01/02/2018 | |
| Ethylbenzene | 48.9 | 1.0 | ug/L | 50.00 | ND | 97.8 | 70-130 | | | 01/02/2018 | |
| Ethyltertiarybutylether | 42.6 | 5.0 | ug/L | 50.00 | ND | 85.2 | 70-130 | | | 01/02/2018 | |
| Hexachloroethane | 35.1 | 5.0 | ug/L | 50.00 | ND | 70.1 | 70-130 | | | 01/02/2018 | |
| Hexane | 44.5 | 1.0 | ug/L | 50.00 | ND | 89.1 | 70-130 | | | 01/02/2018 | |
| Isopropylbenzene | 50.0 | 1.0 | ug/L | 50.00 | ND | 100 | 70-130 | | | 01/02/2018 | |
| m & p - Xylene | 100 | 2.0 | ug/L | 100.0 | ND | 100 | 70-130 | | | 01/02/2018 | |
| Methylene chloride | 51.0 | 5.0 | ug/L | 50.00 | ND | 102 | 70-130 | | | 01/02/2018 | |
| Methyltertiarybutylether | 44.7 | 1.0 | ug/L | 50.00 | ND | 89.4 | 70-130 | | | 01/02/2018 | |
| Naphthalene | 48.6 | 5.0 | ug/L | 50.00 | ND | 97.2 | 70-130 | | | 01/02/2018 | X |
| n-Butylbenzene | 49.1 | 1.0 | ug/L | 50.00 | ND | 98.2 | 70-130 | | | 01/02/2018 | |
| n-Propylbenzene | 50.2 | 1.0 | ug/L | 50.00 | ND | 100 | 70-130 | | | 01/02/2018 | |
| o-Xylene | 48.5 | 1.0 | ug/L | 50.00 | ND | 97.1 | 70-130 | | | 01/02/2018 | |
| sec-Butylbenzene | 48.5 | 1.0 | ug/L | 50.00 | ND | 97.0 | 70-130 | | | 01/02/2018 | |
| Styrene | 47.9 | 1.0 | ug/L | 50.00 | ND | 95.9 | 70-130 | | | 01/02/2018 | |
| tert-Butylbenzene | 45.7 | 1.0 | ug/L | 50.00 | ND | 91.4 | 70-130 | | | 01/02/2018 | |
| tertiary Butyl Alcohol | 118 | 50 | ug/L | 250.0 | ND | 47.3 | 70-130 | | | 01/02/2018 | A03, A07 |
| tertiaryAmylmethylether | 40.9 | 5.0 | ug/L | 50.00 | ND | 81.8 | 70-130 | | | 01/02/2018 | |
| Tetrachloroethylene | 46.6 | 1.0 | ug/L | 50.00 | ND | 93.2 | 70-130 | | | 01/02/2018 | |
| Tetrahydrofuran | 41.5 | 5.0 | ug/L | 50.00 | ND | 82.9 | 70-130 | | | 01/02/2018 | |
| Toluene | 49.4 | 1.0 | ug/L | 50.00 | ND | 98.9 | 70-130 | | | 01/02/2018 | |
| trans-1,2-Dichloroethylene | 48.7 | 1.0 | ug/L | 50.00 | ND | 97.3 | 70-130 | | | 01/02/2018 | |
| trans-1,3-Dichloropropylene | 44.2 | 1.0 | ug/L | 50.00 | ND | 88.4 | 70-130 | | | 01/02/2018 | |
| Trichloroethylene | 59.0 | 1.0 | ug/L | 50.00 | 12.5 | 93.0 | 70-130 | | | 01/02/2018 | |
| Trichlorofluoromethane | 63.3 | 1.0 | ug/L | 50.00 | ND | 127 | 70-130 | | | 01/02/2018 | A06 |
| Vinyl chloride | 48.7 | 1.0 | ug/L | 50.00 | ND | 97.4 | 70-130 | | | 01/02/2018 | |
| Surrogate: Bromofluorobenzene | 49.2 | | ug/L | 50.00 | | 98.4 | 85-115 | | | 01/02/2018 | |
| Surrogate: Dibromofluoromethane | 52.7 | | ug/L | 50.00 | | 105 | 82.7-115 | | | 01/02/2018 | |
| Surrogate: Toluene-d8 | 50.7 | | ug/L | 50.00 | | 101 | 85-115 | | | 01/02/2018 | |

