STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To:

Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

Joe Holland
TDEC-WPC
Nashville Field Office
711 R.S. Gass Blvd
Nashville, TN 37243

Lab ID: N00004861
Nashville Central Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Cathi Ayers
Analytical Supervisor

8-14-09

Lab-Sample Number: N00004861001
Project Name:
Sample Description: LIBERTY CRK BEHIND OLD BGA
Sampler Project Name: LIBERTY CRK 2006 COMPL
Project Site No.:
Station No.: LIBER000.2WI
Date/Time Collected: 08/03/2009 09:10
Sampler's Name: BARBARA LOUDERMLIK
County: WILLIAMSON - 94
Sample Matrix: Water
EFO: Nashville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 08/17/2009
Date/Time Received: 08/03/2009 11:23
Received By: L Barrociere

TEST: VOA 8260 **METHOD: EPA 5035/5030B/826** **ANALYZED: G. Guirguis** **8/6/2009**

ANALYTE	CAS	RESULT	UNITS	MDL	MQL	DF
1,2,4-Trimethylbenzene	95-63-6	0.800	µg/L	0.25	0.50	1
2-Butanone (MEK)	78-93-3	8.14J	µg/L	7.5	25	1
4-Methyl-2-pentanone	108-10-1	5.46	µg/L	0.68	2.5	1
Acetone	67-64-1	867J	µg/L	730.0	1000	100
Ethylbenzene	100-41-4	2.78	µg/L	0.17	0.50	1
m&p-xylene	1330-20-7	9.70	µg/L	0.21	1.0	1
o-Xylene	95-47-6	2.59	µg/L	0.14	0.50	1
Toluene	108-88-3	5200	µg/L	19.00	50.00	100

DF - Dilution Factor
J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: N00004861002
Project Name:
Sample Description: HARPETH RR U/S LIBERTY CRK CONFLUEI
Sampler Project Name: LIBERTY CRK 2006 COMPL
Project Site No.:
Station No.: HARPE087.4
Date/Time Collected: 08/03/2009 10:00
Sampler's Name: BARBARA LOUDERMLIK
County: WILLIAMSON - 94
Sample Matrix: Water
EFO: Nashville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 08/17/2009
Date/Time Received: 08/03/2009 11:23
Received By: L Barrociere

TEST: VOA 8260 **METHOD: EPA 5035/5030B/826** **ANALYZED: G. Guirguis** **8/6/2009**

ANALYTE	CAS	RESULT	UNITS	MDL	MQL	DF
Acetone	67-64-1	U	µg/L	7.3	10	1
Toluene	108-88-3	4.21	µg/L	0.19	0.50	1

DF - Dilution Factor
J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: N00004861003
Project Name:
Sample Description: HARPETH Rr U/S 4TH AVE.
Sampler Project Name: LIBERTY CRK 2006 COMPL
Project Site No.:
Station No.: HARPE086.8WI
Date/Time Collected: 08/03/2009 10:25
Sampler's Name: BARBARA LOUDERMLIK
County: WILLIAMSON - 94
Sample Matrix: Water
EFO: Nashville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 08/17/2009
Date/Time Received: 08/03/2009 11:23
Received By: L Barrociere

TEST: VOA 8260 **METHOD: EPA 5035/5030B/826** **ANALYZED: G. Guirguis** **8/6/2009**

ANALYTE	CAS	RESULT	UNITS	MDL	MQL	DF
Acetone	67-64-1	U	µg/L	7.3	10	1
Toluene	108-88-3	9.13	µg/L	0.19	0.50	1

DF - Dilution Factor
J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

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State of Tennessee - Environmental Laboratories

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PRIORITY Organic Analysis

Volatiles and Petroleum Hydrocarbons

Laboratory Number N00004861 ·001

PROJECT/SITE NO.	PROJECT NAME Liberty Crk. 2006 Complaint
STATION NUMBER LIBER000.2WI	COUNTY 94
DESCRIPTION Liberty Crk behind old BGA	
STREAM MILE 0.2	DEPTH MATRIX water
COLLECTED: DATE 8-3-09	TIME 0910
SAMPLER'S NAME(printed) Barbara Loudermilk	
SAMPLING AGENCY	BILLING CODE 327.34-20
IF PRIORITY, DATE NEEDED 8/17/09	
SEND REPORT TO: Joey Holland, DWPC-NEFO Greg Denton, CO-PAS	
CONTACT HAZARD possible	

