Underground Storage Tank System Removal Report

Piper's Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102

MDE Case No. 18-0496CL
Facility I.D. No. 17166

AEC Project No. 14-059

Submitted to:

Maryland Department of the Environment
Oil Control Program
1800 Washington Boulevard, Suite 620
Baltimore, Maryland 21230-1719

Prepared for:

Chenoweth & Associates, Inc.
4127 Hanover Pike
Manchester, Maryland 21102

Prepared by:

Advantage Environmental Consultants, LLC
8610 Washington Boulevard, Suite 217
Jessup, Maryland 20794

April 23, 2019

April 23, 2019

Mr. Matt Mueller
Maryland Department of the Environment
Oil Control Program
1800 Washington Boulevard, Suite 620
Baltimore, Maryland 21230-1719

Re: Underground Storage Tank System Removal Report
Piper's Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102
MDE Case No. 18-0496CL
MDE Facility ID No. 17166
AEC Project No. 14-059

Dear Mr. Mueller:

Advantage Environmental Consultants, LLC (AEC) is pleased to submit our report, on behalf of Chenoweth & Associates, Inc., to the Maryland Department of the Environment (MDE) for environmental services performed at the above referenced property (i.e., the Site).

AEC was contracted by Chenoweth & Associates, Inc. to perform underground storage tank (UST) system removal and excavation oversight; and confirmatory sampling associated with the removal of the UST system at the Site. Removal activities were performed by B&D Petroleum on March 18, 2019. Following the work outlined in this report, new USTs and fueling system equipment were installed at the Site.

If you have any questions regarding information in this report or if we can be of further assistance, please contact AEC at (301) 776-0500.

Sincerely,

Advantage Environmental Consultants, LLC

Jeremy S. Sheidy, P.G.
Senior Project Manager

Jeffery S. Stein, P.G.
Principal

CC: William Chenoweth, Chenoweth and Associates

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APPENDICES

1.0 INTRODUCTION

1.1 Project Introduction and Scope

Advantage Environmental Consultants, LLC. (AEC) was contracted by Chenoweth and Associates, Inc. to perform oversight during underground storage tank (UST) system removal and excavation, as well as confirmatory sampling at 4127 Hanover Pike, Manchester, Maryland (hereinafter referred to as the "Site"). The USTs removed included five, 8,000-gallon Sti-p3 USTs, product dispensers, and associated piping. A Site Vicinity Map is included as Figure 1 in Appendix A. A Site Features Map is included as Figure 2 in Appendix A.

Removal activities were performed by B&D Petroleum (B&D) Services of New Oxford, Pennsylvania on March 18, 2019. Petroleum Management, Inc. (PMI) of Baltimore, Maryland emptied and cleaned the USTs prior to removal and disposal. Mr. Matt Mueller of the Maryland Department of the Environment (MDE) was present during removal of the UST system. New USTs and fueling system equipment have been installed at the Site.

1.2 Site Location and Topography

The Site consists of a single, 1.00 acre parcel of land that is located north of the intersection of Hanover Pike and Tracey's Mill Road, in Manchester, Carroll County, Maryland. The Site consists of a liquor store and motor fuel dispensing equipment. The remainder of the Site consists of asphalt and concrete paved areas and landscaped areas.

The Site is bordered to the southwest by Hanover Pike. The Site is bordered to the southeast Tracey's Mill Road followed by agricultural land. The Site is bordered to the northwest by Hanover Pike. The Site is bordered to the northeast by agricultural land.

According to the United States Geological Survey (USGS) Manchester, MD 2016 7.5 Minute Series Topographic Quadrangle map of the area; the elevation of the Site is approximately 820 feet above mean sea level (msl). Regional surface drainage patterns in the vicinity of the Site are toward South Branch Gunpowder Falls, northeast of the Site.

2.0 UST REMOVAL AND SAMPLING ACTIVITIES

AEC was contracted by Chenoweth and Associates, Inc. to perform UST system removal oversight, excavation oversight, and confirmatory sampling associated with the removal of five 8,000-gallon, sti-p3 USTs, product dispensers, and associated piping. UST system removal activities were conducted on March 18, 2019 and performed by B&D. Prior to the removal of the USTs and associated piping, any remaining liquids were pumped from the product dispensing lines and USTs. A copy of the tank cleaning manifest is included in Appendix B.

Mr. Brian Taetzsch of AEC was on-Site for UST removal activities on March 18, 2019. Mr. Steve Shelley (B&D) and Mr. Mueller (MDE) were also on-Site. Mr. Muller completed a Tank Removal/Abandonment Report dated March 18, 2019 which is included in Appendix C. All five USTs were cleaned and then hauled off-Site. Copies of the UST disposal receipts are included in Appendix D. AEC and the MDE noted no perforations through any of the USTs. AEC screened the pea gravel and soils under the USTs with a photoionization detector (PID) and recorded readings ranging from 0.0 parts per million (ppm) to 14.3 ppm. AEC collected ten confirmatory soil samples from beneath the tanks with depths ranging from 12.5 feet below ground surface (bgs) to 13 feet bgs. Each sample was labeled with the letter T, the tank number, cardinal direction, and the depth of sample (i.e. T-5-N@12.5'). AEC screened samples T-5-N@12.5' (PID reading of 5.5 ppm), T-5-S@13' (PID reading of 0.0 ppm), T-4-N@12.5' (PID reading of 6.0 ppm), T-4-S@12.5' (PID reading of 14.3 ppm), T-3-N@12.5' (PID reading of 0.0 ppm), T-3-S@12.5' (PID reading of 3.0 ppm), T-2-N@12.5' (PID reading of 3.2 ppm), T-2-S@12.5' (PID reading of 4.3 ppm), T-1-N@12.5' (PID reading of 8.5 ppm), and T-1-S@12.5' (PID reading of 2.5 ppm).

AEC collected one confirmatory soil sample from underneath each dispenser with depths ranging from 3 feet bgs to 4.5 feet bgs. Each sample was labeled with the letter D, the corresponding dispenser number, and the depth the sample was taken (i.e. D-3/4@2'). AEC screened samples D-3/4@2' (PID reading of 0.0 ppm), D-D@2' (PID reading of 0.0 ppm), and D-H (PID reading of 1.0 ppm). A sample from below dispenser D-1/2 was unable to be collected due to sidewall collapse in the tank field, and the proximity of the shallow canopy footer. This area was quickly backfilled to prevent collapse of the canopy.

Site photographs are provided in Appendix E.

3.0 SOIL SAMPLING RESULTS

AEC collected a total of 13 soil samples. All soil samples were analyzed for volatile organic compounds (VOCs) including fuel oxygenates per Environmental Protection Agency (EPA) Analytical Method 8260, total petroleum hydrocarbons (TPH) gasoline range organics (GRO), and TPH diesel range organics (DRO) per EPA Analytical Method 8015.

All detected analytes were below their applicable Maryland Department of the Environment Generic Numeric Cleanup Standards for Groundwater and Soil (Regulatory Standards), have no applicable Regulatory Standard, or were below laboratory quantitation limits (BQL). Soil sample results for all detected analytes are summarized in Table 1 below. Laboratory analytical reports and chain-of-custody information are included in Appendix F. Soil sample analytical results are summarized on Figures 4A and 4B in Appendix A

Table 1 - Detected Analytes
Piper's Wine & Spirit Barn
4127 Hanover Pike Manchester, Maryland 21102
Samples Collected on March 18, 2019

Sample Name	Methylene chloride	1,3,5-Trimethylbenzene	Gasoline-Range Organics	Diesel-Range Organics
	ug/kg		mg/kg	
T-4-N@12.5'	<24.7	<2.5	<0.12	<9.9
T-4-S@12.5'	38	<2.5	<0.12	<9.9
T-5-N @12.5'	54.8	<2.5	<0.12	<9.9
T-5-S@ 13'	<24.1	<2.4	<0.12	14.3
T-3-N@ 12.5'	<23.5	<2.4	<0.12	<9.4
T-3-S@ 12.5'	<26.3	3.9	<0.13	<10.5
T-2-N@ 12.5'	<27.0	<2.7	0.28	<10.8
T-2-S@ 12.5'	<25.3	<2.5	0.13	16.2
T-1-N@ 12.5'	<26.3	<2.6	<0.13	<10.5
T-1-S@ 12.5'	<27.8	<2.8	<0.14	<11.1
D-3/4@2'	<22.7	<2.3	<0.11	<9.1
D-D@2'	<23.8	<2.4	<0.12	<9.5
D-H@2'	<22.7	<2.3	<0.11	22.8
Regulatory Standard	35,000	27,000	620	620

ug/kg = micrograms per kilogram or parts per billion (ppb)
mg/kg = milligrams per kilogram or parts per million (ppm)
<2.2 = denotes value is below the method detection limit or laboratory limit of quantitation (limit of quantitation shown)
Regulatory Standard = Maryland Department of the Environment Generic Numeric Cleanup Standards for Groundwater and Soil-Interim Final Guidance Update No. 3 – October 2018

4.0 POTABLE WATER SAMPLE

As requested by MDE, AEC collected a potable water sample due to the fact the surrounding area is serviced by private drinking water supply wells. This sample was analyzed for VOCs including fuel oxygenates and naphthalene using EPA Analytical Method 524.2 and TPH DRO using EPA Analytical Method 8015.

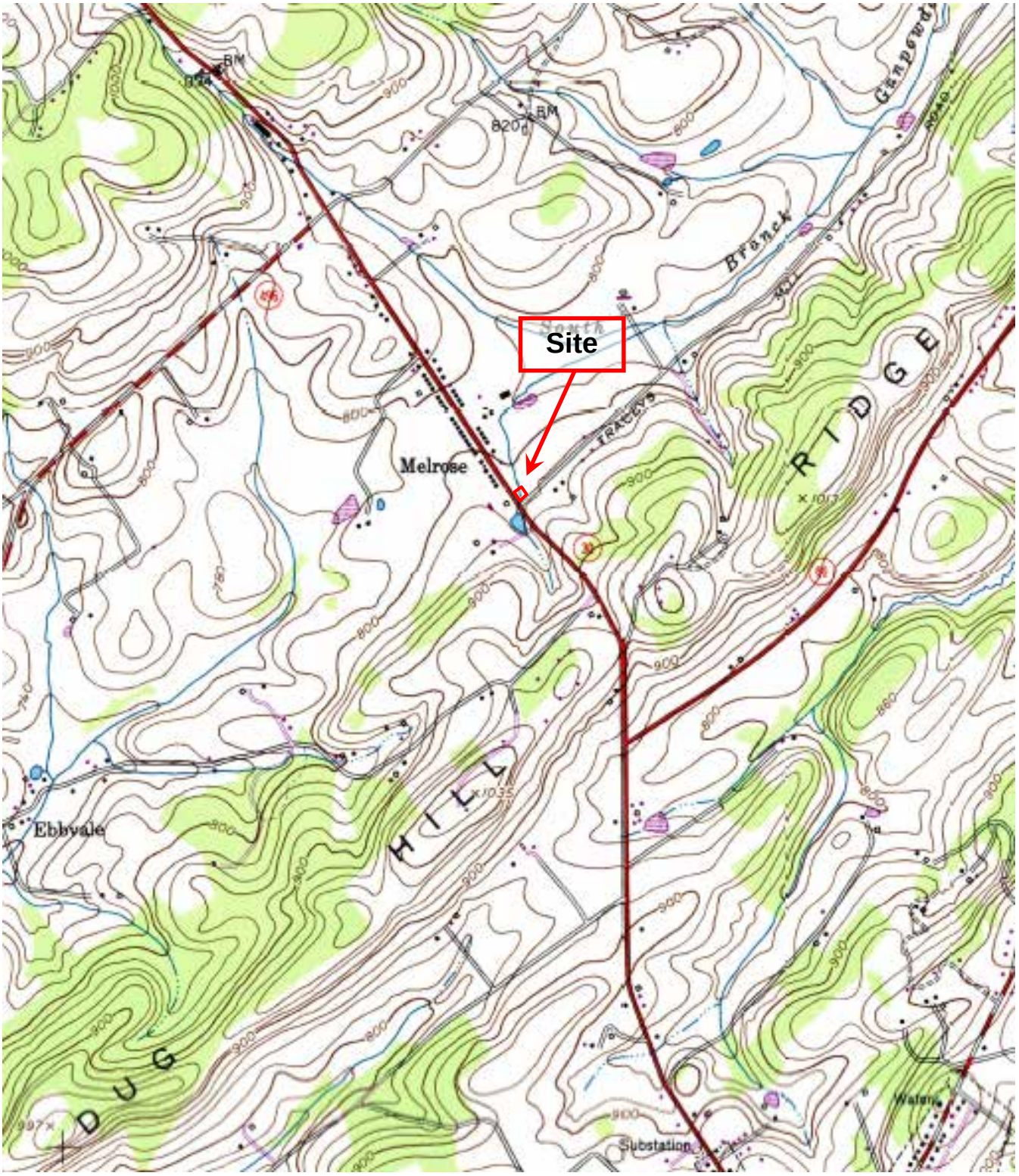
Laboratory analytical results for the potable well sample showed all analytes were BQL. A copy of the laboratory analytical report with the chain of custody documentation is included in Appendix F.