| Matrix Spike Dup (B8A0202-MSD1) | Source: 1712222-01 | | | | | | | | | | |
|---------------------------------|--------------------|-----|------|-------|------|------|--------|-------|----|------------|--|
| 1,1,1,2-Tetrachloroethane | 45.3 | 1.0 | ug/L | 50.00 | ND | 90.6 | 70-130 | 0.217 | 30 | 01/02/2018 | |
| 1,1,1-Trichloroethane | 48.0 | 1.0 | ug/L | 50.00 | 4.52 | 87.0 | 70-130 | 5.06 | 30 | 01/02/2018 | |
| 1,1,2,2-Tetrachloroethane | 52.1 | 1.0 | ug/L | 50.00 | ND | 104 | 70-130 | 1.74 | 30 | 01/02/2018 | |
| 1,1,2-Trichloroethane | 48.5 | 1.0 | ug/L | 50.00 | ND | 96.9 | 70-130 | 1.74 | 30 | 01/02/2018 | |
| 1,1-Dichloroethane | 43.8 | 1.0 | ug/L | 50.00 | ND | 87.6 | 70-130 | 5.28 | 30 | 01/02/2018 | |
| 1,1-Dichloroethylene | 48.8 | 1.0 | ug/L | 50.00 | ND | 97.5 | 70-130 | 9.11 | 30 | 01/02/2018 | |
| 1,2,3-Trichlorobenzene | 47.9 | 5.0 | ug/L | 50.00 | ND | 95.7 | 70-130 | 0.108 | 30 | 01/02/2018 | |
| 1,2,3-Trichloropropane | 49.2 | 1.0 | ug/L | 50.00 | ND | 98.4 | 70-130 | 1.09 | 30 | 01/02/2018 | |
| 1,2,3-Trimethylbenzene | 46.3 | 1.0 | ug/L | 50.00 | ND | 92.5 | 70-130 | 2.00 | 30 | 01/02/2018 | |
| 1,2,4-Trichlorobenzene | 47.6 | 5.0 | ug/L | 50.00 | ND | 95.2 | 70-130 | 0.541 | 30 | 01/02/2018 | |
| 1,2,4-Trimethylbenzene | 47.0 | 1.0 | ug/L | 50.00 | ND | 93.9 | 70-130 | 3.04 | 30 | 01/02/2018 | |
| 1,2-Dibromoethane | 49.3 | 1.0 | ug/L | 50.00 | ND | 98.6 | 70-130 | 1.43 | 30 | 01/02/2018 | |
| 1,2-Dichlorobenzene | 48.4 | 1.0 | ug/L | 50.00 | ND | 96.7 | 70-130 | 0.887 | 30 | 01/02/2018 | |
| 1,2-Dichloroethane | 50.3 | 1.0 | ug/L | 50.00 | ND | 101 | 70-130 | 1.43 | 30 | 01/02/2018 | |
| 1,2-Dichloropropane | 46.6 | 1.0 | ug/L | 50.00 | ND | 93.3 | 70-130 | 2.77 | 30 | 01/02/2018 | |
| 1,3,5-Trimethylbenzene | 46.5 | 1.0 | ug/L | 50.00 | ND | 93.1 | 70-130 | 2.89 | 30 | 01/02/2018 | |



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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 B8A0202 - Method: 5030

