



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

February 22, 2019

CERTIFIED MAIL

Joseph F. Amato, III, Resident Agent
Talbot Properties, LLC
9120 Talbot Avenue
Silver Spring, Maryland 20910

Re: Voluntary Cleanup Program Application
Amato Industries, Inc. / AMCHLOR Facility
9120 Talbot Avenue, Silver Spring, Maryland 20910

Dear Mr. Amato:

The Voluntary Cleanup Program ("VCP") of the Maryland Department of the Environment ("Department") has reviewed the application and supplemental data for the Amato Industries, Inc. located at 9120 Talbot Avenue ("Property"), Silver Spring, Maryland. The Department approves the application, accepts the Property for participation in the program and confirms the status of Talbot Properties, LLC as a responsible person for this Property pursuant to Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland (1996).

Since the Property does not qualify for a No Further Requirements Determination, a proposed response action plan ("RAP") must be developed, approved by the Department, and implemented to address risks to human health and the environment resulting from the detection of volatile organic compounds (VOCs) in the soil, soil gas and indoor air at the Property. Please note that the identification and reduction of the source of VOCs in soil vapor will be required in the area of B-2.

Submission of the proposed RAP and implementation of all statutory requirements must occur within 18 months of receipt of this letter. The guidelines for preparation of the proposed RAP can be found on the Department's website and the statutory requirements can be found in Section 7-508 of the Environment Article. Simultaneously with submission of the proposed RAP to the Department for review and approval, you must comply with the public participation requirements by posting a sign at the Property and publishing a notice in a daily or weekly newspaper of general circulation in the geographic area where the participating property is located. Both notices for the proposed RAP must include the date and location of the public informational meeting.

You are requested to forward a draft of the sign and newspaper notice for the proposed RAP to the VCP for review and approval prior to publication and posting at the Property. Please contact Chris

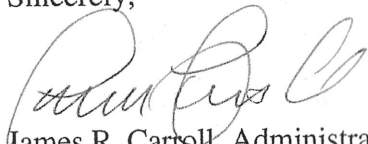
Hartman, the project manager, to discuss development of the proposed RAP and the exact date for submitting the proposed RAP to the Department for review and approval.

Upon satisfactory implementation and completion of the requirements set forth in the approved RAP and any subsequent addendums, the Department will issue a Certificate of Completion for the Property which must be recorded in the land records of Montgomery County within thirty (30) days following receipt.

In accordance with the provisions of Section 7-506(g)(1) of the Environment Article, you are requested to inform the Department in writing, within thirty (30) days of receipt of this letter, whether Talbot Properties, LLC intends to proceed as a participant in the VCP. If the Department does not receive the notice of intent to proceed within the thirty (30) day period, the application for participation in the VCP shall be deemed withdrawn pursuant to Section 7-506(g)(2) of the Environment Article.

If you have any questions regarding the requirements, development of the proposed RAP or other aspects of the program, please contact Mr. Hartman or me at 410-537-3493.

Sincerely,



James R. Carroll, Administrator
Land Restoration Program

JRC:ch

cc: Mr. Bruce E. Clendenin, Clendenin Consulting & Remediation Group
Ms. Kaley Laleker
Mr. Brian Dietz
Ms. Barbara Brown
Mr. Chris Hartman

LEGEND

G-1

Geoprobe Borings

*

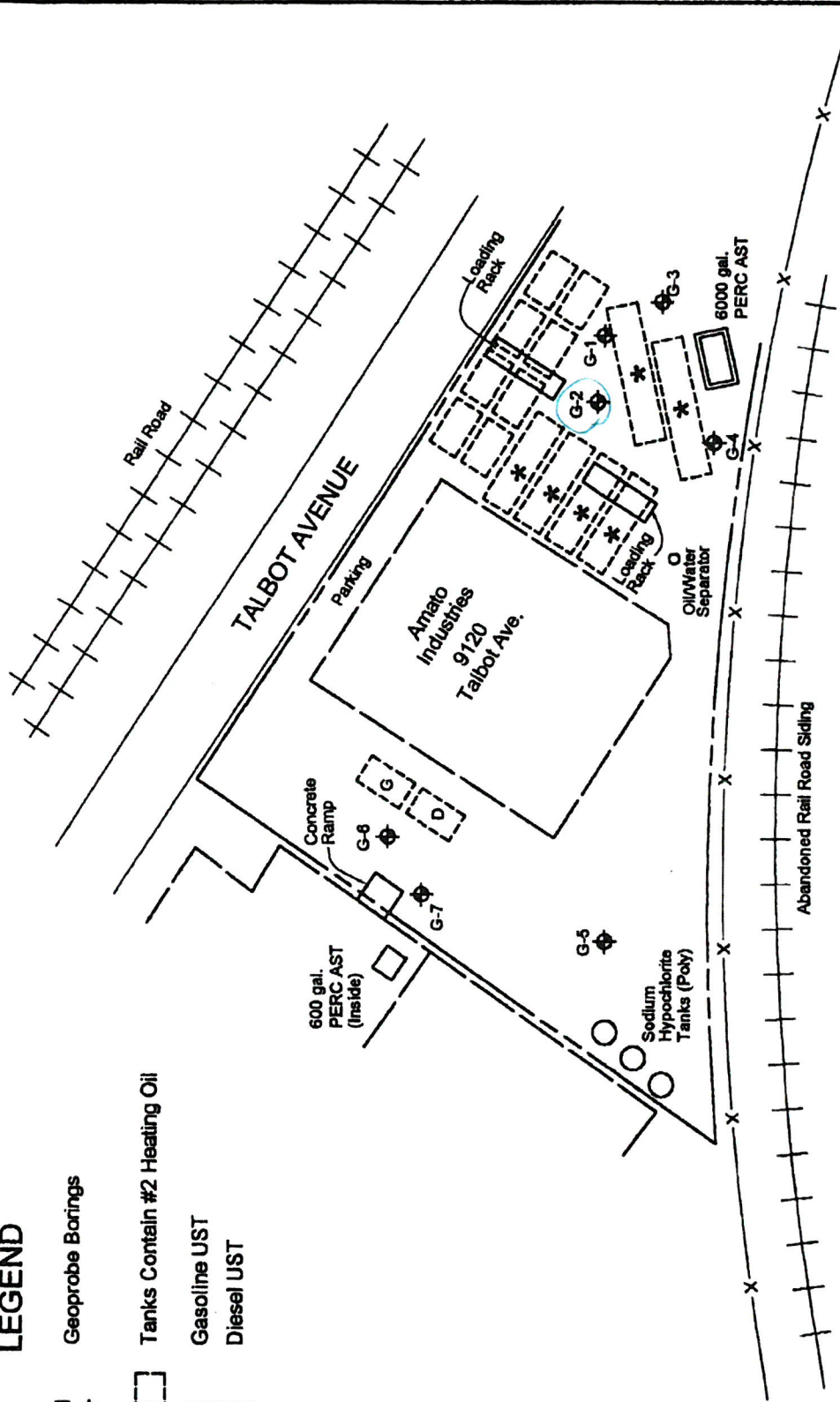
Tanks Contain #2 Heating Oil

G

Gasoline UST

D

Diesel UST



0 10 30 50
SCALE (in feet)

112 E. Del Rey Avenue
Alexandria, VA 22301
703-567-4346 phone
703-548-7893 fax

TOTAL ENVIRONMENTAL CONCEPTS, INC.

SCALE:
1 inch = 50 FEET
TEC#
466.001



DATE:
FEB., 2004
DRAWN BY:
KKM / MPC

Site Map
AMATO INDUSTRIES
9120 Talbot Avenue
Silver Spring, Maryland

FIGURE
NO.
2

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001		Site: Amato Industries		Boring No.: G-1	
City, State: Silver Spring, MD		Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless		Ground Elevation: ~280		Total Depth: 20'	
Sample Type: 2" x 4' Sample Tube		Driller: Sean Flynn		Method: 2" Continuous sampling tube	

Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
--0			P		Asphalt paving	
-0.5			F		Green Silty Sand, FILL, w/gravel, crushed rock, moist	
-2.5			F		Light brown Poorly Graded Sand, FILL, moist	(Likely tank pit fill)
-						
-		0-4'		0		
--5						
-						
-						
-		4-8'		8		
-						
--10						Coarser grained with
-						groundwater below 10'
-		8-12'		100		
-						
14.5			ML	150	Gray/Green SILT, with sand, moist	
--15						
-		12-16'				
-						
-						
-						
--20		16-20'		100	Bottom at 20'	
-						
-						
-						
-						
--25						
-						
-						
-						
-						
--30						

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001			Site: Amato Industries		Boring No.: G-2	
City, State: Silver Spring, MD			Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless			Ground Elevation: ~280		Total Depth: 20'	
Sample Type: 2" x 4' Sample Tube			Driller: Sean Flynn		Method: 2" Continuous sampling tube	
Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
--0			P		Asphalt paving	
-0.5			F		Green Silty Sand, FILL, w/gravel, moist	
-2.2			F		Light brown Poorly Graded Sand, FILL, moist	Sweet/pungent odor
-						between 2 and 4'
-		0-4'		1		
--5						
-						
-						
-		4-8'				
-						
--10			F	75	Brown Sandy Silt, FILL, w/mica, moist	
-						
-		8-12'		65		
-						
-14			ML		Brown Sandy SILT, moist	
--15			ML		Gray Sandy SILT, with quartz fragments, moist	
-		12-16'		171		
-						
-						
-						
--20		16-20'			Bottom at 20'	
-						
-					(Set temporary 1" diameter piezometer with 10' of	
-					PVC screen and 10' of PVC riser casing for water	
-					sampling. Casing and screen removed at end of day	
--25					and hole backfilled, capped at surface.)	
-						
-						
-						
-						
--30						

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001			Site: Amato Industries		Boring No.: G-3	
City, State: Silver Spring, MD			Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless			Ground Elevation: ~280		Total Depth: 20'	
Sample Type: 2" x 4' Sample Tube			Driller: Sean Flynn		Method: 2" Continuous sampling tube	
Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
-0			F		Crushed stone FILL	
-						
-						
-3.0			F		Light brown Poorly Graded Sand, FILL, moist	
-		0-4'				
-5						
-						
-						
-		4-8'				
-						
-10			F	11	Brown Sandy Silt, FILL, moist	
-11			F		Brown Poorly Graded Sand, FILL, wet	Groundwater at 11'
-		8-12'		30		
-						
-						
-15						(Hit tank pad at 14',
-16		12-16'	ML	31	Brown, gray and white Sandy SILT, moist	Offset boring 5 feet
-					(saprolite texture)	east and cont'd to 20')
-						
-						
-20		16-20'		40	Bottom at 20'	
-						
-						
-						
-						
-25						
-						
-						
-						
-						
-30						
-						

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001			Site: Amato Industries		Boring No.: G-4	
City, State: Silver Spring, MD			Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless			Ground Elevation: ~280		Total Depth: 20'	
Sample Type: 2" x 4' Sample Tube			Driller: Sean Flynn		Method: 2" Continuous sampling tube	
Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
--0			P		Asphalt paving	
-0.2			F		Crushed stone FILL	
-2.0			F		Brown Sandy Silt, FILL, some crushed stone frag-	
-					ments, moist	
-		0-4'		10		
--5			F		Brown Silty Sand, FILL, some crushed stone frag-	
-					ments, moist	
-						
-		4-8'		25		
-						
--10				143		
-						Groundwater level at
-		8-12'				11' after Geoprobe
-				130		completion
-14			CL		Brown Sandy Lean CLAY, some quartz fragments,	
--15					moist	
-		12-16'		134		Quartz vein at 16'
-						
-						
-						
--20		16-20'		35	Bottom at 20'	
-						
-					(Set temporary 1" diameter piezometer with 5' of	
-					PVC screen and 10' of PVC riser casing for water	
-					sampling. Casing and screen removed at end of day	
--25					and hole backfilled, capped at surface.)	
-						
-						
-						
-						
--30						

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001			Site: Amato Industries		Boring No.: G-5	
City, State: Silver Spring, MD			Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless			Ground Elevation: ~280		Total Depth: 13'	
Sample Type: 2" x 4' Sample Tube			Driller: Sean Flynn		Method: 2" Continuous sampling tube	
Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
-0			F		Crushed stone FILL	
-						
-						
-3.5			F		Gray Sandy Silt, FILL, moist	
-		0-4'		680		
-5						
-						
-7.5			F		Brown Sandy Silt, FILL, with crushed stone, moist	(Refusal at 7'; offset
-		4-8'		28		hole 8 feet north and
-9.0			F		Brown and gray Silty Sand, FILL, with crushed	cont'd to refusal at 13')
-10					stone, moist	
-						
-		8-12'		242		
-13					Geoprobe Refusal at 13'	
-						
-15						
-						
-						
-						
-						
-20						
-						
-						
-						
-						
-25						
-						
-						
-						
-						
-30						

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001			Site: Amato Industries		Boring No.: G-6	
City, State: Silver Spring, MD			Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless			Ground Elevation: ~280		Total Depth: 20'	
Sample Type: 2" x 4' Sample Tube			Driller: Sean Flynn		Method: 2" Continuous sampling tube	
Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
--0			P		Asphalt paving	
-0.2			F		Crushed stone FILL	
-2.5			F		Gray Silty Sand, FILL, with crushed stone, moist	
-				20		
-		0-4'				
--5						
-				35		
-						Refusal at 7.5'; offset
-8.5		4-8'	F		Brown Silty Sand, FILL, with rock fragments, moist	to west 1 foot, refusal
-						at 3'; offset to SE 5
--10						feet, cont'd to 20'
-						
-		8-12'		55		
-						
-						
--15			SC	3	Gray Clayey SAND, with quartz fragments,	
-		12-16'			very moist	
-						
-						Quartz vein and very
-						moist at 18'; brown
--20		16-20'			Bottom at 20'	below 18.5'
-						
-					(Set temporary 1" diameter piezometer with 5' of	
-					PVC screen and 15' of PVC riser casing for water	
-					sampling. Casing and screen removed at end of day	
--25					and hole backfilled, capped at surface.)	
-						
-						
-						
-						
--30						

TOTAL
ENVIRONMENTAL
CONCEPTS, INC.

GEOPROBE LOG

TEC Job/PC No.: 466.001			Site: Amato Industries		Boring No.: G-7	
City, State: Silver Spring, MD			Client: Sandy Spring Bank		Date Drilled: 2/09/04	
Site Geologist: K. McCandless			Ground Elevation: ~280		Total Depth: 20'	
Sample Type: 2" x 4' Sample Tube			Driller: Sean Flynn		Method: 2" Continuous sampling tube	
Depth (feet)	Blow Count	Sample Interval	USCS	PID (ppm)	Lithologic Description	Comments
--0			P		Asphalt paving (broken up)	
-0.2			F		Crushed stone FILL	
-						
-3.5			F		Brown Silty Sand, FILL, with weathered rock frag-	
-		0-4'			ments, moist	
--5						
-				20		With quartz gravel at
-						6'
-		4-8'		20		
-						
--10				250		
-						With organics below
-		8-12'				11'
-						
-						
--15				80		
-		12-16'				
-				22		Very moist at 17', 20'
-						
-						
--20		16-20'			Bottom at 20'	
-						
-					(Set temporary 1" diameter piezometer with 10' of	
-					PVC screen and 10' of PVC riser casing for water	
-					sampling. Casing and screen removed at end of day	
--25					and hole backfilled, capped at surface.)	
-						
-						
-						
-						
--30						

Chesapeake Environmental Management, Inc.
42 North Main Street
Bel Air, MD 21014

Logged by: N. Chadwick

Driller: J. Holmes

Date: 6/12/2014



Job No.	Client: MTA	Location: Site 136
Drilling Method: Direct Push	Boring No. S136-B1	
Sampling Method: Grab Sample	Sheet No. 1 of 2	
Drilling		
Water Level: 24.8	Start	Finish
Time: 12:50	12:10	12:50
Date: 6/12/2014		

Inches Drwn/In. Recovered	Sample No.	PID ppm	Depth in Feet	USCS Log	Surface Conditions: Asphalt
48/0"	1		1		0-4 in - Concrete
			2		4 in - 4 ft - Rubble fill, no recovery.
			3		
			4		
48/18"	2		5		4 - 7.5 ft - Fill, Asphalt and Sandy SILT.
			6		
			7		
			8	SM	7.5 - 10.5 ft - Fill, Black-green-brown, Silty SAND, loose, trace gravel, moist.
48/20"	S136-B1 (8-12') 6/12/14		9		
			10		
			11	ML	10.5 -15.5 ft - Fill, Red-brown, Sandy SILT, slightly dense, trace asphalt, moist.
			12		
48/6"	4		13		
			14		
			15		
			16	SM	15.5-19 ft - Fill, Red-brown, Silty fine to medium SAND, with concrete fragments slightly dense, moist
48/36"	S136-B1 (16-20') 6/12/14		17		16 ft - No concrete, dense
			18		
			19		
			20	ML	19 - 20 ft. - Fill, Gray, Sandy SILT, with rock fragments, dense, wet.

LEGEND:

bgs - below ground surface
ND - Non-detect
PID - Photo Ionization Detector
USCS - United Soil Classification System
ppm - parts per million

NOTES:

LAB:
S136-B1 (8-12') 1230
S136-B1 (16-20') 1240

USCS Group Symbols:

GW - well graded gravel, fine to coarse gravel
GP - poorly graded gravel
GM - silty gravel
GC - clayey gravel
SW - well graded sand, fine to coarse sand
SP - poorly-graded sand
SM - silty sand
SC - clayey sand
ML - silt with liquid limit < 50%
CL - clay with liquid limit < 50%
OL - organic silt or organic clay with liquid limit <50%
MH - silt of high plasticity, elastic silt, liquid limit >50%
CH - clay of high plasticity, fat clay, liquid limit >50%
OH - organic clay or organic silt with liquid limit >50%
Pt - peat

Date: 6/12/2014



Date:	6/12/2014
-------	-----------

12:10	13:00
-------	-------

Reference:

Inches Drvn./In. Recovered	Sample No.	PID ppm	Depth In Feet	USCS Log	Reference: Surface Conditions: Asphalt
48/36"	6	17.7		ML	20 - 24.2 ft - Residual, Gray-brown, Sandy SILT, dense, moist.
			21		
			22		
			23		
			24		23 ft - Changes to with quartz fragments.
48/47"	7	8.7		SM	24.2 - 27 ft - Residual, Brown-gray, Silty fine to medium SAND, dense, moist.
			25		24.8 ft - Changes to wet.
			26		
			27		
			28	SM	27 - 28 ft - Residual, Gray-white, Silty fine SAND, very dense, moist.
					Boring terminated at 28 ft. due to reaching water table.

LEGEND:

bgs - below ground surface
ND - Non-detect
PID - Photo Ionization Detector
USCS - United Soil Classification System
ppm - parts per million

NOTES:

LAB:
S136-B1 (8-12') 1230
S136-B1 (16-20') 1240

USCS Group Symbols:

<u>Soil Classification Symbols:</u>	
GW -	well graded gravel, fine to coarse gravel
GP -	poorly graded gravel
GM -	silty gravel
GC -	clayey gravel
SW -	well graded sand, fine to coarse sand
SP -	poorly-graded sand
SM -	silty sand
SC -	clayey sand
ML -	silt with liquid limit < 50%
CL -	clay with liquid limit < 50%
OL -	organic silt or organic clay with liquid limit <50%
MH -	silt of high plasticity, elastic silt, liquid limit >50%
CH -	clay of high plasticity, fat clay, liquid limit >50%
OH -	organic clay or organic silt with liquid limit >50%
Pt -	peat

Chesapeake Environmental Management, Inc.
42 North Main Street
Bel Air, MD 21014

Logged by: N. Chadwick

Driller: J. Holmes

Date: 6/12/2014



Job No.	Client: MTA	Location: Site 136
Drilling Method: Direct Push		Boring No. S136-B2
Sampling Method: Grab Sample		Sheet No. 1 of 2
Water Level: 24'		Drilling Start Finish
Time: 11:10		10:10 11:40
Date: 6/12/2014		

Inches Drvn/In. Recovered	Sample No.	PID ppm	Depth in Feet	USCS Log	Surface Conditions: Asphalt	Reference:
48/0"	1		1		0-4 in. Concrete. 4 in - 1.5 ft. void.	
			2		no recovery. Likely rubble fill and gravel. Visual observations below concrete confirm above description. No samples taken.	
			3			
			4			
48/0"	2		5			
			6		Gravel until 7-8 ft. weathered Asphalt fill in lead rod, unable to obtain sample	
			7			
			8			
48/14"	3		9			
			10			
			11	SM	11 - 15 ft - Fill, Brown, Silty SAND with Gravel, loose, very moist.	
			12			
48/40"	4	0.3	13			
		34.1	14		13.5 ft - Wet.	
			15		14 ft - 2 Inch Asphalt Lens	
			16	ML	15 - 22 ft - Fill, Red- brown, Sandy SILT, loose, moist.	
48/36"	S136-B2 (16-20') 6/12/14	42.8	17			
			18		17 ft - 1 inch Asphalt Lens	
			19			
			20		18.5 ft - Gray-white-brown, trace gravel.	

LEGEND:

bgs - below ground surface
ND - Non detect
PID - Photo Ionization Detector
USCS - United Soil Classification System
ppm - parts per million

NOTES:

LAB:
S136-B2 (16-20') 1050
S136-B2-GW (1345)

USCS Group Symbols:

GW - well graded gravel, fine to coarse gravel
GP - poorly graded gravel
GM - silty gravel
GC - clayey gravel
SW - well graded sand, fine to coarse sand
SP - poorly-graded sand
SM - silty sand
SC - clayey sand
ML - silt with liquid limit < 50%
CL - clay with liquid limit < 50%
OL - organic silt or organic clay with liquid limit < 50%
MH - silt of high plasticity, elastic silt, liquid limit > 50%
CH - clay of high plasticity, fat clay, liquid limit > 50%
OH - organic clay or organic silt with liquid limit > 50%
Pt - peat

Job. No.	Client: MTA		Location: Site 136	
Drilling Method: Direct Push			Boring No. S136-B2	
Sampling Method: Grab Sample			Sheet No. 2 of 2	
			Drilling	
Water Level:		24'	Start	Finish
Time:		11:10	10:10	11:40
Date:		6/12/2014		

Inches Drwn/In. Recovered	Sample No.	PID ppm	Depth in Feet	USCS Log	Surface Conditions: Asphalt	Reference:
48/36"	6	24.8	21			
			22			
				GP	22 - 23 ft - Probable fill, Gray- brown, Sandy GRAVEL, trace silt, loose, wet.	
			24	ML	23 - 26 ft - Residual, Gray-green, SILT with clay, trace quartz fragments, dense, moist.	
48/24"	7	11.1	25			
			26			
				SM	26 - 28 ft - Residual, Brown-orange-red, Silty SAND, with rock fragments, dense, wet.	
			28		27 ft - moist	
48/30"	8		29	SM	28 -32 ft- Residual, Brown-orange-red, Silty fine to coarse SAND, dense, moist.	
		0.2				
			30			
			31			
			32		Boring terminated 32 ft after natural soils were confirmed and groundwater interface was reached.	

LEGEND:

bgs - below ground surface
ND - Non-detect
PID - Photo Ionization Detector
USCS - United Soil Classification System
ppm - parts per million

NOTES:

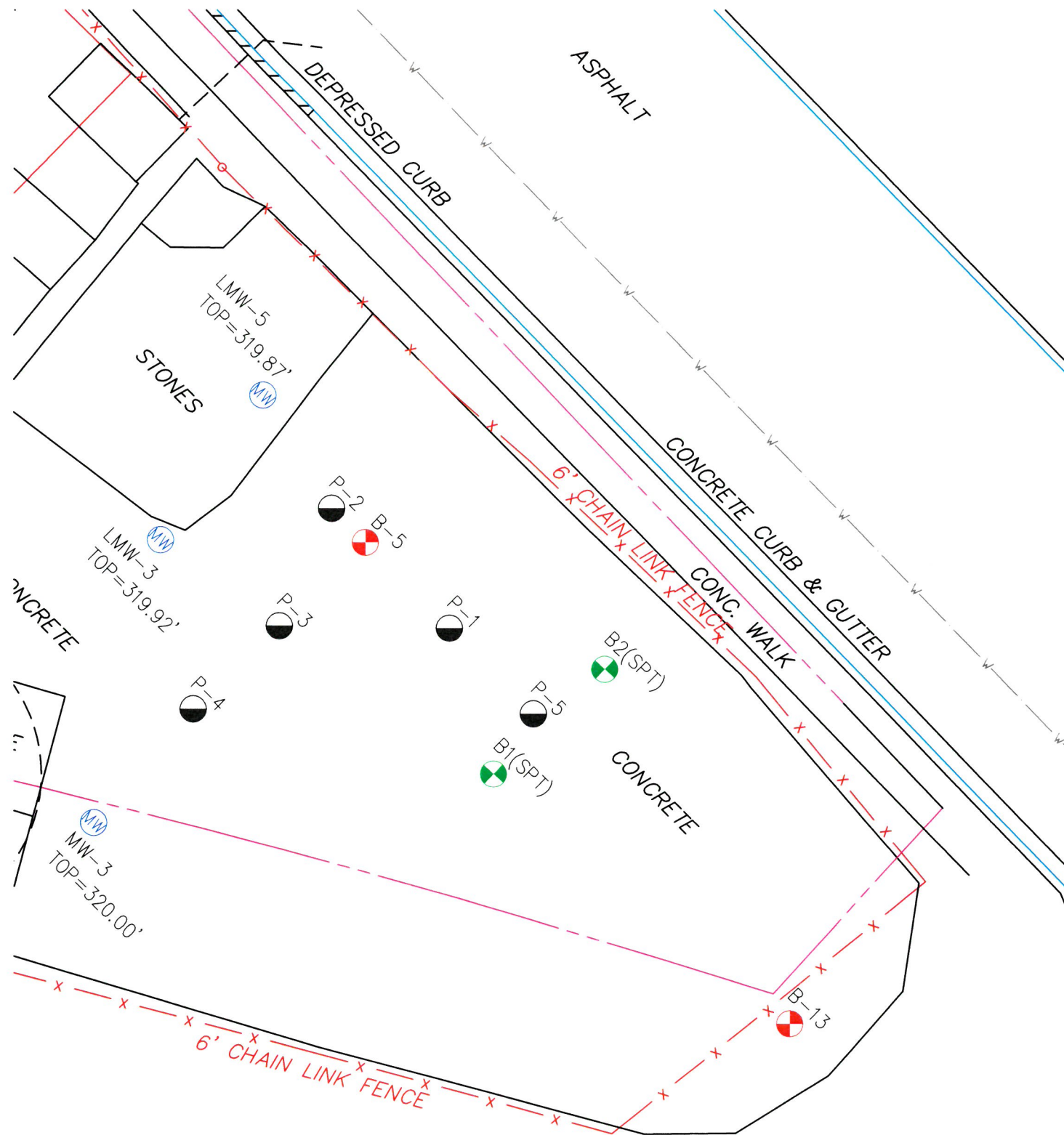
Well Details:

Screen : 27-32 ft.
Measured Depth: 30.0'
Water Level: 15.15'
Turbidity: 9.4 NTU.

USCS Group Symbols:

Gravel Group Symbols:

GW -	well graded gravel, fine to coarse gravel
GP -	poorly graded gravel
GM -	silty gravel
GC -	clayey gravel
SW -	well graded sand, fine to coarse sand
SP -	poorly-graded sand
SM -	silty sand
SC -	clayey sand
ML -	silt with liquid limit < 50%
CL -	clay with liquid limit < 50%
OL -	organic silt or organic clay with liquid limit < 50%
MH -	silt of high plasticity, elastic silt, liquid limit > 50%
CH -	clay of high plasticity, fat clay, liquid limit > 50%
OH -	organic clay or organic silt with liquid limit > 50%
Pt -	peat



Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	Ground Water	ELEV.(ft) LOWEST FLOOR GROUND ± 320	MATERIAL DESCRIPTION	MOISTURE CONTENT %	REMARKS			
							LL	PL	PI	Pass. %200
2.5		25			0-6" concrete 6"-12" gravel Firm dark gray silty SAND (SM) and rock fragments, moist.	5.8				
5.0		3			Soft brown micaceous SILT (ML), some sand and rock fragments, moist					
					FILL	11.8				
7.5		3			Soft to stiff light brown and gray micaceous SILT (ML) moist.					
						28.1				
10.0		5			---same--- mottled gray and orange brown, some rock fragments					
						27.9				
12.5		7								
						31.3				
15.0		4			---same--- mottled red brown and gray					
						36.5				
17.5		5			---same--- red brown and black streaks					
						34.1				
20.0		4			---same---					
						40.7				
22.5										

DEPTH(ft)

TIME (hrs)

DATE

START

0.00 @ 8:50

ON 8/9/19

FINAL

35.00 @ 10:15

ON 8/9/19

WATER

9.00 @ 10:00

ON 6/25/19

WATER

@

ON

CAVED IN

@

ON

LOG OF BORING B-1

Location: See Boring Location Plan

CLENDENIN CONSULTING & REMEDIATION GROUP

18009 - Amato Industries, Loading Rack Geotechnical Investigation

Silver Spring, Maryland

PAGE 1 OF 2

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. (ft) LOWEST FLOOR GROUND ± 320	MATERIAL DESCRIPTION	MOISTURE CONTENT %	REMARKS			
						LL	PL	PI	Pass. %200
25.0		8		---same---	41.2				
30.0		10		----same--- brown, very moist	35.5				
35.0		13		---same--- light brown	38.9				
37.5				Boring terminated at 35 ft.					
40.0				NOTE: Ground water level from nearest monitoring well MW-3.					
42.5									
45.0									

DEPTH(ft)	TIME (hrs)	DATE
START 0.00 @	8:50	ON 8/9/19
FINAL 35.00 @	10:15	ON 8/9/19
WATER 9.00 @	10:00	ON 6/25/19
WATER @		ON
CAVED IN @		ON

LOG OF BORING B-1

Location: See Boring Location Plan

**CLENDENIN CONSULTING
& REMEDIATION GROUP**

18009 - Amato Industries, Loading Rack Geotechnical Investigation
Silver Spring, Maryland

PAGE 2 OF 2

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	Ground Water	ELEV.(ft) LOWEST FLOOR GROUND ± 320	MATERIAL DESCRIPTION	MOISTURE CONTENT %	REMARKS			
							LL	PL	PI	Pass. %200
2.5	9				0-6" concrete 6"-12" gravel Soft to stiff brown micaceous SILT (ML), some sand and rock fragments, glass pieces, moist ----same---- tan brown and gray, very moist	15.5				
5.0	4				FILL Soft to very stiff light brown and gray micaceous SILT (ML) moist.	22.8				
7.5	4					38.0				
10.0	9				---same--- mottled gray and orange brown and gray	24.4				
12.5										
15.0	3				---same--- red brown, very moist ---same--- red brown	44.9				
17.5										
20.0	5				---same--- red brown	48.8				
22.5										

DEPTH(ft)

TIME (hrs)

DATE

START

0.00 @ 10:40

ON 8/9/19

FINAL

35.00 @ 11:40

ON 8/9/19

WATER

9.00 @ 10:00

ON 6/25/19

WATER

@

ON

CAVED IN

@

ON

LOG OF BORING B-2

Location: See Boring Location Plan

CLENDENIN CONSULTING & REMEDIATION GROUP

18009 - Amato Industries, Loading Rack Geotechnical Investigation
Silver Spring, Maryland

PAGE 1 OF 2

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	Ground Water	ELEV.(ft) LOWEST FLOOR GROUND ± 320	MATERIAL DESCRIPTION	MOISTURE CONTENT %	REMARKS			
							LL	PL	PI	Pass. %200
25.0		6			---same--- red brown and black streaks	44.4				
27.5										
30.0		14			----same--- light brown	33.5				
32.5										
35.0		17			---same--- light brown and gray	33.5				
					SOIL 1					
					Boring terminated at 35 ft.					
37.5					NOTE: Ground water level from nearest monitoring well MW-3.					
40.0										
42.5										
45.0										

START	0.00 @ 10:40	ON 8/9/19
FINAL	35.00 @ 11:40	ON 8/9/19
WATER	9.00 @ 10:00	ON 6/25/19
WATER	@	ON
CAVED IN	@	ON

CLENDENIN CONSULTING & REMEDIATION GROUP	18009 - Amato Industries, Loading Rack Geotechnical Investigation Silver Spring, Maryland
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LOG OF BORING B-2

Location: See Boring Location Plan

PAGE 2 OF 2

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Concrete		
				Brown & grey SILT w/ mica, trace sand & gravel	50.4	
5.0				Brown sandy SILT w/ mica & gravel, slightly moist	1.3	
				FILL		
7.5				Brown & grey silty CLAY w/ trace sand, mica & rock frag. very moist	1.2	
10.0				Light tan & light grey clayey SILT w trace mica, moist POSSIBLE FILL		
				E.O.B at 10'		
12.5						
15.0						
17.5						
20.0						
22.5						
DEPTH(ft) TIME (hrs) DATE START 0.0 @ ON 5/2/2019 FINAL 10.0 @ ON 5/2/2019 WATER @ ON WATER @ ON WATER @ ON LOG OF BORING P-1 Location: See Figure						
CLENDENIN CONSULTING & REMEDIATION GROUP				18006 - Amato Industries Characterization Silver Spring, MD		

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Concrete		
5.0				Brown w/ gray clayey SILT w/ sand + mica +some gravel moist	70.4	
7.5				...same w/ gray clay chunks, no gravel, small rock fragments very moist	9.9	
10.0				Dark brown/gray sandy CLAY w/ mica & gravel very moist	4.7	
				POSSIBLE FILL		
12.5				E.O.B at 10'		
15.0						
17.5						
20.0						
22.5						

DEPTH(ft)	TIME (hrs)	DATE	LOG OF BORING P-2 Location: See Figure
START	0.0 @	ON 5/2/2019	
FINAL	10.0 @	ON 5/2/2019	
WATER	@	ON	
WATER	@	ON	
WATER	@	ON	

CLENDENIN CONSULTING & REMEDIATION GROUP	18006 - Amato Industries Characterization Silver Spring, MD
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LOG OF BORING P-2

Location: See Figure

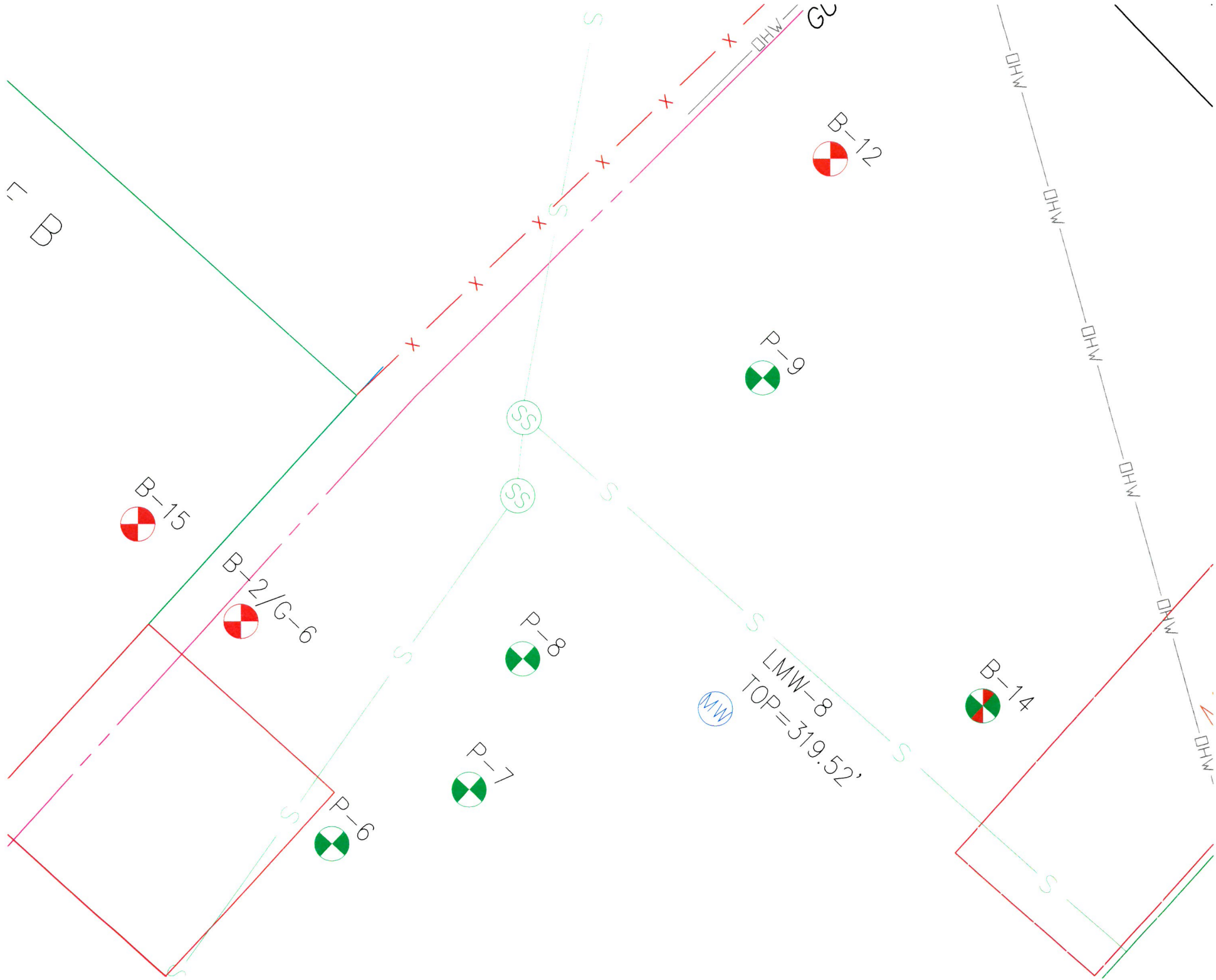
Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Concrete		
5.0				Brown & gray sandy SILT w/ mica & gravel Slightly moist	14.5	
7.5				Dark orange/brown sandy SILT w/ mica Moist	4.9	
10.0				Light tan & gray clayey SILT w/ sand & mica Very moist	0.6	
12.5				POSSIBLE FILL		
15.0				E.O.B at 10'		
17.5						
20.0						
22.5						
DEPTH(ft) TIME (hrs) DATE START 0.0 @ ON 5/2/2019 FINAL 10.0 @ ON 5/2/2019 WATER @ ON WATER @ ON WATER @ ON LOG OF BORING P-3 Location: See Figure						
CLENDENIN CONSULTING & REMEDIATION GROUP				18006 - Amato Industries Characterization Silver Spring, MD		

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV.		MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
			LOWEST FLOOR	GROUND			
2.5					Concrete		
5.0					Red brown to grey brown SILT w/ sand & mica & gravel Slightly moist		
7.5					Light tan & gray clayey SILT w/ trace sand, mica & small quartz frag Very moist	129	
10.0					POSSIBLE FILL	0.6	
12.5					E.O.B at 10'		
15.0							
17.5							
20.0							
22.5							

DEPTH(ft)	TIME (hrs)	DATE	LOG OF BORING P-4 Location: See Figure
START 0.0 @		ON 5/2/2019	
FINAL 10.0 @		ON 5/2/2019	
WATER @		ON	
WATER @		ON	

CLENDENIN CONSULTING & REMEDIATION GROUP	18006 - Amato Industries Characterization Silver Spring, MD
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Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Concrete Dark red/brown & gray silty SAND w/ mica, gravel and quartz frag FILL		
5.0				Orange brown silty SAND w/ mica & rock fragments Slightly moist POSSIBLE FILL	38.7	
7.5				Tan & red/brown sandy SILT w/ clay & mica Very moist	94	
10.0				Light tan & mottled gray clayey SILT w/ trace sand & trace mica Moist POSSIBLE FILL	162.9	
12.5				E.O.B at 10'		
15.0						
17.5						
20.0						
22.5						
DEPTH(ft) TIME (hrs) DATE START 0.0 @ ON 5/2/2019 FINAL 10.0 @ ON 5/2/2019 WATER @ ON WATER @ ON WATER @ ON LOG OF BORING P-5 Location: See Figure						
CLENDENIN CONSULTING & REMEDIATION GROUP				18006 - Amato Industries Characterization Silver Spring, MD		



Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION																																										
2.5				Concrete	1.6																																											
				Dark brown & gray sandy SILT w/ mica, gravel & organics																																												
5.0				FILL	0.1																																											
7.5				... Same w/ less gravel, micaceous SILT + quartz w/ organics slightly moist	0.1																																											
				FILL																																												
10.0				Dark brown, slightly micaceous SAND & asphalt & quartz gravel	0.2																																											
				FILL																																												
				E.O.B at 10'																																												
12.5																																																
15.0																																																
17.5																																																
20.0																																																
22.5																																																
<table> <tr> <td>DEPTH(ft)</td><td>TIME (hrs)</td><td>DATE</td><td colspan="4"></td></tr> <tr> <td>START</td><td>0.0 @</td><td>ON 5/2/2019</td><td colspan="4"></td></tr> <tr> <td>FINAL</td><td>10.0 @</td><td>ON 5/2/2019</td><td colspan="4"></td></tr> <tr> <td>WATER</td><td>@</td><td>ON</td><td colspan="4"></td></tr> <tr> <td>WATER</td><td>@</td><td>ON</td><td colspan="4"></td></tr> <tr> <td>WATER</td><td>@</td><td>ON</td><td colspan="4"></td></tr> </table>							DEPTH(ft)	TIME (hrs)	DATE					START	0.0 @	ON 5/2/2019					FINAL	10.0 @	ON 5/2/2019					WATER	@	ON					WATER	@	ON					WATER	@	ON				
DEPTH(ft)	TIME (hrs)	DATE																																														
START	0.0 @	ON 5/2/2019																																														
FINAL	10.0 @	ON 5/2/2019																																														
WATER	@	ON																																														
WATER	@	ON																																														
WATER	@	ON																																														
			LOG OF BORING P-6																																													
			Location: See Figure																																													
CLENDENIN CONSULTING & REMEDIATION GROUP			18006 - Amato Industries Characterization Silver Spring, MD																																													

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Concrete		
5.0				Dark brown sandy micaceous SILT w/ rock fragments	32.4	
7.5						
10.0				...Same + asphalt, quartz frag, weathered sandstone, gravel	112	
				...Same, small frags of weathered sandstone, no asphalt	23.5	
12.5				E.O.B at 10'		
15.0						
17.5						
20.0						
22.5						

DEPTH(ft) TIME (hrs) DATE				LOG OF BORING P-7 Location: See Figure
START	0.0	@	ON 5/2/2019	
FINAL	10.0	@	ON 5/2/2019	
WATER		@	ON	
WATER		@	ON	
WATER		@	ON	

CLENDENIN CONSULTING & REMEDIATION GROUP	18006 - Amato Industries Characterization Silver Spring, MD
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LOG OF BORING P-7

Location: See Figure

Depth in Feet	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION																																				
2.5			Concrete																																						
5.0			Dark brown gray micaceous SILT w/ sand, quartz gravel & asphalt	FILL 40																																					
7.5			Dark brown, gray clayey micaceous SILT, org. debris & some rock frag. Moist	5.2																																					
10.0			...same w/ sand & some gravel Moist	FILL 122.6																																					
12.5			E.O.B at 10'																																						
15.0																																									
17.5																																									
20.0																																									
22.5																																									
<table> <tr> <td>DEPTH(ft)</td><td>TIME (hrs)</td><td>DATE</td><td colspan="3"></td></tr> <tr> <td>START</td><td>0.0 @</td><td>ON 5/2/2019</td><td colspan="3"></td></tr> <tr> <td>FINAL</td><td>10.0 @</td><td>ON 5/2/2019</td><td colspan="3"></td></tr> <tr> <td>WATER</td><td>@</td><td>ON</td><td colspan="3"></td></tr> <tr> <td>WATER</td><td>@</td><td>ON</td><td colspan="3"></td></tr> <tr> <td>WATER</td><td>@</td><td>ON</td><td colspan="3"></td></tr> </table>						DEPTH(ft)	TIME (hrs)	DATE				START	0.0 @	ON 5/2/2019				FINAL	10.0 @	ON 5/2/2019				WATER	@	ON				WATER	@	ON				WATER	@	ON			
DEPTH(ft)	TIME (hrs)	DATE																																							
START	0.0 @	ON 5/2/2019																																							
FINAL	10.0 @	ON 5/2/2019																																							
WATER	@	ON																																							
WATER	@	ON																																							
WATER	@	ON																																							
CLENDENIN CONSULTING & REMEDIATION GROUP			18006 - Amato Industries Characterization Silver Spring, MD																																						

LOG OF BORING P-8

Location: See Figure

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Concrete/gravel		
				Dark brown SAND with rock fragments	77.3	
				...same, micaceous	FILL	
5.0					239.4	
7.5				...Same		
				Moist	FILL	
10.0				E.O.B at 10'	10.1	
12.5						
15.0						
17.5						
20.0						
22.5						
DEPTH(ft) TIME (hrs) DATE START 0.0 @ ON 5/2/2019 FINAL 10.0 @ ON 5/2/2019 WATER @ ON WATER @ ON WATER @ ON LOG OF BORING P-9 Location: See Figure						
CLENDENIN CONSULTING & REMEDIATION GROUP		18006 - Amato Industries Characterization Silver Spring, MD				

Depth in Feet	Sample Recovery	N VALUE (blows/ 12 in.)	ELEV. LOWEST FLOOR GROUND	MATERIAL DESCRIPTION	PID READING	MONITORING WELL CONSTRUCTION
2.5				Brown/gray clayey micaceous SILT w/sand & quartz frag Petroleum odor Moist	389	
				FILL		
5.0				...same	487	
				E.O.B at 5'		
7.5						
10.0						
12.5						
15.0						
17.5						
20.0						
22.5						

DEPTH(ft)	TIME (hrs)	DATE	
START 0.0	@	ON 5/2/2019	
FINAL 10.0	@	ON 5/2/2019	
WATER	@	ON	
WATER	@	ON	
WATER	@	ON	

LOG OF BORING B-14

Location: See Figure

CLENDENIN CONSULTING & REMEDIATION GROUP	18006 - Amato Industries Characterization Silver Spring, MD
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CCRG

Clendenin Consulting & Remediation Group



Edwards Ferry Road
Leesburg, Virginia 20176

TEL: 703/771-8816

DAILY FIELD REPORT

Project No.: 18006

Date: 11/22/19

Project Name: Amato Industries

Start Work: 6:00 AM End Work: 6:00 PM

Total Time: 12 Hrs.

Permit No.: N/A

Client: Joe Amato

Contractor:

Client's Representative: Brian St. Clair Contractor's Supt.:

Visitors (Name & Firm): Dan Fluhart (Fluhart Mechanical), Utilities Search

Weather (AM & PM): clear, cold

Temp.: 40s F

WORK PERFORMED BY CONTRACTOR (Each item show type, location & quantity):

- Arrived at Amato Industries to meet with Utility Search to check the Amato warehouse for any lines now that the area is cleared for sealing. Looked at the caulk job completed earlier in the week and saw some cracks through the floor which were not sealed, and the caulk along the wall in some areas had settled into the cracks already. Brian spoke about bringing the contractor back to touch everything up or doing the work themselves. The utility surveyor could not locate anything in the warehouse. All lines come through the walls and go up or are located only in the offices. Brian did say that conduit runs under the slab to the power box in the corner but has no wire. This is to run wire through in case they want to in the future.
- Set up 2 ambient air canisters in the two sampling locations in the office section (See Figure). A 6-liter SUMMA canister was placed in each of the two locations, they were opened up in the morning and left to sit over several hours. They were monitored every hour to check progress. They are designed to fill for a period of 8 hours. See details below:
- A-14:** Fill time from 8:00am-3:35pm; initial pressure at 28.5Hg; final at 7Hg
- A-15:** Fill time from 8:04am-3:38pm; initial pressure at 30Hg; final at 9Hg
- Sub-slab vapor samples were collected from each of the 4 vapor points in the warehouse. Each boring location was sampled with a 1-liter SUMMA canister. The vapor implants were purged using a syringe before sampling. See details below:
- B-7:** 8 minute fill time; initial pressure at 26Hg; final at 2Hg
- B-8:** 8 minute fill time; initial pressure at 25.5Hg; final at 2Hg
- B-9:** 7 minute fill time; initial pressure at 26.5Hg; final at 1.5Hg
- B-10:** 8 minute fill time; initial pressure at 26.5Hg; final at 1.5Hg
- Dan Fluhart of Fluhart Mechanical arrived to close out his work on installation of the HVAC modifications. He showed me and Brian how it worked. An electronic dial and be turned to adjust the CFM of the fan, the fan by itself runs high CFM so a dampener was installed. The same dial also automatically changes the dampener, and Fluhart had to adjust the dial and measure the flow with a device to determine what CFM corresponds to which dial setting. The CFM levels are written down on the unit for anyone to adjust.
- Re-bagged and sealed each vapor tubing after the sampling. Closed all the 6-liter canisters securely after each had run for 8 hours. Left site around 4:00pm to return to Leesburg. The canisters were packaged up and mailed to the lab the following Monday.