5.0 CONCLUSIONS

Based on laboratory analytical results, PID readings, and Site constraints including excavation depths limited by structural concerns and shallow bedrock, it is AEC's opinion that the low level petroleum impact, below Regulatory Standards, is not an immediate risk to human health and the environment. The Site will continue to operate as a fueling station for the foreseeable future. AEC recommends no further action regarding this Site and requests closure of MDE case 18-0496CL. A copy of MDE Amended Tank Registration Form for this facility is attached as Appendix G.

APPENDIX A

FIGURES



Advantage Environmental Consultants, LLC
8610 Washington Boulevard, Suite 217
Jessup, Maryland 20794
Phone: 301-776-0500 Fax: 301-776-1123

N

Figure 1 - Site Vicinity Map
Pipers Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102

AEC Project No.:	Report Date:	Drawn By:
14-059	April 2019	BGT

Advantage Environmental Consultants, LLC
8610 Washington Boulevard, Suite 217
Jessup, Maryland 20794
Phone: 301-776-0500 Fax: 301-776-1123

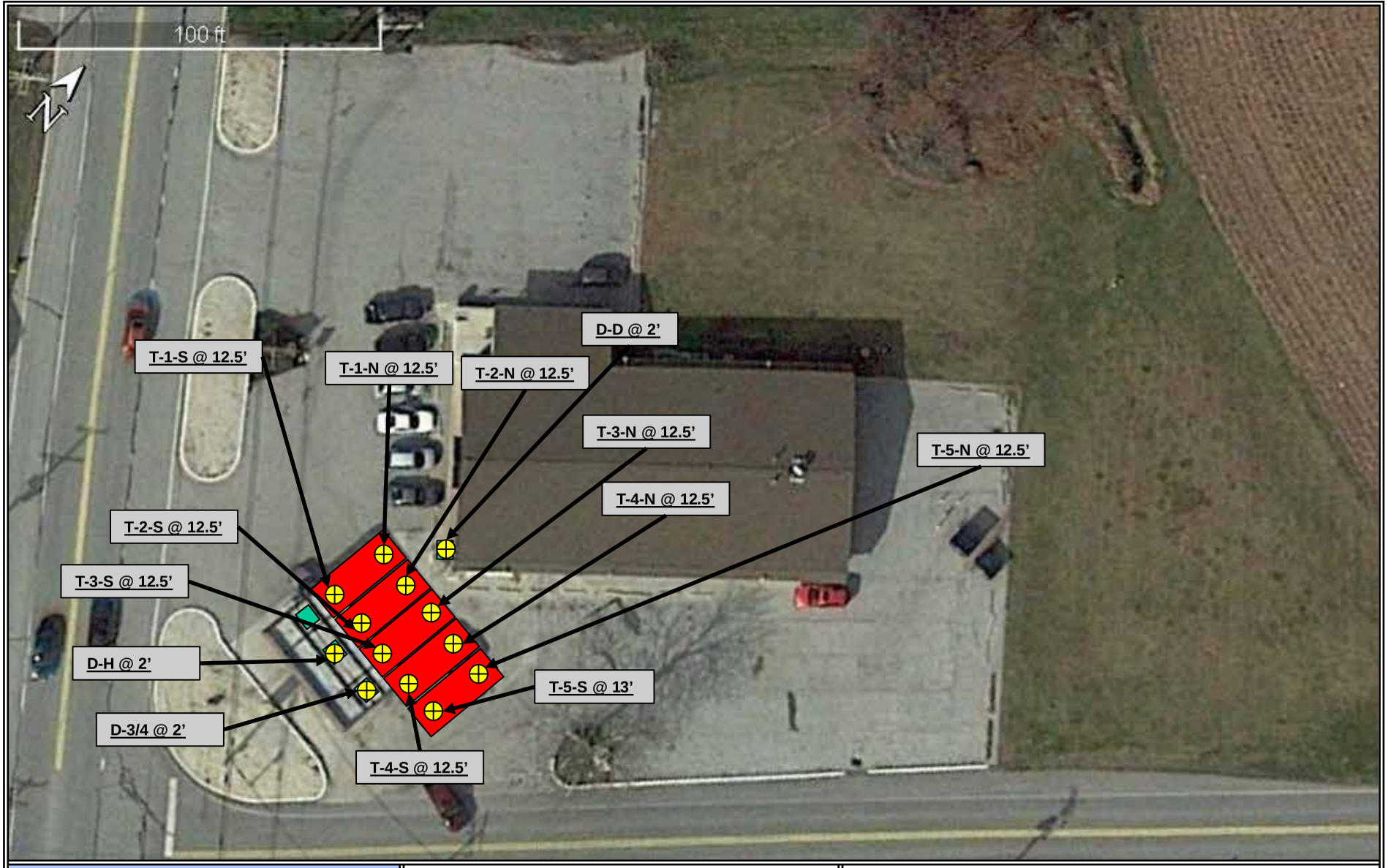
Legend:

= UST

= Dispenser Locations

Figure 2 - Site Plan
Pipers Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102

AEC Project No.:	Report Date:	Drawn By:
14-059	April 2019	BGT



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Phone: 301-776-0500 Fax: 301-776-1123

Legend:

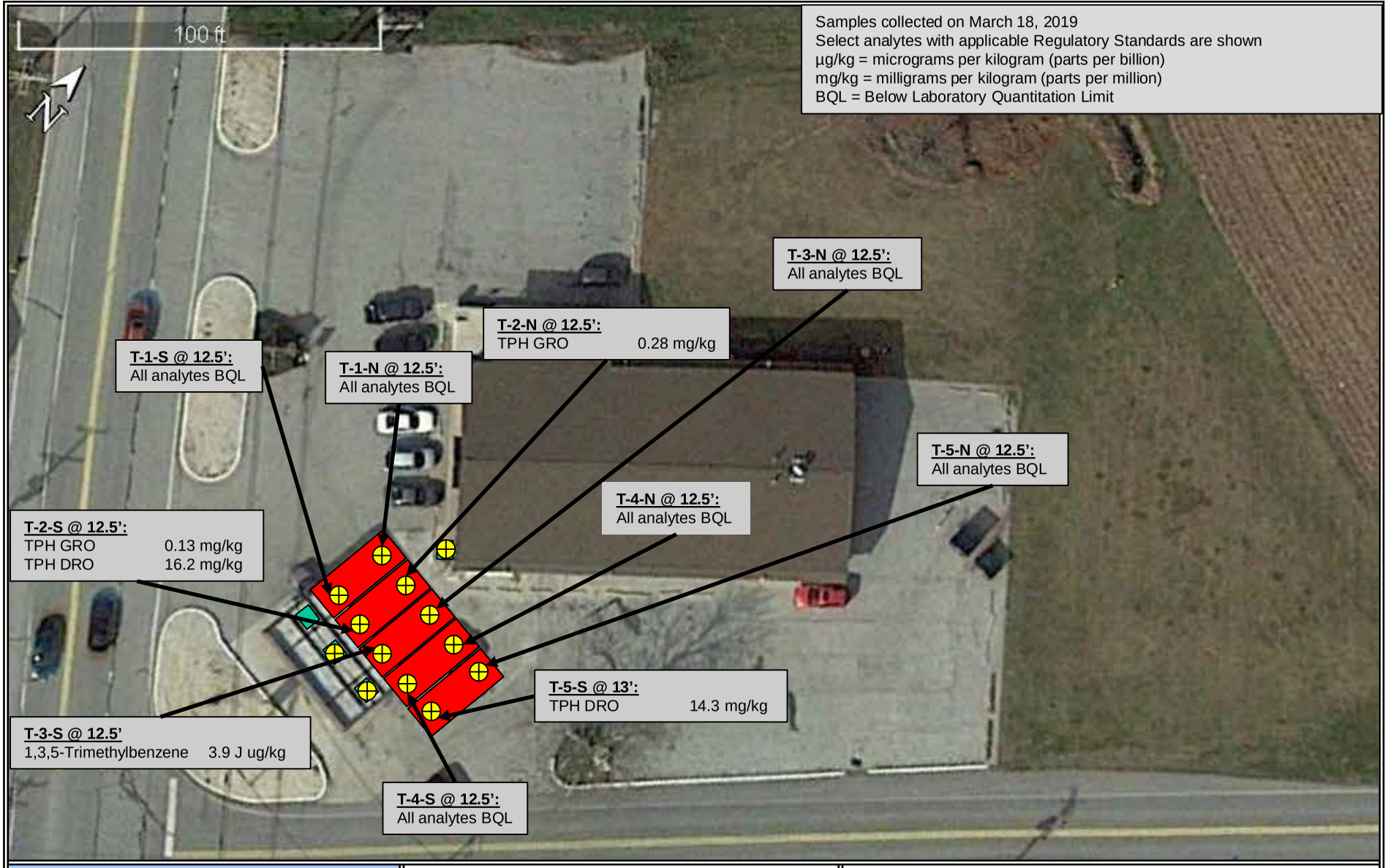
= UST

= Dispenser Locations

= Sample Location

Figure 3 – Sample Location Map
Pipers Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102

AEC Project No.:	Report Date:	Drawn By:
14-059	April 2019	BGT



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Phone: 301-776-0500 Fax: 301-776-1123

Legend:

= UST

= Dispenser Locations

= Sample Location

Figure 4a – Tank Field Soil Quality
Pipers Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102

AEC Project No.:	Report Date:	Drawn By:
14-059	April 2019	BGT

AEC Advantage Environmental Consultants, LLC
8610 Washington Boulevard, Suite 217
Jessup, Maryland 20794
Phone: 301-776-0500 Fax: 301-776-1123

Legend:

= UST

= Dispenser Locations

= Sample Location

Figure 4a – Dispenser Soil Quality
Pipers Wine & Spirit Barn
4127 Hanover Pike
Manchester, Maryland 21102

AEC Project No.:	Report Date:	Drawn By:
14-059	April 2019	BGT

APPENDIX B

TANK CLEANING MANIFEST

Petroleum Management, Inc.

PEI MEMBER

NFPA

Day: Monday
Date: 3 18 19

Job Location: 4127 Hanover Pike Manchester MD

Bill To: BD Petroleum

Contact:
Phone:

Contact:
Phone:

JOB DESCRIPTION:

Arrived on site. Pumped each tank down. Used air compressor to air out tanks. Performed confine space Cleaning to haul tanks afterward. Petroleum Management will haul (2) tank, and BD will haul remaining (4). Pumped out Ground water.

Title / Name	Equipment Type/ Number	Start Time	Stop Time	Total Hours
Carlos	SV 14	5 30	4 PC	
Charvez	↓	5 30	4 PC	
Tim	VAC 12	5 30	5:00	
Joey	Low boy	5 30	11:00	

Materials:

Description	Quantity
Air compresser	1
air Horn	1
air Hoses	3

SubContractors:

Disposal:

	Amount in Gallons	Manifest Number
Liquid Disposal		
Sludge Disposal		
Other		

Petroleum Management
Print Name: Carlos Tovar
Signature:
Date: 3 18 19

Client
Print Name: Steve
Signature:
Date:

Petroleum Management, Inc.