Prepared: 01/02/2018

| Matrix Spike Dup (B8A0202-MSD1) | Source: 1712222-01 | | | | | | | | | | |
|---------------------------------|--------------------|-----|------|-------|----|------|--------|-------|----|------------|----------|
| 1,3-Dichlorobenzene | 47.0 | 1.0 | ug/L | 50.00 | ND | 94.0 | 70-130 | 2.58 | 30 | 01/02/2018 | |
| 1,4-Dichlorobenzene | 46.5 | 1.0 | ug/L | 50.00 | ND | 93.0 | 70-130 | 2.47 | 30 | 01/02/2018 | |
| 2,2,4-Trimethylpentane | 39.4 | 5.0 | ug/L | 50.00 | ND | 78.7 | 70-130 | 20.0 | 30 | 01/02/2018 | |
| 2-Butanone (MEK) | 36.9 | 5.0 | ug/L | 50.00 | ND | 73.8 | 70-130 | 1.32 | 30 | 01/02/2018 | A06, A11 |
| 2-Methylnaphthalene | 47.5 | 5.0 | ug/L | 50.00 | ND | 95.0 | 70-130 | 5.32 | 30 | 01/02/2018 | X |
| 2-Propanone (acetone) | 25.7 | 20 | ug/L | 50.00 | ND | 51.4 | 70-130 | 7.49 | 30 | 01/02/2018 | A03, A11 |
| 4-Methyl-2-pentanone (MIBK) | 46.5 | 5.0 | ug/L | 50.00 | ND | 93.0 | 70-130 | 1.92 | 30 | 01/02/2018 | |
| Acrylonitrile | 47.8 | 5.0 | ug/L | 50.00 | ND | 95.7 | 70-130 | 0.633 | 30 | 01/02/2018 | |
| Benzene | 45.2 | 1.0 | ug/L | 50.00 | ND | 90.4 | 70-130 | 4.84 | 30 | 01/02/2018 | |
| Bromochloromethane | 45.4 | 1.0 | ug/L | 50.00 | ND | 90.9 | 70-130 | 0.110 | 30 | 01/02/2018 | |
| Bromodichloromethane | 49.6 | 1.0 | ug/L | 50.00 | ND | 99.2 | 70-130 | 3.15 | 30 | 01/02/2018 | |
| Bromoform | 42.1 | 1.0 | ug/L | 50.00 | ND | 84.2 | 70-130 | 0.576 | 30 | 01/02/2018 | |
| Bromomethane | 28.6 | 5.0 | ug/L | 50.00 | ND | 57.2 | 70-130 | 16.3 | 30 | 01/02/2018 | A03, A05 |
| Carbon disulfide | 43.1 | 1.0 | ug/L | 50.00 | ND | 86.2 | 70-130 | 9.57 | 30 | 01/02/2018 | |
| Carbon tetrachloride | 42.7 | 1.0 | ug/L | 50.00 | ND | 85.3 | 70-130 | 2.75 | 30 | 01/02/2018 | |
| Chlorobenzene | 46.4 | 1.0 | ug/L | 50.00 | ND | 92.8 | 70-130 | 4.54 | 30 | 01/02/2018 | |
| Chloroethane | 50.5 | 5.0 | ug/L | 50.00 | ND | 101 | 70-130 | 11.6 | 30 | 01/02/2018 | |
| Chloroform | 45.9 | 1.0 | ug/L | 50.00 | ND | 91.7 | 70-130 | 5.49 | 30 | 01/02/2018 | |
| Chloromethane | 48.9 | 5.0 | ug/L | 50.00 | ND | 97.7 | 70-130 | 5.18 | 30 | 01/02/2018 | |
| cis-1,2-Dichloroethylene | 47.3 | 1.0 | ug/L | 50.00 | ND | 94.7 | 70-130 | 4.47 | 30 | 01/02/2018 | |
| cis-1,3-Dichloropropylene | 45.8 | 1.0 | ug/L | 50.00 | ND | 91.7 | 70-130 | 0.112 | 30 | 01/02/2018 | |
| Cyclohexane | 41.8 | 5.0 | ug/L | 50.00 | ND | 83.6 | 70-130 | 6.26 | 30 | 01/02/2018 | |