Report By: JWM

Reviewed By:

Date:

Site Copy Received By: _____

Company: _____

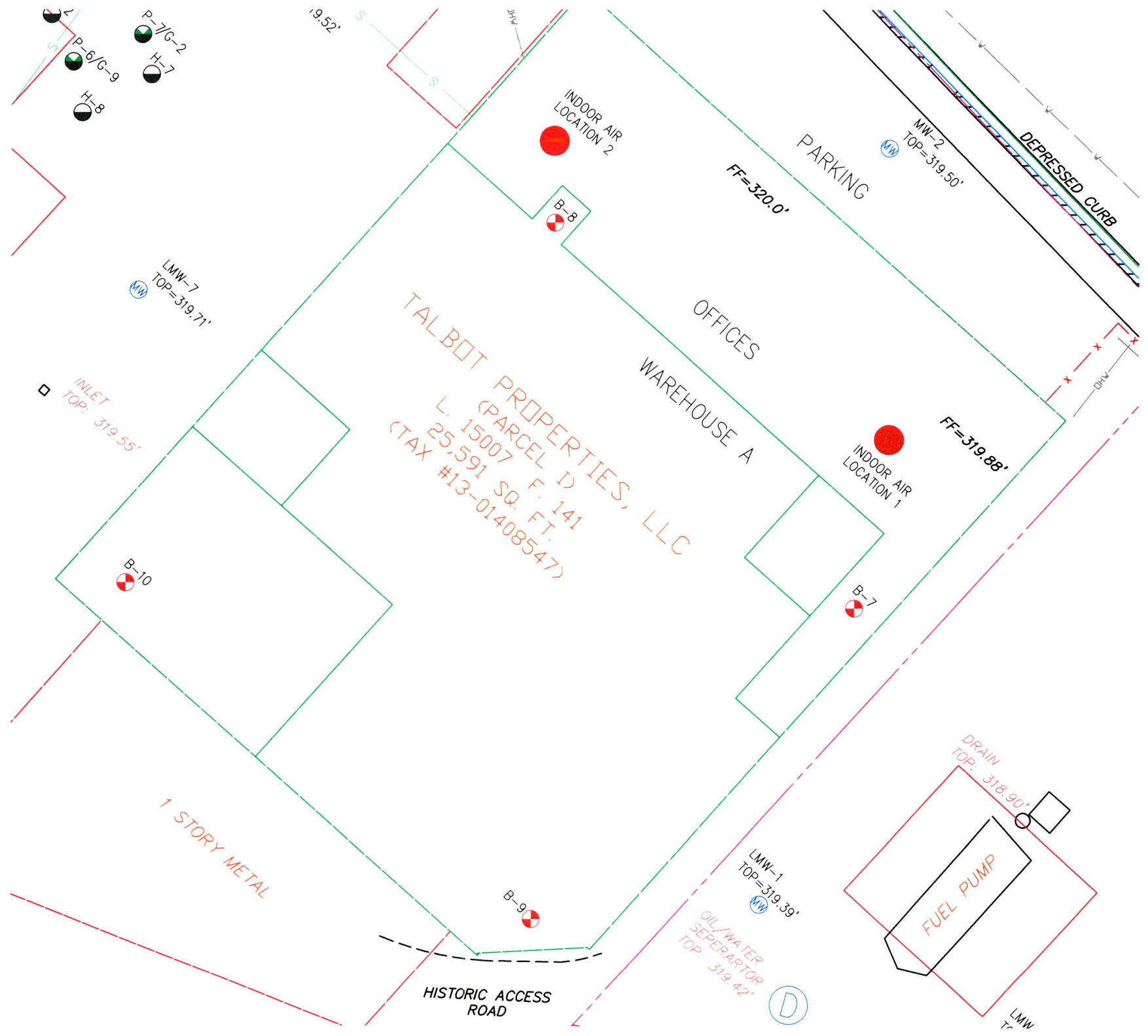
Attachments: x Sketch

x Photo

Data Sheet

Other:

Report No.: 28



TALBOT PROPERTIES, LLC
(PARCEL ID)
L. 15007 F. 141
25,591 SQ. FT.
(TAX #13-01408547)

PARKING

OFFICES

WAREHOUSE A

1 STORY METAL

HISTORIC ACCESS ROAD

FUEL PUMP

INDOOR AIR LOCATION 2

INDOOR AIR LOCATION 1

LMW-7
TOP=319.71'

MW-2
TOP=319.50'

LMW-1
TOP=319.39'

OIL/WATER SEPARATOR
TOP=319.42'

FF=319.88'

FF=320.0'

INLET
TOP: 319.55'

P-7/G-2
H-7
P-6/G-9
H-8

DEPRESSED CURB

12/11/2019

Mr. Winthrop McCormack
Clendenin Consulting & Remediation Group
116-C2 Edwards Ferry Road

Leesburg VA 20176

Project Name: Amato Industries

Project #: 18006

Workorder #: 1911651A

Dear Mr. Winthrop McCormack

The following report includes the data for the above referenced project for sample(s) received on 11/26/2019 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

WORK ORDER #: 1911651A

Work Order Summary

CLIENT:	Mr. Winthrop McCormack Clendenin Consulting & Remediation Group 116-C2 Edwards Ferry Road Leesburg, VA 20176	BILL TO:	Ms. Samantha Kirk Clendenin Consulting & Remediation Group 116-C2 Edwards Ferry Road Leesburg, VA 20176
PHONE:	703-771-8816	P.O. #	
FAX:	703-771-8825	PROJECT #	18006 Amato Industries
DATE RECEIVED:	11/26/2019	CONTACT:	Ausha Scott
DATE COMPLETED:	12/11/2019		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	B-7	Modified TO-15	2.0 "Hg	15 psi
02A	B-8	Modified TO-15	3.0 "Hg	15 psi
03A	B-9	Modified TO-15	2.0 "Hg	15 psi
04A	B-10	Modified TO-15	2.0 "Hg	15 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
05C	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
06C	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA
07C	LCS	Modified TO-15	NA	NA
07CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 12/11/19

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15
Clendenin Consulting & Remediation Group
Workorder# 1911651A

Four 1 Liter Summa Canister (100% Certified) samples were received on November 26, 2019. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	TO-15	ATL Modifications
Initial Calibration	<=30% RSD with 2 compounds allowed out to < 40% RSD	<=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Samples B-7, B-9 and B-10 were transferred from Low Level analysis to full scan TO-15 due to high levels of target compounds.

Dilution was performed on all samples due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B-7

Lab ID#: 1911651A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	8.6	13	34	52
1,1,1-Trichloroethane	8.6	10	47	58
Trichloroethene	8.6	92	46	490
Tetrachloroethene	8.6	2000	59	13000

Client Sample ID: B-8

Lab ID#: 1911651A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	2.2	11	17	84
Tetrahydrofuran	11	27	33	80
1,1,1-Trichloroethane	2.2	8.0	12	44
Trichloroethene	2.2	220	12	1200
Tetrachloroethene	2.2	430	15	2900
m,p-Xylene	2.2	10	9.7	45

Client Sample ID: B-9

Lab ID#: 1911651A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,2-Dichloroethene	27	44	110	180
cis-1,2-Dichloroethene	27	3000	110	12000
Chloroform	27	60	130	290
1,1,1-Trichloroethane	27	170	150	930
Trichloroethene	27	8400	140	45000
Tetrachloroethene	27	45000	180	300000

Client Sample ID: B-10

Lab ID#: 1911651A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
trans-1,2-Dichloroethene	11	32	43	130

Summary of Detected Compounds EPA METHOD TO-15 GC/MS

Client Sample ID: B-10

Lab ID#: 1911651A-04A

1,1-Dichloroethane	11	12	44	48
cis-1,2-Dichloroethene	11	820	43	3200
Trichloroethene	11	1100	58	6100
Tetrachloroethene	11	13000	73	90000

Client Sample ID: B-7

Lab ID#: 1911651A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120621	Date of Collection: 11/22/19 9:06:00 AM
Dil. Factor:	17.3	Date of Analysis: 12/6/19 11:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	8.6	Not Detected	43	Not Detected
Freon 114	8.6	Not Detected	60	Not Detected
Chloromethane	86	Not Detected	180	Not Detected
Vinyl Chloride	8.6	Not Detected	22	Not Detected
1,3-Butadiene	8.6	Not Detected	19	Not Detected
Bromomethane	86	Not Detected	340	Not Detected
Chloroethane	35	Not Detected	91	Not Detected
Freon 11	8.6	Not Detected	49	Not Detected
Ethanol	35	Not Detected	65	Not Detected
Freon 113	8.6	Not Detected	66	Not Detected
1,1-Dichloroethene	8.6	Not Detected	34	Not Detected
Acetone	86	Not Detected	200	Not Detected
2-Propanol	35	Not Detected	85	Not Detected
Carbon Disulfide	35	Not Detected	110	Not Detected
3-Chloropropene	35	Not Detected	110	Not Detected
Methylene Chloride	86	Not Detected	300	Not Detected
Methyl tert-butyl ether	35	Not Detected	120	Not Detected
trans-1,2-Dichloroethene	8.6	Not Detected	34	Not Detected
Hexane	8.6	Not Detected	30	Not Detected
1,1-Dichloroethane	8.6	Not Detected	35	Not Detected
2-Butanone (Methyl Ethyl Ketone)	35	Not Detected	100	Not Detected
cis-1,2-Dichloroethene	8.6	13	34	52
Tetrahydrofuran	8.6	Not Detected	26	Not Detected
Chloroform	8.6	Not Detected	42	Not Detected
1,1,1-Trichloroethane	8.6	10	47	58
Cyclohexane	8.6	Not Detected	30	Not Detected
Carbon Tetrachloride	8.6	Not Detected	54	Not Detected
2,2,4-Trimethylpentane	8.6	Not Detected	40	Not Detected
Benzene	8.6	Not Detected	28	Not Detected
1,2-Dichloroethane	8.6	Not Detected	35	Not Detected
Heptane	8.6	Not Detected	35	Not Detected
Trichloroethene	8.6	92	46	490
1,2-Dichloropropane	8.6	Not Detected	40	Not Detected
1,4-Dioxane	35	Not Detected	120	Not Detected
Bromodichloromethane	8.6	Not Detected	58	Not Detected
cis-1,3-Dichloropropene	8.6	Not Detected	39	Not Detected
4-Methyl-2-pentanone	8.6	Not Detected	35	Not Detected
Toluene	8.6	Not Detected	32	Not Detected
trans-1,3-Dichloropropene	8.6	Not Detected	39	Not Detected
1,1,2-Trichloroethane	8.6	Not Detected	47	Not Detected
Tetrachloroethene	8.6	2000	59	13000
2-Hexanone	35	Not Detected	140	Not Detected

Client Sample ID: B-7

Lab ID#: 1911651A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120621	Date of Collection:	11/22/19 9:06:00 AM
Dil. Factor:	17.3	Date of Analysis:	12/6/19 11:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	8.6	Not Detected	74	Not Detected
1,2-Dibromoethane (EDB)	8.6	Not Detected	66	Not Detected
Chlorobenzene	8.6	Not Detected	40	Not Detected
Ethyl Benzene	8.6	Not Detected	38	Not Detected
m,p-Xylene	8.6	Not Detected	38	Not Detected
o-Xylene	8.6	Not Detected	38	Not Detected
Styrene	8.6	Not Detected	37	Not Detected
Bromoform	8.6	Not Detected	89	Not Detected
Cumene	8.6	Not Detected	42	Not Detected
1,1,2,2-Tetrachloroethane	8.6	Not Detected	59	Not Detected
Propylbenzene	8.6	Not Detected	42	Not Detected
4-Ethyltoluene	8.6	Not Detected	42	Not Detected
1,3,5-Trimethylbenzene	8.6	Not Detected	42	Not Detected
1,2,4-Trimethylbenzene	8.6	Not Detected	42	Not Detected
1,3-Dichlorobenzene	8.6	Not Detected	52	Not Detected
1,4-Dichlorobenzene	8.6	Not Detected	52	Not Detected
alpha-Chlorotoluene	8.6	Not Detected	45	Not Detected
1,2-Dichlorobenzene	8.6	Not Detected	52	Not Detected
1,2,4-Trichlorobenzene	35	Not Detected	260	Not Detected
Hexachlorobutadiene	35	Not Detected	370	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: B-8

Lab ID#: 1911651A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120324	Date of Collection:	11/22/19 9:39:00 AM
Dil. Factor:	22.4	Date of Analysis:	12/4/19 07:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	11	Not Detected	55	Not Detected
Freon 114	2.2	Not Detected	16	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	2.2	Not Detected	5.7	Not Detected
1,3-Butadiene	2.2	Not Detected	5.0	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	11	Not Detected	30	Not Detected
Freon 11	2.2	Not Detected	12	Not Detected
Ethanol	11	Not Detected	21	Not Detected
Freon 113	2.2	11	17	84
1,1-Dichloroethene	2.2	Not Detected	8.9	Not Detected
Acetone	22	Not Detected	53	Not Detected
2-Propanol	11	Not Detected	28	Not Detected
Carbon Disulfide	11	Not Detected	35	Not Detected
3-Chloropropene	11	Not Detected	35	Not Detected
Methylene Chloride	4.5	Not Detected	16	Not Detected
Methyl tert-butyl ether	2.2	Not Detected	8.1	Not Detected
trans-1,2-Dichloroethene	2.2	Not Detected	8.9	Not Detected
Hexane	11	Not Detected	39	Not Detected
1,1-Dichloroethane	2.2	Not Detected	9.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	11	Not Detected	33	Not Detected
cis-1,2-Dichloroethene	2.2	Not Detected	8.9	Not Detected
Tetrahydrofuran	11	27	33	80
Chloroform	2.2	Not Detected	11	Not Detected
1,1,1-Trichloroethane	2.2	8.0	12	44
Cyclohexane	2.2	Not Detected	7.7	Not Detected
Carbon Tetrachloride	2.2	Not Detected	14	Not Detected
2,2,4-Trimethylpentane	11	Not Detected	52	Not Detected
Benzene	2.2	Not Detected	7.2	Not Detected
1,2-Dichloroethane	2.2	Not Detected	9.1	Not Detected
Heptane	11	Not Detected	46	Not Detected
Trichloroethene	2.2	220	12	1200
1,2-Dichloropropane	2.2	Not Detected	10	Not Detected
1,4-Dioxane	2.2	Not Detected	8.1	Not Detected
Bromodichloromethane	2.2	Not Detected	15	Not Detected
cis-1,3-Dichloropropene	2.2	Not Detected	10	Not Detected
4-Methyl-2-pentanone	2.2	Not Detected	9.2	Not Detected
Toluene	2.2	Not Detected	8.4	Not Detected
trans-1,3-Dichloropropene	2.2	Not Detected	10	Not Detected
1,1,2-Trichloroethane	2.2	Not Detected	12	Not Detected
Tetrachloroethene	2.2	430	15	2900
2-Hexanone	11	Not Detected	46	Not Detected

Client Sample ID: B-8

Lab ID#: 1911651A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120324	Date of Collection: 11/22/19 9:39:00 AM
Dil. Factor:	22.4	Date of Analysis: 12/4/19 07:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	2.2	Not Detected	19	Not Detected
1,2-Dibromoethane (EDB)	2.2	Not Detected	17	Not Detected
Chlorobenzene	2.2	Not Detected	10	Not Detected
Ethyl Benzene	2.2	Not Detected	9.7	Not Detected
m,p-Xylene	2.2	10	9.7	45
o-Xylene	2.2	Not Detected	9.7	Not Detected
Styrene	2.2	Not Detected	9.5	Not Detected
Bromoform	2.2	Not Detected	23	Not Detected
Cumene	2.2	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	2.2	Not Detected	15	Not Detected
Propylbenzene	2.2	Not Detected	11	Not Detected
4-Ethyltoluene	2.2	Not Detected	11	Not Detected
1,3,5-Trimethylbenzene	2.2	Not Detected	11	Not Detected
1,2,4-Trimethylbenzene	2.2	Not Detected	11	Not Detected
1,3-Dichlorobenzene	2.2	Not Detected	13	Not Detected
1,4-Dichlorobenzene	2.2	Not Detected	13	Not Detected
alpha-Chlorotoluene	2.2	Not Detected	12	Not Detected
1,2-Dichlorobenzene	2.2	Not Detected	13	Not Detected
1,2,4-Trichlorobenzene	11	Not Detected	83	Not Detected
Hexachlorobutadiene	11	Not Detected	120	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: B-9

Lab ID#: 1911651A-03A

EPA METHOD TO-15 GC/MS

File Name:	14120932	Date of Collection:	11/22/19 10:06:00 A
Dil. Factor:	5.40	Date of Analysis:	12/9/19 10:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	27	Not Detected	130	Not Detected
Freon 114	27	Not Detected	190	Not Detected
Chloromethane	110	Not Detected	220	Not Detected
Vinyl Chloride	27	Not Detected	69	Not Detected
1,3-Butadiene	27	Not Detected	60	Not Detected
Bromomethane	110	Not Detected	420	Not Detected
Chloroethane	110	Not Detected	280	Not Detected
Freon 11	27	Not Detected	150	Not Detected
Ethanol	110	Not Detected	200	Not Detected
Freon 113	27	Not Detected	210	Not Detected
1,1-Dichloroethene	27	Not Detected	110	Not Detected
Acetone	110	Not Detected	260	Not Detected
2-Propanol	110	Not Detected	260	Not Detected
Carbon Disulfide	110	Not Detected	340	Not Detected
3-Chloropropene	110	Not Detected	340	Not Detected
Methylene Chloride	110	Not Detected	380	Not Detected
Methyl tert-butyl ether	27	Not Detected	97	Not Detected
trans-1,2-Dichloroethene	27	44	110	180
Hexane	27	Not Detected	95	Not Detected
1,1-Dichloroethane	27	Not Detected	110	Not Detected
2-Butanone (Methyl Ethyl Ketone)	110	Not Detected	320	Not Detected
cis-1,2-Dichloroethene	27	3000	110	12000
Tetrahydrofuran	27	Not Detected	80	Not Detected
Chloroform	27	60	130	290
1,1,1-Trichloroethane	27	170	150	930
Cyclohexane	27	Not Detected	93	Not Detected
Carbon Tetrachloride	27	Not Detected	170	Not Detected
2,2,4-Trimethylpentane	27	Not Detected	130	Not Detected
Benzene	27	Not Detected	86	Not Detected
1,2-Dichloroethane	27	Not Detected	110	Not Detected
Heptane	27	Not Detected	110	Not Detected
Trichloroethene	27	8400	140	45000
1,2-Dichloropropane	27	Not Detected	120	Not Detected
1,4-Dioxane	110	Not Detected	390	Not Detected
Bromodichloromethane	27	Not Detected	180	Not Detected
cis-1,3-Dichloropropene	27	Not Detected	120	Not Detected
4-Methyl-2-pentanone	27	Not Detected	110	Not Detected
Toluene	27	Not Detected	100	Not Detected
trans-1,3-Dichloropropene	27	Not Detected	120	Not Detected
1,1,2-Trichloroethane	27	Not Detected	150	Not Detected
Tetrachloroethene	27	45000	180	300000
2-Hexanone	110	Not Detected	440	Not Detected

Client Sample ID: B-9

Lab ID#: 1911651A-03A

EPA METHOD TO-15 GC/MS

File Name:	14120932	Date of Collection: 11/22/19 10:06:00 A
Dil. Factor:	5.40	Date of Analysis: 12/9/19 10:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	27	Not Detected	230	Not Detected
1,2-Dibromoethane (EDB)	27	Not Detected	210	Not Detected
Chlorobenzene	27	Not Detected	120	Not Detected
Ethyl Benzene	27	Not Detected	120	Not Detected
m,p-Xylene	27	Not Detected	120	Not Detected
o-Xylene	27	Not Detected	120	Not Detected
Styrene	27	Not Detected	120	Not Detected
Bromoform	27	Not Detected	280	Not Detected
Cumene	27	Not Detected	130	Not Detected
1,1,2,2-Tetrachloroethane	27	Not Detected	180	Not Detected
Propylbenzene	27	Not Detected	130	Not Detected
4-Ethyltoluene	27	Not Detected	130	Not Detected
1,3,5-Trimethylbenzene	27	Not Detected	130	Not Detected
1,2,4-Trimethylbenzene	27	Not Detected	130	Not Detected
1,3-Dichlorobenzene	27	Not Detected	160	Not Detected
1,4-Dichlorobenzene	27	Not Detected	160	Not Detected
alpha-Chlorotoluene	27	Not Detected	140	Not Detected
1,2-Dichlorobenzene	27	Not Detected	160	Not Detected
1,2,4-Trichlorobenzene	110	Not Detected	800	Not Detected
Hexachlorobutadiene	110	Not Detected	1200	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: B-10

Lab ID#: 1911651A-04A

EPA METHOD TO-15 GC/MS

File Name:	14120931	Date of Collection: 11/22/19 10:31:00 A
Dil. Factor:	2.16	Date of Analysis: 12/9/19 09:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	11	Not Detected	53	Not Detected
Freon 114	11	Not Detected	76	Not Detected
Chloromethane	43	Not Detected	89	Not Detected
Vinyl Chloride	11	Not Detected	28	Not Detected
1,3-Butadiene	11	Not Detected	24	Not Detected
Bromomethane	43	Not Detected	170	Not Detected
Chloroethane	43	Not Detected	110	Not Detected
Freon 11	11	Not Detected	61	Not Detected
Ethanol	43	Not Detected	81	Not Detected
Freon 113	11	Not Detected	83	Not Detected
1,1-Dichloroethene	11	Not Detected	43	Not Detected
Acetone	43	Not Detected	100	Not Detected
2-Propanol	43	Not Detected	110	Not Detected
Carbon Disulfide	43	Not Detected	130	Not Detected
3-Chloropropene	43	Not Detected	140	Not Detected
Methylene Chloride	43	Not Detected	150	Not Detected
Methyl tert-butyl ether	11	Not Detected	39	Not Detected
trans-1,2-Dichloroethene	11	32	43	130
Hexane	11	Not Detected	38	Not Detected
1,1-Dichloroethane	11	12	44	48
2-Butanone (Methyl Ethyl Ketone)	43	Not Detected	130	Not Detected
cis-1,2-Dichloroethene	11	820	43	3200
Tetrahydrofuran	11	Not Detected	32	Not Detected
Chloroform	11	Not Detected	53	Not Detected
1,1,1-Trichloroethane	11	Not Detected	59	Not Detected
Cyclohexane	11	Not Detected	37	Not Detected
Carbon Tetrachloride	11	Not Detected	68	Not Detected
2,2,4-Trimethylpentane	11	Not Detected	50	Not Detected
Benzene	11	Not Detected	34	Not Detected
1,2-Dichloroethane	11	Not Detected	44	Not Detected
Heptane	11	Not Detected	44	Not Detected
Trichloroethene	11	1100	58	6100
1,2-Dichloropropane	11	Not Detected	50	Not Detected
1,4-Dioxane	43	Not Detected	160	Not Detected
Bromodichloromethane	11	Not Detected	72	Not Detected
cis-1,3-Dichloropropene	11	Not Detected	49	Not Detected
4-Methyl-2-pentanone	11	Not Detected	44	Not Detected
Toluene	11	Not Detected	41	Not Detected
trans-1,3-Dichloropropene	11	Not Detected	49	Not Detected
1,1,2-Trichloroethane	11	Not Detected	59	Not Detected
Tetrachloroethene	11	13000	73	90000
2-Hexanone	43	Not Detected	180	Not Detected

Client Sample ID: B-10

Lab ID#: 1911651A-04A

EPA METHOD TO-15 GC/MS

File Name:	14120931	Date of Collection: 11/22/19 10:31:00 A
Dil. Factor:	2.16	Date of Analysis: 12/9/19 09:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	11	Not Detected	92	Not Detected
1,2-Dibromoethane (EDB)	11	Not Detected	83	Not Detected
Chlorobenzene	11	Not Detected	50	Not Detected
Ethyl Benzene	11	Not Detected	47	Not Detected
m,p-Xylene	11	Not Detected	47	Not Detected
o-Xylene	11	Not Detected	47	Not Detected
Styrene	11	Not Detected	46	Not Detected
Bromoform	11	Not Detected	110	Not Detected
Cumene	11	Not Detected	53	Not Detected
1,1,2,2-Tetrachloroethane	11	Not Detected	74	Not Detected
Propylbenzene	11	Not Detected	53	Not Detected
4-Ethyltoluene	11	Not Detected	53	Not Detected
1,3,5-Trimethylbenzene	11	Not Detected	53	Not Detected
1,2,4-Trimethylbenzene	11	Not Detected	53	Not Detected
1,3-Dichlorobenzene	11	Not Detected	65	Not Detected
1,4-Dichlorobenzene	11	Not Detected	65	Not Detected
alpha-Chlorotoluene	11	Not Detected	56	Not Detected
1,2-Dichlorobenzene	11	Not Detected	65	Not Detected
1,2,4-Trichlorobenzene	43	Not Detected	320	Not Detected
Hexachlorobutadiene	43	Not Detected	460	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: Lab Blank

Lab ID#: 1911651A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120308	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 02:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1911651A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120308	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 02:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: Lab Blank

Lab ID#: 1911651A-05B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 01:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1911651A-05B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 01:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: Lab Blank

Lab ID#: 1911651A-05C

EPA METHOD TO-15 GC/MS

File Name:	14120911	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/9/19 11:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	20	Not Detected	78	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	20	Not Detected	62	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	20	Not Detected	69	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 1911651A-05C

EPA METHOD TO-15 GC/MS

File Name:	14120911	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/9/19 11:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	109	70-130

Client Sample ID: CCV

Lab ID#: 1911651A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 09:26 AM

Compound	%Recovery
Freon 12	112
Freon 114	101
Chloromethane	123
Vinyl Chloride	113
1,3-Butadiene	114
Bromomethane	120
Chloroethane	113
Freon 11	112
Ethanol	92
Freon 113	98
1,1-Dichloroethene	101
Acetone	122
2-Propanol	117
Carbon Disulfide	113
3-Chloropropene	121
Methylene Chloride	105
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	99
Hexane	116
1,1-Dichloroethane	113
2-Butanone (Methyl Ethyl Ketone)	109
cis-1,2-Dichloroethene	108
Tetrahydrofuran	124
Chloroform	108
1,1,1-Trichloroethane	104
Cyclohexane	104
Carbon Tetrachloride	86
2,2,4-Trimethylpentane	122
Benzene	105
1,2-Dichloroethane	107
Heptane	116
Trichloroethene	93
1,2-Dichloropropane	111
1,4-Dioxane	101
Bromodichloromethane	111
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	118
Toluene	104
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	106
Tetrachloroethene	97
2-Hexanone	108

Client Sample ID: CCV

Lab ID#: 1911651A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 09:26 AM

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	106
Chlorobenzene	102
Ethyl Benzene	106
m,p-Xylene	108
o-Xylene	105
Styrene	108
Bromoform	108
Cumene	102
1,1,2,2-Tetrachloroethane	103
Propylbenzene	106
4-Ethyltoluene	109
1,3,5-Trimethylbenzene	113
1,2,4-Trimethylbenzene	111
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	104
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: CCV

Lab ID#: 1911651A-06B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 11:01 AM

Compound	%Recovery
Freon 12	106
Freon 114	107
Chloromethane	103
Vinyl Chloride	103
1,3-Butadiene	101
Bromomethane	105
Chloroethane	102
Freon 11	104
Ethanol	90
Freon 113	101
1,1-Dichloroethene	113
Acetone	104
2-Propanol	98
Carbon Disulfide	104
3-Chloropropene	103
Methylene Chloride	102
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	107
Hexane	99
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	109
Tetrahydrofuran	101
Chloroform	102
1,1,1-Trichloroethane	97
Cyclohexane	109
Carbon Tetrachloride	102
2,2,4-Trimethylpentane	111
Benzene	104
1,2-Dichloroethane	95
Heptane	103
Trichloroethene	102
1,2-Dichloropropane	100
1,4-Dioxane	96
Bromodichloromethane	100
cis-1,3-Dichloropropene	102
4-Methyl-2-pentanone	94
Toluene	102
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	99
Tetrachloroethene	100
2-Hexanone	93

Client Sample ID: CCV

Lab ID#: 1911651A-06B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 11:01 AM

Compound	%Recovery
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	101
Chlorobenzene	99
Ethyl Benzene	102
m,p-Xylene	104
o-Xylene	102
Styrene	98
Bromoform	101
Cumene	102
1,1,2,2-Tetrachloroethane	99
Propylbenzene	98
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	95
1,2-Dichlorobenzene	101
1,2,4-Trichlorobenzene	102
Hexachlorobutadiene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: CCV

Lab ID#: 1911651A-06C

EPA METHOD TO-15 GC/MS

File Name: 14120909
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 12/9/19 10:34 AM

Compound	%Recovery
Freon 12	79
Freon 114	100
Chloromethane	85
Vinyl Chloride	87
1,3-Butadiene	91
Bromomethane	97
Chloroethane	92
Freon 11	95
Ethanol	78
Freon 113	108
1,1-Dichloroethene	84
Acetone	88
2-Propanol	88
Carbon Disulfide	88
3-Chloropropene	87
Methylene Chloride	77
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	95
Hexane	88
1,1-Dichloroethane	85
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	88
Tetrahydrofuran	71
Chloroform	90
1,1,1-Trichloroethane	92
Cyclohexane	90
Carbon Tetrachloride	91
2,2,4-Trimethylpentane	88
Benzene	86
1,2-Dichloroethane	81
Heptane	89
Trichloroethene	91
1,2-Dichloropropane	83
1,4-Dioxane	98
Bromodichloromethane	85
cis-1,3-Dichloropropene	87
4-Methyl-2-pentanone	100
Toluene	87
trans-1,3-Dichloropropene	82
1,1,2-Trichloroethane	89
Tetrachloroethene	99
2-Hexanone	84

Client Sample ID: CCV

Lab ID#: 1911651A-06C

EPA METHOD TO-15 GC/MS

File Name:	14120909	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/9/19 10:34 AM

Compound	%Recovery
Dibromochloromethane	91
1,2-Dibromoethane (EDB)	92
Chlorobenzene	89
Ethyl Benzene	92
m,p-Xylene	92
o-Xylene	94
Styrene	97
Bromoform	100
Cumene	93
1,1,2,2-Tetrachloroethane	79
Propylbenzene	84
4-Ethyltoluene	92
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	94
alpha-Chlorotoluene	80
1,2-Dichlorobenzene	95
1,2,4-Trichlorobenzene	89
Hexachlorobutadiene	89

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCS

Lab ID#: 1911651A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 10:15 AM

Compound	%Recovery	Method Limits
Freon 12	117	70-130
Freon 114	103	70-130
Chloromethane	124	70-130
Vinyl Chloride	119	70-130
1,3-Butadiene	113	70-130
Bromomethane	124	70-130
Chloroethane	118	70-130
Freon 11	114	70-130
Ethanol	99	70-130
Freon 113	99	70-130
1,1-Dichloroethene	104	70-130
Acetone	115	70-130
2-Propanol	125	70-130
Carbon Disulfide	116	70-130
3-Chloropropene	127	70-130
Methylene Chloride	106	70-130
Methyl tert-butyl ether	103	70-130
trans-1,2-Dichloroethene	108	70-130
Hexane	118	70-130
1,1-Dichloroethane	110	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	98	70-130
Tetrahydrofuran	124	70-130
Chloroform	107	70-130
1,1,1-Trichloroethane	104	70-130
Cyclohexane	109	70-130
Carbon Tetrachloride	74	70-130
2,2,4-Trimethylpentane	117	70-130
Benzene	106	70-130
1,2-Dichloroethane	106	70-130
Heptane	120	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	113	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	128	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	96	70-130
2-Hexanone	111	70-130

Client Sample ID: LCS

Lab ID#: 1911651A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 10:15 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	105	70-130
o-Xylene	105	70-130
Styrene	108	70-130
Bromoform	104	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	105	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	109	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	100	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	111	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: LCSD

Lab ID#: 1911651A-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 11:01 AM

Compound	%Recovery	Method Limits
Freon 12	117	70-130
Freon 114	105	70-130
Chloromethane	128	70-130
Vinyl Chloride	119	70-130
1,3-Butadiene	115	70-130
Bromomethane	126	70-130
Chloroethane	120	70-130
Freon 11	117	70-130
Ethanol	102	70-130
Freon 113	102	70-130
1,1-Dichloroethene	103	70-130
Acetone	123	70-130
2-Propanol	129	70-130
Carbon Disulfide	118	70-130
3-Chloropropene	130	70-130
Methylene Chloride	105	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	120	70-130
1,1-Dichloroethane	112	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	124	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	107	70-130
Cyclohexane	110	70-130
Carbon Tetrachloride	76	70-130
2,2,4-Trimethylpentane	116	70-130
Benzene	108	70-130
1,2-Dichloroethane	107	70-130
Heptane	122	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	115	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	114	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	130	70-130
Toluene	108	70-130
trans-1,3-Dichloropropene	110	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	98	70-130
2-Hexanone	119	70-130

Client Sample ID: LCSD

Lab ID#: 1911651A-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v120304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 11:01 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	110	70-130
m,p-Xylene	113	70-130
o-Xylene	106	70-130
Styrene	112	70-130
Bromoform	107	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	107	70-130
4-Ethyltoluene	112	70-130
1,3,5-Trimethylbenzene	110	70-130
1,2,4-Trimethylbenzene	110	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	107	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	90	70-130
Hexachlorobutadiene	110	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: LCS

Lab ID#: 1911651A-07B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 11:26 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	100	70-130
Chloromethane	93	70-130
Vinyl Chloride	100	70-130
1,3-Butadiene	89	70-130
Bromomethane	83	70-130
Chloroethane	98	70-130
Freon 11	95	70-130
Ethanol	82	70-130
Freon 113	92	70-130
1,1-Dichloroethene	102	70-130
Acetone	92	70-130
2-Propanol	90	70-130
Carbon Disulfide	99	70-130
3-Chloropropene	96	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	108	70-130
Hexane	96	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	95	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	103	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	102	70-130
Benzene	102	70-130
1,2-Dichloroethane	93	70-130
Heptane	104	70-130
Trichloroethene	100	70-130
1,2-Dichloropropane	99	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	99	70-130
1,1,2-Trichloroethane	98	70-130
Tetrachloroethene	96	70-130
2-Hexanone	96	70-130

Client Sample ID: LCS

Lab ID#: 1911651A-07B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 11:26 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	101	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	101	70-130
o-Xylene	100	70-130
Styrene	104	70-130
Bromoform	102	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	100	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCSD

Lab ID#: 1911651A-07BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 11:51 AM

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	104	70-130
Chloromethane	102	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	96	70-130
Bromomethane	98	70-130
Chloroethane	102	70-130
Freon 11	99	70-130
Ethanol	88	70-130
Freon 113	100	70-130
1,1-Dichloroethene	106	70-130
Acetone	103	70-130
2-Propanol	98	70-130
Carbon Disulfide	104	70-130
3-Chloropropene	101	70-130
Methylene Chloride	99	70-130
Methyl tert-butyl ether	99	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	99	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	100	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	110	70-130
Carbon Tetrachloride	100	70-130
2,2,4-Trimethylpentane	108	70-130
Benzene	101	70-130
1,2-Dichloroethane	96	70-130
Heptane	104	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	99	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	97	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	97	70-130
2-Hexanone	102	70-130

Client Sample ID: LCSD

Lab ID#: 1911651A-07BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/19 11:51 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	104	70-130
o-Xylene	103	70-130
Styrene	107	70-130
Bromoform	105	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	107	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	107	70-130
Hexachlorobutadiene	106	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1911651A-07C

EPA METHOD TO-15 GC/MS

File Name: 14120903
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 12/9/19 07:48 AM

Compound	%Recovery	Method Limits
Freon 12	82	70-130
Freon 114	98	70-130
Chloromethane	86	70-130
Vinyl Chloride	92	70-130
1,3-Butadiene	85	70-130
Bromomethane	108	70-130
Chloroethane	99	70-130
Freon 11	94	70-130
Ethanol	85	70-130
Freon 113	105	70-130
1,1-Dichloroethene	82	70-130
Acetone	102	70-130
2-Propanol	86	70-130
Carbon Disulfide	89	70-130
3-Chloropropene	89	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	90	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	91	70-130
1,1-Dichloroethane	83	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	82	70-130
Tetrahydrofuran	70	70-130
Chloroform	86	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	88	70-130
2,2,4-Trimethylpentane	90	70-130
Benzene	86	70-130
1,2-Dichloroethane	76	70-130
Heptane	83	70-130
Trichloroethene	88	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	85	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	103	70-130
Toluene	87	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	86	70-130
Tetrachloroethene	101	70-130
2-Hexanone	82	70-130

Client Sample ID: LCS

Lab ID#: 1911651A-07C

EPA METHOD TO-15 GC/MS

File Name:	14120903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/9/19 07:48 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	89	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	92	70-130
m,p-Xylene	92	70-130
o-Xylene	93	70-130
Styrene	94	70-130
Bromoform	105	70-130
Cumene	93	70-130
1,1,2,2-Tetrachloroethane	82	70-130
Propylbenzene	86	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	95	70-130
1,2,4-Trimethylbenzene	89	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	98	70-130
alpha-Chlorotoluene	87	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	95	70-130
Hexachlorobutadiene	97	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: LCSD

Lab ID#: 1911651A-07CC

EPA METHOD TO-15 GC/MS

File Name: 14120904
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 12/9/19 08:11 AM

Compound	%Recovery	Method Limits
Freon 12	79	70-130
Freon 114	104	70-130
Chloromethane	77	70-130
Vinyl Chloride	88	70-130
1,3-Butadiene	88	70-130
Bromomethane	86	70-130
Chloroethane	95	70-130
Freon 11	96	70-130
Ethanol	83	70-130
Freon 113	106	70-130
1,1-Dichloroethene	83	70-130
Acetone	109	70-130
2-Propanol	83	70-130
Carbon Disulfide	89	70-130
3-Chloropropene	76	70-130
Methylene Chloride	77	70-130
Methyl tert-butyl ether	84	70-130
trans-1,2-Dichloroethene	102	70-130
Hexane	91	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	76	70-130
Chloroform	88	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	93	70-130
Carbon Tetrachloride	88	70-130
2,2,4-Trimethylpentane	90	70-130
Benzene	85	70-130
1,2-Dichloroethane	77	70-130
Heptane	88	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	81	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	83	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	96	70-130
Toluene	86	70-130
trans-1,3-Dichloropropene	78	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	100	70-130
2-Hexanone	79	70-130

Client Sample ID: LCSD

Lab ID#: 1911651A-07CC

EPA METHOD TO-15 GC/MS

File Name:	14120904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/9/19 08:11 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	90	70-130
1,2-Dibromoethane (EDB)	93	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	91	70-130
m,p-Xylene	93	70-130
o-Xylene	89	70-130
Styrene	94	70-130
Bromoform	103	70-130
Cumene	94	70-130
1,1,2,2-Tetrachloroethane	84	70-130
Propylbenzene	88	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	92	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	86	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	106	70-130

12/11/2019

Mr. Winthrop McCormack
Clendenin Consulting & Remediation Group
116-C2 Edwards Ferry Road

Leesburg VA 20176

Project Name: Amato Industries
Project #: 18006
Workorder #: 1911651B

Dear Mr. Winthrop McCormack

The following report includes the data for the above referenced project for sample(s) received on 11/26/2019 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 1911651B

Work Order Summary

CLIENT:	Mr. Winthrop McCormack Clendenin Consulting & Remediation Group 116-C2 Edwards Ferry Road Leesburg, VA 20176	BILL TO:	Ms. Samantha Kirk Clendenin Consulting & Remediation Group 116-C2 Edwards Ferry Road Leesburg, VA 20176
PHONE:	703-771-8816	P.O. #	
FAX:	703-771-8825	PROJECT #	18006 Amato Industries
DATE RECEIVED:	11/26/2019	CONTACT:	Ausha Scott
DATE COMPLETED:	12/11/2019		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
05A	A-14	Modified TO-15	7.3 "Hg	4.7 psi
05B	A-14	Modified TO-15	7.3 "Hg	4.7 psi
06A	A-15	Modified TO-15	6.7 "Hg	5.1 psi
06B	A-15	Modified TO-15	6.7 "Hg	5.1 psi
07A	Lab Blank	Modified TO-15	NA	NA
07B	Lab Blank	Modified TO-15	NA	NA
08A	CCV	Modified TO-15	NA	NA
08B	CCV	Modified TO-15	NA	NA
09A	LCS	Modified TO-15	NA	NA
09AA	LCSD	Modified TO-15	NA	NA
09B	LCS	Modified TO-15	NA	NA
09BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 12/11/19

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Clendenin Consulting & Remediation Group
Workorder# 1911651B

Two 6 Liter Summa Canister (100% SIM Ambient) samples were received on November 26, 2019. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$.; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: A-14

Lab ID#: 1911651B-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.18	0.54	0.39	1.2
Freon 11	0.18	0.25	0.98	1.4
Ethanol	0.88	54	1.6	100
Acetone	1.8	68	4.2	160
2-Propanol	0.88	3.0	2.2	7.3
Methylene Chloride	0.35	0.44	1.2	1.5
Hexane	0.88	2.3	3.1	8.1
Cyclohexane	0.18	0.50	0.60	1.7
2,2,4-Trimethylpentane	0.88	2.3	4.1	11
Heptane	0.88	2.7	3.6	11
4-Methyl-2-pentanone	0.18	0.20	0.72	0.82
Propylbenzene	0.18	0.29	0.86	1.4
4-Ethyltoluene	0.18	1.4	0.86	7.0
1,3,5-Trimethylbenzene	0.18	0.55 J0	0.86	2.7 J0
1,2,4-Trimethylbenzene	0.18	1.8	0.86	8.7

Client Sample ID: A-14

Lab ID#: 1911651B-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.32	0.17	1.6
1,1-Dichloroethane	0.035	0.037	0.14	0.15
cis-1,2-Dichloroethene	0.035	1.0	0.14	4.1
Chloroform	0.035	0.10	0.17	0.50
1,1,1-Trichloroethane	0.035	0.16	0.19	0.89
Carbon Tetrachloride	0.035	0.077	0.22	0.48
Benzene	0.088	0.84	0.28	2.7
Trichloroethene	0.035	1.2	0.19	6.5
Toluene	0.088	3.0	0.33	11
Tetrachloroethene	0.035	10	0.24	68
Ethyl Benzene	0.035	5.2	0.15	23
m,p-Xylene	0.070	19	0.30	81
o-Xylene	0.035	4.8	0.15	21

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: A-15

Lab ID#: 1911651B-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.17	0.48	0.38	1.1
Freon 11	0.17	0.24	0.98	1.4
Ethanol	0.87	39	1.6	73
Acetone	1.7	65	4.1	160
2-Propanol	0.87	2.7	2.1	6.6
Methylene Chloride	0.35	0.38	1.2	1.3
Hexane	0.87	2.1	3.1	7.5
Cyclohexane	0.17	0.47	0.60	1.6
2,2,4-Trimethylpentane	0.87	2.0	4.1	9.6
Heptane	0.87	2.7	3.6	11
4-Methyl-2-pentanone	0.17	0.21	0.71	0.84
Propylbenzene	0.17	0.25	0.86	1.2
4-Ethyltoluene	0.17	1.2	0.86	5.9
1,3,5-Trimethylbenzene	0.17	0.42 J0	0.86	2.1 J0
1,2,4-Trimethylbenzene	0.17	1.3	0.86	6.3

Client Sample ID: A-15

Lab ID#: 1911651B-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.33	0.17	1.6
cis-1,2-Dichloroethene	0.035	0.82	0.14	3.2
Chloroform	0.035	0.10	0.17	0.49
1,1,1-Trichloroethane	0.035	0.15	0.19	0.83
Carbon Tetrachloride	0.035	0.080	0.22	0.50
Benzene	0.087	0.80	0.28	2.5
Trichloroethene	0.035	1.1	0.19	5.8
Toluene	0.087	2.9	0.33	11
Tetrachloroethene	0.035	8.0	0.24	54
Ethyl Benzene	0.035	5.1	0.15	22
m,p-Xylene	0.070	19	0.30	82
o-Xylene	0.035	4.7	0.15	20

Client Sample ID: A-14

Lab ID#: 1911651B-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120325	Date of Collection:	11/22/19 15:35:00
Dil. Factor:	1.75	Date of Analysis:	12/4/19 12:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.18	0.54	0.39	1.2
Bromomethane	0.88	Not Detected	3.4	Not Detected
Freon 11	0.18	0.25	0.98	1.4
Ethanol	0.88	54	1.6	100
Freon 113	0.18	Not Detected	1.3	Not Detected
Acetone	1.8	68	4.2	160
2-Propanol	0.88	3.0	2.2	7.3
Carbon Disulfide	0.88	Not Detected	2.7	Not Detected
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.44	1.2	1.5
Hexane	0.88	2.3	3.1	8.1
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Cyclohexane	0.18	0.50	0.60	1.7
2,2,4-Trimethylpentane	0.88	2.3	4.1	11
Heptane	0.88	2.7	3.6	11
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	0.20	0.72	0.82
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Styrene	0.18	Not Detected	0.74	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
Propylbenzene	0.18	0.29	0.86	1.4
4-Ethyltoluene	0.18	1.4	0.86	7.0
1,3,5-Trimethylbenzene	0.18	0.55 J0	0.86	2.7 J0
1,2,4-Trimethylbenzene	0.18	1.8	0.86	8.7
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected UJ	1.0	Not Detected UJ
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected UJ	9.3	Not Detected UJ

J0 = Estimated value due to bias in the CCV.

UJ = Analyte associated with low bias in the CCV.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Client Sample ID: A-14

Lab ID#: 1911651B-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120325

Date of Collection: 11/22/19 15:35:00

Dil. Factor: 1.75

Date of Analysis: 12/4/19 12:05 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: A-14

Lab ID#: 1911651B-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120325sim	Date of Collection:	11/22/19 15:35:00
Dil. Factor:	1.75	Date of Analysis:	12/4/19 12:05 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.32	0.17	1.6
Freon 114	0.035	Not Detected	0.24	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Chloroethane	0.088	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.018	Not Detected	0.069	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.035	0.037	0.14	0.15
cis-1,2-Dichloroethene	0.035	1.0	0.14	4.1
Chloroform	0.035	0.10	0.17	0.50
1,1,1-Trichloroethane	0.035	0.16	0.19	0.89
Carbon Tetrachloride	0.035	0.077	0.22	0.48
Benzene	0.088	0.84	0.28	2.7
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.035	1.2	0.19	6.5
Toluene	0.088	3.0	0.33	11
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	10	0.24	68
1,2-Dibromoethane (EDB)	0.035	Not Detected	0.27	Not Detected
Ethyl Benzene	0.035	5.2	0.15	23
m,p-Xylene	0.070	19	0.30	81
o-Xylene	0.035	4.8	0.15	21
1,1,2,2-Tetrachloroethane	0.035	Not Detected UJ	0.24	Not Detected UJ
1,4-Dichlorobenzene	0.035	Not Detected UJ	0.21	Not Detected UJ

UJ = Analyte associated with low bias in the CCV.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	91	70-130

Client Sample ID: A-15

Lab ID#: 1911651B-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120323	Date of Collection: 11/22/19 15:38:00
Dil. Factor:	1.74	Date of Analysis: 12/3/19 10:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.17	0.48	0.38	1.1
Bromomethane	0.87	Not Detected	3.4	Not Detected
Freon 11	0.17	0.24	0.98	1.4
Ethanol	0.87	39	1.6	73
Freon 113	0.17	Not Detected	1.3	Not Detected
Acetone	1.7	65	4.1	160
2-Propanol	0.87	2.7	2.1	6.6
Carbon Disulfide	0.87	Not Detected	2.7	Not Detected
3-Chloropropene	0.87	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	0.38	1.2	1.3
Hexane	0.87	2.1	3.1	7.5
2-Butanone (Methyl Ethyl Ketone)	0.87	Not Detected	2.6	Not Detected
Tetrahydrofuran	0.87	Not Detected	2.6	Not Detected
Cyclohexane	0.17	0.47	0.60	1.6
2,2,4-Trimethylpentane	0.87	2.0	4.1	9.6
Heptane	0.87	2.7	3.6	11
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.63	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.17	0.21	0.71	0.84
trans-1,3-Dichloropropene	0.17	Not Detected	0.79	Not Detected
2-Hexanone	0.87	Not Detected	3.6	Not Detected
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
Chlorobenzene	0.17	Not Detected	0.80	Not Detected
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.86	Not Detected
Propylbenzene	0.17	0.25	0.86	1.2
4-Ethyltoluene	0.17	1.2	0.86	5.9
1,3,5-Trimethylbenzene	0.17	0.42 J0	0.86	2.1 J0
1,2,4-Trimethylbenzene	0.17	1.3	0.86	6.3
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected UJ	1.0	Not Detected UJ
1,2,4-Trichlorobenzene	0.87	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.87	Not Detected UJ	9.3	Not Detected UJ

J0 = Estimated value due to bias in the CCV.

UJ = Analyte associated with low bias in the CCV.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Client Sample ID: A-15

Lab ID#: 1911651B-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120323

Date of Collection: 11/22/19 15:38:00

Dil. Factor: 1.74

Date of Analysis: 12/3/19 10:40 PM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	128	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: A-15

Lab ID#: 1911651B-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120323sim	Date of Collection:	11/22/19 15:38:00
Dil. Factor:	1.74	Date of Analysis:	12/3/19 10:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.33	0.17	1.6
Freon 114	0.035	Not Detected	0.24	Not Detected
Chloromethane	0.87	Not Detected	1.8	Not Detected
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
Chloroethane	0.087	Not Detected	0.23	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.069	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	0.82	0.14	3.2
Chloroform	0.035	0.10	0.17	0.49
1,1,1-Trichloroethane	0.035	0.15	0.19	0.83
Carbon Tetrachloride	0.035	0.080	0.22	0.50
Benzene	0.087	0.80	0.28	2.5
1,2-Dichloroethane	0.035	Not Detected	0.14	Not Detected
Trichloroethene	0.035	1.1	0.19	5.8
Toluene	0.087	2.9	0.33	11
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	8.0	0.24	54
1,2-Dibromoethane (EDB)	0.035	Not Detected	0.27	Not Detected
Ethyl Benzene	0.035	5.1	0.15	22
m,p-Xylene	0.070	19	0.30	82
o-Xylene	0.035	4.7	0.15	20
1,1,2,2-Tetrachloroethane	0.035	Not Detected UJ	0.24	Not Detected UJ
1,4-Dichlorobenzene	0.035	Not Detected UJ	0.21	Not Detected UJ

UJ = Analyte associated with low bias in the CCV.