MD. Oil Operations Permit No: 2017-OPT-38311
EPA Identification No: MDR000525278
Federal ID No: 52-2014536
US DOT No: 776517

5218 Curtis Avenue ♦ Baltimore, Maryland 21226 ♦ Phone 410-354-0200 ♦ Fax 410-721-1390

Bill of Lading/Manifest **No 17491**

Generator/Shipper:			Billing Name: BD Petroleum		
Site Address: 4127 Hanover Pike			Address:		
City: Manchester	State: MD	Zip:	City:	State:	Zip:
Phone: ( )	Contact		Phone: ( )	Contact:	

Purchase Order NO:

MATERIAL CHARACTERIZATION (CHECK ALL THAT APPLY):

Description:	Gallons
UN1203, Gasoline, 3, PGII	
NA1993, #2 Fuel Oil, 3, PGIII	
NA1993, #4 Fuel Oil, 3, PGIII	
NA1993, #6 Fuel Oil, 3, PGIII	
NA1993, Diesel, 3, PGIII	
UN1993, Flammable Liquids, NOS, 3, PGI	
UN1760, Corrosive Liquids, NOS, 8, PGII	

Description:	Gallons
NA3082, Hazardous Waste, Liquid, 9, PGIII	
NA3077, Hazardous Waste, Solid, 9, PGIII	
UN1263, Paint Thinners, 3, PGI	
UN3082, Ethylene Glycol, 9, PGII	
Lube Oil	
Waste Oil	
Kerosene	

Description:	Gallons
JP#4	
JP#5	
Jet A	
Sludge / Water	3300
Petroleum Contaminated Water	
Other:	
Other:	

No. of Drums	
Scale Weights (Soil): Total: (Tons)	

No. of Tanks:	
Tare: (Tons)	

Other:	
Net: (Tons)	

Service Description:
Pumped out Sludge, gassy water, Diesel mix water.

PLACARDS TENDERED: ☐ YES ☑ NO | **EMERGENCY CONTACT (410) 354-0200**

Generator/Shipper Certification Statement

As the generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyis (PCB'S). To the best of my knowledge it has not been mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold Petroleum Management, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

X Generator/Shipper Authorized Agent (Print) | Date of Service 3 18 19

X Generator/Shipper Authorized Agent Signature

HAULER/CARRIER INFORMATION

Co. Name: **Petroleum Management, Inc.**			Driver Name (print): T. Green
Street: **5218 Curtis Avenue**			Driver Signature
City: **Baltimore**	State: **MD**	Zip: **21226**	Phone

The above mentioned materials have been received by this facility and will be handled in accordance with all applicable rules and regulations. All quantities are subject to final verification by this facility and are indicated in far right box.

RECEIVING FACILITY ACCEPTANCE

Facility Name	
Acceptance Signature	
Phone	Total Quantity Received

White - Original Yellow - Transporter Pink - Facility Gold - Customer

APPENDIX C

MDE TANK REMOVAL/ABANDONMENT FORM

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard, Suite 620 • Baltimore Maryland 21230-1719
(410) 537-3442 • 1-800-633-6101 •
LAND AND MATERIALS ADMINISTRATION

OIL CONTROL PROGRAM

Tank Closure Form

☐ Initial / ☒ Follow-Up

Site / Facility Name: Pipers Wine and Spirit Barn
Address: 4127 Hanover Pike
City / County: Manchester, MD

Date(s): 3/18/19
Facility ID #: 17166
Case #: 18-0496-CL

1. a) Number of USTs removed: 5
   b) Number of USTs closed-in-place: 0
   c) Number of registered USTs remaining on-site: 0

Tank	Product	Age (years)	Size (gallons)	Tank Construction	Piping Construction	Perforations		Disposal Site
						Tank	Piping	
UST#1	Gasohol	33	8,000	Sti-p3	DW Flex. Plastic	Yes ☐ No ☒	Yes ☐ No ☒	Prospect Metal
UST#2	Gasoline	33	8,000	Sti-p3	DW Flex. Plastic	Yes ☐ No ☒	Yes ☐ No ☒	Canton Scrap
UST#3	Gasoline	33	8,000	Sti-p3	DW Flex. Plastic	Yes ☐ No ☒	Yes ☐ No ☒	Prospect Metal
UST#4	Diesel	33	8,000	Sti-p3	DW Flex. Plastic	Yes ☐ No ☒	Yes ☐ No ☒	Prospect Metal
UST#5	Diesel	33	8,000	Sti-p3	DW Flex. Plastic	Yes ☐ No ☒	Yes ☐ No ☒	Prospect Metal
						Yes ☐ No ☐	Yes ☐ No ☐	

2. Has piping been properly abandoned? Yes ☐ No ☒ Unknown ☐
3. Has vent riser(s) been removed? Yes ☐ No ☒
4. Has all liquid been removed from the UST(s)? Yes ☒ No ☐
5. Certified contractor has functioning explosion meter on site? Yes ☒ No ☐
6. Has UST(s) been purged of explosive or combustible vapors? Yes ☒ No ☐
   (Must confirm less than 10% LEL with explosion meter)
7. Is groundwater contaminated? (If yes, type of product: _____) Yes ☐ No ☐ Can't determine at this time ☒
8. Is soil contaminated? (If yes, type of product: _____) Yes ☐ No ☐ Can't determine at this time ☒
9. Was contaminated soil removed? Yes ☐ No ☒
   If Yes: ☐ Contaminated soil stockpiled onsite must be placed on **and** covered with plastic sheeting.
   ☐ Other: _____
10. Was soil field screened with PID? Yes ☒ No ☐
    Tank – Max units: 12.6 at 12.5 feet
    Piping – Max units: 0.0 at 2 feet
11. Are domestic well(s) on site? Yes ☒ No ☐ Well Tag Number(s): CL81-2424
    Is sampling required? Yes ☒ No ☐
    If Yes, sample for: ☒ EPA Method 524.2 – Full Suite VOCs, including fuel oxygenates and naphthalene
    ☒ Other: Including 8015 -Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO)
12. Has inspector completed a site sketch? Yes ☒ No ☐
13. Has inspector taken site photographs? Yes ☒ No ☐
14. Was tank(s) labeled? Yes ☒ No ☐
    If Yes, describe: Facility ID, UST #, Product Stored, Tank Capacity, Date

MDE/LMA/OCP
Tank Closure Form

15. Within 45 Days, the following actions must be completed by the OWNER:

☒ Submit a Tank Closure Report that includes **all** of the following documentation:

- Narrative of work conducted;
- Soil and groundwater sampling data table(s);
- Analytical laboratory results and chain of custody;
- Conclusions and recommendations;
- Site map showing the locations of all components of the UST system(s) and sample locations;
- Photographs;
- Disposal receipts (tank, soil, and liquid); and
- Solid inert material receipt for closure-in-place.

☒ Properly Abandon All Piping in Compliance with COMAR 26.10.10.02B(2) (remove unless otherwise directed)

☒ Remove Vent Pipe Riser(s)

☐ All Contaminated Soils Must be Removed from the Site in Accordance with COMAR 26.10.09.03A(5)

☒ Submit Soil Analytical Results for the following EPA Methods:

☒ 8260 – Full Suite VOCs, including fuel oxygenates and naphthalene

☒ 8015B – TPH GRO/DRO ☐ 8015 – TPH ORO ☐ 8015 – TPH DRO/ORO

☐ 8270 – SVOCs ☐ 8310 – PAHs ☐ 8082 – PCBs

☐ 1311 – TCLP Metals ☐ 6020 – RCRA (8) Metals

☐ Other: _____

☐ Submit Groundwater Analytical Results for the following EPA Methods:

☐ 8260 – Full Suite VOCs, including fuel oxygenates and naphthalene

☐ 8015B – TPH GRO/DRO ☐ 8015 – TPH ORO ☐ 8015 – TPH DRO/ORO

☐ 8270 – SVOCs ☐ 8310 – PAHs

☐ Other: _____

☒ Submit Tank Disposal Receipt

☐ Submit Soil Disposal Receipt(s)

☐ Submit Liquid / Sludge Disposal Receipt(s)

☐ Amend Registration:

☐ Notification form provided to contact person

☐ Owner/Representative informed case file may remain open until notification form is received by MDE

☐ Completed onsite

☒ Other – See Further Requirements as Listed in Number 16, Comments (below).

16. Comments:

This writer arrived on-site and met with Steve Shelley from B&D Petroleum (443-371-5771), Stephen Hobbs from Hobbs Excavation(MDIC#18-2252-T), Brian Taetzsch from Advantage Environmental Consultants, LLC. (410-212-1164) and Bill Chenoweth from Chenoweth & Associates, INC. (410-239-3922) for the removal of five 8,000 gallon single wall cathodically protected steel underground storage tanks (UST). Due to the age of the tanks, the 33 year old USTs will be replaced with new generation USTs. The new USTs will be installed within the same general tank field excavation. This site is located within the "High Risk Groundwater Use Area" and the site supply well identification tag number is CL-81-2424.

Upon arrival, the USTs had been uncovered, vacuumed free of liquid contents, the dispensers had been removed from the dispenser containment sumps and UST#5 had been removed from the ground. The USTs were located off the southern corner of the building, in-betweens the building and the intersection of Hanover Pike and Tracey Mill road. The five USTs were located within the same tank field and were positioned in a north to south direction. The three gasohol USTs (USTs#1-3) were to the west side of the tank field, the diesel USTs (UST#4-5) were located on the eastern side of the tank field.

Upon removal, the USTs were observed without perforations and petroleum staining was not observed within the tank field or on the exterior of the USTs. The top of the USTs were approximately 2.5-feet below grade surface (bgs), the diameter of each tank was 8 feet, and the bottoms of

the tanks were approximately 10.5-feet bgs. Groundwater was observed within the tank field excavation at approximately 6 to 8-feet bgs. Groundwater was observed without any petroleum impacts (liquid phase hydrocarbons, petroleum sheen). Soils were screened using a photoionization detector (PID) and readings were as follows (m.u. = meter units)

Location	Depth (ft bgs)	PID (m.u)	Notes:
UST#1 North	12.5	8.5	Saturated- dense silty sand. Sample
UST#1 South	12.5	2.6	Saturated- dense silty sand. Sample
UST#2 North	12.5	3.2	Saturated- dense silty sand. Sample
UST#2 South	12.5	4.3	Saturated- dense silty sand. Sample
UST#3 North	12.5	0.0	Saturated- dense silty sand. Sample
UST#3 South	12.5	3.0	Clay with sense sitlty sand. Sample
UST#4 North	12.5	6.0	Saturated- dense silty sand. Sample
UST#4 South	12.5	14.3	Saturated- dense silty sand. Sample
UST#5 North	12.5	5.5	Saturated- dense silty sand. Sample
UST#5 South	13.0	0.0	Saturated- dense silty sand. Sample
Dispenser 1/2	To be screened and sampled at a later date.		
Historic Dispenser	2	1.0	Sand with silt. sample
Dispenser 3/4	2.0	0.0	Sand with silt. Sample
Diesel Dispenser	2.0	0.0	Sand with silt. Sample
Vent Piping Trench	2.0	0.0	Sand with silt. Sample not required.

Due to the potiential of undermining the footer of the canopy, dispenser 1/2 will be screened and sampled at a later time. A total of 13 soil samples were collected to assess the former UST systems (10 tank field, 3 dispensers.). The majority of the product piping, (besides the vent piping) was within the foot print of the tank field excavations, therefore no piping trench soil samples were collected.

REQUIREMENTS:

1) The UST System Closure Report is due no later than May 7 2019. SEE PAGE TWO, ITEM #15, FOR REPORTING REQUIREMENTS.

2) The soil samples must be analyzed for full suite volatile organic compounds (VOCs) including fuel oxygenates and naphthalene by EPA Method 8260 and total petroleum hydrocarbon - diesel and gasoline range organics (TPH-DRO and TPH- GRO) by EPA Method 8015.

3) The DW sample must be analyzed for full suite VOC analysis by EPA 524.2 including naphthalene & fuel oxygenates, and for TPH-DRO.

4) Screen and sample soils beneath Dispenser 1/2.

	Name (Printed)	Signature	Date	Telephone Number
MDE Inspector	Matt Mueller		3/18/19	410-365-0216
UST Owner Contact	_____		_____	_____
Contractor	_____		_____	_____
Technician / Remover	Steve Shelley		3/18/19	443-371-5771
Certification Number	MDIC 17-1848(T)	Expiration Date: 11/1/19		

APPENDIX D

TANK DISPOSAL RECEIPTS

Petroleum Recovery & Remediation Management, Inc.
5218 Curtis Avenue ♦ Baltimore, MD 21226 ♦ (410) 354-0200 ♦ Fax (410) 721-1390

CERTIFICATE OF DISPOSAL

Issued To: B & D Petroleum Service
1675 Hunterstown-Hampton Rd.
New Oxford, PA 17350

Site Address: Pipers wine and Spirits
4127 Hanover Pike
Manchester, MD 21102

Petroleum Management, Inc. certifies acceptance of the material referenced on this document. The material has been disposed of in accordance with United States Environmental Protection Agency, MD Regulations, and API Recommended Practice 1604.

