



**Groundwater
& Environmental Services, Inc.**

1350 Blair Drive • Suite A • Odenton, Maryland 21113 • (800) 220-3606 • FAX (410) 721-3733

November 18, 2016

Robert Goldstein
3921 Greenpeak Rd
Jarrettsville, MD 21084

Re: Water Filtration System Sampling Information
3921 Greenpeak Rd, Jarrettsville, MD 21084

Groundwater & Environmental Services, Inc. (GES), on behalf of High's of Baltimore, would like to thank you for your cooperation in allowing us to conduct sampling of your water filtration system on October 13, 2016. The sampling was conducted to evaluate the effectiveness of the granular activated carbon (GAC) filtration system that was installed to treat the water coming into your home.

To help better understand the results, the following information is supplied:

- **Pre-carbon filtration** – water sample of the first, untreated water coming directly into your home; referred to as influent and denoted as “INF” on the laboratory report.
- **Mid-carbon filtration** – water sample collected between the carbon vessels, on the two-train carbon system that was installed; referred to as mid-fluent and denoted as “MID” on the laboratory report.
- **Post-carbon filtration** – water sample of the finished treated water; referred to as effluent and denoted as “EFF” on the laboratory report.

Water samples were collected pre-, mid- and post-carbon filtration and were tested in accordance to USEPA standards for the presence of several petroleum related compounds, including methyl tertiary butyl ether (MTBE). The results from the most recent sampling event demonstrate a detection of MTBE in the influent water of your GAC system at a concentration of 26.0 micrograms per liter ($\mu\text{g/L}$). For reference, the Maryland Department of the Environment (MDE) action level for MTBE is 20 $\mu\text{g/L}$. There were no petroleum-related compounds, including MTBE, detected in the mid-fluent or effluent water sample from this sampling event. A copy of the laboratory analysis report is attached to this correspondence.

The tests conducted on your drinking water well are part of an ongoing groundwater investigation being conducted in cooperation with the MDE and the Harford County Health Department (HCHD). Therefore we would like to continue sampling the water from your drinking water well on a periodic basis while the groundwater investigation is being conducted. We will notify you in advance of the next scheduled sampling event.

If you have any questions concerning this sampling event, please feel free to contact me at 800-220-3606, Ext. 3726. You may also contact Ms. Jeannette DeBartolomeo of the MDE at 410-537-3427.

Sincerely,
GROUNDWATER & ENVIRONMENTAL SERVICES, INC.

Peter Reichardt
Project Hydrogeologist

Attachment

c: Jeannette DeBartolomeo, MDE (3 copies & CD)
Peter Smith, HCHD
Herb Meade, CIFIC (e-copy)
Todd Passmore, Apex

Sample Description: 3921 GREEN PEAK-EFF Grab Potable Water
4101 Norrisville Rd, Jarrettsville, MD
Carroll Madonna

LL Sample # PW 8648867
LL Group # 1722241
Account # 08390

Project Name: Carroll Madonna

Collected: 10/13/2016 10:00 by JP

GES, Inc.
Suite A
1350 Blair Dr
Odenton MD 21113

Submitted: 10/14/2016 16:30

Reported: 10/26/2016 15:25

21GPE

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|--------------|-----------------------------|------------------|-------------|------------------------|-----------------|
| GC/MS | Volatiles | EPA 524.2 | ug/l | ug/l | |
| 03648 | t-Amyl Methyl Ether | 994-05-8 | N.D. | 0.1 | 1 |
| 03648 | Benzene | 71-43-2 | N.D. | 0.1 | 1 |
| 03648 | t-Butyl Alcohol | 75-65-0 | N.D. | 2.5 | 1 |
| 03648 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.1 | 1 |
| 03648 | Chlorobenzene | 108-90-7 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.1 | 1 |
| 03648 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.1 | 1 |
| 03648 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.1 | 1 |
| 03648 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.1 | 1 |
| 03648 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.1 | 1 |
| 03648 | Ethyl t-Butyl Ether | 637-92-3 | N.D. | 0.1 | 1 |
| 03648 | Ethylbenzene | 100-41-4 | N.D. | 0.1 | 1 |
| 03648 | di-Isopropyl Ether | 108-20-3 | N.D. | 0.1 | 1 |
| 03648 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.1 | 1 |
| 03648 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 03648 | Naphthalene | 91-20-3 | N.D. | 0.2 | 1 |
| 03648 | Styrene | 100-42-5 | N.D. | 0.1 | 1 |
| 03648 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 1 |
| 03648 | Toluene | 108-88-3 | N.D. | 0.1 | 1 |
| 03648 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.2 | 1 |
| 03648 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 1 |
| 03648 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 1 |
| 03648 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 1 |
| 03648 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 1 |
| 03648 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 1 |