Container Type: 6 Liter Summa Canister (100% SIM Ambient)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	127	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: Lab Blank

Lab ID#: 1911651B-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120306	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 10:36 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected UJ	0.60	Not Detected UJ
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected UJ	5.3	Not Detected UJ

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
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Client Sample ID: Lab Blank

Lab ID#: 1911651B-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120306
Dil. Factor:	1.00

Date of Collection: NA
Date of Analysis: 12/3/19 10:36 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	90	70-130

Client Sample ID: Lab Blank

Lab ID#: 1911651B-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120306sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 10:36 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Freon 114	0.020	Not Detected	0.14	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Chloroethane	0.050	Not Detected	0.13	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.050	Not Detected	0.19	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected UJ	0.14	Not Detected UJ
1,4-Dichlorobenzene	0.020	Not Detected UJ	0.12	Not Detected UJ

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 1911651B-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 07:43 AM

Compound	%Recovery
1,3-Butadiene	92
Bromomethane	105
Freon 11	93
Ethanol	99
Freon 113	84
Acetone	94
2-Propanol	104
Carbon Disulfide	91
3-Chloropropene	96
Methylene Chloride	84
Hexane	111
2-Butanone (Methyl Ethyl Ketone)	98
Tetrahydrofuran	109
Cyclohexane	108
2,2,4-Trimethylpentane	102
Heptane	98
1,2-Dichloropropane	83
1,4-Dioxane	98
Bromodichloromethane	92
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	104
trans-1,3-Dichloropropene	96
2-Hexanone	116
Dibromochloromethane	88
Chlorobenzene	90
Styrene	87
Bromoform	88
Cumene	90
Propylbenzene	83
4-Ethyltoluene	89
1,3,5-Trimethylbenzene	134 Q
1,2,4-Trimethylbenzene	129
1,3-Dichlorobenzene	70
alpha-Chlorotoluene	80
1,2-Dichlorobenzene	69 Q
1,2,4-Trichlorobenzene	74
Hexachlorobutadiene	69 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
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Client Sample ID: CCV

Lab ID#: 1911651B-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120302

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 12/3/19 07:43 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: CCV

Lab ID#: 1911651B-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120302sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 07:43 AM

Compound	%Recovery
Freon 12	70
Freon 114	82
Chloromethane	85
Vinyl Chloride	86
Chloroethane	93
1,1-Dichloroethene	92
trans-1,2-Dichloroethene	95
Methyl tert-butyl ether	115
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	100
Chloroform	90
1,1,1-Trichloroethane	96
Carbon Tetrachloride	66
Benzene	81
1,2-Dichloroethane	86
Trichloroethene	89
Toluene	88
1,1,2-Trichloroethane	79
Tetrachloroethene	85
1,2-Dibromoethane (EDB)	95
Ethyl Benzene	106
m,p-Xylene	98
o-Xylene	98
1,1,2,2-Tetrachloroethane	66 Q
1,4-Dichlorobenzene	62 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1911651B-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 08:18 AM

Compound	%Recovery	Method Limits
1,3-Butadiene	88	70-130
Bromomethane	102	70-130
Freon 11	91	70-130
Ethanol	104	70-130
Freon 113	82	70-130
Acetone	91	70-130
2-Propanol	104	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	103	70-130
Methylene Chloride	80	70-130
Hexane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
Tetrahydrofuran	107	70-130
Cyclohexane	106	70-130
2,2,4-Trimethylpentane	100	70-130
Heptane	96	70-130
1,2-Dichloropropane	83	70-130
1,4-Dioxane	100	70-130
Bromodichloromethane	92	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	107	70-130
trans-1,3-Dichloropropene	94	70-130
2-Hexanone	121	70-130
Dibromochloromethane	90	70-130
Chlorobenzene	86	70-130
Styrene	91	70-130
Bromoform	86	70-130
Cumene	100	70-130
Propylbenzene	85	70-130
4-Ethyltoluene	85	70-130
1,3,5-Trimethylbenzene	120	70-130
1,2,4-Trimethylbenzene	118	70-130
1,3-Dichlorobenzene	70	70-130
alpha-Chlorotoluene	97	70-130
1,2-Dichlorobenzene	74	70-130
1,2,4-Trichlorobenzene	82	70-130
Hexachlorobutadiene	68 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
------------	-----------	---------------

Client Sample ID: LCS

Lab ID#: 1911651B-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120303

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 12/3/19 08:18 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCSD

Lab ID#: 1911651B-09AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	21120304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/19 08:55 AM

Compound	%Recovery	Method Limits
1,3-Butadiene	94	70-130
Bromomethane	105	70-130
Freon 11	91	70-130
Ethanol	106	70-130
Freon 113	80	70-130
Acetone	92	70-130
2-Propanol	105	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	103	70-130
Methylene Chloride	81	70-130
Hexane	113	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
Tetrahydrofuran	108	70-130
Cyclohexane	108	70-130
2,2,4-Trimethylpentane	104	70-130
Heptane	95	70-130
1,2-Dichloropropane	80	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	105	70-130
trans-1,3-Dichloropropene	97	70-130
2-Hexanone	120	70-130
Dibromochloromethane	90	70-130
Chlorobenzene	90	70-130
Styrene	90	70-130
Bromoform	90	70-130
Cumene	93	70-130
Propylbenzene	82	70-130
4-Ethyltoluene	84	70-130
1,3,5-Trimethylbenzene	128	70-130
1,2,4-Trimethylbenzene	122	70-130
1,3-Dichlorobenzene	70	70-130
alpha-Chlorotoluene	95	70-130
1,2-Dichlorobenzene	72	70-130
1,2,4-Trichlorobenzene	80	70-130
Hexachlorobutadiene	69 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
------------	-----------	---------------

Client Sample ID: LCSD

Lab ID#: 1911651B-09AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120304

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 12/3/19 08:55 AM

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1911651B-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120303sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 12/3/19 08:18 AM

Compound	%Recovery	Method Limits
Freon 12	70	70-130
Freon 114	80	70-130
Chloromethane	84	70-130
Vinyl Chloride	86	70-130
Chloroethane	93	70-130
1,1-Dichloroethene	89	70-130
trans-1,2-Dichloroethene	100	70-130
Methyl tert-butyl ether	107	70-130
1,1-Dichloroethane	89	70-130
cis-1,2-Dichloroethene	88	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	93	70-130
Carbon Tetrachloride	75	60-140
Benzene	77	70-130
1,2-Dichloroethane	80	70-130
Trichloroethene	83	70-130
Toluene	84	70-130
1,1,2-Trichloroethane	78	70-130
Tetrachloroethene	83	70-130
1,2-Dibromoethane (EDB)	98	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	102	70-130
o-Xylene	101	70-130
1,1,2,2-Tetrachloroethane	70	70-130
1,4-Dichlorobenzene	65 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCSD

Lab ID#: 1911651B-09BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: 21120304sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 12/3/19 08:55 AM

Compound	%Recovery	Method Limits
Freon 12	72	70-130
Freon 114	80	70-130
Chloromethane	86	70-130
Vinyl Chloride	88	70-130
Chloroethane	97	70-130
1,1-Dichloroethene	90	70-130
trans-1,2-Dichloroethene	101	70-130
Methyl tert-butyl ether	110	70-130
1,1-Dichloroethane	91	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	96	70-130
Carbon Tetrachloride	77	60-140
Benzene	77	70-130
1,2-Dichloroethane	79	70-130
Trichloroethene	82	70-130
Toluene	86	70-130
1,1,2-Trichloroethane	79	70-130
Tetrachloroethene	83	70-130
1,2-Dibromoethane (EDB)	96	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	103	70-130
o-Xylene	102	70-130
1,1,2,2-Tetrachloroethane	69 Q	70-130
1,4-Dichlorobenzene	64 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

**CCRG**

Clendenin Consulting & Remediation Group

116-C2 Edwards Ferry Road
Leesburg, Virginia 20176

TEL: 703/771-8816

DAILY FIELD REPORT

Project No.: 18006

Date: 11/14/19

Project Name: Amato Industries

Start Work: 6:00 AM End Work: 5:30 PM

Total Time: 11.5 Hrs.

Permit No.: N/A

Client: Joe Amato

Contractor: GSI Mid-Atlantic

Client's Representative: Brian St. Claire

Contractor's Supt.: Tim Niblett

Visitors (Name & Firm):

Weather (AM & PM): windy, cold

Temp.: 30s F

WORK PERFORMED BY CONTRACTOR (Each item show type, location & quantity):

- Arrived at Amato Industries with Andrew Readyoff to meet GSI, who arrived around 8:15am at Amato Industries in Silver Spring, MD to run Geoprobe exploratory borings for discreet and composite soil sampling in the region of soil contamination near vapor well B-2. A total of 11 geoprobe borings were done by B-2, focusing around the borings which contained high levels of contamination (hot spots).
- A direct push probe was used to take sleeve samples at 11 locations around B-2 and various other hot spots (See Figure). The locations were determined generally by moving 5 feet away in a few directions of B-2 and the other hot spots.
- A PID was used to take vapor readings throughout every sleeve sample taken, 1 16oz soil sample was taken from each sleeve where the PID reading was highest. The lab samples covered in foil and capped placed in a cooler.
- After the borings were complete, GSI filled all the holes with the soil cuttings and smoothed the tops with concrete. Brought the samples to office, each jar was packaged a sent to the lab for VOCs, and the 2 borings closest to the tanks (H6, H7) were tested for TPH-GRO/DRO. Details of all samples' PID readings can be seen below.

Sample	Boring Depth	PID Depth	Field PID	Lab Samples	Soil Features
H-1	8'	3' 4' 4.5' 5' 5-8'	24 162 350 1090 10-20	H-1 @ 5'	(Typical)...1' Concrete, 2' (fill) Red & brown micaceous SAND with large quartz rock, some organic material and asphalt...moist
H-2	5'	3' 3.5'	20 50	H-2 @ 3.5'	...same Faint petroleum odor
H-3	5'	3.5' 5'	368 12	H-3 @ 3.5'	...same, moist zone at 3.5' Chemical odor (perc?)
H-4	5'	5'	10	H-4 @ 5'	...same
H-5	8'	5' 6-8'	8 12	H-5 @ 6-8'	...same (composite)
H-6	5'	1.5'	120	H-6 @ 1.5'	...same
H-7	8'	5-8'	5	H-7 @ 5-8'	...same (composite)
H-8	5'	3-5'	3-6	H-8 @ 3-5'	...same (composite)
H-9	5'	3' 5'	20 60	H-9 @ 5'	...same (composite)
H-10	8'	1.5' 2' 5-8'	360 780 60	H-10 @ 2'	...same Chemical odor (perc?)
H-11	5'	3-5'	5	H-11 @ 3-5'	...same (composite)

Report By: JWM

Reviewed By:

Date:

Site Copy Received By: _____

Company: _____

Attachments: x Sketch

x Photo

Data Sheet

Other:

Report No.: 026

Talbot Avenue, LLC VCP
18006 – 11/19/2019

 — Isolated Zones of Contamination

**600 Gal
PERC AST**
(Permanently
removed from
operation in
January 2019)

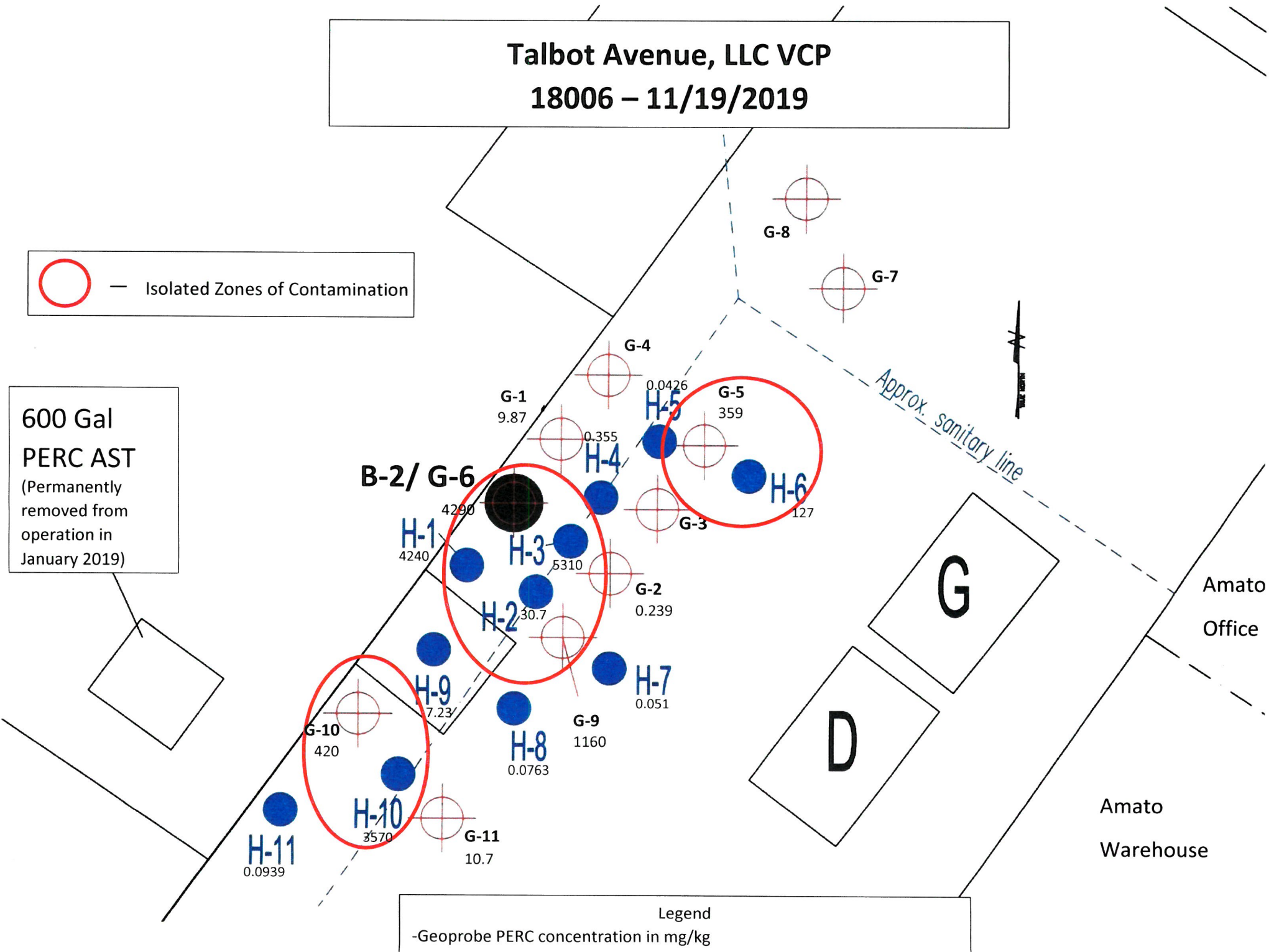


Table 1

Talbot Properties, LLC VCP

18006 -3/07/2019

Laboratory Results - Geoprobe Soil Exploration near B-2

	Soil Standards	G-1	G-2	G-5	G-6	G-7	G-8	G-9	G-10	G-11	G-12	CG-13
Sample Depths		2'	2.5-5'	0-1.5'	5'	5'	2.5-5'	0-2'	5'	2.5-5'	2.5-5'	n/a
PID		398	412	788	5000+	175	1009	5000+	5000+	289	209	n/a
Acetone	6.70E+05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5.10E+00	ND	0.00317	ND	ND	0.017	0.0289	ND	ND	0.00229	0.038	0.00213
n-Butylbenzene	5.80E+04	0.115	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	1.20E+05	0.104	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND	ND	ND	ND	ND	ND	ND	0.0132	ND	ND
cis-1,2-Dichloroethene	2.30E+03	0.506	13.3	0.32	1.83	ND	0.0609	ND	ND	0.664	ND	0.0421
trans-1,2-Dichloroethene	2.30E+04	ND	0.254	ND	ND	ND	0.00763	ND	ND	0.0879	ND	ND
Ethylbenzene	2.50E+01	0.0215	0.00648	ND	ND	0.00359	0.0175	ND	ND	ND	0.015	ND
Isopropylbenzene	9.90E+03	ND	0.00269	ND	ND	ND	ND	ND	ND	ND	0.00647	ND
p-Isopropyltoluene	NL	0.138	ND	ND	2.14	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.90E+05	ND	0.0278	ND	ND	ND	ND	ND	ND	ND	0.0285	ND
Methyl tert-butyl ether	2.10E+02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	1.70E+01	0.34	ND	ND	7.58	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2.40E+04	0.0724	ND	ND	1.19	ND	ND	ND	ND	ND	0.022	ND
Tetrachloroethene	1.00E+02	9.87	0.239	359	4270	0.058	0.424	1160	420	10.7	0.0568	0.444
Toluene	4.70E+04	ND	0.0101	ND	ND	ND	0.00533	ND	ND	ND	ND	ND
1,1,1-Trichloroethene	3.60E+04	ND	ND	ND	4.31	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	6.00E+00	0.0894	0.0256	7.37	52.2	0.00204	0.25	0.468	1.27	0.945	ND	0.0357
1,2,4-Trimethylbenzene	1.80E+03	0.601	0.0198	ND	11.2	ND	0.0125	ND	1.89	ND	0.0139	0.00951
1,2,3-Trimethylbenzene	2.00E+03	0.342	0.0159	ND	7.56	ND	0.00748	ND	1.46	ND	0.00676	0.0111
1,3,5-Trimethylbenzene	1.50E+03	0.307	0.00837	ND	4.15	ND	ND	ND	0.713	ND	0.00792	0.0053
Vinyl Chloride	1.50E+03	ND	0.27	ND	ND	ND	ND	ND	ND	0.044	ND	ND
Xylenes, Total	2.50E+03	0.0581	0.0257	ND	2.88	0.027	0.0406	ND	ND	0.00684	0.094	ND

Notes:

- 1) mg/kg
- 2) ND - Non-Detect
- 3) Only analytes that have one or more detections are shown
- 4) Results recorded in red are above EPA's Regional Screening Levels for Industrial soil for April 2019
- 5) CG-13 is a composite sample analyzed for Clean Earth
- 6) Samples G-1 through CG-13 were taken near B-2
- 7) Soil Standards are from the EPA Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019
- 8) NL - Not-Listed on the EPA Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019

9) Pace Analytical results can be found in Exhibit 3

Table 2**Talbot Properties, LLC VCP****18006 - 11/15/2019****Laboratory Results - Geoprobe Soil Exploration near B-2**

	Soil Standards	H-1	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11
Sample Depths		5'	3.5'	3.5'	5'	6-8'	1.5'	5-8'	3-5'	5'	2'	3-5'
PID		1090	50	368	10	12	120	5	3-6	60	780	5
Acetone	6.70E+05	ND	ND	ND	ND	ND	ND	0.0442	0.0596	ND	ND	ND
Benzene	5.10E+00	ND	ND	ND	0.00201	ND	ND	0.012	ND	ND	ND	ND
n-Butylbenzene	5.80E+04	ND	ND	ND	0.0221	ND	ND	ND	ND	0.103	ND	ND
sec-Butylbenzene	1.20E+05	ND	ND	ND	0.0216	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	1.60E+01	ND	ND	ND	0.00601	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	2.30E+03	ND	2.47	ND	8.4	0.2	ND	0.0778	0.259	0.354	9.15	0.0241
trans-1,2-Dichloroethene	2.30E+04	ND	ND	ND	0.0492	ND	ND	0.0188	ND	ND	ND	ND
Ethylbenzene	2.50E+01	ND	ND	ND	0.00639	ND	ND	0.0044	ND	ND	ND	ND
Isopropylbenzene	9.90E+03	ND	ND	ND	0.00833	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	NL	ND	0.26	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	1.90E+05	ND	ND	ND	0.0385	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	2.10E+02	ND	ND	ND	ND	ND	ND	0.0135	ND	ND	ND	ND
Naphthalene	1.70E+01	ND	ND	ND	0.0381	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	2.40E+04	ND	ND	ND	0.00703	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.00E+02	4240	30.7	5310	0.355	0.0426	127	0.0501	0.0763	7.23	3570	0.0939
Toluene	4.70E+04	ND	ND	ND	0.0271	ND	ND	0.0105	ND	ND	ND	ND
1,1,1-Trichloroethene	3.60E+04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	6.00E+00	32.2	4.23	104	0.0604	0.00635	ND	0.0102	0.018	0.165	87.7	0.00683
1,2,4-Trimethylbenzene	1.80E+03	ND	0.626	ND	0.017	ND	ND	0.0105	ND	0.218	ND	ND
1,2,3-Trimethylbenzene	2.00E+03	ND	1.55	ND	0.00842	ND	ND	ND	ND	0.139	ND	ND
1,3,5-Trimethylbenzene	1.50E+03	ND	1.28	ND	0.00578	ND	ND	ND	ND	0.068	ND	ND
Vinyl Chloride	1.50E+03	ND	ND	ND	0.133	ND	ND	0.0847	ND	ND	ND	ND
Xylenes, Total	2.50E+03	ND	ND	ND	0.0479	ND	ND	0.0187	ND	ND	ND	ND

Notes:

- 1) mg/kg
- 2) ND - Non-Detect
- 3) Only analytes that have one or more detections are shown
- 4) Results recorded in red are above EPA's Regional Screening Levels for Industrial soil for April 2019
- 6) Soil Standards are from the EPA Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019
- 7) NL - Not-Listed on the EPA Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019

Clendenin Consulting Group - VA

Sample Delivery Group: L1161371
Samples Received: 11/15/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



H-1 L1161371-01 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 08:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384384	1	11/21/19 17:54	11/21/19 18:16	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1386806	4000	11/16/19 15:11	11/25/19 23:35	BMB	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

H-2 L1161371-02 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 08:50	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1386806	40	11/16/19 15:11	11/25/19 23:54	BMB	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

H-3 L1161371-03 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 09:15	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1386806	4000	11/16/19 15:11	11/26/19 00:13	BMB	Mt. Juliet, TN

⁷ Gl

⁸ Al

⁹ Sc

H-4 L1161371-04 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 09:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385658	1	11/16/19 15:11	11/23/19 09:31	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1386505	20	11/16/19 15:11	11/25/19 15:39	DWR	Mt. Juliet, TN

H-5 L1161371-05 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:00	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385201	1	11/16/19 15:11	11/22/19 11:40	ACG	Mt. Juliet, TN

H-6 L1161371-06 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:20	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1385584	100	11/16/19 15:11	11/23/19 00:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1386806	80	11/16/19 15:11	11/26/19 00:32	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1382173	5	11/18/19 06:18	11/18/19 22:20	KME	Mt. Juliet, TN

H-7 L1161371-07 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1385584	25	11/16/19 15:11	11/23/19 00:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385201	8	11/16/19 15:11	11/22/19 13:21	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385658	1	11/16/19 15:11	11/23/19 09:53	ACG	Mt. Juliet, TN

ACCOUNT:

Clendenin Consulting Group - VA

PROJECT:

18006

SDG:

L1161371

DATE/TIME:

11/29/19 12:22

PAGE:

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H-7 L1161371-07 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1382173	1	11/18/19 06:18	11/19/19 17:12	FM	Mt. Juliet, TN

H-8 L1161371-08 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:55	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385201	1	11/16/19 15:11	11/22/19 12:01	ACG	Mt. Juliet, TN

H-9 L1161371-09 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 11:10	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385201	8	11/16/19 15:11	11/22/19 17:13	ACG	Mt. Juliet, TN

H-10 L1161371-10 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 11:25	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1386806	2000	11/16/19 15:11	11/26/19 00:51	BMB	Mt. Juliet, TN

H-11 L1161371-11 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 11:40	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1385201	1	11/16/19 15:11	11/22/19 12:21	ACG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	11/21/2019 18:16	WG1384384

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		100	4000	11/25/2019 23:35	WG1386806
Acrylonitrile	ND		50.0	4000	11/25/2019 23:35	WG1386806
Benzene	ND		4.00	4000	11/25/2019 23:35	WG1386806
Bromobenzene	ND		50.0	4000	11/25/2019 23:35	WG1386806
Bromodichloromethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
Bromoform	ND		100	4000	11/25/2019 23:35	WG1386806
Bromomethane	ND		50.0	4000	11/25/2019 23:35	WG1386806
n-Butylbenzene	ND		50.0	4000	11/25/2019 23:35	WG1386806
sec-Butylbenzene	ND		50.0	4000	11/25/2019 23:35	WG1386806
tert-Butylbenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
Carbon tetrachloride	ND		20.0	4000	11/25/2019 23:35	WG1386806
Chlorobenzene	ND		10.0	4000	11/25/2019 23:35	WG1386806
Chlorodibromomethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
Chloroethane	ND		20.0	4000	11/25/2019 23:35	WG1386806
Chloroform	ND		10.0	4000	11/25/2019 23:35	WG1386806
Chloromethane	ND		50.0	4000	11/25/2019 23:35	WG1386806
2-Chlorotoluene	ND		10.0	4000	11/25/2019 23:35	WG1386806
4-Chlorotoluene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,2-Dibromo-3-Chloropropane	ND		100	4000	11/25/2019 23:35	WG1386806
1,2-Dibromoethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
Dibromomethane	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,2-Dichlorobenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,3-Dichlorobenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,4-Dichlorobenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
Dichlorodifluoromethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,1-Dichloroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,2-Dichloroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,1-Dichloroethene	ND		10.0	4000	11/25/2019 23:35	WG1386806
cis-1,2-Dichloroethene	ND		10.0	4000	11/25/2019 23:35	WG1386806
trans-1,2-Dichloroethene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,2-Dichloropropane	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,1-Dichloropropene	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,3-Dichloropropane	ND		20.0	4000	11/25/2019 23:35	WG1386806
cis-1,3-Dichloropropene	ND		10.0	4000	11/25/2019 23:35	WG1386806
trans-1,3-Dichloropropene	ND		20.0	4000	11/25/2019 23:35	WG1386806
2,2-Dichloropropane	ND		10.0	4000	11/25/2019 23:35	WG1386806
Di-isopropyl ether	ND		4.00	4000	11/25/2019 23:35	WG1386806
Ethylbenzene	ND		10.0	4000	11/25/2019 23:35	WG1386806
Hexachloro-1,3-butadiene	ND		100	4000	11/25/2019 23:35	WG1386806
Isopropylbenzene	ND		10.0	4000	11/25/2019 23:35	WG1386806
p-Isopropyltoluene	ND		20.0	4000	11/25/2019 23:35	WG1386806
2-Butanone (MEK)	ND		100	4000	11/25/2019 23:35	WG1386806
Methylene Chloride	ND		100	4000	11/25/2019 23:35	WG1386806
4-Methyl-2-pentanone (MIBK)	ND		100	4000	11/25/2019 23:35	WG1386806
Methyl tert-butyl ether	ND		4.00	4000	11/25/2019 23:35	WG1386806
Naphthalene	ND		50.0	4000	11/25/2019 23:35	WG1386806
n-Propylbenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
Styrene	ND		50.0	4000	11/25/2019 23:35	WG1386806
1,1,1,2-Tetrachloroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,1,2,2-Tetrachloroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 08:35

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
Tetrachloroethene	4240		10.0	4000	11/25/2019 23:35	WG1386806
Toluene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,2,3-Trichlorobenzene	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,2,4-Trichlorobenzene	ND		50.0	4000	11/25/2019 23:35	WG1386806
1,1,1-Trichloroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,1,2-Trichloroethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
Trichloroethene	32.2		4.00	4000	11/25/2019 23:35	WG1386806
Trichlorofluoromethane	ND		10.0	4000	11/25/2019 23:35	WG1386806
1,2,3-Trichloropropane	ND		50.0	4000	11/25/2019 23:35	WG1386806
1,2,4-Trimethylbenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,2,3-Trimethylbenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
1,3,5-Trimethylbenzene	ND		20.0	4000	11/25/2019 23:35	WG1386806
Vinyl chloride	ND		10.0	4000	11/25/2019 23:35	WG1386806
Xylenes, Total	ND		26.0	4000	11/25/2019 23:35	WG1386806
(S) Toluene-d8	101		75.0-131		11/25/2019 23:35	WG1386806
(S) 4-Bromofluorobenzene	96.1		67.0-138		11/25/2019 23:35	WG1386806
(S) 1,2-Dichloroethane-d4	102		70.0-130		11/25/2019 23:35	WG1386806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.4		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		1.00	40	11/25/2019 23:54	WG1386806
Acrylonitrile	ND		0.500	40	11/25/2019 23:54	WG1386806
Benzene	ND		0.0400	40	11/25/2019 23:54	WG1386806
Bromobenzene	ND		0.500	40	11/25/2019 23:54	WG1386806
Bromodichloromethane	ND		0.100	40	11/25/2019 23:54	WG1386806
Bromoform	ND		1.00	40	11/25/2019 23:54	WG1386806
Bromomethane	ND		0.500	40	11/25/2019 23:54	WG1386806
n-Butylbenzene	ND		0.500	40	11/25/2019 23:54	WG1386806
sec-Butylbenzene	ND		0.500	40	11/25/2019 23:54	WG1386806
tert-Butylbenzene	ND		0.200	40	11/25/2019 23:54	WG1386806
Carbon tetrachloride	ND		0.200	40	11/25/2019 23:54	WG1386806
Chlorobenzene	ND		0.100	40	11/25/2019 23:54	WG1386806
Chlorodibromomethane	ND		0.100	40	11/25/2019 23:54	WG1386806
Chloroethane	ND		0.200	40	11/25/2019 23:54	WG1386806
Chloroform	ND		0.100	40	11/25/2019 23:54	WG1386806
Chloromethane	ND		0.500	40	11/25/2019 23:54	WG1386806
2-Chlorotoluene	ND		0.100	40	11/25/2019 23:54	WG1386806
4-Chlorotoluene	ND		0.200	40	11/25/2019 23:54	WG1386806
1,2-Dibromo-3-Chloropropane	ND		1.00	40	11/25/2019 23:54	WG1386806
1,2-Dibromoethane	ND		0.100	40	11/25/2019 23:54	WG1386806
Dibromomethane	ND		0.200	40	11/25/2019 23:54	WG1386806
1,2-Dichlorobenzene	ND		0.200	40	11/25/2019 23:54	WG1386806
1,3-Dichlorobenzene	ND		0.200	40	11/25/2019 23:54	WG1386806
1,4-Dichlorobenzene	ND		0.200	40	11/25/2019 23:54	WG1386806
Dichlorodifluoromethane	ND		0.100	40	11/25/2019 23:54	WG1386806
1,1-Dichloroethane	ND		0.100	40	11/25/2019 23:54	WG1386806
1,2-Dichloroethane	ND		0.100	40	11/25/2019 23:54	WG1386806
1,1-Dichloroethene	ND		0.100	40	11/25/2019 23:54	WG1386806
cis-1,2-Dichloroethene	2.47		0.100	40	11/25/2019 23:54	WG1386806
trans-1,2-Dichloroethene	ND		0.200	40	11/25/2019 23:54	WG1386806
1,2-Dichloropropane	ND		0.200	40	11/25/2019 23:54	WG1386806
1,1-Dichloropropene	ND		0.100	40	11/25/2019 23:54	WG1386806
1,3-Dichloropropane	ND		0.200	40	11/25/2019 23:54	WG1386806
cis-1,3-Dichloropropene	ND		0.100	40	11/25/2019 23:54	WG1386806
trans-1,3-Dichloropropene	ND		0.200	40	11/25/2019 23:54	WG1386806
2,2-Dichloropropane	ND		0.100	40	11/25/2019 23:54	WG1386806
Di-isopropyl ether	ND		0.0400	40	11/25/2019 23:54	WG1386806
Ethylbenzene	ND		0.100	40	11/25/2019 23:54	WG1386806
Hexachloro-1,3-butadiene	ND		1.00	40	11/25/2019 23:54	WG1386806
Isopropylbenzene	ND		0.100	40	11/25/2019 23:54	WG1386806
p-Isopropyltoluene	0.260		0.200	40	11/25/2019 23:54	WG1386806
2-Butanone (MEK)	ND		1.00	40	11/25/2019 23:54	WG1386806
Methylene Chloride	ND		1.00	40	11/25/2019 23:54	WG1386806
4-Methyl-2-pentanone (MIBK)	ND		1.00	40	11/25/2019 23:54	WG1386806
Methyl tert-butyl ether	ND		0.0400	40	11/25/2019 23:54	WG1386806
Naphthalene	ND		0.500	40	11/25/2019 23:54	WG1386806
n-Propylbenzene	ND		0.200	40	11/25/2019 23:54	WG1386806
Styrene	ND		0.500	40	11/25/2019 23:54	WG1386806
1,1,1,2-Tetrachloroethane	ND		0.100	40	11/25/2019 23:54	WG1386806
1,1,2,2-Tetrachloroethane	ND		0.100	40	11/25/2019 23:54	WG1386806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 08:50

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.100	40	11/25/2019 23:54	WG1386806
Tetrachloroethene	30.7		0.100	40	11/25/2019 23:54	WG1386806
Toluene	ND		0.200	40	11/25/2019 23:54	WG1386806
1,2,3-Trichlorobenzene	ND		0.100	40	11/25/2019 23:54	WG1386806
1,2,4-Trichlorobenzene	ND		0.500	40	11/25/2019 23:54	WG1386806
1,1,1-Trichloroethane	ND		0.100	40	11/25/2019 23:54	WG1386806
1,1,2-Trichloroethane	ND		0.100	40	11/25/2019 23:54	WG1386806
Trichloroethene	4.23		0.0400	40	11/25/2019 23:54	WG1386806
Trichlorofluoromethane	ND		0.100	40	11/25/2019 23:54	WG1386806
1,2,3-Trichloropropane	ND		0.500	40	11/25/2019 23:54	WG1386806
1,2,4-Trimethylbenzene	0.626		0.200	40	11/25/2019 23:54	WG1386806
1,2,3-Trimethylbenzene	1.55		0.200	40	11/25/2019 23:54	WG1386806
1,3,5-Trimethylbenzene	1.28		0.200	40	11/25/2019 23:54	WG1386806
Vinyl chloride	ND		0.100	40	11/25/2019 23:54	WG1386806
Xylenes, Total	ND		0.260	40	11/25/2019 23:54	WG1386806
(S) Toluene-d8	102		75.0-131		11/25/2019 23:54	WG1386806
(S) 4-Bromofluorobenzene	98.2		67.0-138		11/25/2019 23:54	WG1386806
(S) 1,2-Dichloroethane-d4	102		70.0-130		11/25/2019 23:54	WG1386806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		100	4000	11/26/2019 00:13	WG1386806
Acrylonitrile	ND		50.0	4000	11/26/2019 00:13	WG1386806
Benzene	ND		4.00	4000	11/26/2019 00:13	WG1386806
Bromobenzene	ND		50.0	4000	11/26/2019 00:13	WG1386806
Bromodichloromethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
Bromoform	ND		100	4000	11/26/2019 00:13	WG1386806
Bromomethane	ND		50.0	4000	11/26/2019 00:13	WG1386806
n-Butylbenzene	ND		50.0	4000	11/26/2019 00:13	WG1386806
sec-Butylbenzene	ND		50.0	4000	11/26/2019 00:13	WG1386806
tert-Butylbenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
Carbon tetrachloride	ND		20.0	4000	11/26/2019 00:13	WG1386806
Chlorobenzene	ND		10.0	4000	11/26/2019 00:13	WG1386806
Chlorodibromomethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
Chloroethane	ND		20.0	4000	11/26/2019 00:13	WG1386806
Chloroform	ND		10.0	4000	11/26/2019 00:13	WG1386806
Chloromethane	ND		50.0	4000	11/26/2019 00:13	WG1386806
2-Chlorotoluene	ND		10.0	4000	11/26/2019 00:13	WG1386806
4-Chlorotoluene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,2-Dibromo-3-Chloropropane	ND		100	4000	11/26/2019 00:13	WG1386806
1,2-Dibromoethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
Dibromomethane	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,2-Dichlorobenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,3-Dichlorobenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,4-Dichlorobenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
Dichlorodifluoromethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,1-Dichloroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,2-Dichloroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,1-Dichloroethene	ND		10.0	4000	11/26/2019 00:13	WG1386806
cis-1,2-Dichloroethene	ND		10.0	4000	11/26/2019 00:13	WG1386806
trans-1,2-Dichloroethene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,2-Dichloropropane	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,1-Dichloropropene	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,3-Dichloropropane	ND		20.0	4000	11/26/2019 00:13	WG1386806
cis-1,3-Dichloropropene	ND		10.0	4000	11/26/2019 00:13	WG1386806
trans-1,3-Dichloropropene	ND		20.0	4000	11/26/2019 00:13	WG1386806
2,2-Dichloropropane	ND		10.0	4000	11/26/2019 00:13	WG1386806
Di-isopropyl ether	ND		4.00	4000	11/26/2019 00:13	WG1386806
Ethylbenzene	ND		10.0	4000	11/26/2019 00:13	WG1386806
Hexachloro-1,3-butadiene	ND		100	4000	11/26/2019 00:13	WG1386806
Isopropylbenzene	ND		10.0	4000	11/26/2019 00:13	WG1386806
p-Isopropyltoluene	ND		20.0	4000	11/26/2019 00:13	WG1386806
2-Butanone (MEK)	ND		100	4000	11/26/2019 00:13	WG1386806
Methylene Chloride	ND		100	4000	11/26/2019 00:13	WG1386806
4-Methyl-2-pentanone (MIBK)	ND		100	4000	11/26/2019 00:13	WG1386806
Methyl tert-butyl ether	ND		4.00	4000	11/26/2019 00:13	WG1386806
Naphthalene	ND		50.0	4000	11/26/2019 00:13	WG1386806
n-Propylbenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
Styrene	ND		50.0	4000	11/26/2019 00:13	WG1386806
1,1,1,2-Tetrachloroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,1,2,2-Tetrachloroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 09:15

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
Tetrachloroethene	5310		10.0	4000	11/26/2019 00:13	WG1386806
Toluene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,2,3-Trichlorobenzene	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,2,4-Trichlorobenzene	ND		50.0	4000	11/26/2019 00:13	WG1386806
1,1,1-Trichloroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,1,2-Trichloroethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
Trichloroethene	104		4.00	4000	11/26/2019 00:13	WG1386806
Trichlorofluoromethane	ND		10.0	4000	11/26/2019 00:13	WG1386806
1,2,3-Trichloropropane	ND		50.0	4000	11/26/2019 00:13	WG1386806
1,2,4-Trimethylbenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,2,3-Trimethylbenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
1,3,5-Trimethylbenzene	ND		20.0	4000	11/26/2019 00:13	WG1386806
Vinyl chloride	ND		10.0	4000	11/26/2019 00:13	WG1386806
Xylenes, Total	ND		26.0	4000	11/26/2019 00:13	WG1386806
(S) Toluene-d8	102		75.0-131		11/26/2019 00:13	WG1386806
(S) 4-Bromofluorobenzene	97.2		67.0-138		11/26/2019 00:13	WG1386806
(S) 1,2-Dichloroethane-d4	99.7		70.0-130		11/26/2019 00:13	WG1386806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.6		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0250	1	11/23/2019 09:31	WG1385658
Acrylonitrile	ND		0.0125	1	11/23/2019 09:31	WG1385658
Benzene	0.00201		0.00100	1	11/23/2019 09:31	WG1385658
Bromobenzene	ND		0.0125	1	11/23/2019 09:31	WG1385658
Bromodichloromethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
Bromoform	ND		0.0250	1	11/23/2019 09:31	WG1385658
Bromomethane	ND		0.0125	1	11/23/2019 09:31	WG1385658
n-Butylbenzene	0.0221		0.0125	1	11/23/2019 09:31	WG1385658
sec-Butylbenzene	0.0216		0.0125	1	11/23/2019 09:31	WG1385658
tert-Butylbenzene	ND		0.00500	1	11/23/2019 09:31	WG1385658
Carbon tetrachloride	ND		0.00500	1	11/23/2019 09:31	WG1385658
Chlorobenzene	ND		0.00250	1	11/23/2019 09:31	WG1385658
Chlorodibromomethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
Chloroethane	ND		0.00500	1	11/23/2019 09:31	WG1385658
Chloroform	ND		0.00250	1	11/23/2019 09:31	WG1385658
Chloromethane	ND		0.0125	1	11/23/2019 09:31	WG1385658
2-Chlorotoluene	ND		0.00250	1	11/23/2019 09:31	WG1385658
4-Chlorotoluene	ND		0.00500	1	11/23/2019 09:31	WG1385658
1,2-Dibromo-3-Chloropropane	ND		0.0250	1	11/23/2019 09:31	WG1385658
1,2-Dibromoethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
Dibromomethane	ND		0.00500	1	11/23/2019 09:31	WG1385658
1,2-Dichlorobenzene	ND		0.00500	1	11/23/2019 09:31	WG1385658
1,3-Dichlorobenzene	ND		0.00500	1	11/23/2019 09:31	WG1385658
1,4-Dichlorobenzene	ND		0.00500	1	11/23/2019 09:31	WG1385658
Dichlorodifluoromethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,1-Dichloroethane	0.00601		0.00250	1	11/23/2019 09:31	WG1385658
1,2-Dichloroethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,1-Dichloroethene	0.00662		0.00250	1	11/23/2019 09:31	WG1385658
cis-1,2-Dichloroethene	8.40		0.0500	20	11/25/2019 15:39	WG1386505
trans-1,2-Dichloroethene	0.0492		0.00500	1	11/23/2019 09:31	WG1385658
1,2-Dichloropropane	ND		0.00500	1	11/23/2019 09:31	WG1385658
1,1-Dichloropropene	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,3-Dichloropropane	ND		0.00500	1	11/23/2019 09:31	WG1385658
cis-1,3-Dichloropropene	ND		0.00250	1	11/23/2019 09:31	WG1385658
trans-1,3-Dichloropropene	ND		0.00500	1	11/23/2019 09:31	WG1385658
2,2-Dichloropropane	ND		0.00250	1	11/23/2019 09:31	WG1385658
Di-isopropyl ether	ND		0.00100	1	11/23/2019 09:31	WG1385658
Ethylbenzene	0.00639		0.00250	1	11/23/2019 09:31	WG1385658
Hexachloro-1,3-butadiene	ND		0.0250	1	11/23/2019 09:31	WG1385658
Isopropylbenzene	0.00833		0.00250	1	11/23/2019 09:31	WG1385658
p-Isopropyltoluene	ND		0.00500	1	11/23/2019 09:31	WG1385658
2-Butanone (MEK)	0.0385	B	0.0250	1	11/23/2019 09:31	WG1385658
Methylene Chloride	ND		0.0250	1	11/23/2019 09:31	WG1385658
4-Methyl-2-pentanone (MIBK)	ND		0.0250	1	11/23/2019 09:31	WG1385658
Methyl tert-butyl ether	ND		0.00100	1	11/23/2019 09:31	WG1385658
Naphthalene	0.0381		0.0125	1	11/23/2019 09:31	WG1385658
n-Propylbenzene	0.00703		0.00500	1	11/23/2019 09:31	WG1385658
Styrene	ND		0.0125	1	11/23/2019 09:31	WG1385658
1,1,1,2-Tetrachloroethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,1,2,2-Tetrachloroethane	ND		0.00250	1	11/23/2019 09:31	WG1385658

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 09:35

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
Tetrachloroethene	0.355		0.00250	1	11/23/2019 09:31	WG1385658
Toluene	0.0271		0.00500	1	11/23/2019 09:31	WG1385658
1,2,3-Trichlorobenzene	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,2,4-Trichlorobenzene	ND		0.0125	1	11/23/2019 09:31	WG1385658
1,1,1-Trichloroethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,1,2-Trichloroethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
Trichloroethene	0.0604		0.00100	1	11/23/2019 09:31	WG1385658
Trichlorofluoromethane	ND		0.00250	1	11/23/2019 09:31	WG1385658
1,2,3-Trichloropropane	ND		0.0125	1	11/23/2019 09:31	WG1385658
1,2,4-Trimethylbenzene	0.0170	B	0.00500	1	11/23/2019 09:31	WG1385658
1,2,3-Trimethylbenzene	0.00842		0.00500	1	11/23/2019 09:31	WG1385658
1,3,5-Trimethylbenzene	0.00578	B	0.00500	1	11/23/2019 09:31	WG1385658
Vinyl chloride	0.133		0.00250	1	11/23/2019 09:31	WG1385658
Xylenes, Total	0.0479		0.00650	1	11/23/2019 09:31	WG1385658
(S) Toluene-d8	101		75.0-131		11/23/2019 09:31	WG1385658
(S) Toluene-d8	102		75.0-131		11/25/2019 15:39	WG1386505
(S) 4-Bromofluorobenzene	106		67.0-138		11/23/2019 09:31	WG1385658
(S) 4-Bromofluorobenzene	95.7		67.0-138		11/25/2019 15:39	WG1386505
(S) 1,2-Dichloroethane-d4	86.9		70.0-130		11/23/2019 09:31	WG1385658
(S) 1,2-Dichloroethane-d4	96.8		70.0-130		11/25/2019 15:39	WG1386505

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 10:00

L1161371

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.6		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND	J3 J4	0.0250	1	11/22/2019 11:40	WG1385201
Acrylonitrile	ND		0.0125	1	11/22/2019 11:40	WG1385201
Benzene	ND		0.00100	1	11/22/2019 11:40	WG1385201
Bromobenzene	ND		0.0125	1	11/22/2019 11:40	WG1385201
Bromodichloromethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
Bromoform	ND		0.0250	1	11/22/2019 11:40	WG1385201
Bromomethane	ND		0.0125	1	11/22/2019 11:40	WG1385201
n-Butylbenzene	ND		0.0125	1	11/22/2019 11:40	WG1385201
sec-Butylbenzene	ND		0.0125	1	11/22/2019 11:40	WG1385201
tert-Butylbenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
Carbon tetrachloride	ND		0.00500	1	11/22/2019 11:40	WG1385201
Chlorobenzene	ND		0.00250	1	11/22/2019 11:40	WG1385201
Chlorodibromomethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
Chloroethane	ND		0.00500	1	11/22/2019 11:40	WG1385201
Chloroform	ND		0.00250	1	11/22/2019 11:40	WG1385201
Chloromethane	ND		0.0125	1	11/22/2019 11:40	WG1385201
2-Chlorotoluene	ND		0.00250	1	11/22/2019 11:40	WG1385201
4-Chlorotoluene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,2-Dibromo-3-Chloropropane	ND		0.0250	1	11/22/2019 11:40	WG1385201
1,2-Dibromoethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
Dibromomethane	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,2-Dichlorobenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,3-Dichlorobenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,4-Dichlorobenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
Dichlorodifluoromethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,1-Dichloroethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,2-Dichloroethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,1-Dichloroethene	ND		0.00250	1	11/22/2019 11:40	WG1385201
cis-1,2-Dichloroethene	0.200		0.00250	1	11/22/2019 11:40	WG1385201
trans-1,2-Dichloroethene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,2-Dichloropropane	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,1-Dichloropropene	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,3-Dichloropropane	ND		0.00500	1	11/22/2019 11:40	WG1385201
cis-1,3-Dichloropropene	ND		0.00250	1	11/22/2019 11:40	WG1385201
trans-1,3-Dichloropropene	ND		0.00500	1	11/22/2019 11:40	WG1385201
2,2-Dichloropropane	ND		0.00250	1	11/22/2019 11:40	WG1385201
Di-isopropyl ether	ND		0.00100	1	11/22/2019 11:40	WG1385201
Ethylbenzene	ND		0.00250	1	11/22/2019 11:40	WG1385201
Hexachloro-1,3-butadiene	ND		0.0250	1	11/22/2019 11:40	WG1385201
Isopropylbenzene	ND		0.00250	1	11/22/2019 11:40	WG1385201
p-Isopropyltoluene	ND		0.00500	1	11/22/2019 11:40	WG1385201
2-Butanone (MEK)	ND		0.0250	1	11/22/2019 11:40	WG1385201
Methylene Chloride	ND		0.0250	1	11/22/2019 11:40	WG1385201
4-Methyl-2-pentanone (MIBK)	ND		0.0250	1	11/22/2019 11:40	WG1385201
Methyl tert-butyl ether	ND		0.00100	1	11/22/2019 11:40	WG1385201
Naphthalene	ND		0.0125	1	11/22/2019 11:40	WG1385201
n-Propylbenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
Styrene	ND		0.0125	1	11/22/2019 11:40	WG1385201
1,1,1,2-Tetrachloroethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,1,2,2-Tetrachloroethane	ND		0.00250	1	11/22/2019 11:40	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 10:00

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
Tetrachloroethene	0.0426		0.00250	1	11/22/2019 11:40	WG1385201
Toluene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,2,3-Trichlorobenzene	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,2,4-Trichlorobenzene	ND		0.0125	1	11/22/2019 11:40	WG1385201
1,1,1-Trichloroethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,1,2-Trichloroethane	ND	J4	0.00250	1	11/22/2019 11:40	WG1385201
Trichloroethene	0.00635		0.00100	1	11/22/2019 11:40	WG1385201
Trichlorofluoromethane	ND		0.00250	1	11/22/2019 11:40	WG1385201
1,2,3-Trichloropropane	ND		0.0125	1	11/22/2019 11:40	WG1385201
1,2,4-Trimethylbenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,2,3-Trimethylbenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
1,3,5-Trimethylbenzene	ND		0.00500	1	11/22/2019 11:40	WG1385201
Vinyl chloride	ND		0.00250	1	11/22/2019 11:40	WG1385201
Xylenes, Total	ND		0.00650	1	11/22/2019 11:40	WG1385201
(S) Toluene-d8	112		75.0-131		11/22/2019 11:40	WG1385201
(S) 4-Bromofluorobenzene	108		67.0-138		11/22/2019 11:40	WG1385201
(S) 1,2-Dichloroethane-d4	95.8		70.0-130		11/22/2019 11:40	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	60.1		10.0	100	11/23/2019 00:00	WG1385584
(S) a,a,a-Trifluorotoluene(FID)	97.6		77.0-120		11/23/2019 00:00	WG1385584