Items Received

Quantity/Description: One (1) 8,000 - gallon Steel Tanks

Disposal Facility: Baltimore Scrap Yard
3100 Weedon Street
Baltimore, MD 21226

I certify that the information contained in or accompanying this document is true, accurate and complete as to the identification of the materials received from the waste generating company and the processing of the waste in accordance with United States Environmental Protection Agency and local MD regulations.

By: Joshua Hofstetter
Joshua Hofstetter

Date: March 18, 2019

JKLM CORP.
DBA PROSPECT METAL COMPANY
3640 York Road, New Oxford, PA 17350
(717) 624-4158 Fax: (717) 624-3648

April 1st, 2019

Letter of Destruction

To Whom It May Concern,

Prospect Metal Co., 3640 York Road, New Oxford, PA 17350, purchased QTY (4) 8,000 gallon single-wall steel tanks delivered by B&D Petroleum on March 18th & March 19th, 2019. All (4) tanks have been processed and destroyed.

Stephen McCormick
Buyer
JKLM Corp. dba Prospect Metal Company

4/1/19
Date

APPENDIX E

SITE PHOTOGRAPHS

Photograph 1: View of the USTs still in the ground and uncovered.

Photograph 2: View of the vacuum truck cleaning the tanks.

Photograph 3: View of piping run leading from the dispensers to the tank field.

Photograph 4: View of Tank 2 after removal.

Photograph 5: View of the UST being loaded onto a truck for offsite disposal.

Photograph 6: View of the dispensers.

APPENDIX F

LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

27 March 2019

Jeremy Sheidy
Advantage Environmental Consultants
8610 Baltimore Washington Blvd, Suite 217
Jessup, MD 20794
RE: PIPER'S WINE & SPIRITS

Enclosed are the results of analyses for samples received by the laboratory on 03/18/19 10:09.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Brewington
President

Maryland spectral Services

Analytical Chemistry Services

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-5-N @12.5'		9031804-01	Soil	03/18/19 08:50	03/18/19 10:09
T-4-S@12.5'		9031804-02	Soil	03/18/19 09:20	03/18/19 10:09

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Will Brewington, President

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Baltimore MD 21227
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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

T-5-N @12.5'

9031804-01 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 21:48	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	61.7	61.7	1	03/25/19	03/25/19 21:48	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Benzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Bromobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Bromochloromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Bromodichloromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Bromoform	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Bromomethane	ND		ug/kg dry	6.2	6.2	1	03/25/19	03/25/19 21:48	GM
tert-Butanol (TBA)	ND		ug/kg dry	61.7	61.7	1	03/25/19	03/25/19 21:48	GM
2-Butanone (MEK)	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 21:48	GM
n-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
sec-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
tert-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Carbon disulfide	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Carbon tetrachloride	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Chlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Chloroethane	ND		ug/kg dry	6.2	6.2	1	03/25/19	03/25/19 21:48	GM
Chloroform	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Chloromethane	ND		ug/kg dry	6.2	6.2	1	03/25/19	03/25/19 21:48	GM
2-Chlorotoluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
4-Chlorotoluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Dibromochloromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Dibromomethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1-Dichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2-Dichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM

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Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

T-5-N @12.5'

9031804-01 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Dichlorofluoromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,3-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
2,2-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Ethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Hexachlorobutadiene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
2-Hexanone	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 21:48	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
4-Isopropyltoluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
4-Methyl-2-pentanone	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 21:48	GM
Methylene chloride	**54.8**	L	ug/kg dry	24.7	24.7	1	03/25/19	03/25/19 21:48	GM
Naphthalene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
n-Propylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Styrene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Tetrachloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Toluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Trichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

T-5-N @12.5'

9031804-01 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Vinyl chloride	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
o-Xylene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
m- & p-Xylenes	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 21:48	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*117 %*	*03/25/19*		*03/25/19 21:48*		
Surrogate: Toluene-d8			*75-120*	*101 %*	*03/25/19*		*03/25/19 21:48*		
Surrogate: 4-Bromofluorobenzene			*65-120*	*106 %*	*03/25/19*		*03/25/19 21:48*		
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	03/26/19	03/26/19 19:23	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.9	9.9	1	03/25/19	03/26/19 19:05	SJA
Surrogate: o-Terphenyl			*70-130*	*92 %*	*03/25/19*		*03/26/19 19:05*		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**81**		%			1	03/25/19	03/26/19 08:45	WB

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

T-4-S@12.5'

9031804-02 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 22:15	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	61.7	61.7	1	03/25/19	03/25/19 22:15	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Benzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Bromobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Bromochloromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Bromodichloromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Bromoform	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Bromomethane	ND		ug/kg dry	6.2	6.2	1	03/25/19	03/25/19 22:15	GM
tert-Butanol (TBA)	ND		ug/kg dry	61.7	61.7	1	03/25/19	03/25/19 22:15	GM
2-Butanone (MEK)	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 22:15	GM
n-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
sec-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
tert-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Carbon disulfide	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Carbon tetrachloride	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Chlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Chloroethane	ND		ug/kg dry	6.2	6.2	1	03/25/19	03/25/19 22:15	GM
Chloroform	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Chloromethane	ND		ug/kg dry	6.2	6.2	1	03/25/19	03/25/19 22:15	GM
2-Chlorotoluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
4-Chlorotoluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Dibromochloromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Dibromomethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1-Dichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2-Dichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM

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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

T-4-S@12.5'

9031804-02 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Dichlorofluoromethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,3-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
2,2-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Ethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Hexachlorobutadiene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
2-Hexanone	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 22:15	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
4-Isopropyltoluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
4-Methyl-2-pentanone	ND		ug/kg dry	12.3	12.3	1	03/25/19	03/25/19 22:15	GM
Methylene chloride	**38.0**	L	ug/kg dry	24.7	24.7	1	03/25/19	03/25/19 22:15	GM
Naphthalene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
n-Propylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Styrene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Tetrachloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Toluene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Trichloroethene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM

Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

T-4-S@12.5'

9031804-02 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Vinyl chloride	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
o-Xylene	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
m- & p-Xylenes	ND		ug/kg dry	6.2	2.5	1	03/25/19	03/25/19 22:15	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*114 %*		*03/25/19*		*03/25/19 22:15*	
Surrogate: Toluene-d8			*75-120*	*102 %*		*03/25/19*		*03/25/19 22:15*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*108 %*		*03/25/19*		*03/25/19 22:15*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	03/26/19	03/26/19 19:54	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.9	9.9	1	03/25/19	03/26/19 19:31	SJA
Surrogate: o-Terphenyl			*70-130*	*86 %*		*03/25/19*		*03/26/19 19:31*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**81**		%			1	03/25/19	03/26/19 08:45	WB

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Will Brewington, President

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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

Maryland Spectral Services does not maintain certification for the following analytical parameters:

Maryland Spectral Services

Matrix , Method , Analyte

Soil | 8260 (Full List) | Hexachlorobutadiene

Will Brewington, President

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Maryland spectral Services
Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:10

Notes and Definitions

L	Analyte is a possible laboratory contaminant
J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation

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CHAIN-OF-CUSTODY RECORD

Maryland Spectral Services, Inc.
1500 Caton Center Drive, Suite G
Baltimore, MD 21227
410-247-7600 • Fax 410-247-7602
labman@mdspectral.com

Matrix Codes: NW (non-potable water) PW (potable water)

Company Name: AEC
Project Manager: J. Sheidy
Project Name: Pipers
Project ID: 14-059
Sampler(s): B.T.
P.O. Number: 14-059

Analysis Requested: VOCs 8260; TPH DRO 8015; TPH GRO 8015

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 8260	TPH DRO 8015	TPH GRO 8015	Preservative: 1+1 HCl, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
T-5-E @ 12.5'	3/18/19	0850		X		2	X	X	X			9031804-01
T-4-W @ 12.5'	3/18/19	0920		X		2	X	X	X			↓ -02

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(signature) (Printed) J. Sheidy	3/18/19 1054	(Printed)	(Printed)		(Printed)

Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)	Turn Around Time:	Lab Use:
(Printed)	3/18/19 1059	(signature) (Printed) Cory Koonc	X Normal (7 day) / ☐ 5 day / ☐ 4 day / ☐ 3 day / ☐ Rush (2 day) / ☐ Next Day / ☐ Other: / ☐ Specific Due Date:	Temp: 2.0 °C / ☐ Received on Ice / ☐ Received same day / ☐ Preservation Appropriate

Delivery Method: ☐ Courier ☐ Client ☐ UPS ☐ FedEx ☐ USPS ☐ Other

Special Instructions/QC Requirements & Comments: J. Stein, J. Sheidy, B. Tact

Sample Disposal: ☐ Return to Client ☐ Disposal by lab ☐ Archive for ____ days

MSS-F001-002

Maryland Spectral Services
Analytical Chemistry Services
1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

27 March 2019

Jeremy Sheidy
Advantage Environmental Consultants
8610 Baltimore Washington Blvd, Suite 217
Jessup, MD 20794
RE: PIPER'S WINE & SPIRITS

Enclosed are the results of analyses for samples received by the laboratory on 03/18/19 16:10.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Brewington
President

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T-4-N@12.5'		9031819-01	Soil	03/18/19 09:00	03/18/19 16:10
T-5-S@ 13'		9031819-02	Soil	03/18/19 09:10	03/18/19 16:10
T-3-N@ 12.5'		9031819-03	Soil	03/18/19 11:00	03/18/19 16:10
T-3-S@ 12.5'		9031819-04	Soil	03/18/19 11:05	03/18/19 16:10
T-2-N@ 12.5'		9031819-05	Soil	03/18/19 12:40	03/18/19 16:10
T-2-S@ 12.5'		9031819-06	Soil	03/18/19 12:45	03/18/19 16:10
T-1-N@ 12.5'		9031819-07	Soil	03/18/19 13:40	03/18/19 16:10
T-1-S@ 12.5'		9031819-08	Soil	03/18/19 13:50	03/18/19 16:10
D-3/4@2'		9031819-09	Soil	03/18/19 09:50	03/18/19 16:10
D-D@2'		9031819-10	Soil	03/18/19 10:05	03/18/19 16:10
D-H@2'		9031819-11	Soil	03/18/19 12:50	03/18/19 16:10

Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-4-N@12.5'

9031819-01 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	12.3	12.3	1	03/26/19	03/26/19 09:44	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	61.7	61.7	1	03/26/19	03/26/19 09:44	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Benzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Bromobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Bromochloromethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Bromodichloromethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Bromoform	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Bromomethane	ND		ug/kg dry	6.2	6.2	1	03/26/19	03/26/19 09:44	GM
tert-Butanol (TBA)	ND		ug/kg dry	61.7	61.7	1	03/26/19	03/26/19 09:44	GM
2-Butanone (MEK)	ND		ug/kg dry	12.3	12.3	1	03/26/19	03/26/19 09:44	GM
n-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
sec-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
tert-Butylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Carbon disulfide	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Carbon tetrachloride	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Chlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Chloroethane	ND		ug/kg dry	6.2	6.2	1	03/26/19	03/26/19 09:44	GM
Chloroform	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Chloromethane	ND		ug/kg dry	6.2	6.2	1	03/26/19	03/26/19 09:44	GM
2-Chlorotoluene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
4-Chlorotoluene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Dibromochloromethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Dibromomethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1-Dichloroethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2-Dichloroethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM

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Will Brewington, President

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-4-N@12.5'

9031819-01 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Dichlorofluoromethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,3-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
2,2-Dichloropropane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Ethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Hexachlorobutadiene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
2-Hexanone	ND		ug/kg dry	12.3	12.3	1	03/26/19	03/26/19 09:44	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
4-Isopropyltoluene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
4-Methyl-2-pentanone	ND		ug/kg dry	12.3	12.3	1	03/26/19	03/26/19 09:44	GM
Methylene chloride	ND		ug/kg dry	24.7	24.7	1	03/26/19	03/26/19 09:44	GM
Naphthalene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
n-Propylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Styrene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Tetrachloroethene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Toluene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Trichloroethene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM

Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-4-N@12.5'

9031819-01 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Vinyl chloride	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
o-Xylene	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
m- & p-Xylenes	ND		ug/kg dry	6.2	2.5	1	03/26/19	03/26/19 09:44	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*107 %*		*03/26/19*		*03/26/19 09:44*	
Surrogate: Toluene-d8			*75-120*	*99 %*		*03/26/19*		*03/26/19 09:44*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*106 %*		*03/26/19*		*03/26/19 09:44*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	03/26/19	03/26/19 21:25	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.9	9.9	1	03/22/19	03/25/19 16:47	SJA
Surrogate: o-Terphenyl			*70-130*	*83 %*		*03/22/19*		*03/25/19 16:47*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**81**		%			1	03/25/19	03/26/19 08:45	WB