| Dibromochloromethane | 49.2 | 1.0 | ug/L | 50.00 | ND | 98.5 | 70-130 | 0.879 | 30 | 01/02/2018 | |
| Dibromomethane | 46.4 | 1.0 | ug/L | 50.00 | ND | 92.8 | 70-130 | 1.28 | 30 | 01/02/2018 | |
| Dichlorodifluoromethane | 48.0 | 5.0 | ug/L | 50.00 | ND | 96.0 | 70-130 | 10.1 | 30 | 01/02/2018 | |
| Diethyl ether | 49.0 | 5.0 | ug/L | 50.00 | ND | 97.9 | 70-130 | 2.57 | 30 | 01/02/2018 | |
| Diisopropyl Ether | 46.4 | 5.0 | ug/L | 50.00 | ND | 92.8 | 70-130 | 0.672 | 30 | 01/02/2018 | |
| Ethylbenzene | 46.6 | 1.0 | ug/L | 50.00 | ND | 93.1 | 70-130 | 4.90 | 30 | 01/02/2018 | |
| Ethyltertiarybutylether | 42.4 | 5.0 | ug/L | 50.00 | ND | 84.7 | 70-130 | 0.507 | 30 | 01/02/2018 | |
| Hexachloroethane | 35.4 | 5.0 | ug/L | 50.00 | ND | 70.9 | 70-130 | 1.04 | 30 | 01/02/2018 | |
| Hexane | 38.1 | 1.0 | ug/L | 50.00 | ND | 76.3 | 70-130 | 15.5 | 30 | 01/02/2018 | |
| Isopropylbenzene | 48.3 | 1.0 | ug/L | 50.00 | ND | 96.5 | 70-130 | 3.57 | 30 | 01/02/2018 | |
| m & p - Xylene | 95.6 | 2.0 | ug/L | 100.0 | ND | 95.6 | 70-130 | 4.82 | 30 | 01/02/2018 | |
| Methylene chloride | 48.5 | 5.0 | ug/L | 50.00 | ND | 97.0 | 70-130 | 5.05 | 30 | 01/02/2018 | |
| Methyltertiarybutylether | 44.9 | 1.0 | ug/L | 50.00 | ND | 89.8 | 70-130 | 0.385 | 30 | 01/02/2018 | |
| Naphthalene | 50.0 | 5.0 | ug/L | 50.00 | ND | 100 | 70-130 | 2.86 | 30 | 01/02/2018 | X |
| n-Butylbenzene | 46.1 | 1.0 | ug/L | 50.00 | ND | 92.2 | 70-130 | 6.32 | 30 | 01/02/2018 | |
| n-Propylbenzene | 48.3 | 1.0 | ug/L | 50.00 | ND | 96.6 | 70-130 | 3.91 | 30 | 01/02/2018 | |
| o-Xylene | 46.7 | 1.0 | ug/L | 50.00 | ND | 93.4 | 70-130 | 3.80 | 30 | 01/02/2018 | |
| sec-Butylbenzene | 46.7 | 1.0 | ug/L | 50.00 | ND | 93.5 | 70-130 | 3.71 | 30 | 01/02/2018 | |
| Styrene | 46.0 | 1.0 | ug/L | 50.00 | ND | 92.1 | 70-130 | 4.03 | 30 | 01/02/2018 | |
| tert-Butylbenzene | 43.2 | 1.0 | ug/L | 50.00 | ND | 86.4 | 70-130 | 5.63 | 30 | 01/02/2018 | |
| tertiary Butyl Alcohol | 174 | 50 | ug/L | 250.0 | ND | 69.6 | 70-130 | 38.2 | 30 | 01/02/2018 | A03, A07 |
| tertiaryAmylmethylether | 41.0 | 5.0 | ug/L | 50.00 | ND | 82.0 | 70-130 | 0.143 | 30 | 01/02/2018 | |
| Tetrachloroethylene | 43.0 | 1.0 | ug/L | 50.00 | ND | 86.0 | 70-130 | 8.09 | 30 | 01/02/2018 | |
| Tetrahydrofuran | 41.2 | 5.0 | ug/L | 50.00 | ND | 82.3 | 70-130 | 0.742 | 30 | 01/02/2018 | |
| Toluene | 46.8 | 1.0 | ug/L | 50.00 | ND | 93.7 | 70-130 | 5.42 | 30 | 01/02/2018 | |