*	NPDES Volatiles - 624	*	TCL Volatiles - 8260A	*	TCLP Volatiles
	Bromoform		Chloromethane		Benzene
	Bromodichloromethane		Bromomethane		Carbon tetrachloride
	Carbon Tetrachloride		Vinyl chloride		Chlorobenzene
	Chlorobenzene		Chloroethane		Chloroform
	Chloroethane		Methylene chloride		1,2-Dichloroethane
	2-Chloroethylvinyl ether	X	Acetone		1,1-Dichloroethane
	Chloroform		Carbon disulfide		Methyl ethyl ketone
	Chloromethane		1,1-Dichloroethene		Tetrachloroethene
	Dibromochloromethane		1,1-Dichloroethane		Trichloroethene
	1,2-Dichlorobenzene		Cis-1,2-dichloroethene		Vinyl chloride
	1,3-Dichlorobenzene		Trans-1,2-dichloroethene	*	BTEX - 8260A - UST
	1,4-Dichlorobenzene		1,2-Dichloroethane		Benzene
	Dichlorodifluoromethane		Chloroform		Toluene
	1,1-Dichloroethane		2-Butanone		Ethyl benzene
	1,2-Dichloroethane		1,1,1-Trichloroethane		o-Xylene
	1,1-Dichloroethene		Carbon tetrachloride		m-Xylene
	Cis-1,2-dichloroethene		Vinyl acetate		p-Xylene
	Trans-1,2-dichloroethene		Bromodichloromethane		Methyl t-butyl ether
	1,2-Dichloropropane		1,2-Dichloropropane		Diisopropyl ether
	Cis-1,3-dichloropropene		Cis-1,3-dichloropropene	*	TPH by GC
	Trans-1,2-dichloroethene		Trichloroethene		Gasoline Range Organics
	Methylene chloride		Dibromochloromethane		Diesel Range Organics
	1,1,2,2-Tetrachloroethane		1,1,2-Trichloroethane		Oil Range Organics
	Tetrachloroethene		Benzene	*	Other
	1,1,1-Trichloroethane		Trans-1,3-dichloropropene		
	1,1,2-Trichloroethane		Bromoform		
	Trichloroethene		4-Methyl-2-pentanone		
	Trichlorofluoromethane		2-Hexanone		
	Vinyl chloride		Tetrachloroethene		
	Benzene	X	Toluene		
	Ethylbenzene		1,1,2,2-Tetrachloroethane		
	Toluene		Chlorobenzene		
	o-Xylene		Ethyl benzene		
	m-Xylene		Styrene		
	p-Xylene		o-Xylene		
			m-Xylene		
			p-Xylene		

Chain of Custody and Supplemental Information

Only one chain of custody form is required per sample set or point (if all collected at the same time)

1. Collected by Barbara G Loudermilk
   Date 8-3-09 Time 0910
   Delivered to State lab
   Date 8-3-09 Time 1123
2. Received by
   Date Time
   Delivered to
   Date Time
3. Received by
   Date Time
   Delivered to
   Date Time
4. Received in Lab by [signature]
   Date 8/3/09 Time 1123
   Logged in by [signature]
   Date 8/3/09 Time 1140

Additional Information

1. Approximate volume of sample ~250mL
2. Nearest town or city Franklin
3. Others present at collection
4. Number of other samples collected at same time at this point Ø
5. Field collection procedure, handling and/or preservation of this sample per WPC SOP
6. Mode of transportation to lab locked State vehicle
7. Sample sealed by
8. Date sample sealed
9. Remarks

T°C 19.38°C
SpCond 568 µmhos
DO 5.30 mg/L
pH 7.22

PH-3013 (rev 11/97)

RDA 1527

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PRIORITY

State of Tennessee - Environmental Laboratories

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Organic Analysis

Volatiles and Petroleum Hydrocarbons

Laboratory Number N00004861.002

PROJECT/SITE NO.	PROJECT NAME Liberty Crk 2006 Comp Mat
STATION NUMBER HARPE087.4	COUNTY 94
DESCRIPTION Harpeth Br u/s Liberty Crk Confluence	
STREAM MILE 87.4	DEPTH MATRIX water
COLLECTED: DATE 8-3-09	TIME 1000
SAMPLER'S NAME(printed) Barbara Louderm.lk	
SAMPLING AGENCY TDEC-DWPC-NEFO	BILLING CODE 327.34-20
IF PRIORITY, DATE NEEDED (2wks) August 17, 2009	
SEND REPORT TO: Joey Holland DWPC-NEFO	
Greg Denton CO-PAS	
CONTACT HAZARD possible	