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Will Brewington, President

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-5-S@ 13'

9031819-02 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	12.0	12.0	1	03/26/19	03/26/19 10:11	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	60.2	60.2	1	03/26/19	03/26/19 10:11	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Benzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Bromobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Bromochloromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Bromodichloromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Bromoform	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Bromomethane	ND		ug/kg dry	6.0	6.0	1	03/26/19	03/26/19 10:11	GM
tert-Butanol (TBA)	ND		ug/kg dry	60.2	60.2	1	03/26/19	03/26/19 10:11	GM
2-Butanone (MEK)	ND		ug/kg dry	12.0	12.0	1	03/26/19	03/26/19 10:11	GM
n-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
sec-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
tert-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Carbon disulfide	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Carbon tetrachloride	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Chlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Chloroethane	ND		ug/kg dry	6.0	6.0	1	03/26/19	03/26/19 10:11	GM
Chloroform	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Chloromethane	ND		ug/kg dry	6.0	6.0	1	03/26/19	03/26/19 10:11	GM
2-Chlorotoluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
4-Chlorotoluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Dibromochloromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Dibromomethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1-Dichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2-Dichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM

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Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-5-S@ 13'

9031819-02 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Dichlorofluoromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,3-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
2,2-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Ethylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Hexachlorobutadiene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
2-Hexanone	ND		ug/kg dry	12.0	12.0	1	03/26/19	03/26/19 10:11	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
4-Isopropyltoluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
4-Methyl-2-pentanone	ND		ug/kg dry	12.0	12.0	1	03/26/19	03/26/19 10:11	GM
Methylene chloride	ND		ug/kg dry	24.1	24.1	1	03/26/19	03/26/19 10:11	GM
Naphthalene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
n-Propylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Styrene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Tetrachloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Toluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Trichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-5-S@ 13'

9031819-02 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Vinyl chloride	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
o-Xylene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
m- & p-Xylenes	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 10:11	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*107 %*		*03/26/19*		*03/26/19 10:11*	
Surrogate: Toluene-d8			*75-120*	*101 %*		*03/26/19*		*03/26/19 10:11*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*106 %*		*03/26/19*		*03/26/19 10:11*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	03/26/19	03/26/19 21:56	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	**14.3**		mg/kg dry	9.6	9.6	1	03/22/19	03/25/19 17:13	SJA
Surrogate: o-Terphenyl			*70-130*	*87 %*		*03/22/19*		*03/25/19 17:13*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**83**		%			1	03/25/19	03/26/19 08:45	WB

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Maryland spectral Services

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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-3-N@ 12.5'

9031819-03 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	11.8	11.8	1	03/26/19	03/26/19 10:38	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	58.8	58.8	1	03/26/19	03/26/19 10:38	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Benzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Bromobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Bromochloromethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Bromodichloromethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Bromoform	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Bromomethane	ND		ug/kg dry	5.9	5.9	1	03/26/19	03/26/19 10:38	GM
tert-Butanol (TBA)	ND		ug/kg dry	58.8	58.8	1	03/26/19	03/26/19 10:38	GM
2-Butanone (MEK)	ND		ug/kg dry	11.8	11.8	1	03/26/19	03/26/19 10:38	GM
n-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
sec-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
tert-Butylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Carbon disulfide	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Carbon tetrachloride	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Chlorobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Chloroethane	ND		ug/kg dry	5.9	5.9	1	03/26/19	03/26/19 10:38	GM
Chloroform	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Chloromethane	ND		ug/kg dry	5.9	5.9	1	03/26/19	03/26/19 10:38	GM
2-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
4-Chlorotoluene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Dibromochloromethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Dibromomethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,3-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,4-Dichlorobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Dichlorodifluoromethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2-Dichloroethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM

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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-3-N@ 12.5'

9031819-03 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Dichlorofluoromethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,3-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
2,2-Dichloropropane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Ethylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Hexachlorobutadiene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
2-Hexanone	ND		ug/kg dry	11.8	11.8	1	03/26/19	03/26/19 10:38	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
4-Isopropyltoluene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
4-Methyl-2-pentanone	ND		ug/kg dry	11.8	11.8	1	03/26/19	03/26/19 10:38	GM
Methylene chloride	ND		ug/kg dry	23.5	23.5	1	03/26/19	03/26/19 10:38	GM
Naphthalene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
n-Propylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Styrene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Tetrachloroethene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Toluene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1,1-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,1,2-Trichloroethane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Trichloroethene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,2,3-Trichloropropane	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-3-N@ 12.5'

9031819-03 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Vinyl chloride	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
o-Xylene	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
m- & p-Xylenes	ND		ug/kg dry	5.9	2.4	1	03/26/19	03/26/19 10:38	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*109 %*		*03/26/19*		*03/26/19 10:38*	
Surrogate: Toluene-d8			*75-120*	*100 %*		*03/26/19*		*03/26/19 10:38*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*106 %*		*03/26/19*		*03/26/19 10:38*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	03/26/19	03/26/19 22:26	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.4	9.4	1	03/22/19	03/25/19 17:39	SJA
Surrogate: o-Terphenyl			*70-130*	*88 %*		*03/22/19*		*03/25/19 17:39*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**85**		%			1	03/25/19	03/26/19 08:45	WB

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Analytical Results

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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-3-S@ 12.5'

9031819-04 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 11:05	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	65.8	65.8	1	03/26/19	03/26/19 11:05	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Benzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Bromobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Bromochloromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Bromodichloromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Bromoform	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Bromomethane	ND		ug/kg dry	6.6	6.6	1	03/26/19	03/26/19 11:05	GM
tert-Butanol (TBA)	ND		ug/kg dry	65.8	65.8	1	03/26/19	03/26/19 11:05	GM
2-Butanone (MEK)	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 11:05	GM
n-Butylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
sec-Butylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
tert-Butylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Carbon disulfide	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Carbon tetrachloride	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Chlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Chloroethane	ND		ug/kg dry	6.6	6.6	1	03/26/19	03/26/19 11:05	GM
Chloroform	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Chloromethane	ND		ug/kg dry	6.6	6.6	1	03/26/19	03/26/19 11:05	GM
2-Chlorotoluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
4-Chlorotoluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Dibromochloromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Dibromomethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1-Dichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2-Dichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1-Dichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM

Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

ACCREDITED IN ACCORDANCE WITH THE NELAC STANDARDS

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-3-S@ 12.5'

9031819-04 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Dichlorofluoromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2-Dichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,3-Dichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
2,2-Dichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1-Dichloropropene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Ethylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Hexachlorobutadiene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
2-Hexanone	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 11:05	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
4-Isopropyltoluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
4-Methyl-2-pentanone	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 11:05	GM
Methylene chloride	ND		ug/kg dry	26.3	26.3	1	03/26/19	03/26/19 11:05	GM
Naphthalene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
n-Propylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Styrene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Tetrachloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Toluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Trichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM

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Will Brewington, President

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1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-3-S@ 12.5'

9031819-04 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
1,3,5-Trimethylbenzene	**3.9**	J	ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Vinyl chloride	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
o-Xylene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
m- & p-Xylenes	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 11:05	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*105 %*	*03/26/19*		*03/26/19 11:05*		
Surrogate: Toluene-d8			*75-120*	*101 %*	*03/26/19*		*03/26/19 11:05*		
Surrogate: 4-Bromofluorobenzene			*65-120*	*106 %*	*03/26/19*		*03/26/19 11:05*		
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.13	0.13	1	03/26/19	03/26/19 22:57	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	10.5	10.5	1	03/22/19	03/25/19 18:06	SJA
Surrogate: o-Terphenyl			*70-130*	*80 %*	*03/22/19*		*03/25/19 18:06*		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**76**		%			1	03/25/19	03/26/19 08:45	WB

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

1500 Caton Center Dr Suite G
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410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-2-N@ 12.5'

9031819-05 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	13.5	13.5	1	03/26/19	03/26/19 11:32	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	67.6	67.6	1	03/26/19	03/26/19 11:32	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Benzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Bromobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Bromochloromethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Bromodichloromethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Bromoform	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Bromomethane	ND		ug/kg dry	6.8	6.8	1	03/26/19	03/26/19 11:32	GM
tert-Butanol (TBA)	ND		ug/kg dry	67.6	67.6	1	03/26/19	03/26/19 11:32	GM
2-Butanone (MEK)	ND		ug/kg dry	13.5	13.5	1	03/26/19	03/26/19 11:32	GM
n-Butylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
sec-Butylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
tert-Butylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Carbon disulfide	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Carbon tetrachloride	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Chlorobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Chloroethane	ND		ug/kg dry	6.8	6.8	1	03/26/19	03/26/19 11:32	GM
Chloroform	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Chloromethane	ND		ug/kg dry	6.8	6.8	1	03/26/19	03/26/19 11:32	GM
2-Chlorotoluene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
4-Chlorotoluene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Dibromochloromethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Dibromomethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1-Dichloroethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2-Dichloroethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1-Dichloroethene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-2-N@ 12.5'

9031819-05 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Dichlorofluoromethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2-Dichloropropane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,3-Dichloropropane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
2,2-Dichloropropane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1-Dichloropropene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Ethylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Hexachlorobutadiene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
2-Hexanone	ND		ug/kg dry	13.5	13.5	1	03/26/19	03/26/19 11:32	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
4-Isopropyltoluene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
4-Methyl-2-pentanone	ND		ug/kg dry	13.5	13.5	1	03/26/19	03/26/19 11:32	GM
Methylene chloride	ND		ug/kg dry	27.0	27.0	1	03/26/19	03/26/19 11:32	GM
Naphthalene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
n-Propylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Styrene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Tetrachloroethene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Toluene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Trichloroethene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM

Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-2-N@ 12.5'

9031819-05 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Vinyl chloride	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
o-Xylene	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
m- & p-Xylenes	ND		ug/kg dry	6.8	2.7	1	03/26/19	03/26/19 11:32	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*110 %*		*03/26/19*		*03/26/19 11:32*	
Surrogate: Toluene-d8			*75-120*	*100 %*		*03/26/19*		*03/26/19 11:32*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*108 %*		*03/26/19*		*03/26/19 11:32*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	**0.28**		mg/kg dry	0.14	0.14	1	03/26/19	03/26/19 23:27	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	10.8	10.8	1	03/22/19	03/25/19 18:32	SJA
Surrogate: o-Terphenyl			*70-130*	*82 %*		*03/22/19*		*03/25/19 18:32*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**74**		%			1	03/25/19	03/26/19 08:45	WB

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Will Brewington, President

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1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-2-S@ 12.5'

9031819-06 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	12.7	12.7	1	03/26/19	03/26/19 11:59	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	63.3	63.3	1	03/26/19	03/26/19 11:59	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Benzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Bromobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Bromochloromethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Bromodichloromethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Bromoform	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Bromomethane	ND		ug/kg dry	6.3	6.3	1	03/26/19	03/26/19 11:59	GM
tert-Butanol (TBA)	ND		ug/kg dry	63.3	63.3	1	03/26/19	03/26/19 11:59	GM
2-Butanone (MEK)	ND		ug/kg dry	12.7	12.7	1	03/26/19	03/26/19 11:59	GM
n-Butylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
sec-Butylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
tert-Butylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Carbon disulfide	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Carbon tetrachloride	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Chlorobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Chloroethane	ND		ug/kg dry	6.3	6.3	1	03/26/19	03/26/19 11:59	GM
Chloroform	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Chloromethane	ND		ug/kg dry	6.3	6.3	1	03/26/19	03/26/19 11:59	GM
2-Chlorotoluene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
4-Chlorotoluene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Dibromochloromethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Dibromomethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1-Dichloroethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2-Dichloroethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1-Dichloroethene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-2-S@ 12.5'

9031819-06 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Dichlorofluoromethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2-Dichloropropane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,3-Dichloropropane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
2,2-Dichloropropane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1-Dichloropropene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Ethylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Hexachlorobutadiene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
2-Hexanone	ND		ug/kg dry	12.7	12.7	1	03/26/19	03/26/19 11:59	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
4-Isopropyltoluene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
4-Methyl-2-pentanone	ND		ug/kg dry	12.7	12.7	1	03/26/19	03/26/19 11:59	GM
Methylene chloride	ND		ug/kg dry	25.3	25.3	1	03/26/19	03/26/19 11:59	GM
Naphthalene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
n-Propylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Styrene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Tetrachloroethene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Toluene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Trichloroethene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-2-S@ 12.5'