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		2.00	80	11/26/2019 00:32	WG1386806
Acrylonitrile	ND		1.00	80	11/26/2019 00:32	WG1386806
Benzene	ND		0.0800	80	11/26/2019 00:32	WG1386806
Bromobenzene	ND		1.00	80	11/26/2019 00:32	WG1386806
Bromodichloromethane	ND		0.200	80	11/26/2019 00:32	WG1386806
Bromoform	ND		2.00	80	11/26/2019 00:32	WG1386806
Bromomethane	ND		1.00	80	11/26/2019 00:32	WG1386806
n-Butylbenzene	ND		1.00	80	11/26/2019 00:32	WG1386806
sec-Butylbenzene	ND		1.00	80	11/26/2019 00:32	WG1386806
tert-Butylbenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
Carbon tetrachloride	ND		0.400	80	11/26/2019 00:32	WG1386806
Chlorobenzene	ND		0.200	80	11/26/2019 00:32	WG1386806
Chlorodibromomethane	ND		0.200	80	11/26/2019 00:32	WG1386806
Chloroethane	ND		0.400	80	11/26/2019 00:32	WG1386806
Chloroform	ND		0.200	80	11/26/2019 00:32	WG1386806
Chloromethane	ND		1.00	80	11/26/2019 00:32	WG1386806
2-Chlorotoluene	ND		0.200	80	11/26/2019 00:32	WG1386806
4-Chlorotoluene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,2-Dibromo-3-Chloropropane	ND		2.00	80	11/26/2019 00:32	WG1386806
1,2-Dibromoethane	ND		0.200	80	11/26/2019 00:32	WG1386806
Dibromomethane	ND		0.400	80	11/26/2019 00:32	WG1386806
1,2-Dichlorobenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,3-Dichlorobenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,4-Dichlorobenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
Dichlorodifluoromethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,1-Dichloroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,2-Dichloroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,1-Dichloroethene	ND		0.200	80	11/26/2019 00:32	WG1386806
cis-1,2-Dichloroethene	ND		0.200	80	11/26/2019 00:32	WG1386806
trans-1,2-Dichloroethene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,2-Dichloropropane	ND		0.400	80	11/26/2019 00:32	WG1386806
1,1-Dichloropropene	ND		0.200	80	11/26/2019 00:32	WG1386806
1,3-Dichloropropane	ND		0.400	80	11/26/2019 00:32	WG1386806
cis-1,3-Dichloropropene	ND		0.200	80	11/26/2019 00:32	WG1386806
trans-1,3-Dichloropropene	ND		0.400	80	11/26/2019 00:32	WG1386806
2,2-Dichloropropane	ND		0.200	80	11/26/2019 00:32	WG1386806
Di-isopropyl ether	ND		0.0800	80	11/26/2019 00:32	WG1386806
Ethylbenzene	ND		0.200	80	11/26/2019 00:32	WG1386806
Hexachloro-1,3-butadiene	ND		2.00	80	11/26/2019 00:32	WG1386806
Isopropylbenzene	ND		0.200	80	11/26/2019 00:32	WG1386806
p-Isopropyltoluene	ND		0.400	80	11/26/2019 00:32	WG1386806
2-Butanone (MEK)	ND		2.00	80	11/26/2019 00:32	WG1386806
Methylene Chloride	ND		2.00	80	11/26/2019 00:32	WG1386806
4-Methyl-2-pentanone (MIBK)	ND		2.00	80	11/26/2019 00:32	WG1386806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 10:20

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.0800	80	11/26/2019 00:32	WG1386806
Naphthalene	ND		1.00	80	11/26/2019 00:32	WG1386806
n-Propylbenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
Styrene	ND		1.00	80	11/26/2019 00:32	WG1386806
1,1,1,2-Tetrachloroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,1,2,2-Tetrachloroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,1,2-Trichlorotrifluoroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
Tetrachloroethene	127		0.200	80	11/26/2019 00:32	WG1386806
Toluene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,2,3-Trichlorobenzene	ND		0.200	80	11/26/2019 00:32	WG1386806
1,2,4-Trichlorobenzene	ND		1.00	80	11/26/2019 00:32	WG1386806
1,1,1-Trichloroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,1,2-Trichloroethane	ND		0.200	80	11/26/2019 00:32	WG1386806
Trichloroethene	ND		0.0800	80	11/26/2019 00:32	WG1386806
Trichlorofluoromethane	ND		0.200	80	11/26/2019 00:32	WG1386806
1,2,3-Trichloropropane	ND		1.00	80	11/26/2019 00:32	WG1386806
1,2,4-Trimethylbenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,2,3-Trimethylbenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
1,3,5-Trimethylbenzene	ND		0.400	80	11/26/2019 00:32	WG1386806
Vinyl chloride	ND		0.200	80	11/26/2019 00:32	WG1386806
Xylenes, Total	ND		0.520	80	11/26/2019 00:32	WG1386806
(S) Toluene-d8	102		75.0-131		11/26/2019 00:32	WG1386806
(S) 4-Bromofluorobenzene	96.3		67.0-138		11/26/2019 00:32	WG1386806
(S) 1,2-Dichloroethane-d4	98.8		70.0-130		11/26/2019 00:32	WG1386806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	518		20.0	5	11/18/2019 22:20	WG1382173
(S) o-Terphenyl	64.7		18.0-148		11/18/2019 22:20	WG1382173



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.0		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	10.4		2.50	25	11/23/2019 00:20	WG1385584
(S) a,a,a-Trifluorotoluene(FID)	99.0		77.0-120		11/23/2019 00:20	WG1385584

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.0442		0.0250	1	11/23/2019 09:53	WG1385658
Acrylonitrile	ND		0.0125	1	11/23/2019 09:53	WG1385658
Benzene	0.0120		0.00100	1	11/23/2019 09:53	WG1385658
Bromobenzene	ND		0.0125	1	11/23/2019 09:53	WG1385658
Bromodichloromethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
Bromoform	ND		0.0250	1	11/23/2019 09:53	WG1385658
Bromomethane	ND		0.0125	1	11/23/2019 09:53	WG1385658
n-Butylbenzene	ND		0.0125	1	11/23/2019 09:53	WG1385658
sec-Butylbenzene	ND		0.0125	1	11/23/2019 09:53	WG1385658
tert-Butylbenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
Carbon tetrachloride	ND		0.00500	1	11/23/2019 09:53	WG1385658
Chlorobenzene	ND		0.00250	1	11/23/2019 09:53	WG1385658
Chlorodibromomethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
Chloroethane	ND		0.00500	1	11/23/2019 09:53	WG1385658
Chloroform	ND		0.00250	1	11/23/2019 09:53	WG1385658
Chloromethane	ND		0.0125	1	11/23/2019 09:53	WG1385658
2-Chlorotoluene	ND		0.00250	1	11/23/2019 09:53	WG1385658
4-Chlorotoluene	ND		0.00500	1	11/23/2019 09:53	WG1385658
1,2-Dibromo-3-Chloropropane	ND		0.0250	1	11/23/2019 09:53	WG1385658
1,2-Dibromoethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
Dibromomethane	ND		0.00500	1	11/23/2019 09:53	WG1385658
1,2-Dichlorobenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
1,3-Dichlorobenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
1,4-Dichlorobenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
Dichlorodifluoromethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,1-Dichloroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,2-Dichloroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,1-Dichloroethene	ND		0.00250	1	11/23/2019 09:53	WG1385658
cis-1,2-Dichloroethene	0.0778		0.0200	8	11/22/2019 13:21	WG1385201
trans-1,2-Dichloroethene	0.0188		0.00500	1	11/23/2019 09:53	WG1385658
1,2-Dichloropropane	ND		0.00500	1	11/23/2019 09:53	WG1385658
1,1-Dichloropropene	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,3-Dichloropropane	ND		0.00500	1	11/23/2019 09:53	WG1385658
cis-1,3-Dichloropropene	ND		0.00250	1	11/23/2019 09:53	WG1385658
trans-1,3-Dichloropropene	ND		0.00500	1	11/23/2019 09:53	WG1385658
2,2-Dichloropropane	ND		0.00250	1	11/23/2019 09:53	WG1385658
Di-isopropyl ether	ND		0.00100	1	11/23/2019 09:53	WG1385658
Ethylbenzene	0.00440		0.00250	1	11/23/2019 09:53	WG1385658
Hexachloro-1,3-butadiene	ND		0.0250	1	11/23/2019 09:53	WG1385658
Isopropylbenzene	ND		0.00250	1	11/23/2019 09:53	WG1385658
p-Isopropyltoluene	ND		0.00500	1	11/23/2019 09:53	WG1385658
2-Butanone (MEK)	ND		0.0250	1	11/23/2019 09:53	WG1385658
Methylene Chloride	ND		0.0250	1	11/23/2019 09:53	WG1385658
4-Methyl-2-pentanone (MIBK)	ND		0.0250	1	11/23/2019 09:53	WG1385658

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 10:35

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.0135		0.00100	1	11/23/2019 09:53	WG1385658
Naphthalene	ND		0.0125	1	11/23/2019 09:53	WG1385658
n-Propylbenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
Styrene	ND		0.0125	1	11/23/2019 09:53	WG1385658
1,1,1,2-Tetrachloroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,1,2,2-Tetrachloroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,1,2-Trichlorotrifluoroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
Tetrachloroethene	0.0510		0.00250	1	11/23/2019 09:53	WG1385658
Toluene	0.0105		0.00500	1	11/23/2019 09:53	WG1385658
1,2,3-Trichlorobenzene	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,2,4-Trichlorobenzene	ND		0.0125	1	11/23/2019 09:53	WG1385658
1,1,1-Trichloroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,1,2-Trichloroethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
Trichloroethene	0.0102		0.00100	1	11/23/2019 09:53	WG1385658
Trichlorofluoromethane	ND		0.00250	1	11/23/2019 09:53	WG1385658
1,2,3-Trichloropropane	ND		0.0125	1	11/23/2019 09:53	WG1385658
1,2,4-Trimethylbenzene	0.0105	B	0.00500	1	11/23/2019 09:53	WG1385658
1,2,3-Trimethylbenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
1,3,5-Trimethylbenzene	ND		0.00500	1	11/23/2019 09:53	WG1385658
Vinyl chloride	0.0847		0.00250	1	11/23/2019 09:53	WG1385658
Xylenes, Total	0.0187		0.00650	1	11/23/2019 09:53	WG1385658
(S) Toluene-d8	110		75.0-131		11/22/2019 13:21	WG1385201
(S) Toluene-d8	99.3		75.0-131		11/23/2019 09:53	WG1385658
(S) 4-Bromofluorobenzene	109		67.0-138		11/22/2019 13:21	WG1385201
(S) 4-Bromofluorobenzene	99.7		67.0-138		11/23/2019 09:53	WG1385658
(S) 1,2-Dichloroethane-d4	97.3		70.0-130		11/22/2019 13:21	WG1385201
(S) 1,2-Dichloroethane-d4	88.4		70.0-130		11/23/2019 09:53	WG1385658

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	18.4		4.00	1	11/19/2019 17:12	WG1382173
(S) o-Terphenyl	49.4		18.0-148		11/19/2019 17:12	WG1382173



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.5		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	0.0596	J3 J4	0.0250	1	11/22/2019 12:01	WG1385201
Acrylonitrile	ND		0.0125	1	11/22/2019 12:01	WG1385201
Benzene	ND		0.00100	1	11/22/2019 12:01	WG1385201
Bromobenzene	ND		0.0125	1	11/22/2019 12:01	WG1385201
Bromodichloromethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
Bromoform	ND		0.0250	1	11/22/2019 12:01	WG1385201
Bromomethane	ND		0.0125	1	11/22/2019 12:01	WG1385201
n-Butylbenzene	ND		0.0125	1	11/22/2019 12:01	WG1385201
sec-Butylbenzene	ND		0.0125	1	11/22/2019 12:01	WG1385201
tert-Butylbenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
Carbon tetrachloride	ND		0.00500	1	11/22/2019 12:01	WG1385201
Chlorobenzene	ND		0.00250	1	11/22/2019 12:01	WG1385201
Chlorodibromomethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
Chloroethane	ND		0.00500	1	11/22/2019 12:01	WG1385201
Chloroform	ND		0.00250	1	11/22/2019 12:01	WG1385201
Chloromethane	ND		0.0125	1	11/22/2019 12:01	WG1385201
2-Chlorotoluene	ND		0.00250	1	11/22/2019 12:01	WG1385201
4-Chlorotoluene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,2-Dibromo-3-Chloropropane	ND		0.0250	1	11/22/2019 12:01	WG1385201
1,2-Dibromoethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
Dibromomethane	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,2-Dichlorobenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,3-Dichlorobenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,4-Dichlorobenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
Dichlorodifluoromethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,1-Dichloroethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,2-Dichloroethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,1-Dichloroethene	ND		0.00250	1	11/22/2019 12:01	WG1385201
cis-1,2-Dichloroethene	0.259		0.00250	1	11/22/2019 12:01	WG1385201
trans-1,2-Dichloroethene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,2-Dichloropropane	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,1-Dichloropropene	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,3-Dichloropropane	ND		0.00500	1	11/22/2019 12:01	WG1385201
cis-1,3-Dichloropropene	0.00368		0.00250	1	11/22/2019 12:01	WG1385201
trans-1,3-Dichloropropene	ND		0.00500	1	11/22/2019 12:01	WG1385201
2,2-Dichloropropane	ND		0.00250	1	11/22/2019 12:01	WG1385201
Di-isopropyl ether	ND		0.00100	1	11/22/2019 12:01	WG1385201
Ethylbenzene	ND		0.00250	1	11/22/2019 12:01	WG1385201
Hexachloro-1,3-butadiene	ND		0.0250	1	11/22/2019 12:01	WG1385201
Isopropylbenzene	ND		0.00250	1	11/22/2019 12:01	WG1385201
p-Isopropyltoluene	ND		0.00500	1	11/22/2019 12:01	WG1385201
2-Butanone (MEK)	ND		0.0250	1	11/22/2019 12:01	WG1385201
Methylene Chloride	ND		0.0250	1	11/22/2019 12:01	WG1385201
4-Methyl-2-pentanone (MIBK)	ND		0.0250	1	11/22/2019 12:01	WG1385201
Methyl tert-butyl ether	ND		0.00100	1	11/22/2019 12:01	WG1385201
Naphthalene	ND		0.0125	1	11/22/2019 12:01	WG1385201
n-Propylbenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
Styrene	ND		0.0125	1	11/22/2019 12:01	WG1385201
1,1,1,2-Tetrachloroethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,1,2,2-Tetrachloroethane	ND		0.00250	1	11/22/2019 12:01	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 10:55

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
Tetrachloroethene	0.0763		0.00250	1	11/22/2019 12:01	WG1385201
Toluene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,2,3-Trichlorobenzene	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,2,4-Trichlorobenzene	ND		0.0125	1	11/22/2019 12:01	WG1385201
1,1,1-Trichloroethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,1,2-Trichloroethane	ND	J4	0.00250	1	11/22/2019 12:01	WG1385201
Trichloroethene	0.0180		0.00100	1	11/22/2019 12:01	WG1385201
Trichlorofluoromethane	ND		0.00250	1	11/22/2019 12:01	WG1385201
1,2,3-Trichloropropane	ND		0.0125	1	11/22/2019 12:01	WG1385201
1,2,4-Trimethylbenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,2,3-Trimethylbenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
1,3,5-Trimethylbenzene	ND		0.00500	1	11/22/2019 12:01	WG1385201
Vinyl chloride	ND		0.00250	1	11/22/2019 12:01	WG1385201
Xylenes, Total	ND		0.00650	1	11/22/2019 12:01	WG1385201
(S) Toluene-d8	110		75.0-131		11/22/2019 12:01	WG1385201
(S) 4-Bromofluorobenzene	109		67.0-138		11/22/2019 12:01	WG1385201
(S) 1,2-Dichloroethane-d4	94.3		70.0-130		11/22/2019 12:01	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 11:10

L1161371

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.9		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND	J3 J4	0.200	8	11/22/2019 17:13	WG1385201
Acrylonitrile	ND		0.100	8	11/22/2019 17:13	WG1385201
Benzene	ND		0.00800	8	11/22/2019 17:13	WG1385201
Bromobenzene	ND		0.100	8	11/22/2019 17:13	WG1385201
Bromodichloromethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
Bromoform	ND		0.200	8	11/22/2019 17:13	WG1385201
Bromomethane	ND		0.100	8	11/22/2019 17:13	WG1385201
n-Butylbenzene	0.103		0.100	8	11/22/2019 17:13	WG1385201
sec-Butylbenzene	ND		0.100	8	11/22/2019 17:13	WG1385201
tert-Butylbenzene	ND		0.0400	8	11/22/2019 17:13	WG1385201
Carbon tetrachloride	ND		0.0400	8	11/22/2019 17:13	WG1385201
Chlorobenzene	ND		0.0200	8	11/22/2019 17:13	WG1385201
Chlorodibromomethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
Chloroethane	ND		0.0400	8	11/22/2019 17:13	WG1385201
Chloroform	ND		0.0200	8	11/22/2019 17:13	WG1385201
Chloromethane	ND		0.100	8	11/22/2019 17:13	WG1385201
2-Chlorotoluene	ND		0.0200	8	11/22/2019 17:13	WG1385201
4-Chlorotoluene	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,2-Dibromo-3-Chloropropane	ND		0.200	8	11/22/2019 17:13	WG1385201
1,2-Dibromoethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
Dibromomethane	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,2-Dichlorobenzene	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,3-Dichlorobenzene	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,4-Dichlorobenzene	ND		0.0400	8	11/22/2019 17:13	WG1385201
Dichlorodifluoromethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,1-Dichloroethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,2-Dichloroethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,1-Dichloroethene	ND		0.0200	8	11/22/2019 17:13	WG1385201
cis-1,2-Dichloroethene	0.354		0.0200	8	11/22/2019 17:13	WG1385201
trans-1,2-Dichloroethene	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,2-Dichloropropane	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,1-Dichloropropene	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,3-Dichloropropane	ND		0.0400	8	11/22/2019 17:13	WG1385201
cis-1,3-Dichloropropene	ND		0.0200	8	11/22/2019 17:13	WG1385201
trans-1,3-Dichloropropene	ND		0.0400	8	11/22/2019 17:13	WG1385201
2,2-Dichloropropane	ND		0.0200	8	11/22/2019 17:13	WG1385201
Di-isopropyl ether	ND		0.00800	8	11/22/2019 17:13	WG1385201
Ethylbenzene	ND		0.0200	8	11/22/2019 17:13	WG1385201
Hexachloro-1,3-butadiene	ND		0.200	8	11/22/2019 17:13	WG1385201
Isopropylbenzene	ND		0.0200	8	11/22/2019 17:13	WG1385201
p-Isopropyltoluene	ND		0.0400	8	11/22/2019 17:13	WG1385201
2-Butanone (MEK)	ND		0.200	8	11/22/2019 17:13	WG1385201
Methylene Chloride	ND		0.200	8	11/22/2019 17:13	WG1385201
4-Methyl-2-pentanone (MIBK)	ND		0.200	8	11/22/2019 17:13	WG1385201
Methyl tert-butyl ether	ND		0.00800	8	11/22/2019 17:13	WG1385201
Naphthalene	ND		0.100	8	11/22/2019 17:13	WG1385201
n-Propylbenzene	ND		0.0400	8	11/22/2019 17:13	WG1385201
Styrene	ND		0.100	8	11/22/2019 17:13	WG1385201
1,1,1,2-Tetrachloroethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,1,2,2-Tetrachloroethane	ND		0.0200	8	11/22/2019 17:13	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 11:10

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
Tetrachloroethene	7.23		0.0200	8	11/22/2019 17:13	WG1385201
Toluene	ND		0.0400	8	11/22/2019 17:13	WG1385201
1,2,3-Trichlorobenzene	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,2,4-Trichlorobenzene	ND		0.100	8	11/22/2019 17:13	WG1385201
1,1,1-Trichloroethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,1,2-Trichloroethane	ND	J4	0.0200	8	11/22/2019 17:13	WG1385201
Trichloroethene	0.165		0.00800	8	11/22/2019 17:13	WG1385201
Trichlorofluoromethane	ND		0.0200	8	11/22/2019 17:13	WG1385201
1,2,3-Trichloropropane	ND		0.100	8	11/22/2019 17:13	WG1385201
1,2,4-Trimethylbenzene	0.218		0.0400	8	11/22/2019 17:13	WG1385201
1,2,3-Trimethylbenzene	0.139		0.0400	8	11/22/2019 17:13	WG1385201
1,3,5-Trimethylbenzene	0.0680		0.0400	8	11/22/2019 17:13	WG1385201
Vinyl chloride	ND		0.0200	8	11/22/2019 17:13	WG1385201
Xylenes, Total	ND		0.0520	8	11/22/2019 17:13	WG1385201
(S) Toluene-d8	114		75.0-131		11/22/2019 17:13	WG1385201
(S) 4-Bromofluorobenzene	106		67.0-138		11/22/2019 17:13	WG1385201
(S) 1,2-Dichloroethane-d4	93.6		70.0-130		11/22/2019 17:13	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		50.0	2000	11/26/2019 00:51	WG1386806
Acrylonitrile	ND		25.0	2000	11/26/2019 00:51	WG1386806
Benzene	ND		2.00	2000	11/26/2019 00:51	WG1386806
Bromobenzene	ND		25.0	2000	11/26/2019 00:51	WG1386806
Bromodichloromethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
Bromoform	ND		50.0	2000	11/26/2019 00:51	WG1386806
Bromomethane	ND		25.0	2000	11/26/2019 00:51	WG1386806
n-Butylbenzene	ND		25.0	2000	11/26/2019 00:51	WG1386806
sec-Butylbenzene	ND		25.0	2000	11/26/2019 00:51	WG1386806
tert-Butylbenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
Carbon tetrachloride	ND		10.0	2000	11/26/2019 00:51	WG1386806
Chlorobenzene	ND		5.00	2000	11/26/2019 00:51	WG1386806
Chlorodibromomethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
Chloroethane	ND		10.0	2000	11/26/2019 00:51	WG1386806
Chloroform	ND		5.00	2000	11/26/2019 00:51	WG1386806
Chloromethane	ND		25.0	2000	11/26/2019 00:51	WG1386806
2-Chlorotoluene	ND		5.00	2000	11/26/2019 00:51	WG1386806
4-Chlorotoluene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,2-Dibromo-3-Chloropropane	ND		50.0	2000	11/26/2019 00:51	WG1386806
1,2-Dibromoethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
Dibromomethane	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,2-Dichlorobenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,3-Dichlorobenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,4-Dichlorobenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
Dichlorodifluoromethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,1-Dichloroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,2-Dichloroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,1-Dichloroethene	ND		5.00	2000	11/26/2019 00:51	WG1386806
cis-1,2-Dichloroethene	9.15		5.00	2000	11/26/2019 00:51	WG1386806
trans-1,2-Dichloroethene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,2-Dichloropropane	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,1-Dichloropropene	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,3-Dichloropropane	ND		10.0	2000	11/26/2019 00:51	WG1386806
cis-1,3-Dichloropropene	ND		5.00	2000	11/26/2019 00:51	WG1386806
trans-1,3-Dichloropropene	ND		10.0	2000	11/26/2019 00:51	WG1386806
2,2-Dichloropropane	ND		5.00	2000	11/26/2019 00:51	WG1386806
Di-isopropyl ether	ND		2.00	2000	11/26/2019 00:51	WG1386806
Ethylbenzene	ND		5.00	2000	11/26/2019 00:51	WG1386806
Hexachloro-1,3-butadiene	ND		50.0	2000	11/26/2019 00:51	WG1386806
Isopropylbenzene	ND		5.00	2000	11/26/2019 00:51	WG1386806
p-Isopropyltoluene	ND		10.0	2000	11/26/2019 00:51	WG1386806
2-Butanone (MEK)	ND		50.0	2000	11/26/2019 00:51	WG1386806
Methylene Chloride	ND		50.0	2000	11/26/2019 00:51	WG1386806
4-Methyl-2-pentanone (MIBK)	ND		50.0	2000	11/26/2019 00:51	WG1386806
Methyl tert-butyl ether	ND		2.00	2000	11/26/2019 00:51	WG1386806
Naphthalene	ND		25.0	2000	11/26/2019 00:51	WG1386806
n-Propylbenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
Styrene	ND		25.0	2000	11/26/2019 00:51	WG1386806
1,1,1,2-Tetrachloroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,1,2,2-Tetrachloroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 11:25

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
Tetrachloroethene	3570		5.00	2000	11/26/2019 00:51	WG1386806
Toluene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,2,3-Trichlorobenzene	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,2,4-Trichlorobenzene	ND		25.0	2000	11/26/2019 00:51	WG1386806
1,1,1-Trichloroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,1,2-Trichloroethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
Trichloroethene	87.7		2.00	2000	11/26/2019 00:51	WG1386806
Trichlorofluoromethane	ND		5.00	2000	11/26/2019 00:51	WG1386806
1,2,3-Trichloropropane	ND		25.0	2000	11/26/2019 00:51	WG1386806
1,2,4-Trimethylbenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,2,3-Trimethylbenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
1,3,5-Trimethylbenzene	ND		10.0	2000	11/26/2019 00:51	WG1386806
Vinyl chloride	ND		5.00	2000	11/26/2019 00:51	WG1386806
Xylenes, Total	ND		13.0	2000	11/26/2019 00:51	WG1386806
(S) Toluene-d8	101		75.0-131		11/26/2019 00:51	WG1386806
(S) 4-Bromofluorobenzene	93.8		67.0-138		11/26/2019 00:51	WG1386806
(S) 1,2-Dichloroethane-d4	101		70.0-130		11/26/2019 00:51	WG1386806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Collected date/time: 11/14/19 11:40

L1161371

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.1		1	11/21/2019 14:06	WG1384385

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND	J3 J4	0.0250	1	11/22/2019 12:21	WG1385201
Acrylonitrile	ND		0.0125	1	11/22/2019 12:21	WG1385201
Benzene	ND		0.00100	1	11/22/2019 12:21	WG1385201
Bromobenzene	ND		0.0125	1	11/22/2019 12:21	WG1385201
Bromodichloromethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
Bromoform	ND		0.0250	1	11/22/2019 12:21	WG1385201
Bromomethane	ND		0.0125	1	11/22/2019 12:21	WG1385201
n-Butylbenzene	ND		0.0125	1	11/22/2019 12:21	WG1385201
sec-Butylbenzene	ND		0.0125	1	11/22/2019 12:21	WG1385201
tert-Butylbenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
Carbon tetrachloride	ND		0.00500	1	11/22/2019 12:21	WG1385201
Chlorobenzene	ND		0.00250	1	11/22/2019 12:21	WG1385201
Chlorodibromomethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
Chloroethane	ND		0.00500	1	11/22/2019 12:21	WG1385201
Chloroform	ND		0.00250	1	11/22/2019 12:21	WG1385201
Chloromethane	ND		0.0125	1	11/22/2019 12:21	WG1385201
2-Chlorotoluene	ND		0.00250	1	11/22/2019 12:21	WG1385201
4-Chlorotoluene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,2-Dibromo-3-Chloropropane	ND		0.0250	1	11/22/2019 12:21	WG1385201
1,2-Dibromoethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
Dibromomethane	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,2-Dichlorobenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,3-Dichlorobenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,4-Dichlorobenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
Dichlorodifluoromethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,1-Dichloroethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,2-Dichloroethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,1-Dichloroethene	ND		0.00250	1	11/22/2019 12:21	WG1385201
cis-1,2-Dichloroethene	0.0241		0.00250	1	11/22/2019 12:21	WG1385201
trans-1,2-Dichloroethene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,2-Dichloropropane	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,1-Dichloropropene	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,3-Dichloropropane	ND		0.00500	1	11/22/2019 12:21	WG1385201
cis-1,3-Dichloropropene	ND		0.00250	1	11/22/2019 12:21	WG1385201
trans-1,3-Dichloropropene	ND		0.00500	1	11/22/2019 12:21	WG1385201
2,2-Dichloropropane	ND		0.00250	1	11/22/2019 12:21	WG1385201
Di-isopropyl ether	ND		0.00100	1	11/22/2019 12:21	WG1385201
Ethylbenzene	ND		0.00250	1	11/22/2019 12:21	WG1385201
Hexachloro-1,3-butadiene	ND		0.0250	1	11/22/2019 12:21	WG1385201
Isopropylbenzene	ND		0.00250	1	11/22/2019 12:21	WG1385201
p-Isopropyltoluene	ND		0.00500	1	11/22/2019 12:21	WG1385201
2-Butanone (MEK)	ND		0.0250	1	11/22/2019 12:21	WG1385201
Methylene Chloride	ND		0.0250	1	11/22/2019 12:21	WG1385201
4-Methyl-2-pentanone (MIBK)	ND		0.0250	1	11/22/2019 12:21	WG1385201
Methyl tert-butyl ether	ND		0.00100	1	11/22/2019 12:21	WG1385201
Naphthalene	ND		0.0125	1	11/22/2019 12:21	WG1385201
n-Propylbenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
Styrene	ND		0.0125	1	11/22/2019 12:21	WG1385201
1,1,1,2-Tetrachloroethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,1,2,2-Tetrachloroethane	ND		0.00250	1	11/22/2019 12:21	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/14/19 11:40

L1161371

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
Tetrachloroethene	0.0939		0.00250	1	11/22/2019 12:21	WG1385201
Toluene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,2,3-Trichlorobenzene	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,2,4-Trichlorobenzene	ND		0.0125	1	11/22/2019 12:21	WG1385201
1,1,1-Trichloroethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,1,2-Trichloroethane	ND	J4	0.00250	1	11/22/2019 12:21	WG1385201
Trichloroethene	0.00683		0.00100	1	11/22/2019 12:21	WG1385201
Trichlorofluoromethane	ND		0.00250	1	11/22/2019 12:21	WG1385201
1,2,3-Trichloropropane	ND		0.0125	1	11/22/2019 12:21	WG1385201
1,2,4-Trimethylbenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,2,3-Trimethylbenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
1,3,5-Trimethylbenzene	ND		0.00500	1	11/22/2019 12:21	WG1385201
Vinyl chloride	ND		0.00250	1	11/22/2019 12:21	WG1385201
Xylenes, Total	ND		0.00650	1	11/22/2019 12:21	WG1385201
(S) Toluene-d8	111		75.0-131		11/22/2019 12:21	WG1385201
(S) 4-Bromofluorobenzene	108		67.0-138		11/22/2019 12:21	WG1385201
(S) 1,2-Dichloroethane-d4	95.8		70.0-130		11/22/2019 12:21	WG1385201

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

L1161371-01

Method Blank (MB)

(MB) R3475154-1 11/21/19 18:16

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

L161371-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1161371-01 11/21/19 18:16 • (DUP) R3475154-3 11/21/19 18:16

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	92.2	92.9	1	0.712		10

Laboratory Control Sample (LCS)

(LCS) R3475154-2 11/21/19 18:16

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Total Solids	50.0	50.1	100	85.0-115	

 ^1Cp ^{99m}Tc 3S_s ${}^4\text{Cn}$ ^{87}Sr ${}^6\text{Qc}$

G|

 ${}^8\text{Al}$

Sc

Method Blank (MB)

(MB) R3475049-1 11/21/19 14:06

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Solids	0.000			

L1161371-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1161371-07 11/21/19 14:06 • (DUP) R3475049-3 11/21/19 14:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Solids	85.0	85.4	1	0.423		10

Laboratory Control Sample (LCS)

(LCS) R3475049-2 11/21/19 14:06

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3475616-2 11/22/19 23:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0270	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	97.0			77.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3475616-1 11/22/19 22:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.58	120	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			111	77.0-120	

Method Blank (MB)

(MB) R3475215-3 11/22/19 07:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3475215-3 11/22/19 07:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	112			75.0-131
(S) 4-Bromofluorobenzene	107			67.0-138
(S) 1,2-Dichloroethane-d4	95.6			70.0-130

1

Cp

2

Tc

3

Ss

4

Cn

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Sr

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Qc

7

Gl

8

Al

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Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3475215-1 11/22/19 06:03 • (LCSD) R3475215-2 11/22/19 06:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	1.07	0.728	171	116	10.0-160	J4	J3	38.0	31
Acrylonitrile	0.625	0.927	0.818	148	131	45.0-153			12.5	22
Benzene	0.125	0.128	0.119	102	95.2	70.0-123			7.29	20
Bromobenzene	0.125	0.134	0.129	107	103	73.0-121			3.80	20
Bromodichloromethane	0.125	0.121	0.119	96.8	95.2	73.0-121			1.67	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3475215-1 11/22/19 06:03 • (LCSD) R3475215-2 11/22/19 06:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.125	0.110	0.108	88.0	86.4	64.0-132			1.83	20
Bromomethane	0.125	0.125	0.107	100	85.6	56.0-147			15.5	20
n-Butylbenzene	0.125	0.123	0.118	98.4	94.4	68.0-135			4.15	20
sec-Butylbenzene	0.125	0.127	0.118	102	94.4	74.0-130			7.35	20
tert-Butylbenzene	0.125	0.131	0.119	105	95.2	75.0-127			9.60	20
Carbon tetrachloride	0.125	0.113	0.104	90.4	83.2	66.0-128			8.29	20
Chlorobenzene	0.125	0.137	0.127	110	102	76.0-128			7.58	20
Chlorodibromomethane	0.125	0.120	0.116	96.0	92.8	74.0-127			3.39	20
Chloroethane	0.125	0.143	0.130	114	104	61.0-134			9.52	20
Chloroform	0.125	0.125	0.117	100	93.6	72.0-123			6.61	20
Chloromethane	0.125	0.145	0.136	116	109	51.0-138			6.41	20
2-Chlorotoluene	0.125	0.128	0.118	102	94.4	75.0-124			8.13	20
4-Chlorotoluene	0.125	0.127	0.120	102	96.0	75.0-124			5.67	20
1,2-Dibromo-3-Chloropropane	0.125	0.115	0.113	92.0	90.4	59.0-130			1.75	20
1,2-Dibromoethane	0.125	0.132	0.133	106	106	74.0-128			0.755	20
Dibromomethane	0.125	0.125	0.124	100	99.2	75.0-122			0.803	20
1,2-Dichlorobenzene	0.125	0.135	0.136	108	109	76.0-124			0.738	20
1,3-Dichlorobenzene	0.125	0.129	0.123	103	98.4	76.0-125			4.76	20
1,4-Dichlorobenzene	0.125	0.129	0.127	103	102	77.0-121			1.56	20
Dichlorodifluoromethane	0.125	0.128	0.119	102	95.2	43.0-156			7.29	20
1,1-Dichloroethane	0.125	0.133	0.123	106	98.4	70.0-127			7.81	20
1,2-Dichloroethane	0.125	0.127	0.120	102	96.0	65.0-131			5.67	20
1,1-Dichloroethene	0.125	0.118	0.105	94.4	84.0	65.0-131			11.7	20
cis-1,2-Dichloroethene	0.125	0.143	0.133	114	106	73.0-125			7.25	20
trans-1,2-Dichloroethene	0.125	0.134	0.126	107	101	71.0-125			6.15	20
1,2-Dichloropropane	0.125	0.124	0.118	99.2	94.4	74.0-125			4.96	20
1,1-Dichloropropene	0.125	0.115	0.104	92.0	83.2	73.0-125			10.0	20
1,3-Dichloropropane	0.125	0.132	0.125	106	100	80.0-125			5.45	20
cis-1,3-Dichloropropene	0.125	0.106	0.105	84.8	84.0	76.0-127			0.948	20
trans-1,3-Dichloropropene	0.125	0.115	0.108	92.0	86.4	73.0-127			6.28	20
2,2-Dichloropropane	0.125	0.0982	0.106	78.6	84.8	59.0-135			7.64	20
Di-isopropyl ether	0.125	0.134	0.130	107	104	60.0-136			3.03	20
Ethylbenzene	0.125	0.149	0.135	119	108	74.0-126			9.86	20
Hexachloro-1,3-butadiene	0.125	0.120	0.119	96.0	95.2	57.0-150			0.837	20
Isopropylbenzene	0.125	0.127	0.117	102	93.6	72.0-127			8.20	20
p-Isopropyltoluene	0.125	0.121	0.116	96.8	92.8	72.0-133			4.22	20
2-Butanone (MEK)	0.625	0.747	0.644	120	103	30.0-160			14.8	24
Methylene Chloride	0.125	0.127	0.121	102	96.8	68.0-123			4.84	20
4-Methyl-2-pentanone (MIBK)	0.625	0.789	0.756	126	121	56.0-143			4.27	20
Methyl tert-butyl ether	0.125	0.138	0.138	110	110	66.0-132			0.000	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3475215-1 11/22/19 06:03 • (LCSD) R3475215-2 11/22/19 06:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.105	0.105	84.0	84.0	59.0-130			0.000	20
n-Propylbenzene	0.125	0.122	0.112	97.6	89.6	74.0-126			8.55	20
Styrene	0.125	0.133	0.123	106	98.4	72.0-127			7.81	20
1,1,1,2-Tetrachloroethane	0.125	0.133	0.126	106	101	74.0-129			5.41	20
1,1,2,2-Tetrachloroethane	0.125	0.128	0.131	102	105	68.0-128			2.32	20
Tetrachloroethene	0.125	0.137	0.123	110	98.4	70.0-136			10.8	20
Toluene	0.125	0.134	0.123	107	98.4	75.0-121			8.56	20
1,1,2-Trichlorotrifluoroethane	0.125	0.108	0.102	86.4	81.6	61.0-139			5.71	20
1,2,3-Trichlorobenzene	0.125	0.101	0.103	80.8	82.4	59.0-139			1.96	20
1,2,4-Trichlorobenzene	0.125	0.114	0.115	91.2	92.0	62.0-137			0.873	20
1,1,1-Trichloroethane	0.125	0.119	0.115	95.2	92.0	69.0-126			3.42	20
1,1,2-Trichloroethane	0.125	0.162	0.154	130	123	78.0-123	J4		5.06	20
Trichloroethene	0.125	0.131	0.122	105	97.6	76.0-126			7.11	20
Trichlorofluoromethane	0.125	0.113	0.101	90.4	80.8	61.0-142			11.2	20
1,2,3-Trichloropropane	0.125	0.156	0.146	125	117	67.0-129			6.62	20
1,2,3-Trimethylbenzene	0.125	0.130	0.123	104	98.4	74.0-124			5.53	20
1,2,4-Trimethylbenzene	0.125	0.128	0.118	102	94.4	70.0-126			8.13	20
1,3,5-Trimethylbenzene	0.125	0.123	0.113	98.4	90.4	73.0-127			8.47	20
Vinyl chloride	0.125	0.132	0.122	106	97.6	63.0-134			7.87	20
Xylenes, Total	0.375	0.454	0.415	121	111	72.0-127			8.98	20
(S) Toluene-d8				113	110	75.0-131				
(S) 4-Bromofluorobenzene				107	107	67.0-138				
(S) 1,2-Dichloroethane-d4				101	99.3	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1161371-04.07

Method Blank (MB)

(MB) R3475649-2 11/22/19 23:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.000684	U	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250
p-Isopropyltoluene	U		0.00233	0.00500

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3475649-2 11/22/19 23:42

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2-Butanone (MEK)	0.0396		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	0.00379	U	0.00116	0.00500
1,3,5-Trimethylbenzene	0.00127	U	0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	103			75.0-131
(S) 4-Bromofluorobenzene	100			67.0-138
(S) 1,2-Dichloroethane-d4	88.0			70.0-130

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3475649-1 11/22/19 22:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.414	66.2	10.0-160	
Acrylonitrile	0.625	0.517	82.7	45.0-153	
Benzene	0.125	0.120	96.0	70.0-123	
Bromobenzene	0.125	0.123	98.4	73.0-121	
Bromodichloromethane	0.125	0.124	99.2	73.0-121	
Bromoform	0.125	0.127	102	64.0-132	

Laboratory Control Sample (LCS)

(LCS) R3475649-1 11/22/19 22:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromomethane	0.125	0.112	89.6	56.0-147	
n-Butylbenzene	0.125	0.126	101	68.0-135	
sec-Butylbenzene	0.125	0.131	105	74.0-130	
tert-Butylbenzene	0.125	0.131	105	75.0-127	
Carbon tetrachloride	0.125	0.131	105	66.0-128	
Chlorobenzene	0.125	0.126	101	76.0-128	
Chlorodibromomethane	0.125	0.139	111	74.0-127	
Chloroethane	0.125	0.102	81.6	61.0-134	
Chloroform	0.125	0.115	92.0	72.0-123	
Chloromethane	0.125	0.100	80.0	51.0-138	
2-Chlorotoluene	0.125	0.123	98.4	75.0-124	
4-Chlorotoluene	0.125	0.125	100	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.103	82.4	59.0-130	
1,2-Dibromoethane	0.125	0.133	106	74.0-128	
Dibromomethane	0.125	0.121	96.8	75.0-122	
1,2-Dichlorobenzene	0.125	0.129	103	76.0-124	
1,3-Dichlorobenzene	0.125	0.127	102	76.0-125	
1,4-Dichlorobenzene	0.125	0.123	98.4	77.0-121	
Dichlorodifluoromethane	0.125	0.139	111	43.0-156	
1,1-Dichloroethane	0.125	0.119	95.2	70.0-127	
1,2-Dichloroethane	0.125	0.112	89.6	65.0-131	
1,1-Dichloroethene	0.125	0.126	101	65.0-131	
trans-1,2-Dichloroethene	0.125	0.123	98.4	71.0-125	
1,2-Dichloropropane	0.125	0.116	92.8	74.0-125	
1,1-Dichloropropene	0.125	0.124	99.2	73.0-125	
1,3-Dichloropropane	0.125	0.132	106	80.0-125	
cis-1,3-Dichloropropene	0.125	0.119	95.2	76.0-127	
trans-1,3-Dichloropropene	0.125	0.117	93.6	73.0-127	
2,2-Dichloropropane	0.125	0.144	115	59.0-135	
Di-isopropyl ether	0.125	0.111	88.8	60.0-136	
Ethylbenzene	0.125	0.127	102	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.130	104	57.0-150	
Isopropylbenzene	0.125	0.127	102	72.0-127	
p-Isopropyltoluene	0.125	0.131	105	72.0-133	
2-Butanone (MEK)	0.625	0.496	79.4	30.0-160	
Methylene Chloride	0.125	0.119	95.2	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.505	80.8	56.0-143	
Methyl tert-butyl ether	0.125	0.113	90.4	66.0-132	
Naphthalene	0.125	0.0988	79.0	59.0-130	
n-Propylbenzene	0.125	0.123	98.4	74.0-126	

1

Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

8

Al

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Sc



Laboratory Control Sample (LCS)

(LCS) R3475649-1 11/22/19 22:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Styrene	0.125	0.130	104	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.139	111	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.118	94.4	68.0-128	
Tetrachloroethene	0.125	0.136	109	70.0-136	
Toluene	0.125	0.126	101	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.127	102	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.110	88.0	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.120	96.0	62.0-137	
1,1,1-Trichloroethane	0.125	0.131	105	69.0-126	
1,1,2-Trichloroethane	0.125	0.134	107	78.0-123	
Trichloroethene	0.125	0.133	106	76.0-126	
Trichlorofluoromethane	0.125	0.117	93.6	61.0-142	
1,2,3-Trichloropropane	0.125	0.126	101	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.123	98.4	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.132	106	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.125	100	73.0-127	
Vinyl chloride	0.125	0.111	88.8	63.0-134	
Xylenes, Total	0.375	0.372	99.2	72.0-127	
(S) Toluene-d8			101	75.0-131	
(S) 4-Bromofluorobenzene			100	67.0-138	
(S) 1,2-Dichloroethane-d4			90.6	70.0-130	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3476483-3 11/25/19 11:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
cis-1,2-Dichloroethene	U		0.000690	0.00250
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	94.1			67.0-138
(S) 1,2-Dichloroethane-d4	95.3			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3476483-1 11/25/19 09:46 • (LCSD) R3476483-2 11/25/19 10:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	0.125	0.107	0.103	85.6	82.4	73.0-125			3.81	20
(S) Toluene-d8				98.8	99.4	75.0-131				
(S) 4-Bromofluorobenzene				99.4	98.9	67.0-138				
(S) 1,2-Dichloroethane-d4				104	99.9	70.0-130				

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc



Method Blank (MB)

(MB) R3476539-3 11/25/19 22:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3476539-3 11/25/19 22:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0244	U	0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	99.6			75.0-131
(S) 4-Bromofluorobenzene	92.4			67.0-138
(S) 1,2-Dichloroethane-d4	96.6			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3476539-1 11/25/19 21:41 • (LCSD) R3476539-2 11/25/19 22:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.632	0.596	101	95.4	10.0-160			5.86	31
Acrylonitrile	0.625	0.701	0.604	112	96.6	45.0-153			14.9	22
Benzene	0.125	0.117	0.108	93.6	86.4	70.0-123			8.00	20
Bromobenzene	0.125	0.125	0.111	100	88.8	73.0-121			11.9	20
Bromodichloromethane	0.125	0.113	0.107	90.4	85.6	73.0-121			5.45	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3476539-1 11/25/19 21:41 • (LCSD) R3476539-2 11/25/19 22:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	0.125	0.110	0.110	88.0	88.0	64.0-132			0.000	20
Bromomethane	0.125	0.120	0.110	96.0	88.0	56.0-147			8.70	20
n-Butylbenzene	0.125	0.125	0.118	100	94.4	68.0-135			5.76	20
sec-Butylbenzene	0.125	0.127	0.118	102	94.4	74.0-130			7.35	20
tert-Butylbenzene	0.125	0.129	0.115	103	92.0	75.0-127			11.5	20
Carbon tetrachloride	0.125	0.113	0.102	90.4	81.6	66.0-128			10.2	20
Chlorobenzene	0.125	0.110	0.102	88.0	81.6	76.0-128			7.55	20
Chlorodibromomethane	0.125	0.123	0.117	98.4	93.6	74.0-127			5.00	20
Chloroethane	0.125	0.0968	0.0948	77.4	75.8	61.0-134			2.09	20
Chloroform	0.125	0.100	0.0932	80.0	74.6	72.0-123			7.04	20
Chloromethane	0.125	0.0980	0.0997	78.4	79.8	51.0-138			1.72	20
2-Chlorotoluene	0.125	0.135	0.128	108	102	75.0-124			5.32	20
4-Chlorotoluene	0.125	0.118	0.102	94.4	81.6	75.0-124			14.5	20
1,2-Dibromo-3-Chloropropane	0.125	0.109	0.111	87.2	88.8	59.0-130			1.82	20
1,2-Dibromoethane	0.125	0.133	0.127	106	102	74.0-128			4.62	20
Dibromomethane	0.125	0.114	0.106	91.2	84.8	75.0-122			7.27	20
1,2-Dichlorobenzene	0.125	0.132	0.124	106	99.2	76.0-124			6.25	20
1,3-Dichlorobenzene	0.125	0.129	0.115	103	92.0	76.0-125			11.5	20
1,4-Dichlorobenzene	0.125	0.116	0.107	92.8	85.6	77.0-121			8.07	20
Dichlorodifluoromethane	0.125	0.0996	0.0966	79.7	77.3	43.0-156			3.06	20
1,1-Dichloroethane	0.125	0.122	0.113	97.6	90.4	70.0-127			7.66	20
1,2-Dichloroethane	0.125	0.0958	0.0894	76.6	71.5	65.0-131			6.91	20
1,1-Dichloroethene	0.125	0.126	0.115	101	92.0	65.0-131			9.13	20
cis-1,2-Dichloroethene	0.125	0.103	0.101	82.4	80.8	73.0-125			1.96	20
trans-1,2-Dichloroethene	0.125	0.101	0.0921	80.8	73.7	71.0-125			9.22	20
1,2-Dichloropropane	0.125	0.123	0.113	98.4	90.4	74.0-125			8.47	20
1,1-Dichloropropene	0.125	0.111	0.101	88.8	80.8	73.0-125			9.43	20
1,3-Dichloropropane	0.125	0.125	0.121	100	96.8	80.0-125			3.25	20
cis-1,3-Dichloropropene	0.125	0.117	0.109	93.6	87.2	76.0-127			7.08	20
trans-1,3-Dichloropropene	0.125	0.111	0.107	88.8	85.6	73.0-127			3.67	20
2,2-Dichloropropane	0.125	0.145	0.132	116	106	59.0-135			9.39	20
Di-isopropyl ether	0.125	0.132	0.126	106	101	60.0-136			4.65	20
Ethylbenzene	0.125	0.114	0.101	91.2	80.8	74.0-126			12.1	20
Hexachloro-1,3-butadiene	0.125	0.0901	0.0911	72.1	72.9	57.0-150			1.10	20
Isopropylbenzene	0.125	0.0983	0.0937	78.6	75.0	72.0-127			4.79	20
p-Isopropyltoluene	0.125	0.148	0.138	118	110	72.0-133			6.99	20
2-Butanone (MEK)	0.625	0.719	0.688	115	110	30.0-160			4.41	24
Methylene Chloride	0.125	0.101	0.0942	80.8	75.4	68.0-123			6.97	20
4-Methyl-2-pentanone (MIBK)	0.625	0.656	0.637	105	102	56.0-143			2.94	20
Methyl tert-butyl ether	0.125	0.119	0.113	95.2	90.4	66.0-132			5.17	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3476539-1 11/25/19 21:41 • (LCSD) R3476539-2 11/25/19 22:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.126	0.127	101	102	59.0-130			0.791	20
n-Propylbenzene	0.125	0.122	0.108	97.6	86.4	74.0-126			12.2	20
Styrene	0.125	0.107	0.101	85.6	80.8	72.0-127			5.77	20
1,1,1,2-Tetrachloroethane	0.125	0.134	0.123	107	98.4	74.0-129			8.56	20
1,1,2,2-Tetrachloroethane	0.125	0.135	0.128	108	102	68.0-128			5.32	20
Tetrachloroethene	0.125	0.104	0.0979	83.2	78.3	70.0-136			6.04	20
Toluene	0.125	0.103	0.0967	82.4	77.4	75.0-121			6.31	20
1,1,2-Trichlorotrifluoroethane	0.125	0.141	0.129	113	103	61.0-139			8.89	20
1,2,3-Trichlorobenzene	0.125	0.109	0.109	87.2	87.2	59.0-139			0.000	20
1,2,4-Trichlorobenzene	0.125	0.104	0.102	83.2	81.6	62.0-137			1.94	20
1,1,1-Trichloroethane	0.125	0.101	0.0920	80.8	73.6	69.0-126			9.33	20
1,1,2-Trichloroethane	0.125	0.113	0.112	90.4	89.6	78.0-123			0.889	20
Trichloroethene	0.125	0.118	0.111	94.4	88.8	76.0-126			6.11	20
Trichlorofluoromethane	0.125	0.116	0.107	92.8	85.6	61.0-142			8.07	20
1,2,3-Trichloropropane	0.125	0.150	0.140	120	112	67.0-129			6.90	20
1,2,3-Trimethylbenzene	0.125	0.126	0.124	101	99.2	74.0-124			1.60	20
1,2,4-Trimethylbenzene	0.125	0.113	0.104	90.4	83.2	70.0-126			8.29	20
1,3,5-Trimethylbenzene	0.125	0.123	0.113	98.4	90.4	73.0-127			8.47	20
Vinyl chloride	0.125	0.107	0.0989	85.6	79.1	63.0-134			7.87	20
Xylenes, Total	0.375	0.364	0.341	97.1	90.9	72.0-127			6.52	20
(S) Toluene-d8				100	101	75.0-131				
(S) 4-Bromofluorobenzene				94.2	95.3	67.0-138				
(S) 1,2-Dichloroethane-d4				103	102	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3473600-1 11/18/19 14:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	76.0			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3473600-2 11/18/19 14:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	50.0	42.0	84.0	50.0-150	
(S) o-Terphenyl			86.0	18.0-148	

L1161064-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1161064-07 11/18/19 18:55 • (MS) R3473600-3 11/18/19 19:08 • (MSD) R3473600-4 11/18/19 19:20

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	142	ND	114	97.4	79.8	68.4	1	50.0-150			15.4	20
(S) o-Terphenyl					80.5	71.2		18.0-148				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

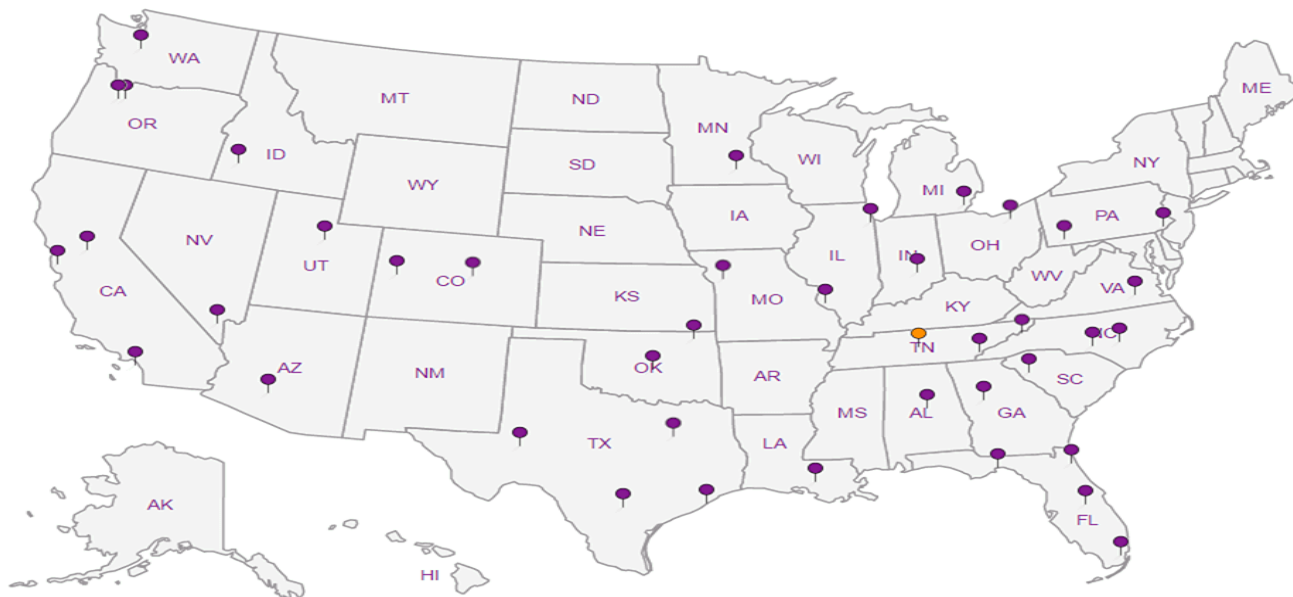
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Clendenin Consulting Group - VA
116 C2 Edwards Ferry Road
Leesburg, VA 20176

Billing Information:

Accounts Payable
P.O. Drawer 6070
Leesburg, VA 20178-7406

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



Report to:
Winthrop McCormack

Email To:
winthrop@clendeninconsulting.com

Project
Description: **Amato Industries**

City/State
Collected: **Silver Spring, VA**

Phone: **703-771-8816**
Fax:

Client Project #
18006

Lab Project #

Collected by (print):
Winthrop McCormack

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

Standard TAT

No.
of
Cnts

Immediately
Packed on Ice N ☐ Y ☒

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cnts	VOCs	TPH-GRO	TPH-DRO										
H-1	Grab	SS	5'	11/14/2019	8:35AM	1	X												
H-2	Grab	SS	3.5'	11/14/2019	8:50AM	1	X												
H-3	Grab	SS	3.5'	11/14/2019	9:15AM	1	X												
H-4	Grab	SS	5'	11/14/2019	9:35AM	1	X												
H-5	Grab	SS	6-8'	11/14/2019	10:00AM	1	X												
H-6	Grab	SS	1.5'	11/14/2019	10:20AM	1	X	X	X										
H-7	Grab	SS	5-8'	11/14/2019	10:35AM	1	X	X	X										
H-8	Grab	SS	3-5'	11/14/2019	10:55AM	1	X												
H-9	Grab	SS	5'	11/14/2019	11:10AM	1	X												
H-10	Grab	SS	2'	11/14/2019	11:25AM	1	X												

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

Some select samples will be run for TCLPs after this analysis has been run. We will instruct which to run TCPLs on after we see the results.

