

## ANALYTICAL REPORT

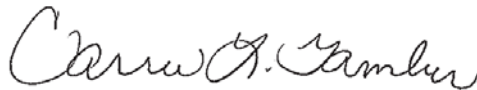
Job Number: 180-59429-1

Job Description: Harley Davidson

For:

Groundwater Sciences Corporation  
2601 Market Place Street, Suite 310  
Harrisburg, PA 17110-9307

Attention: Allan Miller



Approved for release.  
Carrie L. Gamber  
Senior Project Manager  
10/17/2016 7:50 AM

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Carrie L Gamber, Senior Project Manager  
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10/17/2016

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**TestAmerica Laboratories, Inc.**

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-59429-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

### Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-59429-1

## Method: 8260C - Volatile Organic Compounds (GC/MS)

**Client Sample ID: HD-RW-5-0/1-0**

**Date Collected: 10/03/16 15:02**

**Date Received: 10/05/16 08:40**

**Lab Sample ID: 180-59429-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.23	ug/L			10/11/16 13:14	1
Vinyl chloride	1.0	U ^c * F1	1.0	0.32	ug/L			10/11/16 13:14	1
Bromomethane	1.0	U	1.0	0.36	ug/L			10/11/16 13:14	1
Chloroethane	1.0	U ^c	1.0	0.26	ug/L			10/11/16 13:14	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/11/16 13:14	1
Acetone	5.0	U ^c	5.0	2.5	ug/L			10/11/16 13:14	1
Carbon disulfide	1.0	U	1.0	0.18	ug/L			10/11/16 13:14	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			10/11/16 13:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/11/16 13:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.24	ug/L			10/11/16 13:14	1
1,1-Dichloroethane	1.0	U	1.0	0.24	ug/L			10/11/16 13:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.29	ug/L			10/11/16 13:14	1
Bromochloromethane	1.0	U	1.0	0.38	ug/L			10/11/16 13:14	1
2-Butanone (MEK)	5.0	U ^c	5.0	1.2	ug/L			10/11/16 13:14	1
Chloroform	1.0	U	1.0	0.27	ug/L			10/11/16 13:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.22	ug/L			10/11/16 13:14	1
Carbon tetrachloride	1.0	U	1.0	0.24	ug/L			10/11/16 13:14	1
Benzene	1.0	U	1.0	0.26	ug/L			10/11/16 13:14	1
1,2-Dichloroethane	1.0	U	1.0	0.25	ug/L			10/11/16 13:14	1
<b>Trichloroethene</b>	<b>0.28</b>	<b>J</b>	1.0	0.26	ug/L			10/11/16 13:14	1
1,2-Dichloropropane	1.0	U	1.0	0.23	ug/L			10/11/16 13:14	1
Bromodichloromethane	1.0	U	1.0	0.23	ug/L			10/11/16 13:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			10/11/16 13:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.59	ug/L			10/11/16 13:14	1
Toluene	1.0	U	1.0	0.28	ug/L			10/11/16 13:14	1
trans-1,3-Dichloropropene	1.0	U ^c	1.0	0.24	ug/L			10/11/16 13:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.35	ug/L			10/11/16 13:14	1
Tetrachloroethene	1.0	U	1.0	0.27	ug/L			10/11/16 13:14	1
2-Hexanone	5.0	U	5.0	0.74	ug/L			10/11/16 13:14	1
Dibromochloromethane	1.0	U	1.0	0.40	ug/L			10/11/16 13:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.29	ug/L			10/11/16 13:14	1
Chlorobenzene	1.0	U	1.0	0.31	ug/L			10/11/16 13:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			10/11/16 13:14	1
Ethylbenzene	1.0	U	1.0	0.27	ug/L			10/11/16 13:14	1
Xylenes, Total	2.0	U	2.0	0.48	ug/L			10/11/16 13:14	1
Styrene	1.0	U	1.0	0.26	ug/L			10/11/16 13:14	1
Bromoform	1.0	U	1.0	0.29	ug/L			10/11/16 13:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.35	ug/L			10/11/16 13:14	1
Acrylonitrile	20	U	20	2.8	ug/L			10/11/16 13:14	1
1,4-Dioxane	200	U	200	7.5	ug/L			10/11/16 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		72 - 134		10/11/16 13:14	1
Toluene-d8 (Surr)	106		80 - 120		10/11/16 13:14	1
4-Bromofluorobenzene (Surr)	112		72 - 120		10/11/16 13:14	1
Dibromofluoromethane (Surr)	108		77 - 127		10/11/16 13:14	1

**Chain of Custody Record**

TestAmerica Laboratories, Inc.

**Client Contact**  
 Groundwater Sciences Corporation  
 2601 Market Place St. Suite 310  
 Harrisburg, PA 17110  
 (717) 901-8180 Phone  
 (717) 657-1611 FAX

**Project Name:** 2016 Comprehensive Event  
**Site:** Harley-Davidson, York PA  
**Quote #:** 18000557

**Project Manager:** Christopher D. O'neil  
**Tel/Fax:** 717-901-8176 / (717) 657-1611

**Analysis Turnaround Time**  
 2 weeks  
 1 week  
 5 days  
 1 day

**Calendar (C ) or Work Days (W)**  
 LAL is different from Below Standard

**Site Contact:** Jennifer S. Reese  
**Lab Contact:** Carrie Gamber  
 (SW846 6020/SW846 7470A)  
 (SW846 6020/SW846 7470A)  
 Select List Dissolved Metals by ICP  
 Select List Total Metals by ICP MS  
 VOCs (8260C)  
 1,4-Dioxane (SW846 8270D LT)

**Date Submitted:** 10/4/16  
**FEDEX**  
**Carrier:**  
**COC No.:** TAP20161004  
**Job No.:** 1001230  
**of 1 COCs**

**Container No.:** 1  
**SDG No.:**



e Notes:

180-55429 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field Filter	Number of Containers
HD-FOLK(RW-4)-0/1-0	10/11/16	1340	GW	W	3		3
HD-RW-5-0/1-0	10/3/16	1502	GW	W	3		1
HD-RW-2-0/1-0	10/3/16	1515	GW	W	3		1
HD-MW-14-0/1-0	10/4/16	1150	GW	W	5	X	2
HD-MW-64D-0/1-0	10/4/16	0940	GW	W	3	X	1
HD-MW-66D-0/1-0	10/4/16	1120	GW	W	5	X	1
HD-MW-152(23-23.5)-0/1-0	10/4/16	1327	GW	W	3	X	1
HD-MW-152(133+5-138)-0/1-0	10/4/16	1132	GW	W	3	X	1
HD-QC-1-0/1-0	10/11/16	1200	Topsoil	W	2		1

**Preservation Used:** 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Unpreserved 7=Zinc Acetate & NaOH

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**  
 Return To Client  Disposal By Lab  Months

**Relinquished by:** [Signature] KBF  
**Company:** GSC  
**Date/Time:** 10/4/16 1630

**Relinquished by:** [Signature] AP  
**Company:** [Signature]  
**Date/Time:** 10-5-16

**Relinquished by:** [Signature]  
**Company:** [Signature]  
**Date/Time:** 8.40