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|---------------------------|-----------|--------|-----------|------------------------|---------------|-----------------|
| 03648 | VOCs- 25ml Water by 524.2 | EPA 524.2 | 1 | S162992AA | 10/25/2016 21:51 | Joshua S Hess | 1 |



Sample Description: 3921 GREEN PEAK-MID Grab Potable Water
4101 Norrisville Rd, Jarrettsville, MD
Carroll Madonna

LL Sample # PW 8648868
LL Group # 1722241
Account # 08390

Project Name: Carroll Madonna

Collected: 10/13/2016 10:05 by JP

GES, Inc.
Suite A
1350 Blair Dr
Odenton MD 21113

Submitted: 10/14/2016 16:30
Reported: 10/26/2016 15:25

21GPM

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|--------------|-----------------------------|------------------|-------------|------------------------|-----------------|
| GC/MS | Volatiles | EPA 524.2 | ug/l | ug/l | |
| 03648 | t-Amyl Methyl Ether | 994-05-8 | N.D. | 0.1 | 1 |
| 03648 | Benzene | 71-43-2 | N.D. | 0.1 | 1 |
| 03648 | t-Butyl Alcohol | 75-65-0 | N.D. | 2.5 | 1 |
| 03648 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.1 | 1 |
| 03648 | Chlorobenzene | 108-90-7 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.1 | 1 |
| 03648 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.1 | 1 |
| 03648 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.1 | 1 |
| 03648 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.1 | 1 |
| 03648 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.1 | 1 |
| 03648 | Ethyl t-Butyl Ether | 637-92-3 | N.D. | 0.1 | 1 |
| 03648 | Ethylbenzene | 100-41-4 | N.D. | 0.1 | 1 |
| 03648 | di-Isopropyl Ether | 108-20-3 | N.D. | 0.1 | 1 |
| 03648 | Methyl Tertiary Butyl Ether | 1634-04-4 | N.D. | 0.1 | 1 |
| 03648 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 03648 | Naphthalene | 91-20-3 | N.D. | 0.2 | 1 |
| 03648 | Styrene | 100-42-5 | N.D. | 0.1 | 1 |
| 03648 | Tetrachloroethene | 127-18-4 | N.D. | 0.1 | 1 |
| 03648 | Toluene | 108-88-3 | N.D. | 0.1 | 1 |
| 03648 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.2 | 1 |
| 03648 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 1 |
| 03648 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 1 |
| 03648 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 1 |
| 03648 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 1 |
| 03648 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 1 |

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|---------------------------|-----------|--------|-----------|------------------------|---------------|-----------------|
| 03648 | VOCs- 25ml Water by 524.2 | EPA 524.2 | 1 | S162992AA | 10/25/2016 22:18 | Joshua S Hess | 1 |

Sample Description: 3921 GREEN PEAK-INF Grab Potable Water
4101 Norrisville Rd, Jarrettsville, MD
Carroll Madonna

LL Sample # PW 8648869
LL Group # 1722241
Account # 08390

Project Name: Carroll Madonna

Collected: 10/13/2016 10:10 by JP

GES, Inc.