Samples returned via:

UPS ☒ FedEx ☐ Courier ☐

pH Temp

Flow Other

Tracking # **776990971758**

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VOA Zero Headspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N
RAD SCREEN: <0.5 mR/hr

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes ☒ No ☐

(HCL) MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp **10.1** °C Bottles Received: **11**

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: **11/15/19** Time: **8:30**

Hold:

Condition:
NCF ☒ OK

Clendenin Consulting Group - VA

Sample Delivery Group: L1166924
Samples Received: 11/15/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
H-1 L1166924-01	5	
H-3 L1166924-02	6	⁴ Cn
H-6 L1166924-03	7	⁵ Sr
H-10 L1166924-04	8	
Qc: Quality Control Summary	9	⁶ Qc
Volatile Organic Compounds (GC/MS) by Method 8260B	9	
Gl: Glossary of Terms	10	⁷ Gl
Al: Accreditations & Locations	11	⁸ Al
Sc: Sample Chain of Custody	12	⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



H-1 L1166924-01 Waste

				Collected by Winthrop McCormack	Collected date/time 11/14/19 08:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1391512	1	12/05/19 10:03	12/05/19 10:03	IDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1393478	1	12/09/19 22:21	12/09/19 22:21	DWR	Mt. Juliet, TN

H-3 L1166924-02 Waste

				Collected by Winthrop McCormack	Collected date/time 11/14/19 09:15	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1391512	1	12/05/19 10:03	12/05/19 10:03	IDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1393478	1	12/09/19 22:40	12/09/19 22:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1393478	20	12/10/19 17:19	12/10/19 17:19	BMB	Mt. Juliet, TN

H-6 L1166924-03 Waste

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:20	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1391512	1	12/05/19 10:03	12/05/19 10:03	IDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1393478	1	12/09/19 22:58	12/09/19 22:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1393478	1	12/10/19 18:04	12/10/19 18:04	BMB	Mt. Juliet, TN

H-10 L1166924-04 Waste

				Collected by Winthrop McCormack	Collected date/time 11/14/19 11:25	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1391512	1	12/05/19 10:03	12/05/19 10:03	IDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1393478	1	12/09/19 23:17	12/09/19 23:17	DWR	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCOUNT:

Clendenin Consulting Group - VA

PROJECT:

18006

SDG:

L1166924

DATE/TIME:

12/11/19 09:19

PAGE:

3 of 13



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP ZHE Extraction	-		12/5/2019 10:03:38 AM	WG1391512

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Tetrachloroethene	8.92		0.0500	0.70	1	12/09/2019 22:21	WG1393478
Trichloroethene	ND		0.0500	0.50	1	12/09/2019 22:21	WG1393478
(S) Toluene-d8	99.0		80.0-120			12/09/2019 22:21	WG1393478
(S) 4-Bromofluorobenzene	99.9		77.0-126			12/09/2019 22:21	WG1393478
(S) 1,2-Dichloroethane-d4	111		70.0-130			12/09/2019 22:21	WG1393478

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP ZHE Extraction	-		12/5/2019 10:03:38 AM	WG1391512

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Tetrachloroethene	15.8		1.00	0.70	20	12/10/2019 17:19	WG1393478
Trichloroethene	0.731		0.0500	0.50	1	12/09/2019 22:40	WG1393478
(S) Toluene-d8	103		80.0-120			12/10/2019 17:19	WG1393478
(S) Toluene-d8	97.8		80.0-120			12/09/2019 22:40	WG1393478
(S) 4-Bromofluorobenzene	95.7		77.0-126			12/09/2019 22:40	WG1393478
(S) 4-Bromofluorobenzene	101		77.0-126			12/10/2019 17:19	WG1393478
(S) 1,2-Dichloroethane-d4	98.6		70.0-130			12/10/2019 17:19	WG1393478
(S) 1,2-Dichloroethane-d4	109		70.0-130			12/09/2019 22:40	WG1393478

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP ZHE Extraction	-		12/5/2019 10:03:38 AM	WG1391512

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Tetrachloroethene	0.0864		0.0500	0.70	1	12/10/2019 18:04	WG1393478
Trichloroethene	ND		0.0500	0.50	1	12/09/2019 22:58	WG1393478
(S) Toluene-d8	97.7		80.0-120			12/09/2019 22:58	WG1393478
(S) Toluene-d8	98.8		80.0-120			12/10/2019 18:04	WG1393478
(S) 4-Bromofluorobenzene	97.8		77.0-126			12/09/2019 22:58	WG1393478
(S) 4-Bromofluorobenzene	97.6		77.0-126			12/10/2019 18:04	WG1393478
(S) 1,2-Dichloroethane-d4	114		70.0-130			12/09/2019 22:58	WG1393478
(S) 1,2-Dichloroethane-d4	96.9		70.0-130			12/10/2019 18:04	WG1393478

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP ZHE Extraction	-		12/5/2019 10:03:38 AM	WG1391512

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Tetrachloroethene	3.93		0.0500	0.70	1	12/09/2019 23:17	WG1393478
Trichloroethene	ND		0.0500	0.50	1	12/09/2019 23:17	WG1393478
(S) Toluene-d8	99.4		80.0-120			12/09/2019 23:17	WG1393478
(S) 4-Bromofluorobenzene	96.9		77.0-126			12/09/2019 23:17	WG1393478
(S) 1,2-Dichloroethane-d4	115		70.0-130			12/09/2019 23:17	WG1393478

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Method Blank (MB)

(MB) R3480756-2 12/09/19 18:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Tetrachloroethene	U		0.0167	0.0500
Trichloroethene	U		0.0167	0.0500
(S) Toluene-d8	100			80.0-120
(S) 4-Bromofluorobenzene	94.6			77.0-126
(S) 1,2-Dichloroethane-d4	117			70.0-130

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3480756-1 12/09/19 17:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Tetrachloroethene	0.250	0.240	96.0	72.0-132	
Trichloroethene	0.250	0.232	92.8	78.0-124	
(S) Toluene-d8			98.4	80.0-120	
(S) 4-Bromofluorobenzene			96.6	77.0-126	
(S) 1,2-Dichloroethane-d4			117	70.0-130	

L1166924-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1166924-02 12/09/19 22:40 • (MS) R3480756-3 12/10/19 00:50 • (MSD) R3480756-4 12/10/19 01:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.250	38.7	38.2	37.8	0.000	0.000	1	10.0-160	E V	E V	1.05	27
Trichloroethene	0.250	0.731	0.952	0.947	88.4	86.4	1	10.0-160			0.527	25
(S) Toluene-d8					98.4	97.9		80.0-120				
(S) 4-Bromofluorobenzene					97.1	96.4		77.0-126				
(S) 1,2-Dichloroethane-d4					117	119		70.0-130				



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
V	The sample concentration is too high to evaluate accurate spike recoveries.

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

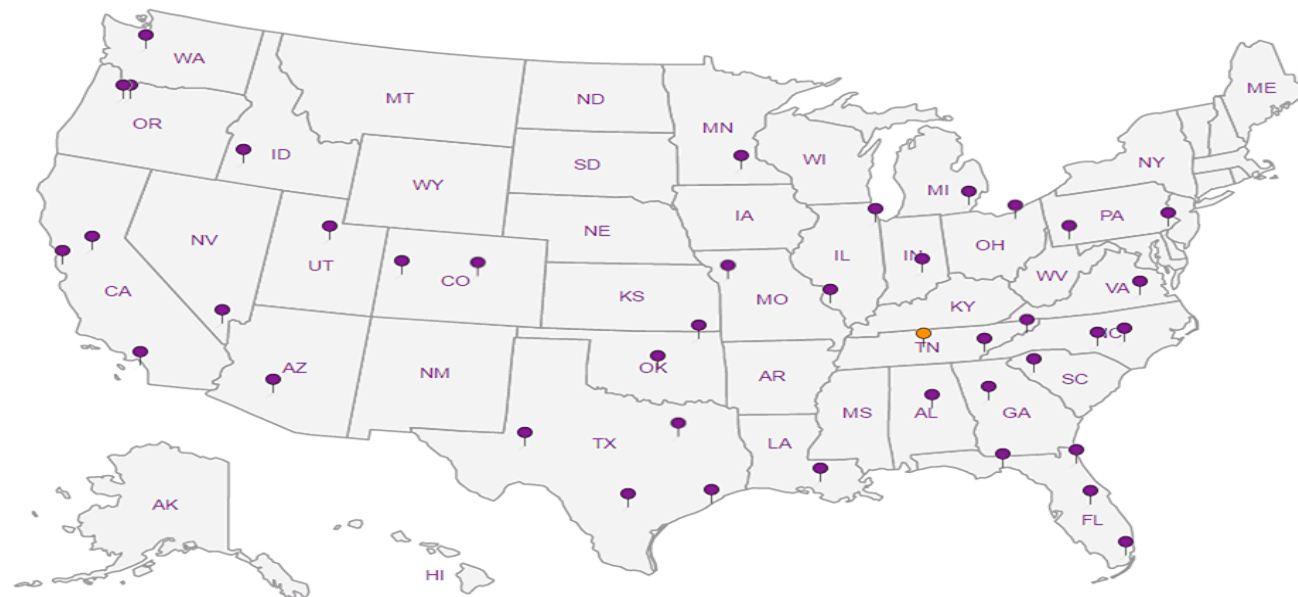
Third Party Federal Accreditations

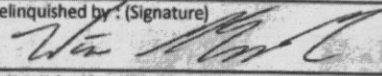
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Clendenin Consulting Group - VA 116 C2 Edwards Ferry Road Leesburg, VA 20176						Billing Information:						Analysis / Container / Preservative								Chain of Custody Page <u>1</u> of <u>2</u>	
						Accounts Payable P.O. Drawer 6070 Leesburg, VA 20178-7406														 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859	
Report to: Winthrop McCormack						Email To: winthrop@clendeninconsulting.com															
Project Description: Amato Industries						City/State Collected: Silver Spring, VA															
Phone: 703-771-8816			Client Project # 18006			Lab Project #															
Collected by (print): Winthrop McCormack			Site/Facility ID #			P.O. #															
Collected by (signature): 			Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day			Quote #															
Immediately Packed on Ice N ☐ Y ☒						Date Results Needed Standard TAT			No. of Cntrs												
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs	TPH-GRO	TPH-DRO												
H-1	Grab	SS	5'	11/14/2019	8:35AM	1	X														
H-2	Grab	SS	3.5'	11/14/2019	8:50AM	1	X														
H-3	Grab	SS	3.5'	11/14/2019	9:15AM	1	X														
H-4	Grab	SS	5'	11/14/2019	9:35AM	1	X														
H-5	Grab	SS	6-8'	11/14/2019	10:00AM	1	X														
H-6	Grab	SS	1.5'	11/14/2019	10:20AM	1	X	X	X												
H-7	Grab	SS	5-8'	11/14/2019	10:35AM	1	X	X	X												
H-8	Grab	SS	3-5'	11/14/2019	10:55AM	1	X														
H-9	Grab	SS	5'	11/14/2019	11:10AM	1	X														
H-10	Grab	SS	2'	11/14/2019	11:25AM	1	X														
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____						Remarks: Some select samples will be run for TCLPs after this analysis has been run. We will instruct which to run TCPLs on after we see the results. Samples returned via: ☐ UPS ☒ FedEx ☐ Courier _____ Tracking # 776990971758						pH _____ Temp _____ Flow _____ Other _____ Sample Receipt Checklist: COC Seal Present/Intact: ☒ Y ☐ N COC Signed/Accurate: ☒ Y ☐ N Bottles arrive intact: ☒ Y ☐ N Correct bottles used: ☒ Y ☐ N Sufficient volume sent: ☒ Y ☐ N If Applicable VOA Zero Headspace: ☐ Y ☐ N Preservation Correct/Checked: ☐ Y ☐ N RAD SCREEN: <0.5 mR/hr									
Relinquished by: (Signature) 		Date: 11-14-19		Time: 5:20PM		Received by: (Signature)		Trip Blank Received: Yes ☒ No ☐		Temp: 15.2 °C		Bottles Received: 11		If preservation required by Login: Date/Time							
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: 11/15/19		Date: 11/15/19		Time: 8:30		Hold:							
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature)		Date: 11/15/19		Time: 8:30		Condition: NCF OK									

Matt Shacklock

From: Christl Wagner
Sent: Wednesday, December 4, 2019 3:09 PM
To: Project Service; Sample Storage; TCLP; Due VOC
Subject: *CLECONLVA* Rush Relog R4 -L1161371

Please relog L1161371-01, -03, -06, -10 for TCLPZHE and V8260TCLP, R4 due 12/10.

Thanks,



Christl Wagner
Assistant Project Manager

Pace Analytical National Center for Testing & Innovation

12065 Lebanon Road | Mt. Juliet, TN 37122

Office: 615-773-7569

cwagner@pacenational.com | pacenational.com

Clendenin Consulting Group - VA

Sample Delivery Group: L1174025
Samples Received: 11/15/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



H-1 L1174025-01 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 08:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384384	1	11/21/19 17:54	11/21/19 18:16	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:30	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 17:55	TRB	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

H-2 L1174025-02 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 08:50	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:33	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 17:58	TRB	Mt. Juliet, TN

⁴ Cn

⁵ Sr

⁶ Qc

H-3 L1174025-03 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 09:15	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:35	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:01	TRB	Mt. Juliet, TN

⁷ Gl

⁸ Al

⁹ Sc

H-4 L1174025-04 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 09:35	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:42	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:03	TRB	Mt. Juliet, TN

H-5 L1174025-05 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:00	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:45	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:06	TRB	Mt. Juliet, TN

H-6 L1174025-06 Solid

				Collected by Winthrop McCormack	Collected date/time 11/14/19 10:20	Received date/time 11/15/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:48	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:08	TRB	Mt. Juliet, TN

ACCOUNT:

Clendenin Consulting Group - VA

PROJECT:

18006

SDG:

L1174025

DATE/TIME:

12/30/19 13:07

PAGE:

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



H-7 L1174025-07 Solid

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 10:35

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:50	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 17:22	TRB	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

H-8 L1174025-08 Solid

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 10:55

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:53	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:16	TRB	Mt. Juliet, TN

H-9 L1174025-09 Solid

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 11:10

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:18	TRB	Mt. Juliet, TN

H-10 L1174025-10 Solid

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 11:25

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 09:58	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:21	TRB	Mt. Juliet, TN

H-11 L1174025-11 Solid

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 11:40

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384385	1	11/21/19 13:54	11/21/19 14:06	MAS	Mt. Juliet, TN
Mercury by Method 7471A	WG1403093	1	12/27/19 10:20	12/30/19 10:00	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1403076	1	12/27/19 10:16	12/27/19 18:23	TRB	Mt. Juliet, TN

ACCOUNT:

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.2		1	11/21/2019 18:16	WG1384384

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0325	1	12/30/2019 09:30	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.17	1	12/27/2019 17:55	WG1403076
Barium	238		0.542	1	12/27/2019 17:55	WG1403076
Cadmium	ND		0.542	1	12/27/2019 17:55	WG1403076
Chromium	113		1.08	1	12/27/2019 17:55	WG1403076
Lead	8.58		0.542	1	12/27/2019 17:55	WG1403076
Selenium	ND		2.17	1	12/27/2019 17:55	WG1403076
Silver	ND		1.08	1	12/27/2019 17:55	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.4		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0355	1	12/30/2019 09:33	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.37	1	12/27/2019 17:58	WG1403076
Barium	180		0.592	1	12/27/2019 17:58	WG1403076
Cadmium	ND		0.592	1	12/27/2019 17:58	WG1403076
Chromium	76.9		1.18	1	12/27/2019 17:58	WG1403076
Lead	25.0		0.592	1	12/27/2019 17:58	WG1403076
Selenium	ND		2.37	1	12/27/2019 17:58	WG1403076
Silver	ND		1.18	1	12/27/2019 17:58	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.8		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0516	T8	0.0350	1	12/30/2019 09:35	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.33	1	12/27/2019 18:01	WG1403076
Barium	19.5		0.583	1	12/27/2019 18:01	WG1403076
Cadmium	ND		0.583	1	12/27/2019 18:01	WG1403076
Chromium	70.4		1.17	1	12/27/2019 18:01	WG1403076
Lead	6.77		0.583	1	12/27/2019 18:01	WG1403076
Selenium	ND		2.33	1	12/27/2019 18:01	WG1403076
Silver	ND		1.17	1	12/27/2019 18:01	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.6		1	11/21/2019 14:06	WG1384385

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0363	1	12/30/2019 09:42	WG1403093

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.42	1	12/27/2019 18:03	WG1403076
Barium	89.8		0.606	1	12/27/2019 18:03	WG1403076
Cadmium	ND		0.606	1	12/27/2019 18:03	WG1403076
Chromium	49.2		1.21	1	12/27/2019 18:03	WG1403076
Lead	22.9		0.606	1	12/27/2019 18:03	WG1403076
Selenium	ND		2.42	1	12/27/2019 18:03	WG1403076
Silver	ND		1.21	1	12/27/2019 18:03	WG1403076

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.6		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0359	1	12/30/2019 09:45	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.39	1	12/27/2019 18:06	WG1403076
Barium	67.0		0.598	1	12/27/2019 18:06	WG1403076
Cadmium	ND		0.598	1	12/27/2019 18:06	WG1403076
Chromium	23.3		1.20	1	12/27/2019 18:06	WG1403076
Lead	11.7		0.598	1	12/27/2019 18:06	WG1403076
Selenium	ND		2.39	1	12/27/2019 18:06	WG1403076
Silver	ND		1.20	1	12/27/2019 18:06	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.9		1	11/21/2019 14:06	WG1384385

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0334	1	12/30/2019 09:48	WG1403093

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.22	1	12/27/2019 18:08	WG1403076
Barium	2.53		0.556	1	12/27/2019 18:08	WG1403076
Cadmium	ND		0.556	1	12/27/2019 18:08	WG1403076
Chromium	89.0		1.11	1	12/27/2019 18:08	WG1403076
Lead	2.70		0.556	1	12/27/2019 18:08	WG1403076
Selenium	ND		2.22	1	12/27/2019 18:08	WG1403076
Silver	ND		1.11	1	12/27/2019 18:08	WG1403076

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.0		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0353	1	12/30/2019 09:50	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.35	1	12/27/2019 17:22	WG1403076
Barium	55.0		0.588	1	12/27/2019 17:22	WG1403076
Cadmium	ND		0.588	1	12/27/2019 17:22	WG1403076
Chromium	38.9	Q1	1.18	1	12/27/2019 17:22	WG1403076
Lead	13.4		0.588	1	12/27/2019 17:22	WG1403076
Selenium	ND		2.35	1	12/27/2019 17:22	WG1403076
Silver	ND		1.18	1	12/27/2019 17:22	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.5		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0917	T8	0.0347	1	12/30/2019 09:53	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.31	1	12/27/2019 18:16	WG1403076
Barium	103		0.578	1	12/27/2019 18:16	WG1403076
Cadmium	ND		0.578	1	12/27/2019 18:16	WG1403076
Chromium	90.3		1.16	1	12/27/2019 18:16	WG1403076
Lead	18.9		0.578	1	12/27/2019 18:16	WG1403076
Selenium	ND		2.31	1	12/27/2019 18:16	WG1403076
Silver	ND		1.16	1	12/27/2019 18:16	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.9		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0358	1	12/30/2019 09:55	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.38	1	12/27/2019 18:18	WG1403076
Barium	101		0.596	1	12/27/2019 18:18	WG1403076
Cadmium	ND		0.596	1	12/27/2019 18:18	WG1403076
Chromium	80.5		1.19	1	12/27/2019 18:18	WG1403076
Lead	30.5		0.596	1	12/27/2019 18:18	WG1403076
Selenium	ND		2.38	1	12/27/2019 18:18	WG1403076
Silver	ND		1.19	1	12/27/2019 18:18	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.3		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0322	1	12/30/2019 09:58	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.14	1	12/27/2019 18:21	WG1403076
Barium	29.4		0.536	1	12/27/2019 18:21	WG1403076
Cadmium	ND		0.536	1	12/27/2019 18:21	WG1403076
Chromium	66.3		1.07	1	12/27/2019 18:21	WG1403076
Lead	10.7		0.536	1	12/27/2019 18:21	WG1403076
Selenium	ND		2.14	1	12/27/2019 18:21	WG1403076
Silver	ND		1.07	1	12/27/2019 18:21	WG1403076

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.1		1	11/21/2019 14:06	WG1384385

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND	T8	0.0370	1	12/30/2019 10:00	WG1403093

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.47	1	12/27/2019 18:23	WG1403076
Barium	108		0.617	1	12/27/2019 18:23	WG1403076
Cadmium	ND		0.617	1	12/27/2019 18:23	WG1403076
Chromium	93.6		1.23	1	12/27/2019 18:23	WG1403076
Lead	13.3		0.617	1	12/27/2019 18:23	WG1403076
Selenium	ND		2.47	1	12/27/2019 18:23	WG1403076
Silver	ND		1.23	1	12/27/2019 18:23	WG1403076

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3475154-1 11/21/19 18:16

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L1161371-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1161371-01 11/21/19 18:16 • (DUP) R3475154-3 11/21/19 18:16

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	92.2	92.9	1	0.712		10

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R3475154-2 11/21/19 18:16

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.1	100	85.0-115	

⁹Sc



Method Blank (MB)

(MB) R3475049-1 11/21/19 14:06

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1161371-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1161371-07 11/21/19 14:06 • (DUP) R3475049-3 11/21/19 14:06

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	85.0	85.4	1	0.423		10

Laboratory Control Sample (LCS)

(LCS) R3475049-2 11/21/19 14:06

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3486859-1 12/30/19 09:12

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.00280	0.0300

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3486859-2 12/30/19 09:15 • (LCSD) R3486859-3 12/30/19 09:17

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	%	%	%			%	%
Mercury	0.500	0.492	0.501	98.5	100	80.0-120			1.79	20

L1174067-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1174067-03 12/30/19 09:20 • (MS) R3486859-4 12/30/19 09:22 • (MSD) R3486859-5 12/30/19 09:25

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.500	ND	0.447	0.459	86.9	89.3	1	75.0-125			2.70	20

Metals (ICP) by Method 6010B

L1174025-01,02,03,04,05,06,07,08,09,10,11

Method Blank (MB)

(MB) R3486502-1 12/27/19 17:14

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00
Barium	U		0.170	0.500
Cadmium	U		0.0700	0.500
Chromium	U		0.140	1.00
Lead	U		0.190	0.500
Selenium	U		0.620	2.00
Silver	U		0.120	1.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3486502-2 12/27/19 17:16 • (LCSD) R3486502-3 12/27/19 17:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	95.4	98.1	95.4	98.1	80.0-120			2.76	20
Barium	100	103	107	103	107	80.0-120			3.40	20
Cadmium	100	96.7	100	96.7	100	80.0-120			3.52	20
Chromium	100	97.0	101	97.0	101	80.0-120			4.47	20
Lead	100	96.1	99.0	96.1	99.0	80.0-120			2.95	20
Selenium	100	96.3	99.3	96.3	99.3	80.0-120			3.08	20
Silver	20.0	18.5	19.3	92.4	96.5	80.0-120			4.38	20

L1174025-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1174025-07 12/27/19 17:22 • (MS) R3486502-6 12/27/19 17:29 • (MSD) R3486502-7 12/27/19 17:32

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	118	ND	105	103	89.6	87.4	1	75.0-125			2.45	20
Barium	118	55.0	170	164	97.6	92.5	1	75.0-125			3.59	20
Cadmium	118	ND	109	106	92.4	90.2	1	75.0-125			2.39	20
Chromium	118	38.9	139	141	85.1	86.6	1	75.0-125			1.28	20
Lead	118	13.4	131	128	100	97.2	1	75.0-125			2.71	20
Selenium	118	ND	107	104	90.6	88.4	1	75.0-125			2.47	20
Silver	23.5	ND	20.9	20.4	89.0	86.9	1	75.0-125			2.45	20



Guide to Reading and Understanding Your Laboratory Report

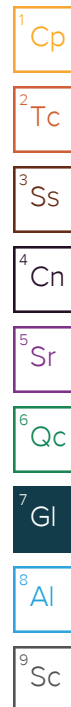
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
T8	Sample(s) received past/too close to holding time expiration.





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

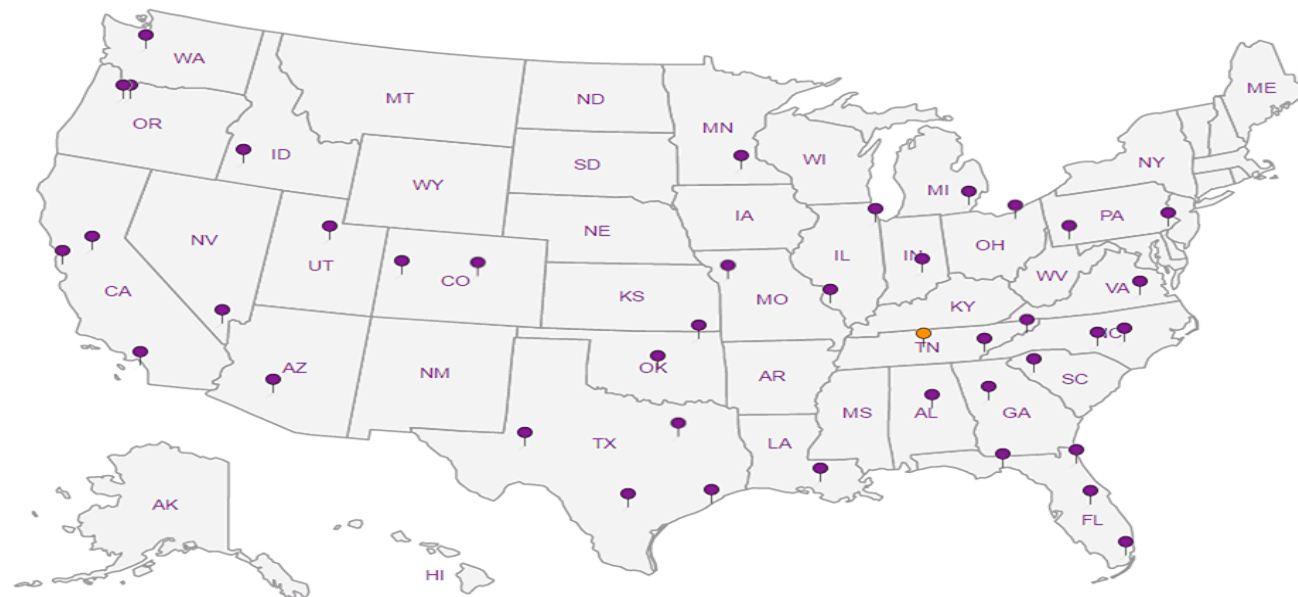
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Clendenin Consulting Group - VA
116 C2 Edwards Ferry Road
Leesburg, VA 20176

Billing Information:

Accounts Payable
P.O. Drawer 6070
Leesburg, VA 20178-7406

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Report to:
Winthrop McCormack

Email To:
winthrop@clendeninconsulting.com

Project
Description: Amato Industries

City/State
Collected: Silver Spring, VA

Phone: 703-771-8816
Fax:

Client Project #
18006

Lab Project #

Collected by (print):
Winthrop McCormack

Site/Facility ID #

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Same Day Five Day

Next Day 5 Day (Rad Only)

Two Day 10 Day (Rad Only)

Three Day

Date Results Needed

Standard TAT

No.
of
Cntrs

Immediately
Packed on Ice N Y X

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs	TPH-GRO	TPH-DRO										
H-1	Grab	SS	5'	11/14/2019	8:35AM	1	X												
H-2	Grab	SS	3.5'	11/14/2019	8:50AM	1	X												
H-3	Grab	SS	3.5'	11/14/2019	9:15AM	1	X												
H-4	Grab	SS	5'	11/14/2019	9:35AM	1	X												
H-5	Grab	SS	6-8'	11/14/2019	10:00AM	1	X												
H-6	Grab	SS	1.5'	11/14/2019	10:20AM	1	X	X	X										
H-7	Grab	SS	5-8'	11/14/2019	10:35AM	1	X	X	X										
H-8	Grab	SS	3-5'	11/14/2019	10:55AM	1	X												
H-9	Grab	SS	5'	11/14/2019	11:10AM	1	X												
H-10	Grab	SS	2'	11/14/2019	11:25AM	1	X												

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Wastewater
DW - Drinking Water
OT - Other

Remarks:

Some select samples will be run for TCLPs after this analysis has been run. We will instruct which to run TCPLs on after we see the results.

Samples returned via:

UPS ☒ FedEx ☐ Courier ☐

Tracking #

776990971758

Relinquished by: (Signature)

Date:

11-14-19

Time:

5:20 PM

Received by: (Signature)

Trip Blank Received: Yes ☒ No ☐

HCL / MeOH
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp 15.2°C Bottles Received: 11

Relinquished by: (Signature)

Date:

Time:

Received for (Ab by: (Signature)

Date:

Time:

11/15/19 5:30

Hold:

Condition:

NCF OK



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1161371
D191
1161371

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks

Sample # (lab only)

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VOA Zero Headspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N
RAD SCREEN: <0.5 mR/hr

If preservation required by Login: Date/Time

[illegible]

Matt Shacklock

From: Christl Wagner
Sent: Tuesday, December 24, 2019 10:26 AM
To: Project Service; Pam Langford; Sample Storage
Cc: Due Metals; SOIL PREPREP
Subject: CLECONLVA Relog Request L1171371 R5

Please relog L1171371-01 thru -11 for MRCRA8 and transfer TS. Standard TAT.

From: Jordan Belvin <jbelvin@pacenational.com>
Sent: Tuesday, December 24, 2019 9:00 AM
To: Christl Wagner <CWagner@pacenational.com>; Sample Storage <SampleStorage@pacenational.com>; Pam Langford <plangford@pacenational.com>
Subject: RE: Sample Volume Remaining CLECONLVA

For L1166924:
-01, -02, and -04 have more than enough remaining for metals. -03 is just a small rock weighing 9.95g.

From: Christl Wagner
Sent: Monday, December 23, 2019 3:24 PM
To: Sample Storage; Pam Langford
Subject: Sample Volume Remaining CLECONLVA

Please find containers on below and let me know if there is enough to run metals(5-15g)

L1166924 – 01 thru -04 (relog of L1161371;16oz containers TCLP)
L1161371 – 02, -04, -05, -07 thru -09 and -11 (16oz V8260)

Thanks,



Christl Wagner
Project Coordinator I

Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
Office: 615-773-7569
cwagner@pacenational.com | pacenational.com

Clendenin Consulting Group - VA

Sample Delivery Group: L1174779
Samples Received: 11/15/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
H-1 L1174779-01	5	
H-1 L1174779-02	6	⁴ Cn
Qc: Quality Control Summary	7	⁵ Sr
Total Solids by Method 2540 G-2011	7	
Wet Chemistry by Method 3060A/7196A	8	⁶ Qc
Metals (ICP) by Method 6010B	9	
Gl: Glossary of Terms	10	⁷ Gl
Al: Accreditations & Locations	11	⁸ Al
Sc: Sample Chain of Custody	12	⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



H-1 L1174779-01 Waste

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 08:35

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1404515	1	12/31/19 10:19	12/31/19 10:19	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1405007	1	01/02/20 10:00	01/02/20 13:59	CCE	Mt. Juliet, TN

H-1 L1174779-02 Solid

Collected by
Winthrop
McCormack

Collected date/time
11/14/19 08:35

Received date/time
11/15/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1384384	1	11/21/19 17:54	11/21/19 18:16	JAV	Mt. Juliet, TN
Wet Chemistry by Method 3060A/7196A	WG1405895	1	01/04/20 14:43	01/07/20 14:33	MSP	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCOUNT:

Clendenin Consulting Group - VA

PROJECT:

18006

SDG:

L1174779

DATE/TIME:

01/07/20 17:11

PAGE:

3 of 13



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		12/31/2019 10:19:02 AM	WG1404515
Fluid	1		12/31/2019 10:19:02 AM	WG1404515
Initial pH	7.53		12/31/2019 10:19:02 AM	WG1404515
Final pH	4.77		12/31/2019 10:19:02 AM	WG1404515

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Chromium	ND		0.100	5	1	01/02/2020 13:59	WG1405007

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.2		1	11/21/2019 18:16	WG1384384

Wet Chemistry by Method 3060A/7196A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Chromium, Hexavalent	mg/kg		mg/kg			
Chromium, Hexavalent	ND		2.17	1	01/07/2020 14:33	WG1405895

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

[L1174779-02](#)

Method Blank (MB)

(MB) R3475154-1 11/21/19 18:16

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

L1161371-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1161371-01 11/21/19 18:16 • (DUP) R3475154-3 11/21/19 18:16

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	92.2	92.9	1	0.712		10

Laboratory Control Sample (LCS)

(LCS) R3475154-2 11/21/19 18:16

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.1	100	85.0-115	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3488695-1 01/07/20 14:32

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chromium,Hexavalent	U		0.640	2.00

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L1175919-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1175919-09 01/07/20 14:42 • (DUP) R3488695-8 01/07/20 14:43

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chromium,Hexavalent	ND	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3488695-2 01/07/20 14:33

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chromium,Hexavalent	24.0	24.0	100	80.0-120	

L1175919-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1175919-01 01/07/20 14:35 • (MS) R3488695-4 01/07/20 14:36 • (MSD) R3488695-5 01/07/20 14:37

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chromium,Hexavalent	20.0	ND	17.6	17.8	88.2	89.2	1	75.0-125			1.07	20

L1175919-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1175919-01 01/07/20 14:35 • (MS) R3488695-6 01/07/20 14:37

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/kg	mg/kg	mg/kg	%		%	
Chromium,Hexavalent	660	ND	637	96.4	50	75.0-125	

Method Blank (MB)

(MB) R3487662-1 01/02/20 13:16

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chromium	U		0.0330	0.100

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Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3487662-2 01/02/20 13:19 • (LCSD) R3487662-3 01/02/20 13:21

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Chromium	10.0	9.78	9.81	97.8	98.1	80.0-120			0.320	20

L1174617-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1174617-02 01/02/20 13:24 • (MS) R3487662-5 01/02/20 13:30 • (MSD) R3487662-6 01/02/20 13:32

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chromium	10.0	ND	9.96	9.91	99.6	99.1	1	75.0-125			0.501	20

L1174619-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1174619-02 01/02/20 13:35 • (MS) R3487662-7 01/02/20 13:37 • (MSD) R3487662-8 01/02/20 13:40

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chromium	10.0	ND	9.75	9.73	97.5	97.3	1	75.0-125			0.213	20



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

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9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

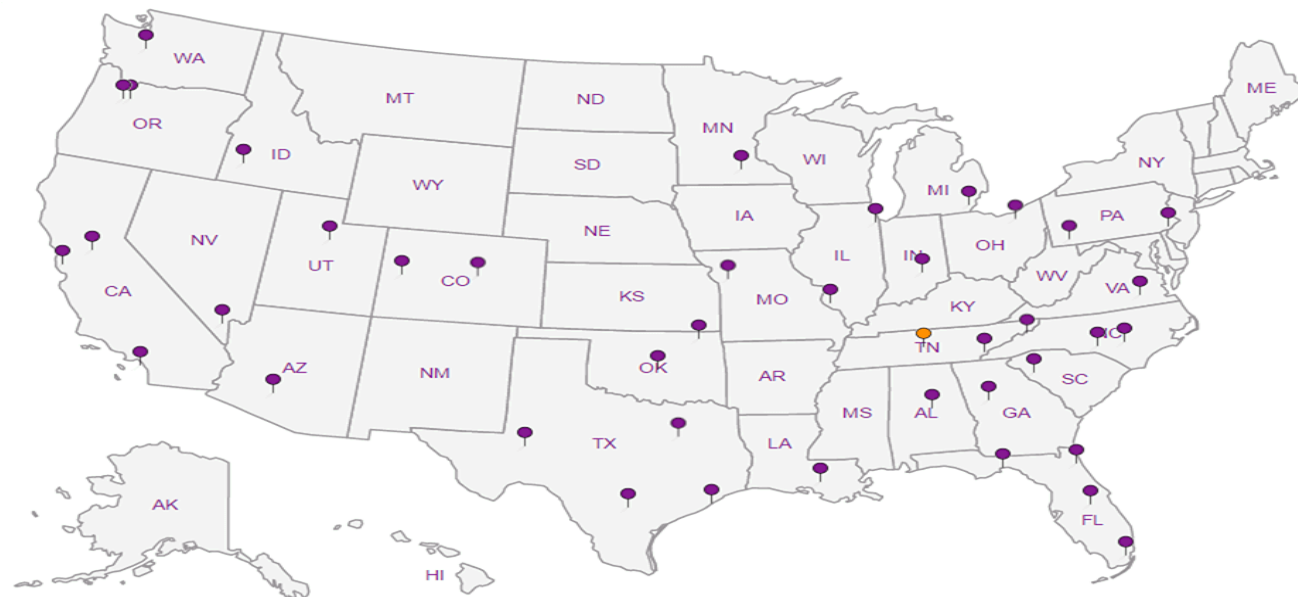
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



KO

Andy Vann

From: Pam Langford
Sent: Monday, December 30, 2019 2:38 PM
To: Andy Vann; Project Service; Sample Storage
Subject: L1174025-01

Please relog sample L1174025-01 (H-1) for TCLP Chromium and Hexavalent Chromium.
Thanks!

Pamela A. Langford
Lab Documentation Chemist
✱ Pace Analytical National Center for Technology and Innovation
12065 Lebanon Road \ Mt. Juliet, TN 37122
Direct: 615-773-9687
plangford@pacenational.com

In light of the Thanksgiving, Christmas and New Year's holidays, the lab will not be accepting samples for BOD analysis on Saturday, November 23rd, Friday, December 20th and Friday, December 27th as the end of the incubation period would fall on the holiday.

In light of the Thanksgiving Day, Christmas and New Years' holidays, the lab will not be accepting samples for Microbiological analysis on Wednesday, November 27th, Tuesday December 24th and Tuesday, December 31st.



ANALYTICAL REPORT

March 23, 2019

Clendenin Consulting Group - VA

Sample Delivery Group: L1079371
Samples Received: 03/15/2019
Project Number: 18006
Description: Amato Industries/9120 Talbot Ave

Report To: Samantha Kirk
116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:

Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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ONE LAB. NATIONWIDE.



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⁵ Sr

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-1 L1079371-01 GW

Collected by SJK/JWM
Collected date/time 03/14/19 11:05
Received date/time 03/15/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1250839	1	03/17/19 22:00	03/17/19 22:00	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1251728	1	03/19/19 18:52	03/19/19 18:52	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1253638	200	03/21/19 23:11	03/21/19 23:11	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1252655	1	03/20/19 16:53	03/21/19 21:54	TH	Mt. Juliet, TN

MW-2 L1079371-02 GW

Collected by SJK/JWM
Collected date/time 03/14/19 11:20
Received date/time 03/15/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1250839	1	03/17/19 22:24	03/17/19 22:24	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1251728	1	03/19/19 19:12	03/19/19 19:12	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1253638	1	03/21/19 23:31	03/21/19 23:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1251652	1	03/18/19 21:46	03/20/19 00:04	TH	Mt. Juliet, TN

MW-3 L1079371-03 GW

Collected by SJK/JWM
Collected date/time 03/14/19 11:35
Received date/time 03/15/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1250839	1	03/17/19 22:48	03/17/19 22:48	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1251728	1	03/19/19 19:32	03/19/19 19:32	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1253638	200	03/21/19 23:51	03/21/19 23:51	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1252655	1	03/20/19 16:53	03/21/19 22:12	TH	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

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6 Qc

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

Sample Handling and Receiving

2-Chloroethyl vinyl ether degrades under acidic conditions. Associated results were determined from the analysis of an acid-preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	Method
L1079371-01	MW-1	8260B
L1079371-02	MW-2	8260B
L1079371-03	MW-3	8260B

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	4.01		0.100	1	03/17/2019 22:00	WG1250839
(S) <i>o,a,a</i> -Trifluorotoluene(FID)	95.0		78.0-120		03/17/2019 22:00	WG1250839

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND	<u>J4</u>	0.0500	1	03/19/2019 18:52	WG1251728
Acrolein	ND		0.0500	1	03/19/2019 18:52	WG1251728
Acrylonitrile	ND		0.0100	1	03/19/2019 18:52	WG1251728
Benzene	0.00453		0.00100	1	03/19/2019 18:52	WG1251728
Bromobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Bromodichloromethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
Bromoform	ND		0.00100	1	03/19/2019 18:52	WG1251728
Bromomethane	ND		0.00500	1	03/19/2019 18:52	WG1251728
n-Butylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
sec-Butylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
tert-Butylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Carbon tetrachloride	ND		0.00100	1	03/19/2019 18:52	WG1251728
Chlorobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Chlorodibromomethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
Chloroethane	ND		0.00500	1	03/19/2019 18:52	WG1251728
2-Chloroethyl vinyl ether	ND		0.0500	1	03/19/2019 18:52	WG1251728
Chloroform	0.180		0.00500	1	03/19/2019 18:52	WG1251728
Chloromethane	ND		0.00250	1	03/19/2019 18:52	WG1251728
2-Chlorotoluene	ND		0.00100	1	03/19/2019 18:52	WG1251728
4-Chlorotoluene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/19/2019 18:52	WG1251728
1,2-Dibromoethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
Dibromomethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,2-Dichlorobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,3-Dichlorobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,4-Dichlorobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Dichlorodifluoromethane	ND		0.00500	1	03/19/2019 18:52	WG1251728
1,1-Dichloroethane	ND		0.200	200	03/21/2019 23:11	WG1253638
1,2-Dichloroethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,1-Dichloroethene	0.0373		0.00100	1	03/19/2019 18:52	WG1251728
cis-1,2-Dichloroethene	2.88		0.200	200	03/21/2019 23:11	WG1253638
trans-1,2-Dichloroethene	0.0304		0.00100	1	03/19/2019 18:52	WG1251728
1,2-Dichloropropane	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,1-Dichloropropene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,3-Dichloropropane	ND	<u>J4</u>	0.00100	1	03/19/2019 18:52	WG1251728
cis-1,3-Dichloropropene	ND		0.00100	1	03/19/2019 18:52	WG1251728
trans-1,3-Dichloropropene	ND		0.00100	1	03/19/2019 18:52	WG1251728
2,2-Dichloropropane	ND		0.00100	1	03/19/2019 18:52	WG1251728
Di-isopropyl ether	ND		0.00100	1	03/19/2019 18:52	WG1251728
Ethylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Hexachloro-1,3-butadiene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Isopropylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
p-Isopropyltoluene	ND		0.00100	1	03/19/2019 18:52	WG1251728
2-Butanone (MEK)	ND		0.0100	1	03/19/2019 18:52	WG1251728
Methylene Chloride	ND		0.00500	1	03/19/2019 18:52	WG1251728
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/19/2019 18:52	WG1251728
Methyl tert-butyl ether	0.00527		0.00100	1	03/19/2019 18:52	WG1251728
Naphthalene	ND		0.00500	1	03/19/2019 18:52	WG1251728
n-Propylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-1

Collected date/time: 03/14/19 11:05

SAMPLE RESULTS - 01

L1079371

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Styrene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,1,2-Trichlorotrifluoroethane	0.00862		0.00100	1	03/19/2019 18:52	WG1251728
Tetrachloroethene	0.322		0.200	200	03/21/2019 23:11	WG1253638
Toluene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,2,3-Trichlorobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,2,4-Trichlorobenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,1,1-Trichloroethane	0.176		0.00100	1	03/19/2019 18:52	WG1251728
1,1,2-Trichloroethane	ND		0.00100	1	03/19/2019 18:52	WG1251728
Trichloroethene	0.329		0.200	200	03/21/2019 23:11	WG1253638
Trichlorofluoromethane	ND		0.00500	1	03/19/2019 18:52	WG1251728
1,2,3-Trichloropropane	ND		0.00250	1	03/19/2019 18:52	WG1251728
1,2,4-Trimethylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,2,3-Trimethylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
1,3,5-Trimethylbenzene	ND		0.00100	1	03/19/2019 18:52	WG1251728
Vinyl chloride	0.0384		0.00100	1	03/19/2019 18:52	WG1251728
Xylenes, Total	ND		0.00300	1	03/19/2019 18:52	WG1251728
(S) Toluene-d8	93.3		80.0-120		03/19/2019 18:52	WG1251728
(S) Toluene-d8	89.9		80.0-120		03/21/2019 23:11	WG1253638
(S) 4-Bromofluorobenzene	104		77.0-126		03/19/2019 18:52	WG1251728
(S) 4-Bromofluorobenzene	105		77.0-126		03/21/2019 23:11	WG1253638
(S) 1,2-Dichloroethane-d4	101		70.0-130		03/19/2019 18:52	WG1251728
(S) 1,2-Dichloroethane-d4	105		70.0-130		03/21/2019 23:11	WG1253638

1 Cp

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5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.919		0.100	1	03/21/2019 21:54	WG1252655
(S) o-Terphenyl	94.7		31.0-160		03/21/2019 21:54	WG1252655



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	0.196	<u>B</u>	0.100	1	03/17/2019 22:24	WG1250839
(S) a,a,a-Trifluorotoluene(FID)	94.3		78.0-120		03/17/2019 22:24	WG1250839

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND	<u>J4</u>	0.0500	1	03/19/2019 19:12	WG1251728
Acrolein	ND		0.0500	1	03/19/2019 19:12	WG1251728
Acrylonitrile	ND		0.0100	1	03/19/2019 19:12	WG1251728
Benzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Bromobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Bromodichloromethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
Bromoform	ND		0.00100	1	03/19/2019 19:12	WG1251728
Bromomethane	ND		0.00500	1	03/19/2019 19:12	WG1251728
n-Butylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
sec-Butylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
tert-Butylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Carbon tetrachloride	ND		0.00100	1	03/19/2019 19:12	WG1251728
Chlorobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Chlorodibromomethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
Chloroethane	ND		0.00500	1	03/19/2019 19:12	WG1251728
2-Chloroethyl vinyl ether	ND		0.0500	1	03/19/2019 19:12	WG1251728
Chloroform	ND		0.00500	1	03/19/2019 19:12	WG1251728
Chloromethane	ND		0.00250	1	03/19/2019 19:12	WG1251728
2-Chlorotoluene	ND		0.00100	1	03/19/2019 19:12	WG1251728
4-Chlorotoluene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/19/2019 19:12	WG1251728
1,2-Dibromoethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
Dibromomethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,2-Dichlorobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,3-Dichlorobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,4-Dichlorobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Dichlorodifluoromethane	ND		0.00500	1	03/19/2019 19:12	WG1251728
1,1-Dichloroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,2-Dichloroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1-Dichloroethene	ND		0.00100	1	03/19/2019 19:12	WG1251728
cis-1,2-Dichloroethene	0.0680		0.00100	1	03/21/2019 23:31	WG1253638
trans-1,2-Dichloroethene	0.00218		0.00100	1	03/19/2019 19:12	WG1251728
1,2-Dichloropropane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1-Dichloropropene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,3-Dichloropropane	ND	<u>J4</u>	0.00100	1	03/19/2019 19:12	WG1251728
cis-1,3-Dichloropropene	ND		0.00100	1	03/19/2019 19:12	WG1251728
trans-1,3-Dichloropropene	ND		0.00100	1	03/19/2019 19:12	WG1251728
2,2-Dichloropropane	ND		0.00100	1	03/19/2019 19:12	WG1251728
DI-Isopropyl ether	ND		0.00100	1	03/19/2019 19:12	WG1251728
Ethylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Hexachloro-1,3-butadiene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Isopropylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
p-Isopropyltoluene	ND		0.00100	1	03/19/2019 19:12	WG1251728
2-Butanone (MEK)	ND		0.0100	1	03/19/2019 19:12	WG1251728
Methylene Chloride	ND		0.00500	1	03/19/2019 19:12	WG1251728
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/19/2019 19:12	WG1251728
Methyl tert-butyl ether	ND		0.00100	1	03/19/2019 19:12	WG1251728
Naphthalene	ND		0.00500	1	03/19/2019 19:12	WG1251728
n-Propylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

MW-2

Collected date/time: 03/14/19 11:20

SAMPLE RESULTS - 02

L1079371

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Styrene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
Tetrachloroethene	0.0390		0.00100	1	03/21/2019 23:31	WG1253638
Toluene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,2,3-Trichlorobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,2,4-Trichlorobenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1,1-Trichloroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,1,2-Trichloroethane	ND		0.00100	1	03/19/2019 19:12	WG1251728
Trichloroethene	0.0184		0.00100	1	03/21/2019 23:31	WG1253638
Trichlorofluoromethane	ND		0.00500	1	03/19/2019 19:12	WG1251728
1,2,3-Trichloropropane	ND		0.00250	1	03/19/2019 19:12	WG1251728
1,2,4-Trimethylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,2,3-Trimethylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
1,3,5-Trimethylbenzene	ND		0.00100	1	03/19/2019 19:12	WG1251728
Vinyl chloride	ND		0.00100	1	03/19/2019 19:12	WG1251728
Xylenes, Total	ND		0.00300	1	03/19/2019 19:12	WG1251728
(S) Toluene-d8	91.7		80.0-120		03/19/2019 19:12	WG1251728
(S) Toluene-d8	87.0		80.0-120		03/21/2019 23:31	WG1253638
(S) 4-Bromofluorobenzene	99.4		77.0-126		03/19/2019 19:12	WG1251728
(S) 4-Bromofluorobenzene	109		77.0-126		03/21/2019 23:31	WG1253638
(S) 1,2-Dichloroethane-d4	103		70.0-130		03/19/2019 19:12	WG1251728
(S) 1,2-Dichloroethane-d4	106		70.0-130		03/21/2019 23:31	WG1253638

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		0.100	1	03/20/2019 00:04	WG1251652
(S) o-Terphenyl	72.1		31.0-160		03/20/2019 00:04	WG1251652

MW-3

Collected date/time: 03/14/19 11:35

SAMPLE RESULTS - 03

L1079371

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	3.60		0.100	1	03/17/2019 22:48	WG1250839
(S) a,a,a-Trifluorotoluene(FID)	94.0		78.0-120		03/17/2019 22:48	WG1250839

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND	J4	0.0500	1	03/19/2019 19:32	WG1251728
Acrolein	ND		0.0500	1	03/19/2019 19:32	WG1251728
Acrylonitrile	ND		0.0100	1	03/19/2019 19:32	WG1251728
Benzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Bromobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Bromodichloromethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
Bromoform	ND		0.00100	1	03/19/2019 19:32	WG1251728
Bromomethane	ND		0.00500	1	03/19/2019 19:32	WG1251728
n-Butylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
sec-Butylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
tert-Butylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Carbon tetrachloride	ND		0.00100	1	03/19/2019 19:32	WG1251728
Chlorobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Chlorodibromomethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
Chloroethane	ND		0.00500	1	03/19/2019 19:32	WG1251728
2-Chloroethyl vinyl ether	ND		0.0500	1	03/19/2019 19:32	WG1251728
Chloroform	0.00878		0.00500	1	03/19/2019 19:32	WG1251728
Chloromethane	ND		0.00250	1	03/19/2019 19:32	WG1251728
2-Chlorotoluene	ND		0.00100	1	03/19/2019 19:32	WG1251728
4-Chlorotoluene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/19/2019 19:32	WG1251728
1,2-Dibromoethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
Dibromomethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,2-Dichlorobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,3-Dichlorobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,4-Dichlorobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Dichlorodifluoromethane	ND		0.00500	1	03/19/2019 19:32	WG1251728
1,1-Dichloroethane	0.00321		0.00100	1	03/19/2019 19:32	WG1251728
1,2-Dichloroethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1-Dichloroethene	0.00321		0.00100	1	03/19/2019 19:32	WG1251728
cis-1,2-Dichloroethene	4.13		0.200	200	03/21/2019 23:51	WG1253638
trans-1,2-Dichloroethene	0.0533		0.00100	1	03/19/2019 19:32	WG1251728
1,2-Dichloropropane	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1-Dichloropropene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,3-Dichloropropene	ND	J4	0.00100	1	03/19/2019 19:32	WG1251728
cis-1,3-Dichloropropene	ND		0.00100	1	03/19/2019 19:32	WG1251728
trans-1,3-Dichloropropene	ND		0.00100	1	03/19/2019 19:32	WG1251728
2,2-Dichloropropane	ND		0.00100	1	03/19/2019 19:32	WG1251728
Di-isopropyl ether	ND		0.00100	1	03/19/2019 19:32	WG1251728
Ethylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Hexachloro-1,3-butadiene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Isopropylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
p-Isopropyltoluene	ND		0.00100	1	03/19/2019 19:32	WG1251728
2-Butanone (MEK)	ND		0.0100	1	03/19/2019 19:32	WG1251728
Methylene Chloride	ND		0.00500	1	03/19/2019 19:32	WG1251728
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/19/2019 19:32	WG1251728
Methyl tert-butyl ether	0.00838		0.00100	1	03/19/2019 19:32	WG1251728
Naphthalene	ND		0.00500	1	03/19/2019 19:32	WG1251728
n-Propylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCOUNT:

Clendenin Consulting Group - VA

PROJECT:

18006

SDG:

L1079371

DATE/TIME:

03/23/19 14:59

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MW-3

Collected date/time: 03/14/19 11:35

SAMPLE RESULTS - 03

L1079371

ONE LAB. NATIONWIDE.