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL LABORATORY

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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 |
|---------|--------|----|-------|-------------|---------------|------|-------------|-----|-----------|----------|-----------|
|---------|--------|----|-------|-------------|---------------|------|-------------|-----|-----------|----------|-----------|

Batch B8A0202 - Method: 5030

Prepared: 01/02/2018

| Matrix Spike Dup (B8A0202-MSD1) | Source: 1712222-01 | | | | | | | | | | |
|----------------------------------------|---------------------------|-----|-------------|--------------|------|-------------|-----------------|-------|----|-------------------|-----|
| trans-1,2-Dichloroethylene | 45.0 | 1.0 | ug/L | 50.00 | ND | 90.0 | 70-130 | 7.87 | 30 | 01/02/2018 | |
| trans-1,3-Dichloropropylene | 44.5 | 1.0 | ug/L | 50.00 | ND | 88.9 | 70-130 | 0.561 | 30 | 01/02/2018 | |
| Trichloroethylene | 55.2 | 1.0 | ug/L | 50.00 | 12.5 | 85.4 | 70-130 | 6.66 | 30 | 01/02/2018 | |
| Trichlorofluoromethane | 56.9 | 1.0 | ug/L | 50.00 | ND | 114 | 70-130 | 10.6 | 30 | 01/02/2018 | A06 |
| Vinyl chloride | 44.7 | 1.0 | ug/L | 50.00 | ND | 89.3 | 70-130 | 8.64 | 30 | 01/02/2018 | |
| <i>Surrogate: Bromofluorobenzene</i> | <i>49.3</i> | | <i>ug/L</i> | <i>50.00</i> | | <i>98.7</i> | <i>85-115</i> | | | <i>01/02/2018</i> | |
| <i>Surrogate: Dibromofluoromethane</i> | <i>52.3</i> | | <i>ug/L</i> | <i>50.00</i> | | <i>105</i> | <i>82.7-115</i> | | | <i>01/02/2018</i> | |
| <i>Surrogate: Toluene-d8</i> | <i>50.3</i> | | <i>ug/L</i> | <i>50.00</i> | | <i>101</i> | <i>85-115</i> | | | <i>01/02/2018</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 B8A0211 - Method: 5030 | | | | Prepared: 12/28/2017 | | | | | | | |
| Blank (B8A0211-BLK1) | | | | | | | | | | | |
| 1,4-dioxane | ND | 1.0 | ug/L | | | | | | | 12/28/2017 | |
| LCS (B8A0211-BS1) | | | | | | | | | | | |
| 1,4-dioxane | 10.2 | 1.0 | ug/L | 10.00 | | 102 | 70-130 | | | 12/28/2017 | |
| Matrix Spike (B8A0211-MS1) Source: 1712230-01 | | | | | | | | | | | |
| 1,4-dioxane | 9.90 | 1.0 | ug/L | 10.00 | ND | 99.0 | 70-130 | | | 12/28/2017 | |
| Matrix Spike Dup (B8A0211-MSD1) Source: 1712230-01 | | | | | | | | | | | |
| 1,4-dioxane | 9.50 | 1.0 | ug/L | 10.00 | ND | 95.0 | 70-130 | 4.12 | 30 | 12/28/2017 | |



Analysis Request Sheet

| | | |
|-----------------------------------------------------------|----------------------------------------|-----------------------------------------------|
| Lab Work Order Number 1710231 | Project Name Gelman Sciences | Matrix WATER |
| Site Code/Project Number 81000018 | AY 18 | CC Email 1 lundk@michigan.gov |
| Dept-Division-District DEQ-RRD-Jackson | Index 44410 | CC Email 2 |
| State Project Manager Dan Hamel | PCA 30740 | CC Email 3 |
| State Project Manager Email hameld@michigan.gov | Project 451586 | Overflow Lab Choice 1 |
| State Project Manager Phone (517)745-6595 | Phase 00 | Overflow Lab Choice 2 |
| | | Project TAT Days |
| | | Project Due Date |
| | | Sample Collector DAN HAMEL |
| | | Sample Collector Phone 517-745-6595 |
| | | Contract Firm |
| | | Contract Firm Primary Contact |
| | | Primary Contact Phone |
| | | Accept Analysis hold time codes |

| Lab Use Only | Field Sample Identification | Collection Date | Collection Time | Container Count | Comments |
|--------------|---------------------------------|-----------------|-----------------|-----------------|----------------------------------------------|
| 1 | 01 ALLGN CREEK - WEST PARK - SW | 12/19/17 | 1345 | | Please include QA/QC with Lab Data Report(s) |
| 2 | | | | | |
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| 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 | 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 | 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 | GB Total 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 (Amenable / Weak Acid Dissociable) 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 1 2 3 4 5 6 7 8 9 10 (Includes Total Alkalinity) 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) 1 2 3 4 5 6 7 8 9 10 (Field - Filtered & Preserved) GN Diss Org Carbon - DOC (LF) 1 2 3 4 5 6 7 8 9 10 (Lab - Filtered & Preserved) 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 |
| 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 - SemVols 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) | | | |
| | MD - Metals Dissolved Lab Filtration 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 | |

| Chain of Custody | Relinquished by | Received By | Date / Time |
|------------------|-------------------------------------------------|----------------------|-----------------------|
| | Print Name & Org DANIEL HAMEL DEQ-RRD | Michael Smith | 12/21/17 12:13 |
| | Signature: <i>Daniel Hamel</i> | | |
| | Print Name & Org | | |
| Signature: | | | |
| Print Name & Org | | | |
| Signature: | | | |