Suite A

Submitted: 10/14/2016 16:30

1350 Blair Dr

Reported: 10/26/2016 15:25

Odenton MD 21113

21GPI

| CAT No. | Analysis Name | CAS Number | Result | Method Detection Limit | Dilution Factor |
|------------------------|-----------------------------|------------------|-------------|------------------------|-----------------|
| GC/MS Volatiles | | EPA 524.2 | ug/l | ug/l | |
| 03648 | t-Amyl Methyl Ether | 994-05-8 | N.D. | 0.1 | 1 |
| 03648 | Benzene | 71-43-2 | N.D. | 0.1 | 1 |
| 03648 | t-Butyl Alcohol | 75-65-0 | N.D. | 2.5 | 1 |
| 03648 | Carbon Tetrachloride | 56-23-5 | N.D. | 0.1 | 1 |
| 03648 | Chlorobenzene | 108-90-7 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichlorobenzene | 95-50-1 | N.D. | 0.1 | 1 |
| 03648 | 1,3-Dichlorobenzene | 541-73-1 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichloroethane | 107-06-2 | N.D. | 0.1 | 1 |
| 03648 | 1,1-Dichloroethene | 75-35-4 | N.D. | 0.1 | 1 |
| 03648 | cis-1,2-Dichloroethene | 156-59-2 | N.D. | 0.1 | 1 |
| 03648 | trans-1,2-Dichloroethene | 156-60-5 | N.D. | 0.1 | 1 |
| 03648 | 1,2-Dichloropropane | 78-87-5 | N.D. | 0.1 | 1 |
| 03648 | Ethyl t-Butyl Ether | 637-92-3 | N.D. | 0.1 | 1 |
| 03648 | Ethylbenzene | 100-41-4 | N.D. | 0.1 | 1 |
| 03648 | di-Isopropyl Ether | 108-20-3 | N.D. | 0.1 | 1 |
| 03648 | Methyl Tertiary Butyl Ether | 1634-04-4 | 26 | 0.1 | 1 |
| 03648 | Methylene Chloride | 75-09-2 | N.D. | 0.3 | 1 |
| 03648 | Naphthalene | 91-20-3 | N.D. | 0.2 | 1 |
| 03648 | Styrene | 100-42-5 | N.D. | 0.1 | 1 |
| 03648 | Tetrachloroethene | 127-18-4 | 0.1 J | 0.1 | 1 |
| 03648 | Toluene | 108-88-3 | N.D. | 0.1 | 1 |
| 03648 | 1,2,4-Trichlorobenzene | 120-82-1 | N.D. | 0.2 | 1 |
| 03648 | 1,1,1-Trichloroethane | 71-55-6 | N.D. | 0.1 | 1 |
| 03648 | 1,1,2-Trichloroethane | 79-00-5 | N.D. | 0.1 | 1 |
| 03648 | Trichloroethene | 79-01-6 | N.D. | 0.1 | 1 |
| 03648 | Vinyl Chloride | 75-01-4 | N.D. | 0.1 | 1 |
| 03648 | Xylene (Total) | 1330-20-7 | N.D. | 0.1 | 1 |

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

| CAT No. | Analysis Name | Method | Trial# | Batch# | Analysis Date and Time | Analyst | Dilution Factor |
|---------|---------------------------|-----------|--------|-----------|------------------------|---------------|-----------------|
| 03648 | VOCs- 25ml Water by 524.2 | EPA 524.2 | 1 | S162992AA | 10/25/2016 22:45 | Joshua S Hess | 1 |

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

| | | | |
|-------------------------|--|-----------------|----------------------------------|
| RL | Reporting Limit | BMQL | Below Minimum Quantitation Level |
| N.D. | none detected | MPN | Most Probable Number |
| TNTC | Too Numerous To Count | CP Units | cobalt-chloroplatinate units |
| IU | International Units | NTU | nephelometric turbidity units |
| umhos/cm | micromhos/cm | ng | nanogram(s) |
| C | degrees Celsius | F | degrees Fahrenheit |
| meq | milliequivalents | lb. | pound(s) |
| g | gram(s) | kg | kilogram(s) |
| µg | microgram(s) | mg | milligram(s) |
| mL | milliliter(s) | L | liter(s) |
| m3 | cubic meter(s) | µL | microliter(s) |
| | | pg/L | picogram/liter |
| < | less than | | |
| > | greater than | | |
| ppm | parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas. | | |
| ppb | parts per billion | | |
| Dry weight basis | Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis. | | |

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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