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Styrene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
Tetrachloroethene	0.170		0.00100	1	03/19/2019 19:32	WG1251728
Toluene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,2,3-Trichlorobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,2,4-Trichlorobenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1,1-Trichloroethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,1,2-Trichloroethane	ND		0.00100	1	03/19/2019 19:32	WG1251728
Trichloroethene	0.167		0.00100	1	03/19/2019 19:32	WG1251728
Trichlorofluoromethane	ND		0.00500	1	03/19/2019 19:32	WG1251728
1,2,3-Trichloropropane	ND		0.00250	1	03/19/2019 19:32	WG1251728
1,2,4-Trimethylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,2,3-Trimethylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
1,3,5-Trimethylbenzene	ND		0.00100	1	03/19/2019 19:32	WG1251728
Vinyl chloride	0.296		0.200	200	03/21/2019 23:51	WG1253638
Xylenes, Total	ND		0.00300	1	03/19/2019 19:32	WG1251728
(S) Toluene-d8	92.6		80.0-120		03/19/2019 19:32	WG1251728
(S) Toluene-d8	88.3		80.0-120		03/21/2019 23:51	WG1253638
(S) 4-Bromofluorobenzene	102		77.0-126		03/19/2019 19:32	WG1251728
(S) 4-Bromofluorobenzene	109		77.0-126		03/21/2019 23:51	WG1253638
(S) 1,2-Dichloroethane-d4	101		70.0-130		03/19/2019 19:32	WG1251728
(S) 1,2-Dichloroethane-d4	101		70.0-130		03/21/2019 23:51	WG1253638

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) High Fraction	1.08		0.100	1	03/21/2019 22:12	WG1252655
(S) o-Terphenyl	91.1		31.0-160		03/21/2019 22:12	WG1252655

Method Blank (MB)

(MB) R3392535-3 03/17/19 18:27

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
TPH (GC/FID) Low Fraction	0.0403	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	93.3			78.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3392535-1 03/17/19 17:16 • (LCSD) R3392535-2 03/17/19 17:40

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
TPH (GC/FID) Low Fraction	5.50	5.54	5.75	101	105	72.0-127			3.71	20
(S) a,a,a-Trifluorotoluene(FID)				97.9	98.1	78.0-120				

Cu

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

WG1251728

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1079371-01,02,03](#)

ONE LAB. NATIONWIDE



Method Blank (MB)

(MB) R3393974-2 03/19/19 12:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-Isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100
Hexachloro-1,3-butadiene	U		0.000256	0.00100

ACCOUNT:

Clendenin Consulting Group - VA

PROJECT:

18006

SDG:

L1079371

DATE/TIME:

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WG1251728

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1079371-01,02,03](#)

ONE LAB. NATIONWIDE.



Method Blank (MB)

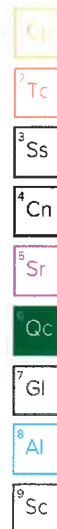
(MB) R3393974-2 03/19/19 12:22

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000412	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	93.3			80.0-120
(S) 4-Bromofluorobenzene	101			77.0-126
(S) 1,2-Dichloroethane-d4	100			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3393974-1 03/19/19 11:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/l	mg/l	%	%	
Acetone	0.125	0.228	183	19.0-160	J4
Acrolein	0.125	0.126	101	10.0-160	
Acrylonitrile	0.125	0.166	133	55.0-149	
Benzene	0.0250	0.0237	94.8	70.0-123	

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Clendenin Consulting Group - VAPROJECT:
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WG1251728

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1079371-01.02.03](#)

ONE LAB. NATIONWIDE.



Laboratory Control Sample (LCS)

(LCS) R3393974-1 03/19/19 11:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromobenzene	0.0250	0.0191	76.5	73.0-121	
Bromodichloromethane	0.0250	0.0233	93.2	75.0-120	
Bromoform	0.0250	0.0247	98.7	68.0-132	
Bromomethane	0.0250	0.0206	82.3	10.0-160	
n-Butylbenzene	0.0250	0.0206	82.5	73.0-125	
sec-Butylbenzene	0.0250	0.0210	83.9	75.0-125	
tert-Butylbenzene	0.0250	0.0200	79.8	76.0-124	
Carbon tetrachloride	0.0250	0.0257	103	68.0-126	
Chlorobenzene	0.0250	0.0216	86.3	80.0-121	
Chlorodibromomethane	0.0250	0.0210	83.9	77.0-125	
Chloroethane	0.0250	0.0202	80.7	47.0-150	
2-Chloroethyl vinyl ether	0.125	0.118	94.6	51.0-160	
Chloroform	0.0250	0.0238	95.0	73.0-120	
Chloromethane	0.0250	0.0191	76.3	41.0-142	
2-Chlorotoluene	0.0250	0.0201	80.5	76.0-123	
4-Chlorotoluene	0.0250	0.0196	78.2	75.0-122	
1,2-Dibromo-3-Chloropropane	0.0250	0.0232	92.7	58.0-134	
1,2-Dibromoethane	0.0250	0.0206	82.4	80.0-122	
Dibromomethane	0.0250	0.0224	89.8	80.0-120	
1,2-Dichlorobenzene	0.0250	0.0202	80.9	79.0-121	
1,3-Dichlorobenzene	0.0250	0.0205	82.2	79.0-120	
1,4-Dichlorobenzene	0.0250	0.0206	82.3	79.0-120	
Dichlorodifluoromethane	0.0250	0.0196	78.3	51.0-149	
1,1-Dichloroethane	0.0250	0.0239	95.7	70.0-126	
1,2-Dichloroethane	0.0250	0.0229	91.8	70.0-128	
1,1-Dichloroethene	0.0250	0.0237	94.6	71.0-124	
trans-1,2-Dichloroethene	0.0250	0.0256	102	73.0-120	
1,2-Dichloropropene	0.0250	0.0225	90.0	77.0-125	
1,1-Dichloropropene	0.0250	0.0247	98.7	74.0-126	
1,3-Dichloropropene	0.0250	0.0194	77.6	80.0-120	J4
cis-1,3-Dichloropropene	0.0250	0.0233	93.2	80.0-123	
trans-1,3-Dichloropropene	0.0250	0.0201	80.3	78.0-124	
2,2-Dichloropropane	0.0250	0.0297	119	58.0-130	
Di-isopropyl ether	0.0250	0.0232	92.9	58.0-138	
Ethylbenzene	0.0250	0.0225	90.2	79.0-123	
Hexachloro-1,3-butadiene	0.0250	0.0180	72.2	54.0-138	
Isopropylbenzene	0.0250	0.0245	98.2	76.0-127	
p-Isopropyltoluene	0.0250	0.0210	84.2	76.0-125	
2-Butanone (MEK)	0.125	0.133	106	44.0-160	
Methylene Chloride	0.0250	0.0230	92.0	67.0-120	

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Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

WG1251728

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1079371-01,02,03](#)

ONE LAB. NATIONWIDE



Laboratory Control Sample (LCS)

(LCS) R3393974-1 03/19/19 11:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Methyl-2-pentanone (MIBK)	0.125	0.110	88.4	68.0-142	
Methyl tert-butyl ether	0.0250	0.0257	103	68.0-125	
Naphthalene	0.0250	0.0186	74.2	54.0-135	
n-Propylbenzene	0.0250	0.0198	79.1	77.0-124	
Styrene	0.0250	0.0223	89.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.0250	0.0234	93.6	75.0-125	
1,1,2,2-Tetrachloroethane	0.0250	0.0203	81.0	65.0-130	
Tetrachloroethene	0.0250	0.0219	87.8	72.0-132	
Toluene	0.0250	0.0202	80.7	79.0-120	
1,1,2-Trichlorotrifluoroethane	0.0250	0.0239	95.5	69.0-132	
1,2,3-Trichlorobenzene	0.0250	0.0176	70.2	50.0-138	
1,2,4-Trichlorobenzene	0.0250	0.0171	68.2	57.0-137	
1,1,1-Trichloroethane	0.0250	0.0259	104	73.0-124	
1,1,2-Trichloroethane	0.0250	0.0201	80.5	80.0-120	
Trichloroethene	0.0250	0.0235	94.0	78.0-124	
Trichlorofluoromethane	0.0250	0.0205	82.1	59.0-147	
1,2,3-Trichloropropane	0.0250	0.0191	76.3	73.0-130	
1,2,3-Trimethylbenzene	0.0250	0.0196	78.6	77.0-120	
1,2,4-Trimethylbenzene	0.0250	0.0203	81.3	76.0-121	
1,3,5-Trimethylbenzene	0.0250	0.0202	80.7	76.0-122	
Vinyl chloride	0.0250	0.0209	83.5	67.0-131	
Xylenes, Total	0.0750	0.0677	90.3	79.0-123	
(S) Toluene-d8			88.1	80.0-120	
(S) 4-Bromofluorobenzene			105	77.0-126	
(S) 1,2-Dichloroethane-d4			113	70.0-130	

ACCOUNT:
Clendenin Consulting Group - VAPROJECT:
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WG1253638

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

[L1079371-01.02.03](#)

ONE LAB. NATIONWIDE



Method Blank (MB)

(MB) R3394102-3 03/21/19 21:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1-Dichloroethane	U		0.000259	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
Tetrachloroethene	U		0.000372	0.00100
Trichloroethene	U		0.000398	0.00100
Vinyl chloride	U		0.000259	0.00100
(S) Toluene-d8	87.9			80.0-120
(S) 4-Bromofluorobenzene	112			77.0-126
(S) 1,2-Dichloroethane-d4	105			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3394102-1 03/21/19 20:41 • (LCSD) R3394102-2 03/21/19 21:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethane	0.0250	0.0265	0.0272	106	109	70.0-126			2.42	20
cis-1,2-Dichloroethene	0.0250	0.0241	0.0252	96.3	101	73.0-120			4.61	20
Tetrachloroethene	0.0250	0.0247	0.0239	98.9	95.5	72.0-132			3.52	20
Trichloroethene	0.0250	0.0232	0.0240	92.8	95.9	78.0-124			3.32	20
Vinyl chloride	0.0250	0.0213	0.0227	85.0	90.7	67.0-131			6.48	20
(S) Toluene-d8				93.3	90.7	80.0-120				
(S) 4-Bromofluorobenzene				111	111	77.0-126				
(S) 1,2-Dichloroethane-d4				111	114	70.0-130				

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WG1251652

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

QUALITY CONTROL SUMMARY

L1079371-02

ONE LAB. NATIONWIDE



Method Blank (MB)

(MB) R3393062-3 03/19/19 14:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.123		0.0247	0.100
(S) o-Terphenyl	105			31.0-160

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3393062-1 03/19/19 12:40 • (LCSD) R3393062-2 03/19/19 13:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.53	1.55	102	103	50.0-150			1.30	20
(S) o-Terphenyl				104	104	31.0-160				



ACCOUNT:
Ciendenin Consulting Group - VA

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18006

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L1079371

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WG1252655

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

QUALITY CONTROL SUMMARY

[L1079371-01.03](#)

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3393740-1 03/21/19 02:10

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/l		mg/l	mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	77.0			31.0-160

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3393740-2 03/21/19 02:27 • (LCSD) R3393740-3 03/21/19 02:44

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	mg/l	mg/l	mg/l	%	%	%			%	%
TPH (GC/FID) High Fraction	1.50	1.67	1.70	111	113	50.0-150			1.78	20
(S) o-Terphenyl				93.5	93.5	31.0-160				

Cu

²Tc

³Ss

⁴Cn

⁵Sr

Qc

⁷Gl

⁸Al

⁹Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN000003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



[illegible]

July 09, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Clendenin Consulting Group - VA

Sample Delivery Group: L1113878
Samples Received: 06/28/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.





Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
MW-1 L1113878-01	5	
MW-2 L1113878-02	7	⁴ Cn
MW-3 L1113878-03	9	⁵ Sr
Qc: Quality Control Summary	11	
Volatile Organic Compounds (GC) by Method 8015D/GRO	11	⁶ Qc
Volatile Organic Compounds (GC/MS) by Method 8260B	12	
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Gl: Glossary of Terms	18	⁸ Al
Al: Accreditations & Locations	19	
Sc: Sample Chain of Custody	20	⁹ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-1 L1113878-01 GW

Collected by
Win McCormack

Collected date/time
06/25/19 11:40

Received date/time
06/28/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1307119	1	07/06/19 17:57	07/06/19 17:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1306377	1	07/04/19 04:50	07/04/19 04:50	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1306809	50	07/05/19 13:14	07/05/19 13:14	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1304195	1	06/30/19 18:52	07/01/19 18:10	TH	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-2 L1113878-02 GW

Collected by
Win McCormack

Collected date/time
06/25/19 12:05

Received date/time
06/28/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1307119	1	07/06/19 20:09	07/06/19 20:09	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1306377	1	07/04/19 05:10	07/04/19 05:10	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1306809	10	07/05/19 13:33	07/05/19 13:33	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1304195	1	06/30/19 18:52	07/01/19 18:31	TH	Mt. Juliet, TN

MW-3 L1113878-03 GW

Collected by
Win McCormack

Collected date/time
06/25/19 12:25

Received date/time
06/28/19 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1307119	1	07/06/19 20:32	07/06/19 20:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1306377	1	07/04/19 05:30	07/04/19 05:30	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1306809	100	07/05/19 13:53	07/05/19 13:53	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1304195	1	06/30/19 18:52	07/01/19 18:51	TH	Mt. Juliet, TN

ACCOUNT:

Cledenin Consulting Group - VA

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18006

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L1113878

DATE/TIME:

07/09/19 16:22

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All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

Sample Handling and Receiving

2-Chloroethyl vinyl ether degrades under acidic conditions. Associated results were determined from the analysis of an acid-preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1113878-01	MW-1	8260B
L1113878-02	MW-2	8260B
L1113878-03	MW-3	8260B

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.95		0.100	1	07/06/2019 17:57	WG1307119
(S) a,a,a-Trifluorotoluene(FID)	104		78.0-120		07/06/2019 17:57	WG1307119

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	07/04/2019 04:50	WG1306377
Acrolein	ND		0.0500	1	07/04/2019 04:50	WG1306377
Acrylonitrile	ND		0.0100	1	07/04/2019 04:50	WG1306377
Benzene	0.00279		0.00100	1	07/04/2019 04:50	WG1306377
Bromobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Bromodichloromethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
Bromoform	ND		0.00100	1	07/04/2019 04:50	WG1306377
Bromomethane	ND		0.00500	1	07/04/2019 04:50	WG1306377
n-Butylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
sec-Butylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
tert-Butylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Carbon tetrachloride	ND		0.00100	1	07/04/2019 04:50	WG1306377
Chlorobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Chlorodibromomethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
Chloroethane	ND		0.00500	1	07/04/2019 04:50	WG1306377
2-Chloroethyl vinyl ether	ND		0.0500	1	07/04/2019 04:50	WG1306377
Chloroform	0.0388		0.00500	1	07/04/2019 04:50	WG1306377
Chloromethane	ND		0.00250	1	07/04/2019 04:50	WG1306377
2-Chlorotoluene	ND		0.00100	1	07/04/2019 04:50	WG1306377
4-Chlorotoluene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	07/04/2019 04:50	WG1306377
1,2-Dibromoethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
Dibromomethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,2-Dichlorobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,3-Dichlorobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,4-Dichlorobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Dichlorodifluoromethane	ND		0.00500	1	07/04/2019 04:50	WG1306377
1,1-Dichloroethane	0.0783		0.00100	1	07/04/2019 04:50	WG1306377
1,2-Dichloroethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,1-Dichloroethene	0.0151		0.00100	1	07/04/2019 04:50	WG1306377
cis-1,2-Dichloroethene	1.23		0.0500	50	07/05/2019 13:14	WG1306809
trans-1,2-Dichloroethene	0.0200		0.00100	1	07/04/2019 04:50	WG1306377
1,2-Dichloropropane	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,1-Dichloropropene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,3-Dichloropropane	ND		0.00100	1	07/04/2019 04:50	WG1306377
cis-1,3-Dichloropropene	ND		0.00100	1	07/04/2019 04:50	WG1306377
trans-1,3-Dichloropropene	ND		0.00100	1	07/04/2019 04:50	WG1306377
2,2-Dichloropropane	ND		0.00100	1	07/04/2019 04:50	WG1306377
Di-isopropyl ether	ND		0.00100	1	07/04/2019 04:50	WG1306377
Ethylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Hexachloro-1,3-butadiene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Isopropylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
p-Isopropyltoluene	ND		0.00100	1	07/04/2019 04:50	WG1306377
2-Butanone (MEK)	ND		0.0100	1	07/04/2019 04:50	WG1306377
Methylene Chloride	ND		0.00500	1	07/04/2019 04:50	WG1306377
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	07/04/2019 04:50	WG1306377
Methyl tert-butyl ether	0.00472		0.00100	1	07/04/2019 04:50	WG1306377
Naphthalene	ND		0.00500	1	07/04/2019 04:50	WG1306377
n-Propylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/25/19 11:40

L1113878

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Styrene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,1,1,2-Tetrachloroethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,1,2,2-Tetrachloroethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,1,2-Trichlorotrifluoroethane	0.00530		0.00100	1	07/04/2019 04:50	WG1306377
Tetrachloroethene	0.572		0.0500	50	07/05/2019 13:14	WG1306809
Toluene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,2,3-Trichlorobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,2,4-Trichlorobenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,1,1-Trichloroethane	0.0508		0.00100	1	07/04/2019 04:50	WG1306377
1,1,2-Trichloroethane	ND		0.00100	1	07/04/2019 04:50	WG1306377
Trichloroethene	0.575		0.0500	50	07/05/2019 13:14	WG1306809
Trichlorofluoromethane	ND		0.00500	1	07/04/2019 04:50	WG1306377
1,2,3-Trichloropropane	ND		0.00250	1	07/04/2019 04:50	WG1306377
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,2,3-Trimethylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2019 04:50	WG1306377
Vinyl chloride	0.0199		0.00100	1	07/04/2019 04:50	WG1306377
Xylenes, Total	ND		0.00300	1	07/04/2019 04:50	WG1306377
(S) Toluene-d8	104		80.0-120		07/04/2019 04:50	WG1306377
(S) Toluene-d8	106		80.0-120		07/05/2019 13:14	WG1306809
(S) 4-Bromofluorobenzene	97.0		77.0-126		07/04/2019 04:50	WG1306377
(S) 4-Bromofluorobenzene	102		77.0-126		07/05/2019 13:14	WG1306809
(S) 1,2-Dichloroethane-d4	98.0		70.0-130		07/04/2019 04:50	WG1306377
(S) 1,2-Dichloroethane-d4	104		70.0-130		07/05/2019 13:14	WG1306809

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.534		0.100	1	07/01/2019 18:10	WG1304195
(S) o-Terphenyl	83.2		31.0-160		07/01/2019 18:10	WG1304195



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.296	B	0.100	1	07/06/2019 20:09	WG1307119
(S) a,a,a-Trifluorotoluene(FID)	103		78.0-120		07/06/2019 20:09	WG1307119

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	07/04/2019 05:10	WG1306377
Acrolein	ND		0.0500	1	07/04/2019 05:10	WG1306377
Acrylonitrile	ND		0.0100	1	07/04/2019 05:10	WG1306377
Benzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Bromobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Bromodichloromethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
Bromoform	ND		0.00100	1	07/04/2019 05:10	WG1306377
Bromomethane	ND		0.00500	1	07/04/2019 05:10	WG1306377
n-Butylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
sec-Butylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
tert-Butylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Carbon tetrachloride	ND		0.00100	1	07/04/2019 05:10	WG1306377
Chlorobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Chlorodibromomethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
Chloroethane	ND		0.00500	1	07/04/2019 05:10	WG1306377
2-Chloroethyl vinyl ether	ND		0.0500	1	07/04/2019 05:10	WG1306377
Chloroform	ND		0.00500	1	07/04/2019 05:10	WG1306377
Chloromethane	ND		0.00250	1	07/04/2019 05:10	WG1306377
2-Chlorotoluene	ND		0.00100	1	07/04/2019 05:10	WG1306377
4-Chlorotoluene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	07/04/2019 05:10	WG1306377
1,2-Dibromoethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
Dibromomethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,2-Dichlorobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,3-Dichlorobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,4-Dichlorobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Dichlorodifluoromethane	ND		0.00500	1	07/04/2019 05:10	WG1306377
1,1-Dichloroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,2-Dichloroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1-Dichloroethene	ND		0.00100	1	07/04/2019 05:10	WG1306377
cis-1,2-Dichloroethene	0.254		0.0100	10	07/05/2019 13:33	WG1306809
trans-1,2-Dichloroethene	0.00528		0.00100	1	07/04/2019 05:10	WG1306377
1,2-Dichloropropane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1-Dichloropropene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,3-Dichloropropane	ND		0.00100	1	07/04/2019 05:10	WG1306377
cis-1,3-Dichloropropene	ND		0.00100	1	07/04/2019 05:10	WG1306377
trans-1,3-Dichloropropene	ND		0.00100	1	07/04/2019 05:10	WG1306377
2,2-Dichloropropane	ND		0.00100	1	07/04/2019 05:10	WG1306377
Di-isopropyl ether	ND		0.00100	1	07/04/2019 05:10	WG1306377
Ethylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Hexachloro-1,3-butadiene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Isopropylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
p-Isopropyltoluene	ND		0.00100	1	07/04/2019 05:10	WG1306377
2-Butanone (MEK)	ND		0.0100	1	07/04/2019 05:10	WG1306377
Methylene Chloride	ND		0.00500	1	07/04/2019 05:10	WG1306377
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	07/04/2019 05:10	WG1306377
Methyl tert-butyl ether	ND		0.00100	1	07/04/2019 05:10	WG1306377
Naphthalene	ND		0.00500	1	07/04/2019 05:10	WG1306377
n-Propylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/25/19 12:05

L1113878

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Styrene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1,1,2-Tetrachloroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1,2,2-Tetrachloroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
Tetrachloroethene	0.178		0.00100	1	07/04/2019 05:10	WG1306377
Toluene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,2,3-Trichlorobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,2,4-Trichlorobenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1,1-Trichloroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,1,2-Trichloroethane	ND		0.00100	1	07/04/2019 05:10	WG1306377
Trichloroethene	0.0637		0.00100	1	07/04/2019 05:10	WG1306377
Trichlorofluoromethane	ND		0.00500	1	07/04/2019 05:10	WG1306377
1,2,3-Trichloropropane	ND		0.00250	1	07/04/2019 05:10	WG1306377
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,2,3-Trimethylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2019 05:10	WG1306377
Vinyl chloride	0.00221		0.00100	1	07/04/2019 05:10	WG1306377
Xylenes, Total	ND		0.00300	1	07/04/2019 05:10	WG1306377
(S) Toluene-d8	107		80.0-120		07/04/2019 05:10	WG1306377
(S) Toluene-d8	104		80.0-120		07/05/2019 13:33	WG1306809
(S) 4-Bromofluorobenzene	99.8		77.0-126		07/04/2019 05:10	WG1306377
(S) 4-Bromofluorobenzene	104		77.0-126		07/05/2019 13:33	WG1306809
(S) 1,2-Dichloroethane-d4	101		70.0-130		07/04/2019 05:10	WG1306377
(S) 1,2-Dichloroethane-d4	104		70.0-130		07/05/2019 13:33	WG1306809

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.466		0.100	1	07/01/2019 18:31	WG1304195
(S) o-Terphenyl	75.8		31.0-160		07/01/2019 18:31	WG1304195



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.43		0.100	1	07/06/2019 20:32	WG1307119
(S) a,a,a-Trifluorotoluene(FID)	103		78.0-120		07/06/2019 20:32	WG1307119

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	07/04/2019 05:30	WG1306377
Acrolein	ND		0.0500	1	07/04/2019 05:30	WG1306377
Acrylonitrile	ND		0.0100	1	07/04/2019 05:30	WG1306377
Benzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Bromobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Bromodichloromethane	0.00104		0.00100	1	07/04/2019 05:30	WG1306377
Bromoform	ND		0.00100	1	07/04/2019 05:30	WG1306377
Bromomethane	ND		0.00500	1	07/04/2019 05:30	WG1306377
n-Butylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
sec-Butylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
tert-Butylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Carbon tetrachloride	ND		0.00100	1	07/04/2019 05:30	WG1306377
Chlorobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Chlorodibromomethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
Chloroethane	ND		0.00500	1	07/04/2019 05:30	WG1306377
2-Chloroethyl vinyl ether	ND		0.0500	1	07/04/2019 05:30	WG1306377
Chloroform	0.0157		0.00500	1	07/04/2019 05:30	WG1306377
Chloromethane	ND		0.00250	1	07/04/2019 05:30	WG1306377
2-Chlorotoluene	ND		0.00100	1	07/04/2019 05:30	WG1306377
4-Chlorotoluene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	07/04/2019 05:30	WG1306377
1,2-Dibromoethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
Dibromomethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,2-Dichlorobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,3-Dichlorobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,4-Dichlorobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Dichlorodifluoromethane	ND		0.00500	1	07/04/2019 05:30	WG1306377
1,1-Dichloroethane	0.00256		0.00100	1	07/04/2019 05:30	WG1306377
1,2-Dichloroethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1-Dichloroethene	0.00277		0.00100	1	07/04/2019 05:30	WG1306377
cis-1,2-Dichloroethene	2.90		0.100	100	07/05/2019 13:53	WG1306809
trans-1,2-Dichloroethene	0.0455		0.00100	1	07/04/2019 05:30	WG1306377
1,2-Dichloropropane	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1-Dichloropropene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,3-Dichloropropane	ND		0.00100	1	07/04/2019 05:30	WG1306377
cis-1,3-Dichloropropene	ND		0.00100	1	07/04/2019 05:30	WG1306377
trans-1,3-Dichloropropene	ND		0.00100	1	07/04/2019 05:30	WG1306377
2,2-Dichloropropane	ND		0.00100	1	07/04/2019 05:30	WG1306377
Di-isopropyl ether	ND		0.00100	1	07/04/2019 05:30	WG1306377
Ethylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Hexachloro-1,3-butadiene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Isopropylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
p-Isopropyltoluene	ND		0.00100	1	07/04/2019 05:30	WG1306377
2-Butanone (MEK)	ND		0.0100	1	07/04/2019 05:30	WG1306377
Methylene Chloride	ND		0.00500	1	07/04/2019 05:30	WG1306377
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	07/04/2019 05:30	WG1306377
Methyl tert-butyl ether	0.0111		0.00100	1	07/04/2019 05:30	WG1306377
Naphthalene	ND		0.00500	1	07/04/2019 05:30	WG1306377
n-Propylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 06/25/19 12:25

L1113878

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Styrene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1,1,2-Tetrachloroethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1,2,2-Tetrachloroethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
Tetrachloroethene	0.147		0.100	100	07/05/2019 13:53	WG1306809
Toluene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,2,3-Trichlorobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,2,4-Trichlorobenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1,1-Trichloroethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,1,2-Trichloroethane	ND		0.00100	1	07/04/2019 05:30	WG1306377
Trichloroethene	0.196		0.00100	1	07/04/2019 05:30	WG1306377
Trichlorofluoromethane	ND		0.00500	1	07/04/2019 05:30	WG1306377
1,2,3-Trichloropropane	ND		0.00250	1	07/04/2019 05:30	WG1306377
1,2,4-Trimethylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,2,3-Trimethylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
1,3,5-Trimethylbenzene	ND		0.00100	1	07/04/2019 05:30	WG1306377
Vinyl chloride	0.257		0.100	100	07/05/2019 13:53	WG1306809
Xylenes, Total	ND		0.00300	1	07/04/2019 05:30	WG1306377
(S) Toluene-d8	108		80.0-120		07/04/2019 05:30	WG1306377
(S) Toluene-d8	103		80.0-120		07/05/2019 13:53	WG1306809
(S) 4-Bromofluorobenzene	99.1		77.0-126		07/04/2019 05:30	WG1306377
(S) 4-Bromofluorobenzene	101		77.0-126		07/05/2019 13:53	WG1306809
(S) 1,2-Dichloroethane-d4	99.9		70.0-130		07/04/2019 05:30	WG1306377
(S) 1,2-Dichloroethane-d4	103		70.0-130		07/05/2019 13:53	WG1306809

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.591		0.100	1	07/01/2019 18:51	WG1304195
(S) o-Terphenyl	84.2		31.0-160		07/01/2019 18:51	WG1304195



Method Blank (MB)

(MB) R3428873-2 07/06/19 12:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0613	⬇	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3428873-1 07/06/19 11:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.49	99.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			106	78.0-120	

Method Blank (MB)

(MB) R3427743-3 07/04/19 00:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100
Hexachloro-1,3-butadiene	U		0.000256	0.00100

1

Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3427743-3 07/04/19 00:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000412	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	108			80.0-120
(S) 4-Bromofluorobenzene	103			77.0-126
(S) 1,2-Dichloroethane-d4	104			70.0-130

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3427743-1 07/03/19 23:11 • (LCSD) R3427743-2 07/03/19 23:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.123	0.129	98.0	103	19.0-160			4.99	27
Acrolein	0.125	0.125	0.138	100	110	10.0-160			9.56	26
Acrylonitrile	0.125	0.120	0.130	96.0	104	55.0-149			8.13	20
Benzene	0.0250	0.0246	0.0233	98.5	93.2	70.0-123			5.58	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3427743-1 07/03/19 23:11 • (LCSD) R3427743-2 07/03/19 23:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromobenzene	0.0250	0.0250	0.0238	99.9	95.4	73.0-121			4.62	20
Bromodichloromethane	0.0250	0.0252	0.0242	101	96.8	75.0-120			4.27	20
Bromoform	0.0250	0.0241	0.0235	96.5	94.2	68.0-132			2.46	20
Bromomethane	0.0250	0.0397	0.0371	159	148	10.0-160			6.84	25
n-Butylbenzene	0.0250	0.0256	0.0238	102	95.3	73.0-125			7.20	20
sec-Butylbenzene	0.0250	0.0259	0.0239	103	95.6	75.0-125			7.80	20
tert-Butylbenzene	0.0250	0.0249	0.0232	99.7	92.9	76.0-124			7.09	20
Carbon tetrachloride	0.0250	0.0264	0.0250	106	99.9	68.0-126			5.75	20
Chlorobenzene	0.0250	0.0244	0.0232	97.5	92.9	80.0-121			4.91	20
Chlorodibromomethane	0.0250	0.0247	0.0246	98.8	98.6	77.0-125			0.271	20
Chloroethane	0.0250	0.0243	0.0237	97.1	94.6	47.0-150			2.61	20
2-Chloroethyl vinyl ether	0.125	0.128	0.127	102	102	51.0-160			0.178	20
Chloroform	0.0250	0.0245	0.0238	97.9	95.1	73.0-120			2.91	20
Chloromethane	0.0250	0.0208	0.0197	83.2	78.9	41.0-142			5.30	20
2-Chlorotoluene	0.0250	0.0247	0.0233	99.0	93.1	76.0-123			6.06	20
4-Chlorotoluene	0.0250	0.0251	0.0239	100	95.8	75.0-122			4.71	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0220	0.0222	87.9	88.9	58.0-134			1.09	20
1,2-Dibromoethane	0.0250	0.0249	0.0239	99.5	95.7	80.0-122			3.87	20
Dibromomethane	0.0250	0.0245	0.0247	97.9	98.6	80.0-120			0.784	20
1,2-Dichlorobenzene	0.0250	0.0247	0.0240	98.7	96.1	79.0-121			2.71	20
1,3-Dichlorobenzene	0.0250	0.0250	0.0243	99.9	97.2	79.0-120			2.74	20
1,4-Dichlorobenzene	0.0250	0.0247	0.0235	98.9	94.0	79.0-120			5.10	20
Dichlorodifluoromethane	0.0250	0.0309	0.0286	124	114	51.0-149			7.87	20
1,1-Dichloroethane	0.0250	0.0235	0.0224	93.8	89.5	70.0-126			4.69	20
1,2-Dichloroethane	0.0250	0.0238	0.0231	95.1	92.6	70.0-128			2.67	20
1,1-Dichloroethene	0.0250	0.0279	0.0242	112	96.9	71.0-124			14.1	20
trans-1,2-Dichloroethene	0.0250	0.0243	0.0225	97.3	90.1	73.0-120			7.74	20
1,2-Dichloropropane	0.0250	0.0234	0.0223	93.5	89.3	77.0-125			4.56	20
1,1-Dichloropropene	0.0250	0.0251	0.0230	100	92.0	74.0-126			8.74	20
1,3-Dichloropropane	0.0250	0.0242	0.0236	96.9	94.5	80.0-120			2.50	20
cis-1,3-Dichloropropene	0.0250	0.0236	0.0230	94.5	91.9	80.0-123			2.75	20
trans-1,3-Dichloropropene	0.0250	0.0253	0.0240	101	96.1	78.0-124			5.05	20
2,2-Dichloropropane	0.0250	0.0233	0.0219	93.2	87.5	58.0-130			6.35	20
Di-isopropyl ether	0.0250	0.0235	0.0235	93.9	94.0	58.0-138			0.103	20
Ethylbenzene	0.0250	0.0245	0.0228	98.1	91.2	79.0-123			7.33	20
Hexachloro-1,3-butadiene	0.0250	0.0236	0.0227	94.4	90.8	54.0-138			3.90	20
Isopropylbenzene	0.0250	0.0252	0.0232	101	92.8	76.0-127			8.14	20
p-Isopropyltoluene	0.0250	0.0248	0.0235	99.4	94.1	76.0-125			5.49	20
2-Butanone (MEK)	0.125	0.129	0.132	103	106	44.0-160			2.31	20
Methylene Chloride	0.0250	0.0227	0.0217	90.6	86.8	67.0-120			4.29	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3427743-1 07/03/19 23:11 • (LCSD) R3427743-2 07/03/19 23:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	0.125	0.127	0.127	102	102	68.0-142			0.0831	20
Methyl tert-butyl ether	0.0250	0.0247	0.0244	98.9	97.6	68.0-125			1.32	20
Naphthalene	0.0250	0.0237	0.0241	94.9	96.5	54.0-135			1.69	20
n-Propylbenzene	0.0250	0.0254	0.0240	102	95.9	77.0-124			5.96	20
Styrene	0.0250	0.0247	0.0238	98.7	95.3	73.0-130			3.52	20
1,1,1,2-Tetrachloroethane	0.0250	0.0242	0.0227	96.7	90.8	75.0-125			6.24	20
1,1,2,2-Tetrachloroethane	0.0250	0.0246	0.0245	98.3	98.1	65.0-130			0.199	20
Tetrachloroethene	0.0250	0.0249	0.0228	99.8	91.2	72.0-132			8.93	20
Toluene	0.0250	0.0247	0.0229	98.7	91.4	79.0-120			7.67	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0283	0.0255	113	102	69.0-132			10.5	20
1,2,3-Trichlorobenzene	0.0250	0.0228	0.0233	91.3	93.4	50.0-138			2.18	20
1,2,4-Trichlorobenzene	0.0250	0.0241	0.0240	96.2	95.9	57.0-137			0.352	20
1,1,1-Trichloroethane	0.0250	0.0259	0.0242	104	96.8	73.0-124			6.80	20
1,1,2-Trichloroethane	0.0250	0.0248	0.0242	99.1	96.6	80.0-120			2.50	20
Trichloroethene	0.0250	0.0249	0.0240	99.6	95.9	78.0-124			3.77	20
Trichlorofluoromethane	0.0250	0.0269	0.0250	108	99.9	59.0-147			7.52	20
1,2,3-Trichloropropane	0.0250	0.0267	0.0255	107	102	73.0-130			4.65	20
1,2,3-Trimethylbenzene	0.0250	0.0242	0.0237	96.8	94.8	77.0-120			2.16	20
1,2,4-Trimethylbenzene	0.0250	0.0250	0.0239	99.9	95.6	76.0-121			4.40	20
1,3,5-Trimethylbenzene	0.0250	0.0250	0.0233	100	93.2	76.0-122			7.08	20
Vinyl chloride	0.0250	0.0266	0.0247	107	98.9	67.0-131			7.45	20
Xylenes, Total	0.0750	0.0734	0.0683	97.9	91.1	79.0-123			7.20	20
(S) Toluene-d8				104	103	80.0-120				
(S) 4-Bromofluorobenzene				98.6	96.7	77.0-126				
(S) 1,2-Dichloroethane-d4				110	110	70.0-130				

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3428222-3 07/05/19 10:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
cis-1,2-Dichloroethene	U		0.000260	0.00100
Tetrachloroethene	U		0.000372	0.00100
Trichloroethene	U		0.000398	0.00100
Vinyl chloride	U		0.000259	0.00100
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	99.2			77.0-126
(S) 1,2-Dichloroethane-d4	102			70.0-130

1Cp

2Tc

3Ss

4Cn

5Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3428222-1 07/05/19 09:11 • (LCSD) R3428222-2 07/05/19 09:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
cis-1,2-Dichloroethene	0.0250	0.0246	0.0248	98.4	99.1	73.0-120			0.656	20
Tetrachloroethene	0.0250	0.0259	0.0251	104	101	72.0-132			2.95	20
Trichloroethene	0.0250	0.0265	0.0263	106	105	78.0-124			0.914	20
Vinyl chloride	0.0250	0.0289	0.0284	116	113	67.0-131			1.87	20
(S) Toluene-d8				103	102	80.0-120				
(S) 4-Bromofluorobenzene				99.6	100	77.0-126				
(S) 1,2-Dichloroethane-d4				106	105	70.0-130				

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3426687-3 07/01/19 15:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	53.0			31.0-160

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3426687-1 07/01/19 14:29 • (LCSD) R3426687-2 07/01/19 14:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.57	1.63	105	109	50.0-150			3.75	20
(S) o-Terphenyl				90.0	95.5	31.0-160				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

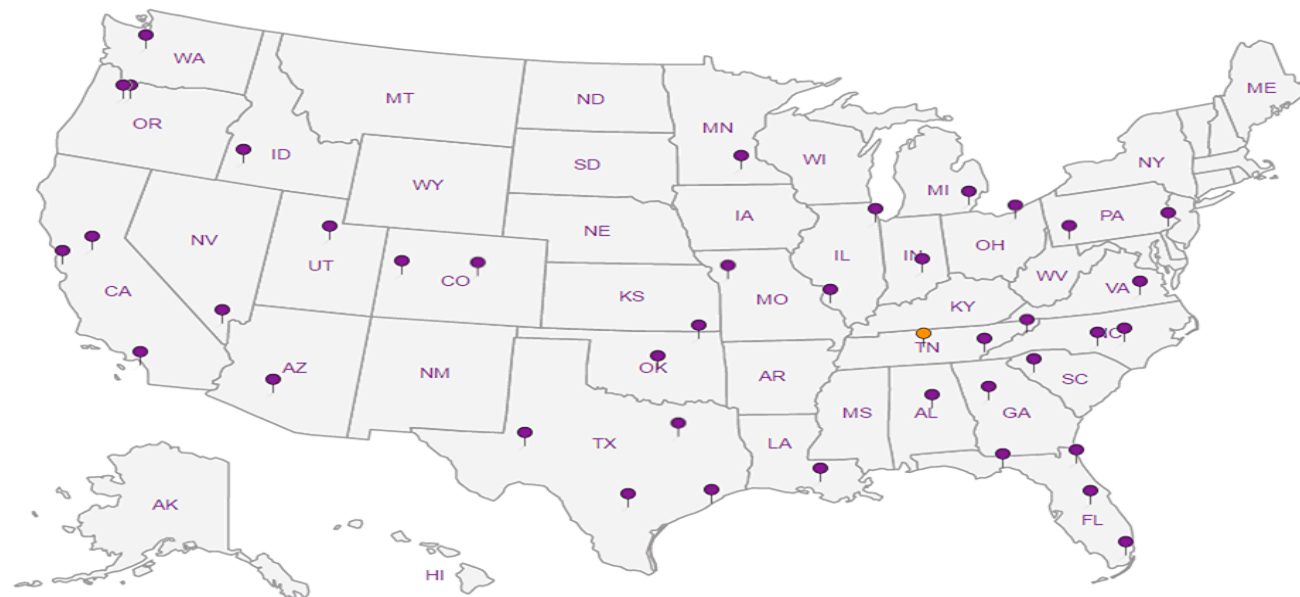
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



November 14, 2019

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Clendenin Consulting Group - VA

Sample Delivery Group: L1157202
Samples Received: 11/05/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





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LMW-7 L1157202-01 GW

				Collected by	Collected date/time	Received date/time
				Winthrop McCormack	11/01/19 12:40	11/05/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1376415	1	11/06/19 21:47	11/06/19 21:47	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1377949	1	11/10/19 00:22	11/10/19 00:22	JCP	Sacramento, CA
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1375719	1	11/06/19 09:16	11/08/19 01:06	SHG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

LMW-4 L1157202-02 GW

				Collected by	Collected date/time	Received date/time
				Winthrop McCormack	11/01/19 13:15	11/05/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664A	WG1377253	1	11/08/19 07:00	11/08/19 10:42	MBP	Mt. Juliet, TN
Mercury by Method 7470A	WG1376359	1	11/07/19 10:58	11/07/19 20:14	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1376673	1	11/11/19 11:29	11/12/19 00:40	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1376415	1	11/06/19 22:09	11/06/19 22:09	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1377949	1	11/10/19 00:48	11/10/19 00:48	JCP	Sacramento, CA
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1375719	1	11/06/19 09:16	11/08/19 01:32	SHG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1378321	1	11/11/19 06:37	11/11/19 15:46	RAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1376807	5	11/07/19 16:33	11/08/19 16:20	LEL	Mt. Juliet, TN

LMW-1 L1157202-03 GW

				Collected by	Collected date/time	Received date/time
				Winthrop McCormack	11/01/19 14:20	11/05/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1376415	1	11/06/19 22:30	11/06/19 22:30	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1377949	1	11/10/19 01:14	11/10/19 01:14	JCP	Sacramento, CA
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1375719	1	11/06/19 09:16	11/08/19 01:58	SHG	Mt. Juliet, TN

LMW-3 L1157202-04 GW

				Collected by	Collected date/time	Received date/time
				Winthrop McCormack	11/01/19 15:00	11/05/19 08:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1376415	1	11/06/19 22:52	11/06/19 22:52	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1377949	1	11/10/19 01:41	11/10/19 01:41	JCP	Sacramento, CA
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1375719	1	11/06/19 09:16	11/08/19 02:24	SHG	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

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Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.490		0.100	1	11/06/2019 21:47	WG1376415
(S) a,a,a-Trifluorotoluene(FID)	94.7		78.0-120		11/06/2019 21:47	WG1376415