*	NPDES Volatiles - 624	*	TCL Volatiles - 8260A	*	TCLP Volatiles
	Bromoform		Chloromethane		Benzene
	Bromodichloromethane		Bromomethane		Carbon tetrachloride
	Carbon Tetrachloride		Vinyl chloride		Chlorobenzene
	Chlorobenzene		Chloroethane		Chloroform
	Chloroethane		Methylene chloride		1,2-Dichloroethane
	2-Chloroethylvinyl ether	X	Acetone		1,1-Dichloroethane
	Chloroform		Carbon disulfide		Methyl ethyl ketone
	Chloromethane		1,1-Dichloroethene		Tetrachloroethene
	Dibromochloromethane		1,1-Dichloroethane		Trichloroethene
	1,2-Dichlorobenzene		Cis-1,2-dichloroethene		Vinyl chloride
	1,3-Dichlorobenzene		Trans-1,2-dichloroethene	*	BTEX - 8260A - UST
	1,4-Dichlorobenzene		1,2-Dichloroethane		Benzene
	Dichlorodifluoromethane		Chloroform		Toluene
	1,1-Dichloroethane		2-Butanone		Ethyl benzene
	1,2-Dichloroethane		1,1,1-Trichloroethane		o-Xylene
	1,1-Dichloroethene		Carbon tetrachloride		m-Xylene
	Cis-1,2-dichloroethene		Vinyl acetate		p-Xylene
	Trans-1,2-dichloroethene		Bromodichloromethane		Methyl t-butyl ether
	1,2-Dichloropropane		1,2-Dichloropropane		Diisopropyl ether
	Cis-1,3-dichloropropene		Cis-1,3-dichloropropene	*	TPH by GC
	Trans-1,2-dichloroethene		Trichloroethene		Gasoline Range Organics
	Methylene chloride		Dibromochloromethane		Diesel Range Organics
	1,1,2,2-Tetrachloroethane		1,1,2-Trichloroethane		Oil Range Organics
	Tetrachloroethene		Benzene	*	Other
	1,1,1-Trichloroethane		Trans-1,3-dichloropropene		
	1,1,2-Trichloroethane		Bromoform		
	Trichloroethene		4-Methyl-2-pentanone		
	Trichlorofluoromethane		2-Hexanone		
	Vinyl chloride		Tetrachloroethene		
	Benzene	X	Toluene		
	Ethylbenzene		1,1,2,2-Tetrachloroethane		
	Toluene		Chlorobenzene		
	o-Xylene		Ethyl benzene		
	m-Xylene		Styrene		
	p-Xylene		o-Xylene		
			m-Xylene		
			p-Xylene		

Chain of Custody and Supplemental Information

Only one chain of custody form is required per sample set or point (if all collected at the same time)

1. Collected by Barbara D. Loudermilk
   Date 8-3-09 Time 1000
   Delivered to Statelab
   Date 8-3-09 Time 1123
2. Received by
   Date Time
   Delivered to
   Date Time
3. Received by
   Date Time
   Delivered to
   Date Time
4. Received in Lab by [illegible]
   Date 8/3/09 Time 1123
   Logged in by [illegible]
   Date 8/3/09 Time 1190

Additional Information

1. Approximate volume of sample ~250 ml
2. Nearest town or city Franklin
3. Others present at collection
4. Number of other samples collected at same time at this point Ø
5. Field collection procedure, handling and/or preservation of this sample per WPC SOP
6. Mode of transportation to lab locked State vehicle
7. Sample sealed by
8. Date sample sealed
9. Remarks
   TOC 22.60 °C
   SP COND 443 µmhos
   DO 8.04 mg/L
   pH 7.72

PH-3013 (rev 11/97)

RDA 1527

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State of Tennessee - Environmental Laboratories

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PRIORITY

Organic Analysis

Volatiles and Petroleum Hydrocarbons

Laboratory Number N00004861.003

PROJECT/SITE NO.	PROJECT NAME Liberty Crk 2006 Complaint
STATION NUMBER HARPE086.8WI	COUNTY 94
DESCRIPTION Harpeth Rr u/s 4th Ave	
STREAM MILE 86.8	DEPTH MATRIX Water
COLLECTED: DATE 8-3-09	TIME 1025
SAMPLER'S NAME(printed) Barbara Loudermilk	
SAMPLING AGENCY TDEC-DWPC-NEFO	BILLING CODE 327.34-20
IF PRIORITY, DATE NEEDED (2wks) August 17, 2009	
SEND REPORT TO: Joey Holland DWPC-NEFO Greg Denton CO-PAS	
CONTACT HAZARD possible	