9031819-06 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Vinyl chloride	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
o-Xylene	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
m- & p-Xylenes	ND		ug/kg dry	6.3	2.5	1	03/26/19	03/26/19 11:59	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*116 %*		*03/26/19*		*03/26/19 11:59*	
Surrogate: Toluene-d8			*75-120*	*99 %*		*03/26/19*		*03/26/19 11:59*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*108 %*		*03/26/19*		*03/26/19 11:59*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	**0.13**		mg/kg dry	0.13	0.13	1	03/26/19	03/26/19 23:57	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	**16.2**		mg/kg dry	10.1	10.1	1	03/22/19	03/25/19 18:58	SJA
Surrogate: o-Terphenyl			*70-130*	*90 %*		*03/22/19*		*03/25/19 18:58*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**79**		%			1	03/25/19	03/26/19 08:45	WB

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

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410-247-7600
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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-1-N@ 12.5'

9031819-07 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 12:26	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	65.8	65.8	1	03/26/19	03/26/19 12:26	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Benzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Bromobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Bromochloromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Bromodichloromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Bromoform	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Bromomethane	ND		ug/kg dry	6.6	6.6	1	03/26/19	03/26/19 12:26	GM
tert-Butanol (TBA)	ND		ug/kg dry	65.8	65.8	1	03/26/19	03/26/19 12:26	GM
2-Butanone (MEK)	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 12:26	GM
n-Butylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
sec-Butylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
tert-Butylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Carbon disulfide	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Carbon tetrachloride	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Chlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Chloroethane	ND		ug/kg dry	6.6	6.6	1	03/26/19	03/26/19 12:26	GM
Chloroform	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Chloromethane	ND		ug/kg dry	6.6	6.6	1	03/26/19	03/26/19 12:26	GM
2-Chlorotoluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
4-Chlorotoluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Dibromochloromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Dibromomethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1-Dichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2-Dichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1-Dichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM

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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-1-N@ 12.5'

9031819-07 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Dichlorofluoromethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2-Dichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,3-Dichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
2,2-Dichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1-Dichloropropene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Ethylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Hexachlorobutadiene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
2-Hexanone	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 12:26	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
4-Isopropyltoluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
4-Methyl-2-pentanone	ND		ug/kg dry	13.2	13.2	1	03/26/19	03/26/19 12:26	GM
Methylene chloride	ND		ug/kg dry	26.3	26.3	1	03/26/19	03/26/19 12:26	GM
Naphthalene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
n-Propylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Styrene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Tetrachloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Toluene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Trichloroethene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM

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Maryland spectral Services

Analytical Chemistry Services

ACCREDITED IN ACCORDANCE WITH THE NELAC STANDARDS

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-1-N@ 12.5'

9031819-07 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Vinyl chloride	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
o-Xylene	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
m- & p-Xylenes	ND		ug/kg dry	6.6	2.6	1	03/26/19	03/26/19 12:26	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*109 %*		*03/26/19*		*03/26/19 12:26*	
Surrogate: Toluene-d8			*75-120*	*101 %*		*03/26/19*		*03/26/19 12:26*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*109 %*		*03/26/19*		*03/26/19 12:26*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.13	0.13	1	03/27/19	03/27/19 00:28	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	10.5	10.5	1	03/22/19	03/25/19 19:25	SJA
Surrogate: o-Terphenyl			*70-130*	*79 %*		*03/22/19*		*03/25/19 19:25*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**76**		%			1	03/25/19	03/26/19 08:45	WB

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Maryland spectral Services

Analytical Chemistry Services

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410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-1-S@ 12.5'

9031819-08 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	13.9	13.9	1	03/26/19	03/26/19 12:53	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	69.4	69.4	1	03/26/19	03/26/19 12:53	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Benzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Bromobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Bromochloromethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Bromodichloromethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Bromoform	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Bromomethane	ND		ug/kg dry	6.9	6.9	1	03/26/19	03/26/19 12:53	GM
tert-Butanol (TBA)	ND		ug/kg dry	69.4	69.4	1	03/26/19	03/26/19 12:53	GM
2-Butanone (MEK)	ND		ug/kg dry	13.9	13.9	1	03/26/19	03/26/19 12:53	GM
n-Butylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
sec-Butylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
tert-Butylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Carbon disulfide	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Carbon tetrachloride	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Chlorobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Chloroethane	ND		ug/kg dry	6.9	6.9	1	03/26/19	03/26/19 12:53	GM
Chloroform	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Chloromethane	ND		ug/kg dry	6.9	6.9	1	03/26/19	03/26/19 12:53	GM
2-Chlorotoluene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
4-Chlorotoluene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Dibromochloromethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Dibromomethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1-Dichloroethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2-Dichloroethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1-Dichloroethene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM

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Maryland spectral Services

Analytical Chemistry Services

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410-247-7600
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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-1-S@ 12.5'

9031819-08 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Dichlorofluoromethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2-Dichloropropane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,3-Dichloropropane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
2,2-Dichloropropane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1-Dichloropropene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Ethylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Hexachlorobutadiene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
2-Hexanone	ND		ug/kg dry	13.9	13.9	1	03/26/19	03/26/19 12:53	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
4-Isopropyltoluene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
4-Methyl-2-pentanone	ND		ug/kg dry	13.9	13.9	1	03/26/19	03/26/19 12:53	GM
Methylene chloride	ND		ug/kg dry	27.8	27.8	1	03/26/19	03/26/19 12:53	GM
Naphthalene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
n-Propylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Styrene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Tetrachloroethene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Toluene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Trichloroethene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

T-1-S@ 12.5'

9031819-08 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Vinyl chloride	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
o-Xylene	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
m- & p-Xylenes	ND		ug/kg dry	6.9	2.8	1	03/26/19	03/26/19 12:53	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*109 %*		*03/26/19*		*03/26/19 12:53*	
Surrogate: Toluene-d8			*75-120*	*100 %*		*03/26/19*		*03/26/19 12:53*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*110 %*		*03/26/19*		*03/26/19 12:53*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.14	0.14	1	03/27/19	03/27/19 00:58	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	11.1	11.1	1	03/22/19	03/25/19 19:51	SJA
Surrogate: o-Terphenyl			*70-130*	*71 %*		*03/22/19*		*03/25/19 19:51*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**72**		%			1	03/25/19	03/26/19 08:45	WB

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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-3/4@2'

9031819-09 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 13:20	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	56.8	56.8	1	03/26/19	03/26/19 13:20	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Benzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Bromobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Bromochloromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Bromodichloromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Bromoform	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Bromomethane	ND		ug/kg dry	5.7	5.7	1	03/26/19	03/26/19 13:20	GM
tert-Butanol (TBA)	ND		ug/kg dry	56.8	56.8	1	03/26/19	03/26/19 13:20	GM
2-Butanone (MEK)	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 13:20	GM
n-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
sec-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
tert-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Carbon disulfide	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Carbon tetrachloride	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Chlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Chloroethane	ND		ug/kg dry	5.7	5.7	1	03/26/19	03/26/19 13:20	GM
Chloroform	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Chloromethane	ND		ug/kg dry	5.7	5.7	1	03/26/19	03/26/19 13:20	GM
2-Chlorotoluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
4-Chlorotoluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Dibromochloromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Dibromomethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,3-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,4-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Dichlorodifluoromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1-Dichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2-Dichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM

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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-3/4@2'

9031819-09 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Dichlorofluoromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,3-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
2,2-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Ethylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Hexachlorobutadiene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
2-Hexanone	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 13:20	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
4-Isopropyltoluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
4-Methyl-2-pentanone	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 13:20	GM
Methylene chloride	ND		ug/kg dry	22.7	22.7	1	03/26/19	03/26/19 13:20	GM
Naphthalene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
n-Propylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Styrene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Tetrachloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Toluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1,1-Trichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,1,2-Trichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Trichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,2,3-Trichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM

Will Brewington, President

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Maryland spectral Services

Analytical Chemistry Services

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-3/4@2'

9031819-09 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Vinyl chloride	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
o-Xylene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
m- & p-Xylenes	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 13:20	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*110 %*		*03/26/19*		*03/26/19 13:20*	
Surrogate: Toluene-d8			*75-120*	*101 %*		*03/26/19*		*03/26/19 13:20*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*106 %*		*03/26/19*		*03/26/19 13:20*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.11	0.11	1	03/27/19	03/27/19 01:28	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.1	9.1	1	03/22/19	03/25/19 20:17	SJA
Surrogate: o-Terphenyl			*70-130*	*93 %*		*03/22/19*		*03/25/19 20:17*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**88**		%			1	03/25/19	03/26/19 08:45	WB

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Analytical Results

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Baltimore MD 21227
410-247-7600
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Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-D@2'

9031819-10 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	11.9	11.9	1	03/26/19	03/26/19 13:47	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	59.5	59.5	1	03/26/19	03/26/19 13:47	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Benzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Bromobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Bromochloromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Bromodichloromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Bromoform	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Bromomethane	ND		ug/kg dry	6.0	6.0	1	03/26/19	03/26/19 13:47	GM
tert-Butanol (TBA)	ND		ug/kg dry	59.5	59.5	1	03/26/19	03/26/19 13:47	GM
2-Butanone (MEK)	ND		ug/kg dry	11.9	11.9	1	03/26/19	03/26/19 13:47	GM
n-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
sec-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
tert-Butylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Carbon disulfide	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Carbon tetrachloride	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Chlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Chloroethane	ND		ug/kg dry	6.0	6.0	1	03/26/19	03/26/19 13:47	GM
Chloroform	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Chloromethane	ND		ug/kg dry	6.0	6.0	1	03/26/19	03/26/19 13:47	GM
2-Chlorotoluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
4-Chlorotoluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Dibromochloromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Dibromomethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,3-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,4-Dichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Dichlorodifluoromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1-Dichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2-Dichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM

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Maryland spectral Services

Analytical Chemistry Services

ACCREDITED IN ACCORDANCE WITH THE NELAC STANDARDS

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-D@2'

9031819-10 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Dichlorofluoromethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,3-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
2,2-Dichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Ethylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Hexachlorobutadiene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
2-Hexanone	ND		ug/kg dry	11.9	11.9	1	03/26/19	03/26/19 13:47	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
4-Isopropyltoluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
4-Methyl-2-pentanone	ND		ug/kg dry	11.9	11.9	1	03/26/19	03/26/19 13:47	GM
Methylene chloride	ND		ug/kg dry	23.8	23.8	1	03/26/19	03/26/19 13:47	GM
Naphthalene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
n-Propylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Styrene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Tetrachloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Toluene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1,1-Trichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,1,2-Trichloroethane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Trichloroethene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,2,3-Trichloropropane	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-D@2'

9031819-10 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Vinyl chloride	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
o-Xylene	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
m- & p-Xylenes	ND		ug/kg dry	6.0	2.4	1	03/26/19	03/26/19 13:47	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*113 %*		*03/26/19*		*03/26/19 13:47*	
Surrogate: Toluene-d8			*75-120*	*101 %*		*03/26/19*		*03/26/19 13:47*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*109 %*		*03/26/19*		*03/26/19 13:47*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.12	0.12	1	03/27/19	03/27/19 01:58	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.5	9.5	1	03/22/19	03/25/19 20:43	SJA
Surrogate: o-Terphenyl			*70-130*	*88 %*		*03/22/19*		*03/25/19 20:43*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**84**		%			1	03/25/19	03/26/19 08:45	WB

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Maryland spectral Services

Analytical Chemistry Services

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Baltimore MD 21227
410-247-7600
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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-H@2'

9031819-11 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS)									
Acetone	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 14:14	GM
tert-Amyl alcohol (TAA)	ND		ug/kg dry	56.8	56.8	1	03/26/19	03/26/19 14:14	GM
tert-Amyl methyl ether (TAME)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Benzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Bromobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Bromochloromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Bromodichloromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Bromoform	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Bromomethane	ND		ug/kg dry	5.7	5.7	1	03/26/19	03/26/19 14:14	GM
tert-Butanol (TBA)	ND		ug/kg dry	56.8	56.8	1	03/26/19	03/26/19 14:14	GM
2-Butanone (MEK)	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 14:14	GM
n-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
sec-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
tert-Butylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Carbon disulfide	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Carbon tetrachloride	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Chlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Chloroethane	ND		ug/kg dry	5.7	5.7	1	03/26/19	03/26/19 14:14	GM
Chloroform	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Chloromethane	ND		ug/kg dry	5.7	5.7	1	03/26/19	03/26/19 14:14	GM
2-Chlorotoluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
4-Chlorotoluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Dibromochloromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2-Dibromoethane (EDB)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Dibromomethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,3-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,4-Dichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Dichlorodifluoromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1-Dichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2-Dichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM