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,1,1-Trichloroethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,1,2,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,1,2-Trichloroethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,1,2-Trichlorotrifluoroethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,1-Dichloroethane	0.00949		0.000500	1	11/10/2019 00:22	WG1377949
1,1-Dichloroethene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,1-Dichloropropene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2,3-Trichlorobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2,3-Trichloropropane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2,4-Trichlorobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2,4-Trimethylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2-Dibromo-3-Chloropropane	ND		0.00200	1	11/10/2019 00:22	WG1377949
1,2-Dibromoethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2-Dichlorobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2-Dichloroethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,2-Dichloropropane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,3,5-Trimethylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,3-Dichlorobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,3-Dichloropropane	ND		0.000500	1	11/10/2019 00:22	WG1377949
1,4-Dichlorobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
2,2-Dichloropropane	ND		0.00200	1	11/10/2019 00:22	WG1377949
2-Butanone (MEK)	ND		0.00500	1	11/10/2019 00:22	WG1377949
2-Chlorotoluene	ND		0.00100	1	11/10/2019 00:22	WG1377949
2-Hexanone	ND		0.00500	1	11/10/2019 00:22	WG1377949
4-Chlorotoluene	ND		0.00100	1	11/10/2019 00:22	WG1377949
4-Methyl-2-pentanone (MIBK)	ND		0.00500	1	11/10/2019 00:22	WG1377949
Acetone	ND		0.0100	1	11/10/2019 00:22	WG1377949
Acrylonitrile	ND		0.00500	1	11/10/2019 00:22	WG1377949
Benzene	0.00722		0.000500	1	11/10/2019 00:22	WG1377949
Bromobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Bromochloromethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Bromodichloromethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Bromoform	ND		0.000500	1	11/10/2019 00:22	WG1377949
Bromomethane	ND		0.0200	1	11/10/2019 00:22	WG1377949
Carbon Disulfide	ND		0.000500	1	11/10/2019 00:22	WG1377949
Carbon Tetrachloride	ND		0.000500	1	11/10/2019 00:22	WG1377949
Chlorobenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Chloroethane	ND		0.00200	1	11/10/2019 00:22	WG1377949
Chloroform	ND		0.000500	1	11/10/2019 00:22	WG1377949
Chloromethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Cis-1,2-Dichloroethene	0.203		0.000500	1	11/10/2019 00:22	WG1377949
Cis-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Chlorodibromomethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Dibromomethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Dichlorodifluoromethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Di-isopropyl ether	ND		0.000500	1	11/10/2019 00:22	WG1377949
Ethylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Ethyl tert-butyl ether	ND		0.000500	1	11/10/2019 00:22	WG1377949

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Collected date/time: 11/01/19 12:40

L1157202

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Isopropylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Methylene Chloride	ND		0.00500	1	11/10/2019 00:22	WG1377949
Methyl tert-butyl ether	0.00244		0.000500	1	11/10/2019 00:22	WG1377949
Naphthalene	ND		0.000500	1	11/10/2019 00:22	WG1377949
n-Butylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
n-Propylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
p-Isopropyltoluene	ND		0.000500	1	11/10/2019 00:22	WG1377949
sec-Butylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Styrene	ND		0.000500	1	11/10/2019 00:22	WG1377949
tert-Amyl Methyl Ether	ND		0.000500	1	11/10/2019 00:22	WG1377949
tert-Butyl alcohol	ND		0.0100	1	11/10/2019 00:22	WG1377949
tert-Butylbenzene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Tetrachloroethene	0.00125		0.000500	1	11/10/2019 00:22	WG1377949
Tetrahydrofuran	0.160		0.00500	1	11/10/2019 00:22	WG1377949
Toluene	0.000607		0.000500	1	11/10/2019 00:22	WG1377949
trans-1,2-Dichloroethene	0.0112		0.000500	1	11/10/2019 00:22	WG1377949
trans-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 00:22	WG1377949
trans-1,4-Dichloro-2-butene	ND		0.00500	1	11/10/2019 00:22	WG1377949
Trichloroethene	0.00880		0.000500	1	11/10/2019 00:22	WG1377949
Trichlorofluoromethane	ND		0.000500	1	11/10/2019 00:22	WG1377949
Vinyl Chloride	0.0913		0.000500	1	11/10/2019 00:22	WG1377949
m&p-Xylenes	ND		0.00100	1	11/10/2019 00:22	WG1377949
o-Xylene	ND		0.000500	1	11/10/2019 00:22	WG1377949
Xylenes, Total	ND		0.00150	1	11/10/2019 00:22	WG1377949
(S) 1,2-Dichloroethane-d4	106		80.0-125		11/10/2019 00:22	WG1377949
(S) 4-Bromofluorobenzene	98.2		75.0-120		11/10/2019 00:22	WG1377949
(S) Toluene-d8	101		80.0-120		11/10/2019 00:22	WG1377949

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Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.281	<u>B</u>	0.100	1	11/08/2019 01:06	WG1375719
(S) o-Terphenyl	70.9		31.0-160		11/08/2019 01:06	WG1375719



Wet Chemistry by Method 1664A

Analyte	Result mg/l	Qualifier	RD mg/l	Dilution	Analysis date / time	Batch
Oil & Grease (Hexane Extr)	ND		5.00	1	11/08/2019 10:42	WG1377253

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RD mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	11/07/2019 20:14	WG1376359

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RD mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	11/12/2019 00:40	WG1376673
Barium	0.147		0.00500	1	11/12/2019 00:40	WG1376673
Cadmium	ND		0.00200	1	11/12/2019 00:40	WG1376673
Chromium	ND		0.0100	1	11/12/2019 00:40	WG1376673
Lead	ND		0.00500	1	11/12/2019 00:40	WG1376673
Selenium	ND		0.0100	1	11/12/2019 00:40	WG1376673
Silver	ND		0.00500	1	11/12/2019 00:40	WG1376673

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RD mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.400		0.100	1	11/06/2019 22:09	WG1376415
(S) a,a,a-Trifluorotoluene(FID)	94.5		78.0-120		11/06/2019 22:09	WG1376415

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RD mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1,1-Trichloroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1,2,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1,2-Trichloroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1,2-Trichlorotrifluoroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1-Dichloroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1-Dichloroethene	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,1-Dichloropropene	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2,3-Trichlorobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2,3-Trichloropropane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2,4-Trichlorobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2,4-Trimethylbenzene	0.0131		0.000500	1	11/10/2019 00:48	WG1377949
1,2-Dibromo-3-Chloropropane	ND		0.00200	1	11/10/2019 00:48	WG1377949
1,2-Dibromoethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2-Dichlorobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2-Dichloroethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,2-Dichloropropane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,3,5-Trimethylbenzene	0.00703		0.000500	1	11/10/2019 00:48	WG1377949
1,3-Dichlorobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,3-Dichloropropane	ND		0.000500	1	11/10/2019 00:48	WG1377949
1,4-Dichlorobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
2,2-Dichloropropane	ND		0.00200	1	11/10/2019 00:48	WG1377949
2-Butanone (MEK)	ND		0.00500	1	11/10/2019 00:48	WG1377949
2-Chlorotoluene	ND		0.00100	1	11/10/2019 00:48	WG1377949
2-Hexanone	ND		0.00500	1	11/10/2019 00:48	WG1377949
4-Chlorotoluene	ND		0.00100	1	11/10/2019 00:48	WG1377949
4-Methyl-2-pentanone (MIBK)	ND		0.00500	1	11/10/2019 00:48	WG1377949

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Collected date/time: 11/01/19 13:15

L1157202

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0100	1	11/10/2019 00:48	WG1377949
Acrylonitrile	ND		0.00500	1	11/10/2019 00:48	WG1377949
Benzene	0.00445		0.000500	1	11/10/2019 00:48	WG1377949
Bromobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Bromochloromethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Bromodichloromethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Bromoform	ND		0.000500	1	11/10/2019 00:48	WG1377949
Bromomethane	ND		0.0200	1	11/10/2019 00:48	WG1377949
Carbon Disulfide	ND		0.000500	1	11/10/2019 00:48	WG1377949
Carbon Tetrachloride	ND		0.000500	1	11/10/2019 00:48	WG1377949
Chlorobenzene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Chloroethane	ND		0.00200	1	11/10/2019 00:48	WG1377949
Chloroform	ND		0.000500	1	11/10/2019 00:48	WG1377949
Chloromethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Cis-1,2-Dichloroethene	0.00142		0.000500	1	11/10/2019 00:48	WG1377949
Cis-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Chlorodibromomethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Dibromomethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Dichlorodifluoromethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Di-isopropyl ether	ND		0.000500	1	11/10/2019 00:48	WG1377949
Ethylbenzene	0.00445		0.000500	1	11/10/2019 00:48	WG1377949
Ethyl tert-butyl ether	ND		0.000500	1	11/10/2019 00:48	WG1377949
Hexachloro-1,3-butadiene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Isopropylbenzene	0.00215		0.000500	1	11/10/2019 00:48	WG1377949
Methylene Chloride	ND		0.00500	1	11/10/2019 00:48	WG1377949
Methyl tert-butyl ether	0.00139		0.000500	1	11/10/2019 00:48	WG1377949
Naphthalene	0.00481		0.000500	1	11/10/2019 00:48	WG1377949
n-Butylbenzene	0.00209		0.000500	1	11/10/2019 00:48	WG1377949
n-Propylbenzene	0.00273		0.000500	1	11/10/2019 00:48	WG1377949
p-Isopropyltoluene	0.00346		0.000500	1	11/10/2019 00:48	WG1377949
sec-Butylbenzene	0.00194		0.000500	1	11/10/2019 00:48	WG1377949
Styrene	ND		0.000500	1	11/10/2019 00:48	WG1377949
tert-Amyl Methyl Ether	ND		0.000500	1	11/10/2019 00:48	WG1377949
tert-Butyl alcohol	ND		0.0100	1	11/10/2019 00:48	WG1377949
tert-Butylbenzene	0.00161		0.000500	1	11/10/2019 00:48	WG1377949
Tetrachloroethene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Tetrahydrofuran	0.0736		0.00500	1	11/10/2019 00:48	WG1377949
Toluene	ND		0.000500	1	11/10/2019 00:48	WG1377949
trans-1,2-Dichloroethene	0.000761		0.000500	1	11/10/2019 00:48	WG1377949
trans-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 00:48	WG1377949
trans-1,4-Dichloro-2-butene	ND		0.00500	1	11/10/2019 00:48	WG1377949
Trichloroethene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Trichlorofluoromethane	ND		0.000500	1	11/10/2019 00:48	WG1377949
Vinyl Chloride	0.00263		0.000500	1	11/10/2019 00:48	WG1377949
m&p-Xylenes	0.00121		0.00100	1	11/10/2019 00:48	WG1377949
o-Xylene	ND		0.000500	1	11/10/2019 00:48	WG1377949
Xylenes, Total	0.00159		0.00150	1	11/10/2019 00:48	WG1377949
(S) 1,2-Dichloroethane-d4	105		80.0-125		11/10/2019 00:48	WG1377949
(S) 4-Bromofluorobenzene	99.7		75.0-120		11/10/2019 00:48	WG1377949
(S) Toluene-d8	102		80.0-120		11/10/2019 00:48	WG1377949

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.59		0.100	1	11/08/2019 01:32	WG1375719
(S) o-Terphenyl	63.2		31.0-160		11/08/2019 01:32	WG1375719



Collected date/time: 11/01/19 13:15

L1157202

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
PCB 1016	ND		0.000500	1	11/11/2019 15:46	WG1378321
PCB 1221	ND		0.000500	1	11/11/2019 15:46	WG1378321
PCB 1232	ND		0.000500	1	11/11/2019 15:46	WG1378321
PCB 1242	ND		0.000500	1	11/11/2019 15:46	WG1378321
PCB 1248	ND		0.000500	1	11/11/2019 15:46	WG1378321
PCB 1254	ND		0.000500	1	11/11/2019 15:46	WG1378321
PCB 1260	ND		0.000500	1	11/11/2019 15:46	WG1378321
(S) Decachlorobiphenyl	85.8		10.0-128		11/11/2019 15:46	WG1378321
(S) Tetrachloro-m-xylene	60.1		10.0-127		11/11/2019 15:46	WG1378321

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Acenaphthylene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Anthracene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Benzidine	ND		0.0500	5	11/08/2019 16:20	WG1376807
Benzo(a)anthracene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Benzo(b)fluoranthene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Benzo(k)fluoranthene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Benzo(g,h,i)perylene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Benzo(a)pyrene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Bis(2-chlorethoxy)methane	ND		0.0500	5	11/08/2019 16:20	WG1376807
Bis(2-chloroethyl)ether	ND		0.0500	5	11/08/2019 16:20	WG1376807
Bis(2-chloroisopropyl)ether	ND		0.0500	5	11/08/2019 16:20	WG1376807
4-Bromophenyl-phenylether	ND		0.0500	5	11/08/2019 16:20	WG1376807
2-Chloronaphthalene	ND		0.00500	5	11/08/2019 16:20	WG1376807
4-Chlorophenyl-phenylether	ND		0.0500	5	11/08/2019 16:20	WG1376807
Chrysene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Dibenz(a,h)anthracene	ND		0.00500	5	11/08/2019 16:20	WG1376807
3,3-Dichlorobenzidine	ND		0.0500	5	11/08/2019 16:20	WG1376807
2,4-Dinitrotoluene	ND		0.0500	5	11/08/2019 16:20	WG1376807
2,6-Dinitrotoluene	ND		0.0500	5	11/08/2019 16:20	WG1376807
Fluoranthene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Fluorene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Hexachlorobenzene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Hexachloro-1,3-butadiene	ND		0.0500	5	11/08/2019 16:20	WG1376807
Hexachlorocyclopentadiene	ND		0.0500	5	11/08/2019 16:20	WG1376807
Hexachloroethane	ND		0.0500	5	11/08/2019 16:20	WG1376807
Indeno(1,2,3-cd)pyrene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Isophorone	ND		0.0500	5	11/08/2019 16:20	WG1376807
Naphthalene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Nitrobenzene	ND		0.0500	5	11/08/2019 16:20	WG1376807
n-Nitrosodimethylamine	ND		0.0500	5	11/08/2019 16:20	WG1376807
n-Nitrosodiphenylamine	ND		0.0500	5	11/08/2019 16:20	WG1376807
n-Nitrosodi-n-propylamine	ND		0.0500	5	11/08/2019 16:20	WG1376807
Phenanthrene	ND		0.00500	5	11/08/2019 16:20	WG1376807
Benzylbutyl phthalate	ND		0.0150	5	11/08/2019 16:20	WG1376807
Bis(2-ethylhexyl)phthalate	ND		0.0150	5	11/08/2019 16:20	WG1376807
Di-n-butyl phthalate	ND		0.0150	5	11/08/2019 16:20	WG1376807
Diethyl phthalate	ND		0.0150	5	11/08/2019 16:20	WG1376807
Dimethyl phthalate	ND		0.0150	5	11/08/2019 16:20	WG1376807
Di-n-octyl phthalate	ND		0.0150	5	11/08/2019 16:20	WG1376807
Pyrene	ND		0.00500	5	11/08/2019 16:20	WG1376807
1,2,4-Trichlorobenzene	ND		0.0500	5	11/08/2019 16:20	WG1376807
4-Chloro-3-methylphenol	ND		0.0500	5	11/08/2019 16:20	WG1376807

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/01/19 13:15

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
2-Chlorophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
2,4-Dichlorophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
2,4-Dimethylphenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
4,6-Dinitro-2-methylphenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
2,4-Dinitrophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
2-Nitrophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
4-Nitrophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
Pentachlorophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
Phenol	0.819	<u>J4</u>	0.0500	5	11/08/2019 16:20	WG1376807
2,4,6-Trichlorophenol	ND		0.0500	5	11/08/2019 16:20	WG1376807
(S) 2-Fluorophenol	42.0		10.0-120		11/08/2019 16:20	WG1376807
(S) Phenol-d5	29.9		10.0-120		11/08/2019 16:20	WG1376807
(S) Nitrobenzene-d5	68.4		10.0-127		11/08/2019 16:20	WG1376807
(S) 2-Fluorobiphenyl	79.5		10.0-130		11/08/2019 16:20	WG1376807
(S) 2,4,6-Tribromophenol	86.3		10.0-155		11/08/2019 16:20	WG1376807
(S) p-Terphenyl-d14	87.9		10.0-128		11/08/2019 16:20	WG1376807

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.938		0.100	1	11/06/2019 22:30	WG1376415
(S) a,a,a-Trifluorotoluene(FID)	94.5		78.0-120		11/06/2019 22:30	WG1376415

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,1,1-Trichloroethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,1,2,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,1,2-Trichloroethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,1,2-Trichlorotrifluoroethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,1-Dichloroethane	0.0119		0.000500	1	11/10/2019 01:14	WG1377949
1,1-Dichloroethene	0.000915		0.000500	1	11/10/2019 01:14	WG1377949
1,1-Dichloropropene	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2,3-Trichlorobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2,3-Trichloropropane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2,4-Trichlorobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2,4-Trimethylbenzene	0.0272		0.000500	1	11/10/2019 01:14	WG1377949
1,2-Dibromo-3-Chloropropane	ND		0.00200	1	11/10/2019 01:14	WG1377949
1,2-Dibromoethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2-Dichlorobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2-Dichloroethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,2-Dichloropropane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,3,5-Trimethylbenzene	0.00901		0.000500	1	11/10/2019 01:14	WG1377949
1,3-Dichlorobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,3-Dichloropropane	ND		0.000500	1	11/10/2019 01:14	WG1377949
1,4-Dichlorobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
2,2-Dichloropropane	ND		0.00200	1	11/10/2019 01:14	WG1377949
2-Butanone (MEK)	0.0244		0.00500	1	11/10/2019 01:14	WG1377949
2-Chlorotoluene	ND		0.00100	1	11/10/2019 01:14	WG1377949
2-Hexanone	ND		0.00500	1	11/10/2019 01:14	WG1377949
4-Chlorotoluene	ND		0.00100	1	11/10/2019 01:14	WG1377949
4-Methyl-2-pentanone (MIBK)	ND		0.00500	1	11/10/2019 01:14	WG1377949
Acetone	0.0242		0.0100	1	11/10/2019 01:14	WG1377949
Acrylonitrile	ND		0.00500	1	11/10/2019 01:14	WG1377949
Benzene	0.00138		0.000500	1	11/10/2019 01:14	WG1377949
Bromobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
Bromochloromethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
Bromodichloromethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
Bromoform	ND		0.000500	1	11/10/2019 01:14	WG1377949
Bromomethane	ND		0.0200	1	11/10/2019 01:14	WG1377949
Carbon Disulfide	ND		0.000500	1	11/10/2019 01:14	WG1377949
Carbon Tetrachloride	ND		0.000500	1	11/10/2019 01:14	WG1377949
Chlorobenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
Chloroethane	ND		0.00200	1	11/10/2019 01:14	WG1377949
Chloroform	ND		0.000500	1	11/10/2019 01:14	WG1377949
Chloromethane	0.000666		0.000500	1	11/10/2019 01:14	WG1377949
Cis-1,2-Dichloroethene	0.395		0.000500	1	11/10/2019 01:14	WG1377949
Cis-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 01:14	WG1377949
Chlorodibromomethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
Dibromomethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
Dichlorodifluoromethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
Di-isopropyl ether	ND		0.000500	1	11/10/2019 01:14	WG1377949
Ethylbenzene	0.00455		0.000500	1	11/10/2019 01:14	WG1377949
Ethyl tert-butyl ether	ND		0.000500	1	11/10/2019 01:14	WG1377949

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 11/01/19 14:20

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	ND		0.000500	1	11/10/2019 01:14	WG1377949
Isopropylbenzene	0.00177		0.000500	1	11/10/2019 01:14	WG1377949
Methylene Chloride	ND		0.00500	1	11/10/2019 01:14	WG1377949
Methyl tert-butyl ether	0.00254		0.000500	1	11/10/2019 01:14	WG1377949
Naphthalene	0.0176		0.000500	1	11/10/2019 01:14	WG1377949
n-Butylbenzene	0.00119		0.000500	1	11/10/2019 01:14	WG1377949
n-Propylbenzene	0.00305		0.000500	1	11/10/2019 01:14	WG1377949
p-Isopropyltoluene	0.00189		0.000500	1	11/10/2019 01:14	WG1377949
sec-Butylbenzene	0.00145		0.000500	1	11/10/2019 01:14	WG1377949
Styrene	ND		0.000500	1	11/10/2019 01:14	WG1377949
tert-Amyl Methyl Ether	ND		0.000500	1	11/10/2019 01:14	WG1377949
tert-Butyl alcohol	ND		0.0100	1	11/10/2019 01:14	WG1377949
tert-Butylbenzene	ND		0.000500	1	11/10/2019 01:14	WG1377949
Tetrachloroethene	0.00491		0.000500	1	11/10/2019 01:14	WG1377949
Tetrahydrofuran	0.0940		0.00500	1	11/10/2019 01:14	WG1377949
Toluene	0.00734		0.000500	1	11/10/2019 01:14	WG1377949
trans-1,2-Dichloroethene	0.00197		0.000500	1	11/10/2019 01:14	WG1377949
trans-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 01:14	WG1377949
trans-1,4-Dichloro-2-butene	ND		0.00500	1	11/10/2019 01:14	WG1377949
Trichloroethene	0.00387		0.000500	1	11/10/2019 01:14	WG1377949
Trichlorofluoromethane	ND		0.000500	1	11/10/2019 01:14	WG1377949
Vinyl Chloride	0.157		0.000500	1	11/10/2019 01:14	WG1377949
m&p-Xylenes	0.00823		0.00100	1	11/10/2019 01:14	WG1377949
o-Xylene	0.0103		0.000500	1	11/10/2019 01:14	WG1377949
Xylenes, Total	0.0185		0.00150	1	11/10/2019 01:14	WG1377949
(S) 1,2-Dichloroethane-d4	105		80.0-125		11/10/2019 01:14	WG1377949
(S) 4-Bromofluorobenzene	98.3		75.0-120		11/10/2019 01:14	WG1377949
(S) Toluene-d8	102		80.0-120		11/10/2019 01:14	WG1377949

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.04		0.100	1	11/08/2019 01:58	WG1375719
(S) o-Terphenyl	49.8		31.0-160		11/08/2019 01:58	WG1375719



Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.109	B	0.100	1	11/06/2019 22:52	WG1376415
(S) a,a,a-Trifluorotoluene(FID)	94.4		78.0-120		11/06/2019 22:52	WG1376415

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,1,1-Trichloroethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,1,2,2-Tetrachloroethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,1,2-Trichloroethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,1,2-Trichlorotrifluoroethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,1-Dichloroethane	0.00119		0.000500	1	11/10/2019 01:41	WG1377949
1,1-Dichloroethene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,1-Dichloropropene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2,3-Trichlorobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2,3-Trichloropropane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2,4-Trichlorobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2,4-Trimethylbenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2-Dibromo-3-Chloropropane	ND		0.00200	1	11/10/2019 01:41	WG1377949
1,2-Dibromoethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2-Dichlorobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2-Dichloroethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,2-Dichloropropane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,3,5-Trimethylbenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,3-Dichlorobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,3-Dichloropropane	ND		0.000500	1	11/10/2019 01:41	WG1377949
1,4-Dichlorobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
2,2-Dichloropropane	ND		0.00200	1	11/10/2019 01:41	WG1377949
2-Butanone (MEK)	ND		0.00500	1	11/10/2019 01:41	WG1377949
2-Chlorotoluene	ND		0.00100	1	11/10/2019 01:41	WG1377949
2-Hexanone	ND		0.00500	1	11/10/2019 01:41	WG1377949
4-Chlorotoluene	ND		0.00100	1	11/10/2019 01:41	WG1377949
4-Methyl-2-pentanone (MIBK)	ND		0.00500	1	11/10/2019 01:41	WG1377949
Acetone	ND		0.0100	1	11/10/2019 01:41	WG1377949
Acrylonitrile	ND		0.00500	1	11/10/2019 01:41	WG1377949
Benzene	0.000750		0.000500	1	11/10/2019 01:41	WG1377949
Bromobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Bromochloromethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Bromodichloromethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Bromoform	ND		0.000500	1	11/10/2019 01:41	WG1377949
Bromomethane	ND		0.0200	1	11/10/2019 01:41	WG1377949
Carbon Disulfide	ND		0.000500	1	11/10/2019 01:41	WG1377949
Carbon Tetrachloride	ND		0.000500	1	11/10/2019 01:41	WG1377949
Chlorobenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Chloroethane	ND		0.00200	1	11/10/2019 01:41	WG1377949
Chloroform	ND		0.000500	1	11/10/2019 01:41	WG1377949
Chloromethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Cis-1,2-Dichloroethene	0.00368		0.000500	1	11/10/2019 01:41	WG1377949
Cis-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Chlorodibromomethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Dibromomethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Dichlorodifluoromethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Di-isopropyl ether	ND		0.000500	1	11/10/2019 01:41	WG1377949
Ethylbenzene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Ethyl tert-butyl ether	ND		0.000500	1	11/10/2019 01:41	WG1377949

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Hexachloro-1,3-butadiene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Isopropylbenzene	0.000837		0.000500	1	11/10/2019 01:41	WG1377949
Methylene Chloride	ND		0.00500	1	11/10/2019 01:41	WG1377949
Methyl tert-butyl ether	0.00107		0.000500	1	11/10/2019 01:41	WG1377949
Naphthalene	ND		0.000500	1	11/10/2019 01:41	WG1377949
n-Butylbenzene	0.000537		0.000500	1	11/10/2019 01:41	WG1377949
n-Propylbenzene	0.00121		0.000500	1	11/10/2019 01:41	WG1377949
p-Isopropyltoluene	ND		0.000500	1	11/10/2019 01:41	WG1377949
sec-Butylbenzene	0.000694		0.000500	1	11/10/2019 01:41	WG1377949
Styrene	ND		0.000500	1	11/10/2019 01:41	WG1377949
tert-Amyl Methyl Ether	ND		0.000500	1	11/10/2019 01:41	WG1377949
tert-Butyl alcohol	ND		0.0100	1	11/10/2019 01:41	WG1377949
tert-Butylbenzene	0.000986		0.000500	1	11/10/2019 01:41	WG1377949
Tetrachloroethene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Tetrahydrofuran	0.181		0.00500	1	11/10/2019 01:41	WG1377949
Toluene	ND		0.000500	1	11/10/2019 01:41	WG1377949
trans-1,2-Dichloroethene	0.00171		0.000500	1	11/10/2019 01:41	WG1377949
trans-1,3-Dichloropropene	ND		0.000500	1	11/10/2019 01:41	WG1377949
trans-1,4-Dichloro-2-butene	ND		0.00500	1	11/10/2019 01:41	WG1377949
Trichloroethene	0.00391		0.000500	1	11/10/2019 01:41	WG1377949
Trichlorofluoromethane	ND		0.000500	1	11/10/2019 01:41	WG1377949
Vinyl Chloride	0.00200		0.000500	1	11/10/2019 01:41	WG1377949
m&p-Xylenes	ND		0.00100	1	11/10/2019 01:41	WG1377949
o-Xylene	ND		0.000500	1	11/10/2019 01:41	WG1377949
Xylenes, Total	ND		0.00150	1	11/10/2019 01:41	WG1377949
(S) 1,2-Dichloroethane-d4	106		80.0-125		11/10/2019 01:41	WG1377949
(S) 4-Bromofluorobenzene	97.7		75.0-120		11/10/2019 01:41	WG1377949
(S) Toluene-d8	100		80.0-120		11/10/2019 01:41	WG1377949

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.915		0.100	1	11/08/2019 02:24	WG1375719
(S) o-Terphenyl	73.1		31.0-160		11/08/2019 02:24	WG1375719



Method Blank (MB)

(MB) R3469881-1 11/08/19 10:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Oil & Grease (Hexane Extr)	U		1.16	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3469881-2 11/08/19 09:06 • (LCSD) R3469881-3 11/08/19 09:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Oil & Grease (Hexane Extr)	40.0	31.7	34.8	79.3	87.0	78.0-114			9.32	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3469735-1 11/07/19 19:51

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Mercury	U		0.0000490	0.000200

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3469735-2 11/07/19 19:57 • (LCSD) R3469735-3 11/07/19 19:59

	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	%	%	%			%	%
Mercury	0.00300	0.00264	0.00271	87.9	90.3	80.0-120			2.70	20

L1157862-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1157862-03 11/07/19 20:01 • (MS) R3469735-4 11/07/19 20:03 • (MSD) R3469735-5 11/07/19 20:05

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.00300	ND	0.00259	0.00247	86.4	82.4	1	75.0-125			4.80	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3470810-1 11/11/19 23:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00650	0.0100
Barium	U		0.00170	0.00500
Cadmium	U		0.000700	0.00200
Chromium	U		0.00140	0.0100
Lead	U		0.00190	0.00500
Selenium	U		0.00740	0.0100
Silver	U		0.00280	0.00500

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3470810-2 11/11/19 23:55 • (LCSD) R3470810-3 11/11/19 23:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	0.891	0.885	89.1	88.5	80.0-120			0.632	20
Barium	1.00	0.971	0.964	97.1	96.4	80.0-120			0.759	20
Cadmium	1.00	0.964	0.956	96.4	95.6	80.0-120			0.831	20
Chromium	1.00	0.985	0.974	98.5	97.4	80.0-120			1.11	20
Lead	1.00	0.973	0.962	97.3	96.2	80.0-120			1.19	20
Selenium	1.00	0.923	0.917	92.3	91.7	80.0-120			0.702	20
Silver	0.200	0.175	0.174	87.4	86.8	80.0-120			0.689	20

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1157112-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1157112-01 11/12/19 00:00 • (MS) R3470810-5 11/12/19 00:06 • (MSD) R3470810-6 11/12/19 00:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	0.0106	1.20	1.18	119	117	1	75.0-125			1.61	20
Barium	1.00	0.0229	0.958	0.947	93.5	92.4	1	75.0-125			1.16	20
Cadmium	1.00	0.00202	1.29	1.28	129	127	1	75.0-125	J5	J5	1.33	20
Chromium	1.00	ND	0.958	0.952	95.1	94.5	1	75.0-125			0.589	20
Lead	1.00	ND	1.02	1.01	101	100	1	75.0-125	V3	V3	0.910	20
Selenium	1.00	0.0180	1.34	1.32	132	131	1	75.0-125	J5	J5	1.30	20
Silver	0.200	ND	0.262	0.258	131	129	1	75.0-125	J5	J5	1.56	20

Method Blank (MB)

(MB) R3471426-2 11/06/19 20:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0365	⬇	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	94.7			78.0-120

Laboratory Control Sample (LCS)

(LCS) R3471426-1 11/06/19 19:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.54	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			101	78.0-120	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3470784-3 11/09/19 21:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,1,2-Tetrachloroethane	U		0.0000913	0.000500
1,1,1-Trichloroethane	U		0.0000892	0.000500
1,1,2,2-Tetrachloroethane	U		0.0000971	0.000500
1,1,2-Trichloroethane	U		0.0000109	0.000500
1,1,2-Trichlorotrifluoroethane	U		0.0000948	0.000500
1,1-Dichloroethane	U		0.000110	0.000500
1,1-Dichloroethene	U		0.000108	0.000500
1,1-Dichloropropene	U		0.000118	0.000500
1,2,3-Trichlorobenzene	U		0.000162	0.000500
1,2,3-Trichloropropane	U		0.000165	0.000500
1,2,4-Trichlorobenzene	U		0.000182	0.000500
1,2,4-Trimethylbenzene	U		0.0000984	0.000500
1,2-Dibromo-3-Chloropropane	U		0.000452	0.00200
1,2-Dibromoethane	U		0.000114	0.000500
1,2-Dichlorobenzene	U		0.000126	0.000500
1,2-Dichloroethane	U		0.000218	0.000500
1,2-Dichloropropane	U		0.0000975	0.000500
1,3,5-Trimethylbenzene	U		0.000109	0.000500
1,3-Dichlorobenzene	U		0.000136	0.000500
1,3-Dichloropropane	U		0.0000984	0.000500
1,4-Dichlorobenzene	U		0.000154	0.000500
2,2-Dichloropropane	U		0.000252	0.00200
2-Butanone (MEK)	U		0.00128	0.00500
2-Chlorotoluene	U		0.000141	0.00100
2-Hexanone	U		0.00127	0.00500
4-Chlorotoluene	U		0.000128	0.00100
4-Methyl-2-pentanone (MIBK)	U		0.000537	0.00500
Acetone	U		0.00345	0.0100
Acrylonitrile	U		0.00120	0.00500
Benzene	U		0.000102	0.000500
Bromobenzene	U		0.0000947	0.000500
Bromochloromethane	U		0.000165	0.000500
Bromodichloromethane	U		0.0000920	0.000500
Bromoform	U		0.000129	0.000500
Bromomethane	U		0.000472	0.0200
Carbon Disulfide	U		0.0000868	0.000500
Carbon Tetrachloride	U		0.0000916	0.000500
Chlorobenzene	U		0.000104	0.000500
Chloroethane	U		0.000152	0.00200
Chloroform	0.000139	U	0.000103	0.000500

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Method Blank (MB)

(MB) R3470784-3 11/09/19 21:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloromethane	U		0.000101	0.000500
Cis-1,2-Dichloroethene	U		0.000114	0.000500
Cis-1,3-Dichloropropene	U		0.000130	0.000500
Chlorodibromomethane	U		0.0000882	0.000500
Dibromomethane	U		0.000151	0.000500
Dichlorodifluoromethane	U		0.0000998	0.000500
Di-isopropyl ether	U		0.000122	0.000500
Ethylbenzene	U		0.0000955	0.000500
Ethyl tert-butyl ether	U		0.000104	0.000500
Hexachloro-1,3-butadiene	U		0.000234	0.000500
Isopropylbenzene	U		0.0000841	0.000500
m&p-Xylenes	U		0.000186	0.00100
Methylene Chloride	U		0.000113	0.00500
Methyl tert-butyl ether	U		0.000105	0.000500
Naphthalene	U		0.0000975	0.000500
n-Butylbenzene	U		0.000133	0.000500
n-Propylbenzene	U		0.000159	0.000500
o-Xylene	U		0.000102	0.000500
p-Isopropyltoluene	U		0.000126	0.000500
sec-Butylbenzene	U		0.000128	0.000500
Styrene	U		0.0000763	0.000500
tert-Amyl Methyl Ether	U		0.000128	0.000500
tert-Butyl alcohol	U		0.00188	0.0100
tert-Butylbenzene	U		0.000193	0.000500
Tetrachloroethene	U		0.000157	0.000500
Tetrahydrofuran	U		0.00148	0.00500
Toluene	U		0.000104	0.000500
trans-1,2-Dichloroethene	U		0.000104	0.000500
trans-1,3-Dichloropropene	U		0.0000841	0.000500
trans-1,4-Dichloro-2-butene	U		0.000276	0.00500
Trichloroethene	U		0.000101	0.000500
Trichlorofluoromethane	U		0.000140	0.000500
Vinyl Chloride	U		0.000129	0.000500
Xylenes, Total	U		0.000288	0.00150
(S) 1,2-Dichloroethane-d4	104			80.0-125
(S) 4-Bromofluorobenzene	98.5			75.0-120
(S) Toluene-d8	100			80.0-120

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3470784-1 11/09/19 20:24 • (LCSD) R3470784-2 11/09/19 20:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.0400	0.0406	0.0412	102	103	80.0-120			1.47	20
1,1,1-Trichloroethane	0.0400	0.0439	0.0442	110	111	80.0-125			0.681	20
1,1,2,2-Tetrachloroethane	0.0400	0.0403	0.0411	101	103	79.0-121			1.97	20
1,1,2-Trichloroethane	0.0400	0.0394	0.0393	98.5	98.3	78.0-121			0.254	20
1,1,2-Trichlorotrifluoroethane	0.0400	0.0387	0.0382	96.8	95.5	77.0-122			1.30	20
1,1-Dichloroethane	0.0400	0.0411	0.0399	103	99.8	78.0-124			2.96	20
1,1-Dichloroethene	0.0400	0.0386	0.0386	96.5	96.5	78.0-121			0.000	20
1,1-Dichloropropene	0.0400	0.0383	0.0386	95.8	96.5	80.0-125			0.780	20
1,2,3-Trichlorobenzene	0.0400	0.0378	0.0369	94.5	92.3	61.0-129			2.41	20
1,2,3-Trichloropropane	0.0400	0.0374	0.0374	93.5	93.5	77.0-120			0.000	20
1,2,4-Trichlorobenzene	0.0400	0.0377	0.0368	94.3	92.0	70.0-122			2.42	20
1,2,4-Trimethylbenzene	0.0400	0.0381	0.0375	95.3	93.8	77.0-128			1.59	20
1,2-Dibromo-3-Chloropropane	0.100	0.103	0.107	103	107	67.0-135			3.81	20
1,2-Dibromoethane	0.0400	0.0404	0.0405	101	101	78.0-121			0.247	20
1,2-Dichlorobenzene	0.0400	0.0396	0.0391	99.0	97.8	80.0-120			1.27	20
1,2-Dichloroethane	0.0400	0.0385	0.0379	96.3	94.8	72.0-126			1.57	20
1,2-Dichloropropane	0.0400	0.0410	0.0408	103	102	79.0-123			0.489	20
1,3,5-Trimethylbenzene	0.0400	0.0390	0.0386	97.5	96.5	80.0-124			1.03	20
1,3-Dichlorobenzene	0.0400	0.0375	0.0371	93.8	92.8	80.0-120			1.07	20
1,3-Dichloropropane	0.0400	0.0407	0.0406	102	102	78.0-122			0.246	20
1,4-Dichlorobenzene	0.0400	0.0381	0.0378	95.3	94.5	80.0-120			0.791	20
2,2-Dichloropropane	0.0400	0.0372	0.0384	93.0	96.0	72.0-130			3.17	20
2-Butanone (MEK)	0.200	0.208	0.212	104	106	64.0-142			1.90	20
2-Chlorotoluene	0.0400	0.0384	0.0378	96.0	94.5	80.0-121			1.57	20
2-Hexanone	0.200	0.242	0.245	121	123	66.0-140			1.23	20
4-Chlorotoluene	0.0400	0.0368	0.0364	92.0	91.0	80.0-121			1.09	20
4-Methyl-2-pentanone (MIBK)	0.200	0.228	0.230	114	115	68.0-137			0.873	20
Acetone	0.200	0.214	0.216	107	108	56.0-140			0.930	20
Acrylonitrile	0.400	0.428	0.432	107	108	65.0-137			0.930	20
Benzene	0.0400	0.0397	0.0395	99.3	98.8	79.0-120			0.505	20
Bromobenzene	0.0400	0.0368	0.0367	92.0	91.8	80.0-120			0.272	20
Bromochloromethane	0.0400	0.0374	0.0368	93.5	92.0	78.0-120			1.62	20
Bromodichloromethane	0.0400	0.0437	0.0438	109	110	80.0-125			0.229	20
Bromoform	0.0400	0.0397	0.0406	99.3	102	74.0-129			2.24	20
Bromomethane	0.0400	0.0350	0.0382	87.5	95.5	25.0-160			8.74	20
Carbon Disulfide	0.0400	0.0396	0.0394	99.0	98.5	74.0-123			0.506	20
Carbon Tetrachloride	0.0400	0.0467	0.0477	117	119	78.0-131			2.12	20
Chlorobenzene	0.0400	0.0379	0.0374	94.8	93.5	80.0-120			1.33	20
Chloroethane	0.0400	0.0442	0.0435	111	109	55.0-143			1.60	20
Chloroform	0.0400	0.0393	0.0389	98.3	97.3	80.0-122			1.02	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3470784-1 11/09/19 20:24 • (LCSD) R3470784-2 11/09/19 20:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0400	0.0406	0.0411	102	103	57.0-130			1.22	20
Cis-1,2-Dichloroethene	0.0400	0.0405	0.0396	101	99.0	80.0-120			2.25	20
Cis-1,3-Dichloropropene	0.0400	0.0382	0.0381	95.5	95.3	80.0-123			0.262	20
Chlorodibromomethane	0.0400	0.0438	0.0440	110	110	80.0-123			0.456	20
Dibromomethane	0.0400	0.0413	0.0407	103	102	77.0-122			1.46	20
Dichlorodifluoromethane	0.0400	0.0395	0.0397	98.8	99.3	49.0-146			0.505	20
Di-isopropyl ether	0.0400	0.0421	0.0419	105	105	79.0-126			0.476	20
Ethylbenzene	0.0400	0.0378	0.0376	94.5	94.0	80.0-120			0.531	20
Ethyl tert-butyl ether	0.0400	0.0434	0.0443	109	111	76.0-122			2.05	20
Hexachloro-1,3-butadiene	0.0400	0.0371	0.0361	92.8	90.3	61.0-137			2.73	20
Isopropylbenzene	0.0400	0.0389	0.0387	97.3	96.8	80.0-123			0.515	20
m&p-Xylenes	0.0800	0.0756	0.0751	94.5	93.9	78.0-124			0.664	20
Methylene Chloride	0.0400	0.0404	0.0392	101	98.0	78.0-120			3.02	20
Methyl tert-butyl ether	0.0400	0.0405	0.0403	101	101	77.0-121			0.495	20
Naphthalene	0.0400	0.0394	0.0391	98.5	97.8	62.0-130			0.764	20
n-Butylbenzene	0.0400	0.0405	0.0393	101	98.3	78.0-126			3.01	20
n-Propylbenzene	0.0400	0.0397	0.0393	99.3	98.3	80.0-121			1.01	20
o-Xylene	0.0400	0.0386	0.0382	96.5	95.5	80.0-120			1.04	20
p-Isopropyltoluene	0.0400	0.0365	0.0360	91.3	90.0	79.0-127			1.38	20
sec-Butylbenzene	0.0400	0.0389	0.0383	97.3	95.8	80.0-126			1.55	20
Styrene	0.0400	0.0387	0.0385	96.8	96.3	80.0-123			0.518	20
tert-Amyl Methyl Ether	0.0400	0.0388	0.0392	97.0	98.0	76.0-120			1.03	20
tert-Butyl alcohol	0.400	0.364	0.371	91.0	92.8	80.0-120			1.90	20
tert-Butylbenzene	0.0400	0.0381	0.0376	95.3	94.0	79.0-129			1.32	20
Tetrachloroethene	0.0400	0.0368	0.0363	92.0	90.8	78.0-122			1.37	20
Tetrahydrofuran	0.400	0.430	0.439	108	110	66.0-134			2.07	20
Toluene	0.0400	0.0395	0.0392	98.8	98.0	80.0-121			0.762	20
trans-1,2-Dichloroethene	0.0400	0.0378	0.0373	94.5	93.3	80.0-121			1.33	20
trans-1,3-Dichloropropene	0.0400	0.0367	0.0371	91.8	92.8	78.0-125			1.08	20
trans-1,4-Dichloro-2-butene	0.100	0.0920	0.0934	92.0	93.4	57.0-153			1.51	20
Trichloroethene	0.0400	0.0382	0.0376	95.5	94.0	78.0-121			1.58	20
Trichlorofluoromethane	0.0400	0.0361	0.0376	90.3	94.0	65.0-135			4.07	20
Vinyl Chloride	0.0400	0.0431	0.0432	108	108	72.0-124			0.232	20
Xylenes, Total	0.120	0.114	0.113	95.0	94.2	80.0-121			0.881	20
(S) 1,2-Dichloroethane-d4				104	104	80.0-125				
(S) 4-Bromofluorobenzene				100	98.8	75.0-120				
(S) Toluene-d8				103	103	80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1157862-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1157862-01 11/10/19 04:46 • (MS) R3470784-4 11/10/19 05:39 • (MSD) R3470784-5 11/10/19 06:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.0400	ND	0.0379	0.0370	94.8	92.5	1	75.0-125			2.40	30
1,1,1-Trichloroethane	0.0400	ND	0.0411	0.0400	103	100	1	75.0-125			2.71	30
1,1,2,2-Tetrachloroethane	0.0400	ND	0.0403	0.0388	101	97.0	1	75.0-125			3.79	30
1,1,2-Trichloroethane	0.0400	ND	0.0389	0.0365	97.3	91.3	1	75.0-125			6.37	30
1,1,2-Trichlorotrifluoroethane	0.0400	ND	0.0333	0.0308	83.3	77.0	1	75.0-125			7.80	30
1,1-Dichloroethane	0.0400	ND	0.0399	0.0377	99.8	94.3	1	75.0-125			5.67	30
1,1-Dichloroethene	0.0400	ND	0.0368	0.0356	92.0	89.0	1	69.0-136			3.31	30
1,1-Dichloropropene	0.0400	ND	0.0362	0.0343	90.5	85.8	1	75.0-125			5.39	30
1,2,3-Trichlorobenzene	0.0400	ND	0.0336	0.0313	84.0	78.3	1	51.0-132			7.09	30
1,2,3-Trichloropropane	0.0400	ND	0.0361	0.0347	90.3	86.8	1	75.0-125			3.95	30
1,2,4-Trichlorobenzene	0.0400	ND	0.0328	0.0304	82.0	76.0	1	55.0-125			7.59	30
1,2,4-Trimethylbenzene	0.0400	ND	0.0343	0.0319	85.8	79.8	1	71.0-125			7.25	30
1,2-Dibromo-3-Chloropropane	0.100	ND	0.0969	0.0970	96.9	97.0	1	69.0-130			0.103	30
1,2-Dibromoethane	0.0400	ND	0.0392	0.0377	98.0	94.3	1	75.0-125			3.90	30
1,2-Dichlorobenzene	0.0400	ND	0.0370	0.0348	92.5	87.0	1	75.0-125			6.13	30
1,2-Dichloroethane	0.0400	ND	0.0376	0.0356	94.0	89.0	1	75.0-125			5.46	30
1,2-Dichloropropane	0.0400	ND	0.0400	0.0379	100	94.8	1	75.0-125			5.39	30
1,3,5-Trimethylbenzene	0.0400	ND	0.0349	0.0326	87.3	81.5	1	70.0-125			6.81	30
1,3-Dichlorobenzene	0.0400	ND	0.0343	0.0318	85.8	79.5	1	70.0-125			7.56	30
1,3-Dichloropropane	0.0400	ND	0.0398	0.0377	99.5	94.3	1	75.0-125			5.42	30
1,4-Dichlorobenzene	0.0400	ND	0.0353	0.0329	88.3	82.3	1	73.0-125			7.04	30
2,2-Dichloropropane	0.0400	ND	0.0270	0.0275	67.5	68.8	1	74.0-125	J6	J6	1.83	30
2-Butanone (MEK)	0.200	ND	0.207	0.199	104	99.5	1	63.0-141			3.94	30
2-Chlorotoluene	0.0400	ND	0.0353	0.0330	88.3	82.5	1	73.0-125			6.73	30
2-Hexanone	0.200	ND	0.242	0.231	121	116	1	63.0-148			4.65	30
4-Chlorotoluene	0.0400	ND	0.0340	0.0314	85.0	78.5	1	73.0-125			7.95	30
4-Methyl-2-pentanone (MIBK)	0.200	ND	0.230	0.217	115	108	1	66.0-138			5.82	30
Acetone	0.200	ND	0.217	0.207	108	104	1	61.0-133			4.72	30
Acrylonitrile	0.400	ND	0.428	0.409	107	102	1	74.0-131			4.54	30
Benzene	0.0400	0.00116	0.0385	0.0367	93.3	88.8	1	75.0-125			4.79	30
Bromobenzene	0.0400	ND	0.0350	0.0330	87.5	82.5	1	75.0-125			5.88	30
Bromochloromethane	0.0400	ND	0.0359	0.0339	89.8	84.8	1	75.0-125			5.73	30
Bromodichloromethane	0.0400	ND	0.0401	0.0381	100	95.3	1	72.0-132			5.12	30
Bromoform	0.0400	ND	0.0327	0.0319	81.8	79.8	1	75.0-125			2.48	30
Bromomethane	0.0400	ND	0.0252	0.0312	63.0	78.0	1	30.0-150			21.3	30
Carbon Disulfide	0.0400	ND	0.0278	0.0259	69.5	64.8	1	68.0-129		J6	7.08	30
Carbon Tetrachloride	0.0400	ND	0.0406	0.0402	102	101	1	75.0-127			0.990	30
Chlorobenzene	0.0400	ND	0.0360	0.0342	90.0	85.5	1	75.0-125			5.13	30
Chloroethane	0.0400	ND	0.0428	0.0407	107	102	1	75.0-125			5.03	30
Chloroform	0.0400	ND	0.0382	0.0359	95.5	89.8	1	75.0-125			6.21	30