*	NPDES Volatiles - 624	*	TCL Volatiles - 8260A	*	TCLP Volatiles
	Bromoform		Chloromethane		Benzene
	Bromodichloromethane		Bromomethane		Carbon tetrachloride
	Carbon Tetrachloride		Vinyl chloride		Chlorobenzene
	Chlorobenzene		Chloroethane		Chloroform
	Chloroethane		Methylene chloride		1,2-Dichloroethane
	2-Chloroethylvinyl ether	X	Acetone		1,1-Dichloroethane
	Chloroform		Carbon disulfide		Methyl ethyl ketone
	Chloromethane		1,1-Dichloroethene		Tetrachloroethene
	Dibromochloromethane		1,1-Dichloroethane		Trichloroethene
	1,2-Dichlorobenzene		Cis-1,2-dichloroethene		Vinyl chloride
	1,3-Dichlorobenzene		Trans-1,2-dichloroethene	*	BTEX - 8260A - UST
	1,4-Dichlorobenzene		1,2-Dichloroethane		Benzene
	Dichlorodifluoromethane		Chloroform		Toluene
	1,1-Dichloroethane		2-Butanone		Ethyl benzene
	1,2-Dichloroethane		1,1,1-Trichloroethane		o-Xylene
	1,1-Dichloroethene		Carbon tetrachloride		m-Xylene
	Cis-1,2-dichloroethene		Vinyl acetate		p-Xylene
	Trans-1,2-dichloroethene		Bromodichloromethane		Methyl t-butyl ether
	1,2-Dichloropropane		1,2-Dichloropropane		Diisopropyl ether
	Cis-1,3-dichloropropene		Cis-1,3-dichloropropene	*	TPH by GC
	Trans-1,2-dichloroethene		Trichloroethene		Gasoline Range Organics
	Methylene chloride		Dibromochloromethane		Diesel Range Organics
	1,1,2,2-Tetrachloroethane		1,1,2-Trichloroethane		Oil Range Organics
	Tetrachloroethene		Benzene	*	Other
	1,1,1-Trichloroethane		Trans-1,3-dichloropropene		
	1,1,2-Trichloroethane		Bromoform		
	Trichloroethene		4-Methyl-2-pentanone		
	Trichlorofluoromethane		2-Hexanone		
	Vinyl chloride		Tetrachloroethene		
	Benzene	X	Toluene		
	Ethylbenzene		1,1,2,2-Tetrachloroethane		
	Toluene		Chlorobenzene		
	o-Xylene		Ethyl benzene		
	m-Xylene		Styrene		
	p-Xylene		o-Xylene		
			m-Xylene		
			p-Xylene		

Chain of Custody and Supplemental Information

Only one chain of custody form is required per sample set or point (if all collected at the same time)

1. Collected by Barbara G. Loudermilk
   Date 8-3-09 Time 1025
   Delivered to State Lab
   Date 8-3-09 Time 1123
2. Received by
   Date Time
   Delivered to
   Date Time
3. Received by
   Date Time
   Delivered to
   Date Time
4. Received in Lab by [signature]
   Date 8/3/09 Time 1123
   Logged in by [signature]
   Date 8/3/09 Time 1140

Additional Information

1. Approximate volume of sample ~250mL
2. Nearest town or city Franklin
3. Others present at collection
4. Number of other samples collected at same time at this point Ø
5. Field collection procedure, handling and/or preservation of this sample per WPC SOP
6. Mode of transportation to lab locked State vehicle
7. Sample sealed by
8. Date sample sealed
9. Remarks
   TOC 22.62
   Sp Cond µmhos 502
   DO mg/L 8.13
   pH 7.75

PH-3013 (rev 11/97) RDA 1527

17-Aug '09

PRIORITY

Laboratory Sample C[illegible]rol Log and Manifest

Sample ID Number	Person Delivering Sample	Agency Submitting Sample	Date Sample Collected	Person Receiving Sample	Date Sample Received	REC'D TIME IN LAB	[illegible]ow Sample Transported to	[illegible]ondition of Sample/Cooler(Sealed, Unsealed, Broken,etc
N00004861 001>003	BARBARA LOUDERMILK	WPC/NASHVL. EFO	8/3/09	LEO BARROCIERE	8/3/09	11:23	STATE CAR/ COOLER	SAMPLE UNSEALED/ CONTAINER SEALED

Sample Description and Quantity	Transferring Sample	Name of Lab Sample Transferred To	Name of Courier Transferring Sample	Date/Time Samples Relinquished to Courier	Name of Person Receiving Sample in Lab	Date/Time N Received in Lab	Sample (Sealed, Unsealed, Broken, etc.)	Condition of Cooler (Sealed, Unsealed, Broken, etc.)

Within Laboratory Sample Manifest

Name of Person Requesting Sample for Analysis	Date/Time Sample Relinquished for Analysis	Comments	Name of Person Returning Sample from Analysis	Date/Time Sample Returned from Analysis	; Destroyed	Date/Time Sample Destroyed	Who Destroyed Sample
L. Maderal	8/3/09	VOA	g. guisguis	8/11/09 10:24			