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Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-H@2'

9031819-11 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
cis-1,2-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
trans-1,2-Dichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Dichlorofluoromethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,3-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
2,2-Dichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
cis-1,3-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
trans-1,3-Dichloropropene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Diisopropyl ether (DIPE)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Ethylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Hexachlorobutadiene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
2-Hexanone	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 14:14	GM
Isopropylbenzene (Cumene)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
4-Isopropyltoluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
4-Methyl-2-pentanone	ND		ug/kg dry	11.4	11.4	1	03/26/19	03/26/19 14:14	GM
Methylene chloride	ND		ug/kg dry	22.7	22.7	1	03/26/19	03/26/19 14:14	GM
Naphthalene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
n-Propylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Styrene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Tetrachloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Toluene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2,3-Trichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2,4-Trichlorobenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1,1-Trichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,1,2-Trichloroethane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Trichloroethene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Trichlorofluoromethane (Freon 11)	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,2,3-Trichloropropane	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM

Will Brewington, President

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Maryland spectral Services

Analytical Chemistry Services

ACCREDITED IN ACCORDANCE WITH THE NELAC STANDARDS

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

D-H@2'

9031819-11 (Soil)
Sample Date: 03/18/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 8260B (GC/MS) (continued)									
1,2,4-Trimethylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
1,3,5-Trimethylbenzene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Vinyl chloride	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
o-Xylene	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
m- & p-Xylenes	ND		ug/kg dry	5.7	2.3	1	03/26/19	03/26/19 14:14	GM
Surrogate: 1,2-Dichloroethane-d4			*70-130*	*109 %*		*03/26/19*		*03/26/19 14:14*	
Surrogate: Toluene-d8			*75-120*	*100 %*		*03/26/19*		*03/26/19 14:14*	
Surrogate: 4-Bromofluorobenzene			*65-120*	*107 %*		*03/26/19*		*03/26/19 14:14*	
GASOLINE RANGE ORGANICS BY EPA 5030/8015C									
Gasoline-Range Organics	ND		mg/kg dry	0.11	0.11	1	03/27/19	03/27/19 02:29	GM
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	**22.8**		mg/kg dry	9.1	9.1	1	03/22/19	03/25/19 21:10	SJA
Surrogate: o-Terphenyl			*70-130*	*100 %*		*03/22/19*		*03/25/19 21:10*	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	**88**		%			1	03/25/19	03/26/19 08:45	WB

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Will Brewington, President

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Baltimore MD 21227
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Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

Maryland Spectral Services does not maintain certification for the following analytical parameters:

Maryland Spectral Services

Matrix , Method , Analyte

Soil | 8260 (Full List) | Hexachlorobutadiene

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Will Brewington, President

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Maryland spectral Services
Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
03/27/19 10:33

Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation

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All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Page 2 of 2

Company Name: AEC	Project Manager: J. Sheidy	Analysis Requested	CHAIN-OF-CUSTODY RECORD
Project Name: Piper's	Project ID: 14-059		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410–247–7600 • Fax 410–247–7602 labman@mdspectral.com
Sampler(s): B. Tuetzsch	P.O. Number: 14-059		Matrix Codes: NW (non-potable water) PW (potable water)

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 8260	TPH GRO/DRO 8015	Preservative: 1+1 HCl, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
D-H @ 2'	3/18/19	12:50		X		1	X	X			9031819-11

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Brian Tuetzsch	3/18/19 16:10	(Printed) Samantha Hannan	(Printed)		(Printed)
Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)	Turn Around Time:	Lab Use: Temp: 5.4 °C	
(Printed)		(Printed)	☐ Normal (7 day) ☐ 5 day ☐ 4 day ☐ 3 day ☐ Rush (2 day) ☐ Next Day ☐ Other: ____ ☐ Specific Due Date: ____	☑ Received on Ice ☐ Received same day ☐ Preservation Appropriate	
Delivery Method: ☐ Courier ☑ Client ☐ UPS ☐ FedEx ☐ USPS ☐ Other:____	Special Instructions/QC Requirements & Comments: results to jsheidy btuetzsch			Sample Disposal: ☐ Return to Client ☐ Disposal by lab ☐ Archive for ____ days	

MSS-F001-002

Page 1 of 2

Company Name: AEC	Project Manager: J. Sheidy	Analysis Requested	CHAIN-OF-CUSTODY RECORD
Project Name: Piper's	Project ID: 14-059		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410–247–7600 • Fax 410–247–7602 labman@mdspectral.com
Sampler(s): B. Tuetzsch	P.O. Number: 14-059		Matrix Codes: NW (non-potable water) PW (potable water)

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	VOCs 8260	TPH GRO/DRO 8015	Preservative: 1+1 HCl, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
T-4-N @ 12.5'	3/18/19	9:00		X		1	X	X			9031819-01
T-5-S @ 13'		9:10									-02
T-3-N @ 12.5'		11:00									-03
T-3-S @ 12.5'		11:05									-04
T-2-N @ 12.5'		12:40									-05
T-2-S @ 12.5'		12:45									-06
T-1-N @ 12.5'		13:40									-07
T-1-S @ 12.5'		13:50									-08
D-3/4 @ 2'		9:50									-09
D-D @ 2'		10:05									-10

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Brian Tuetzsch	3/18/19 16:10	(Printed) Samantha Hannan	(Printed)		(Printed)
Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)	Turn Around Time:	Lab Use: Temp: 5.4 °C	
(Printed)		(Printed)	☐ Normal (7 day) ☐ 5 day ☐ 4 day ☐ 3 day ☐ Rush (2 day) ☐ Next Day ☐ Other: ____ ☐ Specific Due Date: ____	☑ Received on Ice ☐ Received same day ☐ Preservation Appropriate	
Delivery Method: ☐ Courier ☑ Client ☐ UPS ☐ FedEx ☐ USPS ☐ Other:____	Special Instructions/QC Requirements & Comments: results to: jsheidy btuetzsch			Sample Disposal: ☐ Return to Client ☐ Disposal by lab ☐ Archive for ____ days	

MSS-F001-002

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

17 April 2019

Jeremy Sheidy
Advantage Environmental Consultants
8610 Baltimore Washington Blvd, Suite 217
Jessup, MD 20794
RE: PIPER'S WINE & SPIRITS

Enclosed are the results of analyses for samples received by the laboratory on 04/09/19 13:46.

Please visit our website at www.mdspectral.com for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Will Brewington
President

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported: 04/17/19 10:47

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PW		9040910-01	Drinking Water	04/09/19 00:00	04/09/19 13:46

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Will Brewington, President

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
04/17/19 10:47

PW

9040910-01 (Drinking Water)
Sample Date: 04/09/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS)									
tert-Amyl alcohol (TAA)	ND		ug/L	10.0	10.0	1	04/11/19	04/11/19 14:46	WB
tert-Amyl methyl ether (TAME)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Benzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Bromobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Bromochloromethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Bromodichloromethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Bromoform	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Bromomethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
tert-Butanol (TBA)	ND		ug/L	10.0	10.0	1	04/11/19	04/11/19 14:46	WB
n-Butylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
sec-Butylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
tert-Butylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Carbon tetrachloride	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Chlorobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Chloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Chloroform	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Chloromethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
2-Chlorotoluene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
4-Chlorotoluene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Dibromochloromethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2-Dibromo-3-chloropropane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2-Dibromoethane (EDB)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Dibromomethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2-Dichlorobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,3-Dichlorobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,4-Dichlorobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Dichlorodifluoromethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1-Dichloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2-Dichloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1-Dichloroethene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
cis-1,2-Dichloroethene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
trans-1,2-Dichloroethene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB

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Will Brewington, President

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
04/17/19 10:47

PW

9040910-01 (Drinking Water)
Sample Date: 04/09/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)									
1,2-Dichloropropane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,3-Dichloropropane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
2,2-Dichloropropane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1-Dichloropropene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
cis-1,3-Dichloropropene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
trans-1,3-Dichloropropene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Diisopropyl ether (DIPE)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Ethyl tert-butyl ether (ETBE)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Ethylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Hexachlorobutadiene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Isopropylbenzene (Cumene)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
4-Isopropyltoluene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Methyl tert-butyl ether (MTBE)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Methylene chloride	ND		ug/L	1.00	1.00	1	04/11/19	04/11/19 14:46	WB
Naphthalene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
n-Propylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Styrene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1,1,2-Tetrachloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1,2,2-Tetrachloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Tetrachloroethene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Toluene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2,3-Trichlorobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2,4-Trichlorobenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1,1-Trichloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,1,2-Trichloroethane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Trichloroethene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Trichlorofluoromethane (Freon 11)	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2,3-Trichloropropane	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,2,4-Trimethylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
1,3,5-Trimethylbenzene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Vinyl chloride	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
o-Xylene	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB

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Will Brewington, President

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
04/17/19 10:47

PW

9040910-01 (Drinking Water)
Sample Date: 04/09/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Quantitation Limit (LOQ)	Dilution	Prepared	Analyzed	Analyst
VOLATILE ORGANICS BY EPA METHOD 524.2 (GC/MS) (continued)									
m- & p-Xylenes	ND		ug/L	0.50	0.50	1	04/11/19	04/11/19 14:46	WB
Surrogate: 4-Bromofluorobenzene			*80-120*	*103 %*	*04/11/19*		*04/11/19 14:46*		
Surrogate: 1,2-Dichlorobenzene-d4			*80-120*	*104 %*	*04/11/19*		*04/11/19 14:46*		
DIESEL RANGE ORGANICS BY EPA 3510/8015C-LVI									
Diesel-Range Organics	ND		ug/L	37.9	37.9	1	04/12/19	04/15/19 14:52	SJA
Surrogate: o-Terphenyl			*60-120*	*93 %*	*04/12/19*		*04/15/19 14:52*		

Will Brewington, President

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PIPER'S WINE & SPIRITS

Project Number: 14-059
Project Manager: Jeremy Sheidy

Reported:
04/17/19 10:47

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation

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CHAIN-OF-CUSTODY RECORD

Maryland Spectral Services, Inc.
1500 Caton Center Drive, Suite G
Baltimore, MD 21227
410–247–7600 • Fax 410–247–7602
labman@mdspectral.com

Matrix Codes: NW (nonpotable water)
PW (potable water)

Company Name:	Project Manager:
AEC	J. Stein
Project Name:	**Project ID:**
Piper 1	14-059
Sampler(s):	**P.O. Number:**
B. Tuetzsch	14-059

Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	Analysis Requested: VOCs 524.2	Analysis Requested: TPH DRO 8015	Preservative: 1+1 HCL, H_2SO_4, Methanol, $Na_2S_2O_3$, $NaHCO_3$	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID
PW	4/9/19		X			5	X	X			904090-01

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) Brian Tuetzsch	4/9/19 13:46	(Printed) Rachel Horner	(Printed)		(Printed)
Relinquished by: (Signature)	Date/Time	Received by Lab: (Signature)			
(Printed)	1	(Printed)			

Delivery Method:
- ☐ Courier
- ☑ Client
- ☐ UPS
- ☐ FedEx
- ☐ USPS
- ☐ Other: _____

Special Instructions/QC Requirements & Comments:
results to:
btuetzsch
jsheidy
jstein

Turn Around Time:
- ☑ Normal (7 day)
- ☐ 5 day
- ☐ 4 day
- ☐ 3 day
- ☐ Rush (2 day)
- ☐ Next Day
- ☐ Other: _____
- ☐ Specific Due Date: _____

Lab Use:
Temp: 6.0 C
- ☐ Received on Ice
- ☑ Received same day
- ☐ Preservation Appropriate

Sample Disposal:
- ☐ Return to Client
- ☐ Disposal by lab
- ☐ Archive for _____ days

MSS-F001-03/13

APPENDIX G

MDE AMENDED TANK REGISTRATION FORM

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Land and Materials Administration • Oil Control Program
1800 Washington Boulevard • Suite 620 • Baltimore Maryland 21230-1719
410-537-3442 • 800-633-6101 x3442 • 410-537-3092 (fax) • www.mde.maryland.gov

NOTIFICATION FOR UNDERGROUND STORAGE TANKS

Return completed form to:

Maryland Department of the Environment
Oil Control Program
1800 Washington Boulevard, Suite 620
Baltimore MD 21230-1719

Facility ID Number: 17166

Type Of Notification:

☐ New Facility ☒ Amended ☐ Closure (mark one)

2 Number of tanks at facility

_____ Number of continuation sheets attached

State Use Only

Facility ID Number: _____

Alt ID Number: _____

Date Entered into Computer: _____

Data Clerk's Initials: _____

Owner Contacted to Clarify Response: _____

Comments: _____

I. OWNERSHIP INFORMATION:

Is this an Owner Name Change? ____ yes ✓ no

Owner Name: Chenoweth & Associates, Inc.

Street Address: 4127 Hanover Pike

Manchester (City) MD (State) _____ (Zip Code)

County: Carroll

Mailing Address (if different from above): —

—

Telephone Number: 410-239-3922

Contact Person: Bill Chenoweth

Fax: _____ **Email:** _____

Owner ID:

Type of Owner: (mark one)

Government	Commercial
_____ Federal	✓ Corporation
_____ State	_____ Company
_____ Local	_____ Partnership
	_____ Individual

Non-Commercial

_____ Residential

_____ Agricultural

_____ Non-Profit Agency

II. LOCATION OF TANKS:

Is this a Facility Name Change? ____ yes ✓ no

Facility Name or Company Site Identifier: Spiros Wine & Spirit Barn

Street Address: 4127 Hanover Pike

Manchester (City) MD (State) _____ (Zip Code) Carroll (County)

Facility Water Supply (*mark one*): ✓ Potable Well ____ Public Water System

Mailing Address (if different from above): —

Facility Operator: Bill Chenoweth **Primary Phone Number:** 410-239-3922

Facility ID Number: 17166

III. TYPE OF FACILITY: (check one)

_____ Aircraft Owner	_____ Federal Military	_____ Petroleum Distributor
_____ Airline	_____ Federal Non-Military	_____ Railroad
_____ Apartment/Condo	_____ Fire/Rescue/Ambulance	_____ Residential
_____ Auto Dealership	✓ Gas Station	_____ State Government
_____ Commercial	_____ Industrial	_____ Store
_____ Contractor	_____ Local Government	_____ Trucking/Transport
_____ Educational	_____ Marina	_____ Utilities
_____ Farm/Nursery	_____ Office	_____ Not Listed

_____ Other: _____

IV. CONTACT PERSON IN CHARGE OF TANKS:

Name: Bill Chenowith **Job Title:** Owner

Employer: Self - Employed

Mailing Address: 4127 Hanover Pike Manchester MD
City State Zip

Phone Number: 410-239-3922 **Fax Number:** —

Email Address: —

V. FINANCIAL RESPONSIBILITY: (if applicable – see instructions)

*

_____**Not Required For This Facility - heating oil for direct consumptive use only.**

Policy #: _____ Period of Coverage: _____

Insurer: _____

Agent/Broker: _____ Phone No.: _____

Type of Financial Responsibility Used: _____

____**Financial Test of Self Insurance**	____**Guarantee***	____**Local Govt. Insurance Pool**
____**Third Party Insurance**	____**Surety Bond***	____**Local Govt. Bond Rating Test**
____**Risk Retention Group**	____**Letter of Credit***	____**Local Govt. Financial Test**
____**Trust Fund**	____**Standby Trust Fund**	____**Local Govt. Guarantee**

____**Other (specify)** _____

***requires Standby Trust Fund**

Facility ID Number: 17166

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS: (complete for each tank at this facility)

Tank Identification Number	Tank No. 1A	Tank No. 1B	Tank No. 2A	Tank No. 2B	Tank No.
Alternate Tank ID Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (mark only one)					
- Currently in Use	✓	✓	✓	✓	
- Temporarily Out of Use					
- Permanently Out of Use (Complete Item 8)					
2. Date of Installation (month/year)	3/2019	3/2019	3/2019	3/2019	
3. Total Capacity (gallons)	10000	4000	10000	4000	
3A. Compartmentalized?	✓YES __NO		✓YES __NO		
Enter Compartment Gallons:	Tank "A" 10K	Tank "B" 4K	Tank "A" 10K	Tank "B" 4K	
3B. Manifolded?	YES (NO)	YES (NO)	YES (NO)	YES (NO)	YES NO
4. Tank Construction (mark all that apply)					
- Asphalt Coated or Bare Steel					
- Cathodically Protected Steel (Coating w/CP – Galvanic)					
- Cathodically Protected Steel (CP Steel – Impressed Current)					
- Composite Clad Steel (Steel w/FRP)					
- Fiberglass Reinforced Plastic (FRP)	✓	✓	✓	✓	
- Polyethylene Tank Jacket					
- Other (must describe)					
- Double-walled	✓	✓	✓	✓	
- Excavation Liner					
- Lined Interior					
- Lined Interior with Impressed Current					
- Has tank been repaired?	YES (NO)	YES (NO)	YES (NO)	YES (NO)	YES NO

Facility ID Number: 17166

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS: (complete for each tank at this facility)

Tank Identification Number	Tank No. 1A	Tank No. 1B	Tank No. 2A	Tank No. 2B	Tank No.
Alternate Tank ID Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
5. Piping Construction (mark all that apply)					
- Aboveground Piping					
- Bare or Galvanized Steel					
- Bare or Galvaized Steel - sleeved in PVC, FRP, or Plastic					
- Copper					
- Copper (CP Protected)					
- Copper-sleeved in PVC, FRP, or Plastic					
- CP Steel (Galvanic)					
- CP Steel (Impressed Current)					
- Fiberglass Reinforced Plastic (FRP)					
- Flexible Plastic	✓	✓	✓	✓	
- Other (must describe)					
- No Piping					
- Double-walled	✓	✓	✓	✓	
- Double-walled with Containment Sumps					
- Secondary Containment (specify)					
6. Type of Piping (mark all that apply)					
Pressurized? (if yes, select type of Automatic Line Leak Detector (ALLD)					
• Electronic ALLD					
• Mechanical ALLD	✓	✓	✓	✓	
- Gravity Feed					
- Suction, no valve at tank (Safe Suction)					
- Suction, valve at tank (U.S. Suction)					
- Has piping been repaired?	YES (NO)	YES (NO)	YES (NO)	YES (NO)	YES NO

Facility ID Number: 17166

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS: (complete for each tank at this facility)

Tank Identification Number	Tank No. 1A		Tank No. 1B		Tank No. 2A		Tank No. 2B		Tank No.	
Alternate Tank ID Number	Tank No.		Tank No.		Tank No.		Tank No.		Tank No.	
7. Substance Currently or Last Stored										
- Aviation Fuel										
- Bio-Diesel										
- Car Wash-Oil/Water Separator UST										
- Diesel					✓		✓			
- Ethanol (E-85)										
- Gasohol (E-10)	✓		✓							
- Gasoline										
- Hazardous Substance (specify):										
- Heating Oil #2										
- Heating Oil #4										
- Heating Oil #5										
- Heating Oil #6										
- Kerosene										
- Lube Oil										
- Methanol										
- Mixture (specify):										
- Used Oil										
- Other (must describe)										
7A. On-site consumptive use?	YES	(NO)	YES	(NO)	YES	(NO)	YES	(NO)	YES	NO
7B. Emergency Generator?	YES	(NO)	YES	(NO)	YES	(NO)	YES	(NO)	YES	NO
8. Closing of Tank										
- Estimated date last used (month/day/year)										
- Date Tank Closed (month/day/year)										
- Tank Removed From Ground?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
- Tank Filled with Inert Material?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
- If yes, inert material used.										
- Change in service to non-regulated substance?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
8A. Site Assessment Completed?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
8B. Assessment Report submitted to MDE?	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

Facility ID Number: 17166

VI. DESCRIPTION OF UNDERGROUND STORAGE TANKS: (complete for each tank at this facility)

Tank Identification Number	Tank No. 1A		Tank No. 1B		Tank No. 2A		Tank No. 2B		Tank No.	
Alternate Tank ID Number	Tank No.		Tank No.		Tank No.		Tank No.		Tank No.	
9. Release Detection (see instructions)	TANK	PIPING	TANK	PIPING	TANK	PIPING	TANK	PIPING	TANK	PIPING
9A. Tank – Mark One Primary (P) and All Secondary (S) Methods										
- Manual Tank Gauging										
- Tank Tightness Testing (See Instructions)										
- ATG 0.2 gph Test										
- Inventory/Statistical Inventory Reconciliation (SIR)	PR		PR		PR		PR			
- Groundwater Monitoring										
- Interstitial Monitoring Double-Walled Tank	S		S		S		S			
- Other Method Approved by MDE (must specify)										
9B. Piping – Mark One Primary (P) and All Secondary (S) Methods										
- Interstitial Monitoring Double-Walled Piping		S		S		S		S		
- Electronic ALLD Testing (0.1 or 0.2 gph)										
- Annual Line Tightness Testing (Pressurized)		PR		PR		PR		PR		
- 2-year Line Tightness Testing (U.S. Suction)										
- Inventory/Statistical Inventory Reconciliation (SIR)										
- Groundwater Monitoring										
- Other Method Approved by MDE (must specify)										
10. Spill and Overfill Protection										
10A. Overfill Device Installed? (if yes, select one below)	(YES)	NO	(YES)	NO	(YES)	NO	(YES)	NO	YES	NO
> Flapper Valve (FV)	✓		✓		✓		✓			
> Ball Float Valve (BFV)										
> High Level Alarm (HLA)										
> Other (must describe)										
10B. Spill Catch Basin Fill Pipe? (5 gallon minimum)	(YES)	NO	(YES)	NO	(YES)	NO	(YES)	NO	YES	NO
11. Stage I Vapor Recovery?	(YES)	NO	(YES)	NO	YES	(NO)	YES	(NO)	YES	NO
12. Stage II Vapor Recovery?	YES	(NO)	YES	(NO)	YES	(NO)	YES	(NO)	YES	NO

Facility ID Number: 17166

VII. UNDERGROUND STORAGE TANK (UST) TECHNICIAN CERTIFICATION OF COMPLIANCE:

(Complete for all new installed, replaced, and upgraded underground storage systems at this location)

I certify, under penalty of law, that I am certified by the State of Maryland as an UST Technician, that I am in good standing as a certified Technician with the State, and that I am familiar with the UST regulatory requirements in COMAR 26.10.02—26.10.11. I further certify, under penalty of law that, based upon my personal inspection and/or work upon the UST system(s) at the Facility identified on this Notification Form, the UST system(s) is/are in compliance with the requirements of COMAR 26.10.02—26.10.11.

Installer: Steve Shelley (Print Name) _____ (Signature) 4.15.19 (Date)

MDIC: 2017-1848 (State Identification Number) 11.1.19 (Expiration Date) B+D Petroleum Service (Company)

***Penalties for False Statements:** Any person who makes any false statement, representation, or certification herein is subject to criminal penalties of a fine and imprisonment and to civil monetary penalties, pursuant to §4-417 of the Environment Article of the Annotated Code of Maryland.*

VIII. OWNER CERTIFICATION: (to be completed by owner or owner's representative)

I certify, under penalty of law, that I have personally examined and am familiar with the information submitted in this Notification Form and all attached documents, and that the information provided is true, accurate, and complete. I further certify, under penalty of law, that I have met the financial responsibility (FR) requirements in accordance with applicable federal and State laws (40CFR Part 280 Subpart H; §4-409(b) of the Environment Article; and COMAR 26.10.11) and that I can provide documentation thereof to MDE upon its request, or that I am not required to meet the FR requirements because the UST system stores heating oil for direct consumptive use only.

Name (print / type): WILLIAM A. CHENOWETH **Title:** PRESIDENT

Signature: William A. Chenoweth **Date:** 4-16-19

***Penalties for False Statements:** Any person who makes any false statement, representation, or certification herein is subject to criminal penalties of a fine and imprisonment and to civil monetary penalties, pursuant to §4-417 of the Environment Article of the Annotated Code of Maryland.*

Notice: Collection of Personal Records – State Government Article § 10-624

This Notice is provided pursuant to § 10-624 of the State Government Article of the Maryland Code. The personal information requested on this form is intended to be used in processing your application. Failure to provide the information requested may result in your application not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment ("MDE") is a public agency and subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State law.