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1157862-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1157862-01 11/10/19 04:46 • (MS) R3470784-4 11/10/19 05:39 • (MSD) R3470784-5 11/10/19 06:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0400	ND	0.0398	0.0374	99.5	93.5	1	54.0-125			6.22	30
Cis-1,2-Dichloroethene	0.0400	ND	0.0388	0.0365	95.2	89.5	1	75.0-125			6.11	30
Cis-1,3-Dichloropropene	0.0400	ND	0.0316	0.0298	79.0	74.5	1	75.0-125		J6	5.86	30
Chlorodibromomethane	0.0400	ND	0.0379	0.0362	94.8	90.5	1	64.0-150			4.59	30
Dibromomethane	0.0400	ND	0.0405	0.0383	101	95.8	1	75.0-125			5.58	30
Dichlorodifluoromethane	0.0400	ND	0.0358	0.0337	89.5	84.3	1	44.0-144			6.04	30
Di-isopropyl ether	0.0400	ND	0.0415	0.0396	104	99.0	1	75.0-125			4.69	30
Ethylbenzene	0.0400	ND	0.0358	0.0331	89.5	82.8	1	75.0-125			7.84	30
Ethyl tert-butyl ether	0.0400	ND	0.0415	0.0410	104	103	1	75.0-125			1.21	30
Hexachloro-1,3-butadiene	0.0400	ND	0.0295	0.0255	73.8	63.8	1	30.0-150			14.5	30
Isopropylbenzene	0.0400	ND	0.0358	0.0334	89.5	83.5	1	72.0-125			6.94	30
m&p-Xylenes	0.0800	ND	0.0704	0.0653	88.0	81.6	1	75.0-125			7.52	30
Methylene Chloride	0.0400	ND	0.0385	0.0368	96.3	92.0	1	75.0-125			4.52	30
Methyl tert-butyl ether	0.0400	ND	0.0393	0.0371	98.3	92.8	1	75.0-125			5.76	30
Naphthalene	0.0400	ND	0.0376	0.0357	94.0	89.3	1	61.0-132			5.18	30
n-Butylbenzene	0.0400	ND	0.0342	0.0320	85.5	80.0	1	53.0-129			6.65	30
n-Propylbenzene	0.0400	ND	0.0358	0.0330	89.5	82.5	1	70.0-125			8.14	30
o-Xylene	0.0400	ND	0.0364	0.0339	91.0	84.8	1	75.0-125			7.11	30
p-Isopropyltoluene	0.0400	ND	0.0320	0.0296	80.0	74.0	1	61.0-125			7.79	30
sec-Butylbenzene	0.0400	ND	0.0346	0.0320	86.5	80.0	1	61.0-125			7.81	30
Styrene	0.0400	ND	0.0362	0.0339	90.5	84.8	1	75.0-125			6.56	30
tert-Amyl Methyl Ether	0.0400	ND	0.0369	0.0357	92.3	89.3	1	75.0-125			3.31	30
tert-Butyl alcohol	0.400	ND	0.444	0.343	111	85.8	1	75.0-125			25.7	30
tert-Butylbenzene	0.0400	ND	0.0349	0.0319	87.3	79.8	1	66.0-125			8.98	30
Tetrachloroethene	0.0400	ND	0.0331	0.0305	82.8	76.3	1	68.0-126			8.18	30
Tetrahydrofuran	0.400	ND	0.435	0.416	108	104	1	74.0-128			4.47	30
Toluene	0.0400	ND	0.0382	0.0352	95.5	88.0	1	75.0-125			8.17	30
trans-1,2-Dichloroethene	0.0400	ND	0.0357	0.0342	89.3	85.5	1	73.0-127			4.29	30
trans-1,3-Dichloropropene	0.0400	ND	0.0300	0.0291	75.0	72.8	1	75.0-128		J6	3.05	30
trans-1,4-Dichloro-2-butene	0.100	ND	0.0621	0.0606	62.1	60.6	1	75.0-125	J6	J6	2.44	30
Trichloroethene	0.0400	ND	0.0353	0.0335	88.3	83.8	1	71.0-125			5.23	30
Trichlorofluoromethane	0.0400	ND	0.0346	0.0336	86.5	84.0	1	70.0-125			2.93	30
Vinyl Chloride	0.0400	ND	0.0419	0.0396	103	96.9	1	72.0-129			5.64	30
Xylenes, Total	0.120	ND	0.107	0.0992	89.2	82.7	1	75.0-125			7.57	30
(S) 1,2-Dichloroethane-d4					104	105		80.0-125				
(S) 4-Bromofluorobenzene					99.1	97.4		75.0-120				
(S) Toluene-d8					103	102		80.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3469395-1 11/07/19 03:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0573	⬇	0.0247	0.100
(S) o-Terphenyl	68.5			31.0-160

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3469395-2 11/07/19 03:30 • (LCSD) R3469395-3 11/07/19 03:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.26	1.33	84.0	88.7	50.0-150			5.41	20
(S) o-Terphenyl				73.0	76.5	31.0-160				



Method Blank (MB)

(MB) R3470705-1 11/11/19 14:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
PCB 1260	U		0.000120	0.000500
PCB 1016	U		0.000100	0.000500
PCB 1221	U		0.0000730	0.000500
PCB 1232	U		0.0000420	0.000500
PCB 1242	U		0.0000470	0.000500
PCB 1248	U		0.0000860	0.000500
PCB 1254	U		0.0000470	0.000500
(S) Decachlorobiphenyl	85.2			10.0-128
(S) Tetrachloro-m-xylene	83.4			10.0-127

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3470705-2 11/11/19 14:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.00250	0.00238	95.2	42.0-131	
PCB 1016	0.00250	0.00226	90.4	36.0-135	
(S) Decachlorobiphenyl			56.0	10.0-128	
(S) Tetrachloro-m-xylene			85.9	10.0-127	

L1158826-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1158826-07 11/11/19 14:56 • (MS) R3470705-3 11/11/19 15:08 • (MSD) R3470705-4 11/11/19 15:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.00250	ND	0.00239	0.00254	95.6	102	1	20.0-142			6.09	27
PCB 1016	0.00250	ND	0.00216	0.00226	86.4	90.4	1	11.0-160			4.52	38
(S) Decachlorobiphenyl					109	115		10.0-128				
(S) Tetrachloro-m-xylene					69.7	76.5		10.0-127				

Method Blank (MB)

(MB) R3470377-2 11/08/19 12:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.000316	0.00100
Acenaphthylene	U		0.000309	0.00100
Anthracene	U		0.000291	0.00100
Benzidine	U		0.00432	0.0100
Benzo(a)anthracene	U		0.0000975	0.00100
Benzo(b)fluoranthene	U		0.0000896	0.00100
Benzo(k)fluoranthene	U		0.000355	0.00100
Benzo(g,h,i)perylene	U		0.000161	0.00100
Benzo(a)pyrene	U		0.000340	0.00100
Bis(2-chlorethoxy)methane	U		0.000329	0.0100
Bis(2-chloroethyl)ether	U		0.00162	0.0100
Bis(2-chloroisopropyl)ether	U		0.000445	0.0100
4-Bromophenyl-phenylether	U		0.000335	0.0100
2-Chloronaphthalene	U		0.000330	0.00100
4-Chlorophenyl-phenylether	U		0.000303	0.0100
Chrysene	U		0.000332	0.00100
Dibenz(a,h)anthracene	U		0.000279	0.00100
3,3-Dichlorobenzidine	U		0.00202	0.0100
2,4-Dinitrotoluene	U		0.00165	0.0100
2,6-Dinitrotoluene	U		0.000279	0.0100
Fluoranthene	U		0.000310	0.00100
Fluorene	U		0.000323	0.00100
Hexachlorobenzene	U		0.000341	0.00100
Hexachloro-1,3-butadiene	U		0.000329	0.0100
Hexachlorocyclopentadiene	U		0.00233	0.0100
Hexachloroethane	U		0.000365	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000272	0.0100
Naphthalene	U		0.000372	0.00100
Nitrobenzene	U		0.000367	0.0100
n-Nitrosodimethylamine	U		0.00126	0.0100
n-Nitrosodiphenylamine	U		0.00119	0.0100
n-Nitrosodi-n-propylamine	U		0.000403	0.0100
Phenanthrene	U		0.000366	0.00100
Benzylbutyl phthalate	U		0.000275	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000709	0.00300
Di-n-butyl phthalate	0.000286	U	0.000266	0.00300
Diethyl phthalate	U		0.000282	0.00300
Dimethyl phthalate	U		0.000283	0.00300
Di-n-octyl phthalate	0.00158	U	0.000278	0.00300

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Method Blank (MB)

(MB) R3470377-2 11/08/19 12:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Pyrene	U		0.000330	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.0100
4-Chloro-3-methylphenol	U		0.000263	0.0100
2-Chlorophenol	U		0.000283	0.0100
2,4-Dichlorophenol	U		0.000284	0.0100
2,4-Dimethylphenol	U		0.000624	0.0100
4,6-Dinitro-2-methylphenol	U		0.00262	0.0100
2,4-Dinitrophenol	U		0.00325	0.0100
2-Nitrophenol	U		0.000320	0.0100
4-Nitrophenol	U		0.00201	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	0.00433	J	0.000334	0.0100
2,4,6-Trichlorophenol	U		0.000297	0.0100
(S) Nitrobenzene-d5	42.2			10.0-127
(S) 2-Fluorobiphenyl	52.1			10.0-130
(S) p-Terphenyl-d14	71.0			10.0-128
(S) Phenol-d5	15.8			10.0-120
(S) 2-Fluorophenol	24.2			10.0-120
(S) 2,4,6-Tribromophenol	48.9			10.0-155

1Cp

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Laboratory Control Sample (LCS)

(LCS) R3470377-1 11/08/19 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0343	68.6	41.0-120	
Acenaphthylene	0.0500	0.0367	73.4	43.0-120	
Anthracene	0.0500	0.0390	78.0	45.0-120	
Benzydine	0.100	0.0332	33.2	10.0-120	
Benzo(a)anthracene	0.0500	0.0397	79.4	47.0-120	
Benzo(b)fluoranthene	0.0500	0.0431	86.2	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0402	80.4	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0398	79.6	48.0-121	
Benzo(a)pyrene	0.0500	0.0441	88.2	47.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0299	59.8	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0304	60.8	23.0-120	
Bis(2-chloroisopropyl)ether	0.0500	0.0291	58.2	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0382	76.4	45.0-120	
2-Chloronaphthalene	0.0500	0.0330	66.0	37.0-120	

Laboratory Control Sample (LCS)

(LCS) R3470377-1 11/08/19 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
4-Chlorophenyl-phenylether	0.0500	0.0373	74.6	44.0-120	
Chrysene	0.0500	0.0386	77.2	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0415	83.0	47.0-120	
3,3-Dichlorobenzidine	0.100	0.0758	75.8	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0410	82.0	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0386	77.2	46.0-120	
Fluoranthene	0.0500	0.0408	81.6	51.0-120	
Fluorene	0.0500	0.0371	74.2	47.0-120	
Hexachlorobenzene	0.0500	0.0372	74.4	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0273	54.6	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0230	46.0	15.0-120	
Hexachloroethane	0.0500	0.0262	52.4	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0415	83.0	49.0-122	
Isophorone	0.0500	0.0323	64.6	36.0-120	
Naphthalene	0.0500	0.0283	56.6	27.0-120	
Nitrobenzene	0.0500	0.0298	59.6	27.0-120	
n-Nitrosodimethylamine	0.0500	0.0191	38.2	10.0-120	
n-Nitrosodiphenylamine	0.0500	0.0376	75.2	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0332	66.4	31.0-120	
Phenanthrene	0.0500	0.0377	75.4	46.0-120	
Benzylbutyl phthalate	0.0500	0.0405	81.0	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0394	78.8	43.0-122	
Di-n-butyl phthalate	0.0500	0.0427	85.4	49.0-121	
Diethyl phthalate	0.0500	0.0398	79.6	48.0-122	
Dimethyl phthalate	0.0500	0.0389	77.8	48.0-120	
Di-n-octyl phthalate	0.0500	0.0380	76.0	42.0-125	
Pyrene	0.0500	0.0412	82.4	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0276	55.2	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0330	66.0	40.0-120	
2-Chlorophenol	0.0500	0.0279	55.8	25.0-120	
2,4-Dichlorophenol	0.0500	0.0294	58.8	36.0-120	
2,4-Dimethylphenol	0.0500	0.0295	59.0	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0350	70.0	38.0-138	
2,4-Dinitrophenol	0.0500	0.0333	66.6	10.0-120	
2-Nitrophenol	0.0500	0.0308	61.6	31.0-120	
4-Nitrophenol	0.0500	0.0172	34.4	10.0-120	
Pentachlorophenol	0.0500	0.0356	71.2	23.0-120	
Phenol	0.0500	0.172	344	10.0-120	J4
2,4,6-Trichlorophenol	0.0500	0.0331	66.2	42.0-120	
(S) Nitrobenzene-d5			74.8	10.0-127	

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Cp

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Sc

Laboratory Control Sample (LCS)

(LCS) R3470377-1 11/08/19 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
(S) 2-Fluorobiphenyl			69.9	10.0-130	
(S) p-Terphenyl-d14			81.4	10.0-128	
(S) Phenol-d5			25.7	10.0-120	
(S) 2-Fluorophenol			39.4	10.0-120	
(S) 2,4,6-Tribromophenol			71.0	10.0-155	

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Cp

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Tc

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

L1158129-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1158129-01 11/08/19 17:20 • (MS) R3470377-3 11/08/19 17:40 • (MSD) R3470377-4 11/08/19 18:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0490	U	0.0291	0.0280	59.4	57.7	1	28.0-120			3.85	25
Acenaphthylene	0.0490	U	0.0314	0.0295	64.1	60.8	1	31.0-121			6.24	25
Anthracene	0.0490	U	0.0318	0.0330	64.9	68.0	1	36.0-120			3.70	23
Benzidine	0.0980	U	0.0170	0.0343	17.3	35.4	1	10.0-120	J3		67.4	37
Benzo(a)anthracene	0.0490	U	0.0305	0.0326	62.2	67.2	1	39.0-120			6.66	23
Benzo(b)fluoranthene	0.0490	U	0.0314	0.0338	64.1	69.7	1	37.0-120			7.36	23
Benzo(k)fluoranthene	0.0490	U	0.0293	0.0323	59.8	66.6	1	37.0-120			9.74	26
Benzo(g,h,i)perylene	0.0490	U	0.0274	0.0298	55.9	61.4	1	37.0-123			8.39	25
Benzo(a)pyrene	0.0490	U	0.0320	0.0345	65.3	71.1	1	37.0-120			7.52	24
Bis(2-chlorethoxy)methane	0.0490	U	0.0263	0.0226	53.7	46.6	1	17.0-120			15.1	31
Bis(2-chloroethyl)ether	0.0490	U	0.0236	0.0529	48.2	109	1	14.0-120	J3		76.6	33
Bis(2-chloroisopropyl)ether	0.0490	U	0.0250	0.0202	51.0	41.6	1	18.0-120			21.2	34
4-Bromophenyl-phenylether	0.0490	U	0.0320	0.0337	65.3	69.5	1	37.0-120			5.18	24
2-Chloronaphthalene	0.0490	U	0.0283	0.0258	57.8	53.2	1	29.0-120			9.24	28
4-Chlorophenyl-phenylether	0.0490	U	0.0302	0.0310	61.6	63.9	1	36.0-120			2.61	23
Chrysene	0.0490	U	0.0297	0.0319	60.6	65.8	1	38.0-120			7.14	23
Dibenz(a,h)anthracene	0.0490	U	0.0289	0.0316	59.0	65.2	1	36.0-121			8.93	24
3,3-Dichlorobenzidine	0.0980	U	0.0479	0.0503	48.9	51.9	1	10.0-134			4.89	30
2,4-Dinitrotoluene	0.0490	U	0.0356	0.0361	72.7	74.4	1	39.0-125			1.39	25
2,6-Dinitrotoluene	0.0490	U	0.0335	0.0336	68.4	69.3	1	36.0-120			0.298	27
Fluoranthene	0.0490	U	0.0323	0.0337	65.9	69.5	1	41.0-121			4.24	22
Fluorene	0.0490	U	0.0317	0.0311	64.7	64.1	1	37.0-120			1.91	24
Hexachlorobenzene	0.0490	U	0.0293	0.0313	59.8	64.5	1	35.0-122			6.60	24
Hexachloro-1,3-butadiene	0.0490	U	0.0196	0.0161	40.0	33.2	1	12.0-120			19.6	34
Hexachlorocyclopentadiene	0.0490	U	0.0165	0.0127	33.7	26.2	1	10.0-120			26.0	33
Hexachloroethane	0.0490	U	0.0202	0.0168	41.2	34.6	1	10.0-120			18.4	40
Indeno(1,2,3-cd)pyrene	0.0490	U	0.0289	0.0309	59.0	63.7	1	38.0-125			6.69	24
Isophorone	0.0490	U	0.0278	0.0248	56.7	51.1	1	21.0-120			11.4	27

L1158129-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1158129-01 11/08/19 17:20 • (MS) R3470377-3 11/08/19 17:40 • (MSD) R3470377-4 11/08/19 18:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0490	U	0.0245	0.0205	50.0	42.3	1	10.0-120			17.8	31
Nitrobenzene	0.0490	U	0.0262	0.0215	53.5	44.3	1	12.0-120			19.7	30
n-Nitrosodimethylamine	0.0490	U	0.0180	0.0158	36.7	32.6	1	10.0-120			13.0	40
n-Nitrosodiphenylamine	0.0490	U	0.0343	0.0358	70.0	73.8	1	37.0-120			4.28	24
n-Nitrosodi-n-propylamine	0.0490	U	0.0292	0.0243	59.6	50.1	1	16.0-120			18.3	30
Phenanthrene	0.0490	U	0.0313	0.0330	63.9	68.0	1	33.0-120			5.29	22
Benzylbutyl phthalate	0.0490	0.00101	0.0337	0.0362	66.7	72.6	1	34.0-126			7.15	24
Bis(2-ethylhexyl)phthalate	0.0490	0.00141	0.0300	0.0330	58.3	65.1	1	33.0-126			9.52	25
Di-n-butyl phthalate	0.0490	0.000798	0.0347	0.0365	69.2	73.6	1	35.0-128			5.06	23
Diethyl phthalate	0.0490	U	0.0343	0.0349	70.0	72.0	1	39.0-125			1.73	24
Dimethyl phthalate	0.0490	U	0.0332	0.0331	67.8	68.2	1	37.0-120			0.302	24
Di-n-octyl phthalate	0.0490	U	0.0286	0.0318	58.4	65.6	1	25.0-135			10.6	26
Pyrene	0.0490	U	0.0343	0.0369	70.0	76.1	1	39.0-120			7.30	22
1,2,4-Trichlorobenzene	0.0490	U	0.0228	0.0191	46.5	39.4	1	15.0-120			17.7	31
4-Chloro-3-methylphenol	0.0490	U	0.0284	0.0243	58.0	50.1	1	26.0-120			15.6	27
2-Chlorophenol	0.0490	U	0.0240	0.0194	49.0	40.0	1	18.0-120			21.2	34
2,4-Dichlorophenol	0.0490	U	0.0262	0.0199	53.5	41.0	1	19.0-120		J3	27.3	27
2,4-Dimethylphenol	0.0490	U	0.0262	0.0233	53.5	48.0	1	15.0-120			11.7	28
4,6-Dinitro-2-methylphenol	0.0490	U	0.0312	0.0226	63.7	46.6	1	10.0-144			32.0	39
2,4-Dinitrophenol	0.0490	U	0.0317	0.0229	64.7	47.2	1	10.0-120			32.2	40
2-Nitrophenol	0.0490	U	0.0267	0.0212	54.5	43.7	1	20.0-120			23.0	30
4-Nitrophenol	0.0490	U	0.0151	0.0103	30.8	21.2	1	10.0-120			37.8	40
Pentachlorophenol	0.0490	U	0.0309	0.0218	63.1	44.9	1	10.0-128			34.5	37
Phenol	0.0490	0.0301	0.390	0.517	734	1000	1	10.0-120	E J5	E J5	28.0	40
2,4,6-Trichlorophenol	0.0490	U	0.0296	0.0224	60.4	46.2	1	26.0-120			27.7	31
(S) Nitrobenzene-d5					64.6	54.2		10.0-127				
(S) 2-Fluorobiphenyl					59.5	55.1		10.0-130				
(S) p-Terphenyl-d14					65.0	71.4		10.0-128				
(S) Phenol-d5					24.8	19.2		10.0-120				
(S) 2-Fluorophenol					34.6	27.7		10.0-120				
(S) 2,4,6-Tribromophenol					63.8	47.2		10.0-155				

1Cp

2Tc

3Ss

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Guide to Reading and Understanding Your Laboratory Report

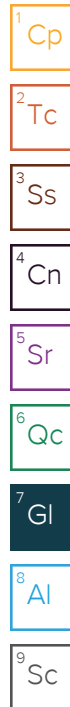
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.





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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

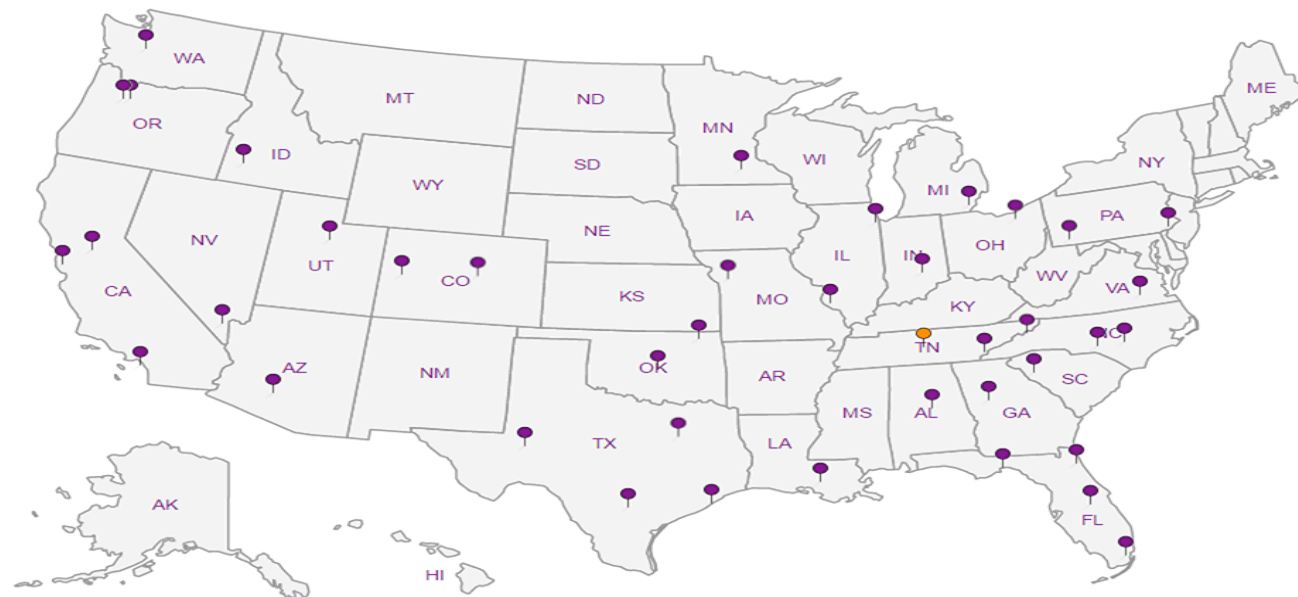
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Cooler Receipt Form

Client:	Val Nacional	SDG#	61157202
Cooler Received/Opened On:	11/8/19	Temperature:	3:20 2.8°C
Received By:	Doug Weir		
Signature:			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		X	
COC Signed / Accurate?			NA
Bottles arrive intact?		X	
Correct bottles used?		X	
Sufficient volume sent?		X	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Intend X for from TN

Doug Weir 11/8/19 0920

**CCRG****Clendenin Consulting & Remediation Group****DAILY FIELD REPORT**116-C2 Edwards Ferry Road
Leesburg, Virginia 20176

TEL: 703/771-8816

Project No.: 18006

Date: 12/12/19

Project Name: Amato Industries

Start Work: 6:00 AM End Work: 5:30 PM

Total Time: 11.5 Hrs.

Permit No.: N/A

Client: Joe Amato

Contractor: GSI Mid-Atlantic

Client's Representative: Brian St. Clair

Contractor's Supt.: Tim Niblett

Visitors (Name & Firm):

Weather (AM & PM): Clear, cold

Temp.: 30s F

WORK PERFORMED BY CONTRACTOR (Each item show type, location & quantity):

- Arrived at Amato Industries with Andrew Readyoff to meet GSI and begin geoprobe drilling inside the warehouse of the Amato building and in the rented out warehouse of the adjacent property owned by Family Perkins. The purpose of the exploration was for soil classification underneath both buildings, and sampling for potential soil contamination through use of a PID.
- Directed GSI in performing Geoprobe exploratory borings for discreet and composite soil sampling in the Amato warehouse. All borings were pushed to 10 foot depth. The borings were located as close to each of the 4 existing sub-slab vapor wells as we could get. At each boring location, after the geoprobe drilled through the concrete slab, the probe was removed and a PID reading was taken from the hole to detect any volatiles in the headspace. Then, two 5-foot sections of soil columns were removed from each boring location and scanned with the PID. Discreet soil samples were taken from the highest PID readings and several composite samples were taken for classification. Headspace readings and soil sleeve readings did not exceed 10ppm.
- The sub-slab vapor well B-9 had shown high concentrations of Tetrachloroethylene from previous vapor sampling, so additional sub-slab exploratory geoprobes were drilled and scanned for headspace contamination around B-9. These geoprobes did not go deeper than 8 inches. Elevated PID headspace readings were detected in a sub-slab geoprobe hole about 5 feet from B-9 in the direction of the center of the warehouse, this geoprobe location was continued to a depth of 10 feet and sampled (B9-G2). Continued to drill sub-slab geoprobe holes and scanned with PID every 5 feet in a line away from B-9, headspace detections continued to rise until they reached a maximum of 40ppm at 20 feet from B-9. At this location, a third geoprobe hole was continued to a depth of 10 feet and sampled (B9-G3).
- GSI moved to the Family Perkins warehouse next door to drill two geoprobe locations at 10 foot depths and install a sub-slab vapor well (See Figure). PID scanning and sampling procedures are identical to the Amato warehouse drilling. The details for the sub-slab vapor well, labeled B-15, are as follows:
- B-15:** 18' depth; vapor implant installed; no water; no PID reading; sealed with bentonite at top and tubing coiled in zip-lock bag, no sample taken from B-15
- All borings went to a depth of 10 feet, samples were placed immediately in a cooler with ice. Lab samples were chosen based on the highest field PID reading detected in each sleeve. 8 samples were sent to the lab to be tested for VOCs, TPH-GRO/DRO. Details of all samples' PID readings can be seen below.

Lab Samples	Sample Depth	Field PID	Headspace PID
B7-G	5'	3	2
B8-G	4-5'	2	1
B9-G1	3-5'	2	6
B9-G2	10'	20	10
B9-G3	7-8'	13	40
B10-G	5'	7	0
B15-G1	10'	3	6
B15-G2	6-7'	6	0

- The remaining samples taken for classification were stored in the office. Days later, office PID readings were taken after letting them warm up. Details of all samples' PID readings can be seen below.

Office Samples	Sample Depth	Field PID	Office PID
B7-G	.5'-2'	3	64.9
	6'-10'	2	2.3
B8-G	.5'-2'	0	2
	6'-10'	2	1.1
B9-G1	0-1'	0	6.2
	1'-3'	0	88.6
	5'-10'	0	5.3
B9-G2	1'-2'	8	7.1
	5'	10	1.9
	6'-9'	16	1.1
B9-G3	3'	10	21.6
	10'	10	2.4
B10-G	.5'-2'	7	3.9
	8'-10'	3	15.4
B15-G1	1'-3'	0	1.7
	8'-10'	3	16.7
B15-G2	1'-2'	0	2.8
	9'	0	9.5
	10'	5	5.7

- After the borings were complete, GSI filled all the holes and smoothed the tops with concrete. Leftover cuttings were placed in the steel drum left on site from GSI previously.

Report By: JWM

Reviewed By:

Date:

Site Copy Received By: _____

Company: _____

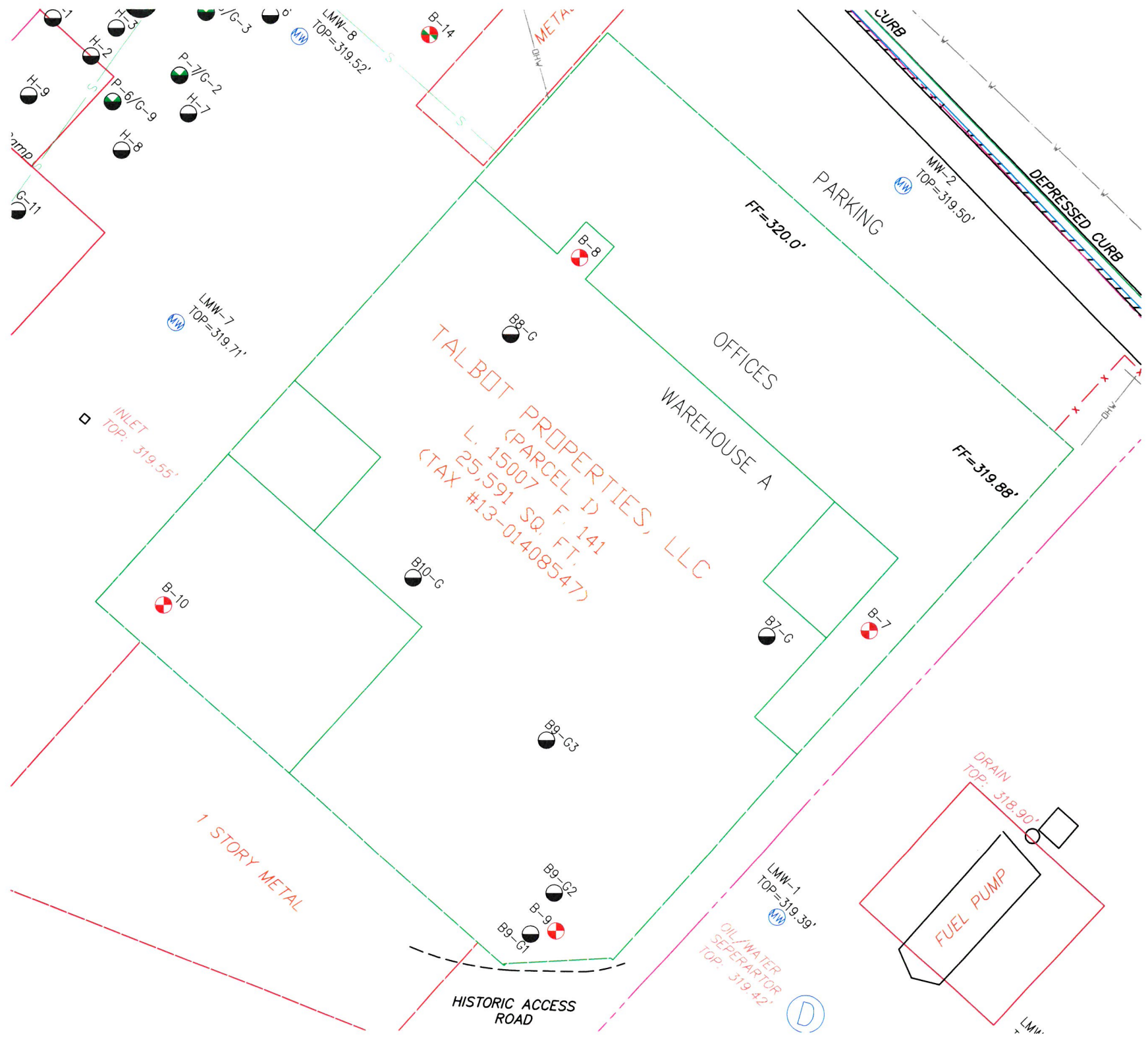
Attachments: x Sketch

x Photo

Data Sheet

Other:

Report No.: 029



TALBOT PROPERTIES, LLC
(PARCEL ID: 15007 F. 141)
25,591 SQ. FT.
(TAX #13-01408547)

PARKING
FF=320.0'

OFFICES
WAREHOUSE A
FF=319.88'

DRAIN
TOP: 318.90'

FUEL PUMP

LMW-1
TOP=319.39'

OIL/WATER
SEPARATOR
TOP: 319.42'

LMW-7
TOP=319.71'

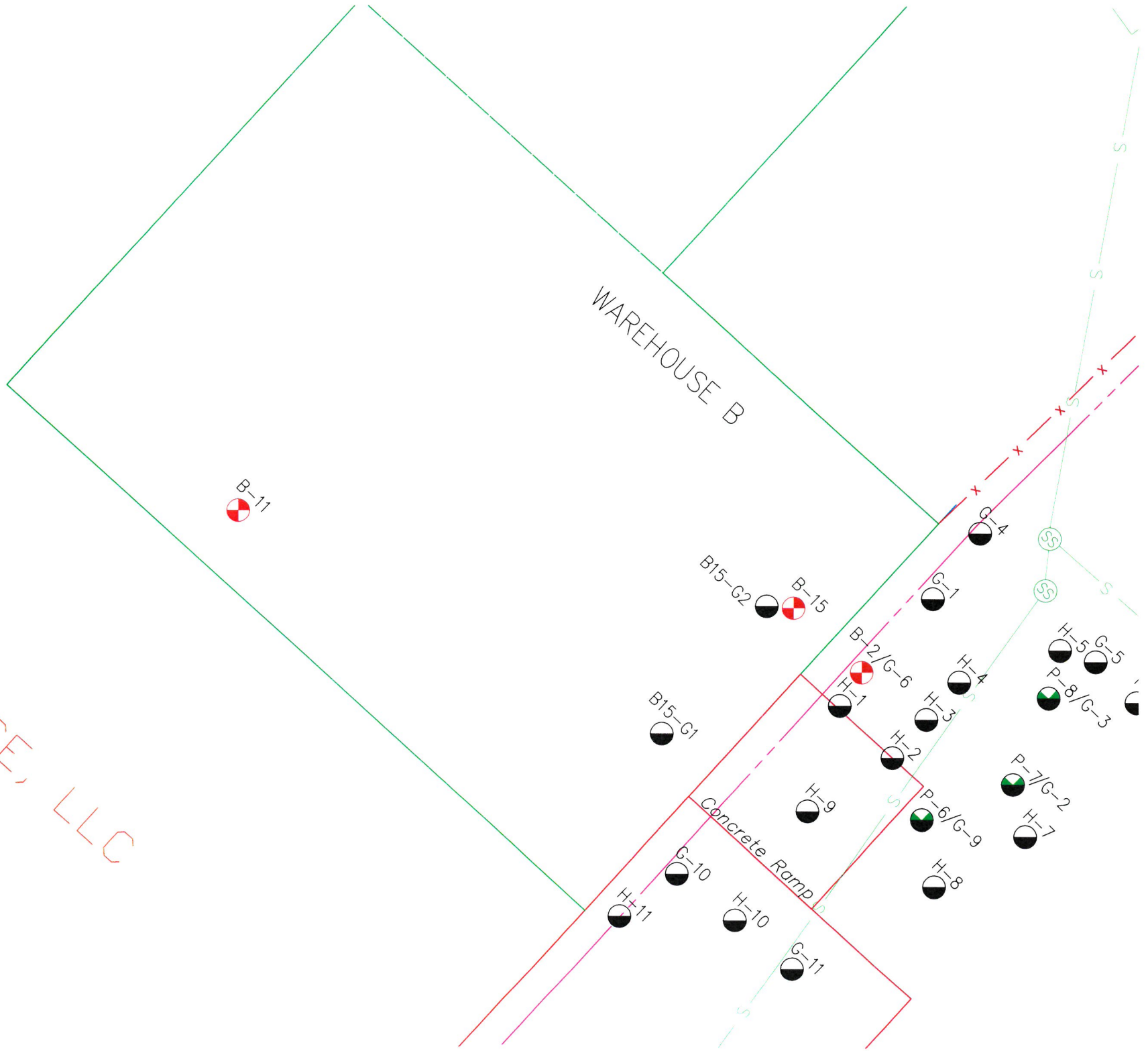
LMW-8
TOP=319.52'

INLET
TOP: 319.55'

1 STORY METAL

HISTORIC ACCESS
ROAD

ACE, LLC



Clendenin Consulting Group - VA

Sample Delivery Group: L1170349
Samples Received: 12/13/2019
Project Number: 18006
Description: Amato Property

Report To:

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:



Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.





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B7-G L1170349-01 Solid

				Collected by Winthrop McCormack	Collected date/time 12/12/19 09:30	Received date/time 12/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1396311	1	12/13/19 11:54	12/14/19 09:55	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 00:59	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 06:07	JDG	Mt. Juliet, TN

B8-G L1170349-02 Solid

				Collected by Winthrop McCormack	Collected date/time 12/12/19 10:00	Received date/time 12/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1396311	1	12/13/19 11:54	12/14/19 10:16	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 01:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 06:32	JDG	Mt. Juliet, TN

B9-G1 L1170349-03 Solid

				Collected by Winthrop McCormack	Collected date/time 12/12/19 09:00	Received date/time 12/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1396311	1	12/13/19 11:54	12/14/19 10:36	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 01:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 06:20	JDG	Mt. Juliet, TN

B9-G2 L1170349-04 Solid

				Collected by Winthrop McCormack	Collected date/time 12/12/19 10:30	Received date/time 12/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1396311	1	12/13/19 11:54	12/14/19 10:57	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 02:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 00:40	JDG	Mt. Juliet, TN

B9-G3 L1170349-05 Solid

				Collected by Winthrop McCormack	Collected date/time 12/12/19 12:30	Received date/time 12/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1396311	1	12/13/19 11:54	12/14/19 11:17	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 02:22	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 00:53	JDG	Mt. Juliet, TN

B10-G L1170349-06 Solid

				Collected by Winthrop McCormack	Collected date/time 12/12/19 08:30	Received date/time 12/13/19 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1398077	1	12/13/19 11:54	12/18/19 01:56	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 02:43	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 01:56	JDG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



B15-G1 L1170349-07 Solid

Collected by
Winthrop
McCormackCollected date/time
12/12/19 11:00Received date/time
12/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1398077	1	12/13/19 11:54	12/18/19 02:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 03:04	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 01:05	JDG	Mt. Juliet, TN

B15-G2 L1170349-08 Solid

Collected by
Winthrop
McCormackCollected date/time
12/12/19 11:30Received date/time
12/13/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1396502	1	12/14/19 17:51	12/14/19 18:18	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1398077	1	12/13/19 11:54	12/18/19 02:37	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1396350	1	12/13/19 11:54	12/14/19 03:25	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1396180	1	12/13/19 18:36	12/15/19 01:18	JDG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.398	<u>B</u>	0.117	1	12/14/2019 09:55	WG1396311
(S) a,a,a-Trifluorotoluene(FID)	108		77.0-120		12/14/2019 09:55	WG1396311

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0292	1	12/14/2019 00:59	WG1396350
Acrylonitrile	ND		0.0146	1	12/14/2019 00:59	WG1396350
Benzene	ND		0.00117	1	12/14/2019 00:59	WG1396350
Bromobenzene	ND		0.0146	1	12/14/2019 00:59	WG1396350
Bromodichloromethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
Bromoform	ND		0.0292	1	12/14/2019 00:59	WG1396350
Bromomethane	ND		0.0146	1	12/14/2019 00:59	WG1396350
n-Butylbenzene	ND		0.0146	1	12/14/2019 00:59	WG1396350
sec-Butylbenzene	ND		0.0146	1	12/14/2019 00:59	WG1396350
tert-Butylbenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
Carbon tetrachloride	ND		0.00583	1	12/14/2019 00:59	WG1396350
Chlorobenzene	ND		0.00292	1	12/14/2019 00:59	WG1396350
Chlorodibromomethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
Chloroethane	ND		0.00583	1	12/14/2019 00:59	WG1396350
Chloroform	ND		0.00292	1	12/14/2019 00:59	WG1396350
Chloromethane	ND		0.0146	1	12/14/2019 00:59	WG1396350
2-Chlorotoluene	ND		0.00292	1	12/14/2019 00:59	WG1396350
4-Chlorotoluene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0292	1	12/14/2019 00:59	WG1396350
1,2-Dibromoethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
Dibromomethane	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,2-Dichlorobenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,3-Dichlorobenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,4-Dichlorobenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
Dichlorodifluoromethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,1-Dichloroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,2-Dichloroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,1-Dichloroethene	ND		0.00292	1	12/14/2019 00:59	WG1396350
cis-1,2-Dichloroethene	0.00782		0.00292	1	12/14/2019 00:59	WG1396350
trans-1,2-Dichloroethene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,2-Dichloropropane	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,1-Dichloropropene	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,3-Dichloropropane	ND		0.00583	1	12/14/2019 00:59	WG1396350
cis-1,3-Dichloropropene	ND		0.00292	1	12/14/2019 00:59	WG1396350
trans-1,3-Dichloropropene	ND		0.00583	1	12/14/2019 00:59	WG1396350
2,2-Dichloropropane	ND	<u>J4</u>	0.00292	1	12/14/2019 00:59	WG1396350
Di-isopropyl ether	ND		0.00117	1	12/14/2019 00:59	WG1396350
Ethylbenzene	ND		0.00292	1	12/14/2019 00:59	WG1396350
Hexachloro-1,3-butadiene	ND		0.0292	1	12/14/2019 00:59	WG1396350
Isopropylbenzene	ND		0.00292	1	12/14/2019 00:59	WG1396350
p-Isopropyltoluene	ND		0.00583	1	12/14/2019 00:59	WG1396350
2-Butanone (MEK)	0.0433	<u>B</u>	0.0292	1	12/14/2019 00:59	WG1396350
Methylene Chloride	ND		0.0292	1	12/14/2019 00:59	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0292	1	12/14/2019 00:59	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/12/19 09:30

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00117	1	12/14/2019 00:59	WG1396350
Naphthalene	ND		0.0146	1	12/14/2019 00:59	WG1396350
n-Propylbenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
Styrene	ND		0.0146	1	12/14/2019 00:59	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
Tetrachloroethene	2.06		0.00292	1	12/14/2019 00:59	WG1396350
Toluene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,2,3-Trichlorobenzene	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,2,4-Trichlorobenzene	ND		0.0146	1	12/14/2019 00:59	WG1396350
1,1,1-Trichloroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,1,2-Trichloroethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
Trichloroethene	0.133		0.00117	1	12/14/2019 00:59	WG1396350
Trichlorofluoromethane	ND		0.00292	1	12/14/2019 00:59	WG1396350
1,2,3-Trichloropropane	ND		0.0146	1	12/14/2019 00:59	WG1396350
1,2,4-Trimethylbenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,2,3-Trimethylbenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
1,3,5-Trimethylbenzene	ND		0.00583	1	12/14/2019 00:59	WG1396350
Vinyl chloride	ND		0.00292	1	12/14/2019 00:59	WG1396350
Xylenes, Total	ND		0.00758	1	12/14/2019 00:59	WG1396350
(S) Toluene-d8	108		75.0-131		12/14/2019 00:59	WG1396350
(S) 4-Bromofluorobenzene	103		67.0-138		12/14/2019 00:59	WG1396350
(S) 1,2-Dichloroethane-d4	101		70.0-130		12/14/2019 00:59	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.66	1	12/15/2019 06:07	WG1396180
(S) o-Terphenyl	74.5		18.0-148		12/15/2019 06:07	WG1396180



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.7		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.344	<u>B</u>	0.119	1	12/14/2019 10:16	WG1396311
(S) a,a,a-Trifluorotoluene(FID)	110		77.0-120		12/14/2019 10:16	WG1396311

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0299	1	12/14/2019 01:20	WG1396350
Acrylonitrile	ND		0.0149	1	12/14/2019 01:20	WG1396350
Benzene	ND		0.00119	1	12/14/2019 01:20	WG1396350
Bromobenzene	ND		0.0149	1	12/14/2019 01:20	WG1396350
Bromodichloromethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
Bromoform	ND		0.0299	1	12/14/2019 01:20	WG1396350
Bromomethane	ND		0.0149	1	12/14/2019 01:20	WG1396350
n-Butylbenzene	ND		0.0149	1	12/14/2019 01:20	WG1396350
sec-Butylbenzene	ND		0.0149	1	12/14/2019 01:20	WG1396350
tert-Butylbenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
Carbon tetrachloride	ND		0.00597	1	12/14/2019 01:20	WG1396350
Chlorobenzene	ND		0.00299	1	12/14/2019 01:20	WG1396350
Chlorodibromomethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
Chloroethane	ND		0.00597	1	12/14/2019 01:20	WG1396350
Chloroform	ND		0.00299	1	12/14/2019 01:20	WG1396350
Chloromethane	ND		0.0149	1	12/14/2019 01:20	WG1396350
2-Chlorotoluene	ND		0.00299	1	12/14/2019 01:20	WG1396350
4-Chlorotoluene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0299	1	12/14/2019 01:20	WG1396350
1,2-Dibromoethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
Dibromomethane	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,2-Dichlorobenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,3-Dichlorobenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,4-Dichlorobenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
Dichlorodifluoromethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,1-Dichloroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,2-Dichloroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,1-Dichloroethene	ND		0.00299	1	12/14/2019 01:20	WG1396350
cis-1,2-Dichloroethene	0.0823		0.00299	1	12/14/2019 01:20	WG1396350
trans-1,2-Dichloroethene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,2-Dichloropropane	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,1-Dichloropropene	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,3-Dichloropropane	ND		0.00597	1	12/14/2019 01:20	WG1396350
cis-1,3-Dichloropropene	ND		0.00299	1	12/14/2019 01:20	WG1396350
trans-1,3-Dichloropropene	ND		0.00597	1	12/14/2019 01:20	WG1396350
2,2-Dichloropropane	ND	<u>J4</u>	0.00299	1	12/14/2019 01:20	WG1396350
Di-isopropyl ether	ND		0.00119	1	12/14/2019 01:20	WG1396350
Ethylbenzene	ND		0.00299	1	12/14/2019 01:20	WG1396350
Hexachloro-1,3-butadiene	ND		0.0299	1	12/14/2019 01:20	WG1396350
Isopropylbenzene	ND		0.00299	1	12/14/2019 01:20	WG1396350
p-Isopropyltoluene	ND		0.00597	1	12/14/2019 01:20	WG1396350
2-Butanone (MEK)	0.0418	<u>B</u>	0.0299	1	12/14/2019 01:20	WG1396350
Methylene Chloride	ND		0.0299	1	12/14/2019 01:20	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0299	1	12/14/2019 01:20	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

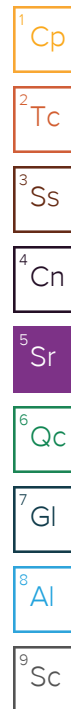


Collected date/time: 12/12/19 10:00

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00119	1	12/14/2019 01:20	WG1396350
Naphthalene	ND		0.0149	1	12/14/2019 01:20	WG1396350
n-Propylbenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
Styrene	ND		0.0149	1	12/14/2019 01:20	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
Tetrachloroethene	0.613		0.00299	1	12/14/2019 01:20	WG1396350
Toluene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,2,3-Trichlorobenzene	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,2,4-Trichlorobenzene	ND		0.0149	1	12/14/2019 01:20	WG1396350
1,1,1-Trichloroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,1,2-Trichloroethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
Trichloroethene	0.716		0.00119	1	12/14/2019 01:20	WG1396350
Trichlorofluoromethane	ND		0.00299	1	12/14/2019 01:20	WG1396350
1,2,3-Trichloropropane	ND		0.0149	1	12/14/2019 01:20	WG1396350
1,2,4-Trimethylbenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,2,3-Trimethylbenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
1,3,5-Trimethylbenzene	ND		0.00597	1	12/14/2019 01:20	WG1396350
Vinyl chloride	ND		0.00299	1	12/14/2019 01:20	WG1396350
Xylenes, Total	ND		0.00776	1	12/14/2019 01:20	WG1396350
(S) Toluene-d8	106		75.0-131		12/14/2019 01:20	WG1396350
(S) 4-Bromofluorobenzene	103		67.0-138		12/14/2019 01:20	WG1396350
(S) 1,2-Dichloroethane-d4	100		70.0-130		12/14/2019 01:20	WG1396350



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	11.7		4.78	1	12/15/2019 06:32	WG1396180
(S) o-Terphenyl	69.9		18.0-148		12/15/2019 06:32	WG1396180



Collected date/time: 12/12/19 09:00

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.5		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.359	B	0.121	1	12/14/2019 10:36	WG1396311
(S) a,a,a-Trifluorotoluene(FID)	103		77.0-120		12/14/2019 10:36	WG1396311

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0303	1	12/14/2019 01:41	WG1396350
Acrylonitrile	ND		0.0152	1	12/14/2019 01:41	WG1396350
Benzene	ND		0.00121	1	12/14/2019 01:41	WG1396350
Bromobenzene	ND		0.0152	1	12/14/2019 01:41	WG1396350
Bromodichloromethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
Bromoform	ND		0.0303	1	12/14/2019 01:41	WG1396350
Bromomethane	ND		0.0152	1	12/14/2019 01:41	WG1396350
n-Butylbenzene	ND		0.0152	1	12/14/2019 01:41	WG1396350
sec-Butylbenzene	ND		0.0152	1	12/14/2019 01:41	WG1396350
tert-Butylbenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
Carbon tetrachloride	ND		0.00606	1	12/14/2019 01:41	WG1396350
Chlorobenzene	ND		0.00303	1	12/14/2019 01:41	WG1396350
Chlorodibromomethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
Chloroethane	ND		0.00606	1	12/14/2019 01:41	WG1396350
Chloroform	ND		0.00303	1	12/14/2019 01:41	WG1396350
Chloromethane	ND		0.0152	1	12/14/2019 01:41	WG1396350
2-Chlorotoluene	ND		0.00303	1	12/14/2019 01:41	WG1396350
4-Chlorotoluene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0303	1	12/14/2019 01:41	WG1396350
1,2-Dibromoethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
Dibromomethane	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,2-Dichlorobenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,3-Dichlorobenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,4-Dichlorobenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
Dichlorodifluoromethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,1-Dichloroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,2-Dichloroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,1-Dichloroethene	ND		0.00303	1	12/14/2019 01:41	WG1396350
cis-1,2-Dichloroethene	0.00593		0.00303	1	12/14/2019 01:41	WG1396350
trans-1,2-Dichloroethene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,2-Dichloropropane	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,1-Dichloropropene	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,3-Dichloropropane	ND		0.00606	1	12/14/2019 01:41	WG1396350
cis-1,3-Dichloropropene	ND		0.00303	1	12/14/2019 01:41	WG1396350
trans-1,3-Dichloropropene	ND		0.00606	1	12/14/2019 01:41	WG1396350
2,2-Dichloropropane	ND	J4	0.00303	1	12/14/2019 01:41	WG1396350
Di-isopropyl ether	ND		0.00121	1	12/14/2019 01:41	WG1396350
Ethylbenzene	ND		0.00303	1	12/14/2019 01:41	WG1396350
Hexachloro-1,3-butadiene	ND		0.0303	1	12/14/2019 01:41	WG1396350
Isopropylbenzene	ND		0.00303	1	12/14/2019 01:41	WG1396350
p-Isopropyltoluene	ND		0.00606	1	12/14/2019 01:41	WG1396350
2-Butanone (MEK)	0.0428	B	0.0303	1	12/14/2019 01:41	WG1396350
Methylene Chloride	ND		0.0303	1	12/14/2019 01:41	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0303	1	12/14/2019 01:41	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/12/19 09:00

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00121	1	12/14/2019 01:41	WG1396350
Naphthalene	ND		0.0152	1	12/14/2019 01:41	WG1396350
n-Propylbenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
Styrene	ND		0.0152	1	12/14/2019 01:41	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
Tetrachloroethene	0.545		0.00303	1	12/14/2019 01:41	WG1396350
Toluene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,2,3-Trichlorobenzene	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,2,4-Trichlorobenzene	ND		0.0152	1	12/14/2019 01:41	WG1396350
1,1,1-Trichloroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,1,2-Trichloroethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
Trichloroethene	0.0345		0.00121	1	12/14/2019 01:41	WG1396350
Trichlorofluoromethane	ND		0.00303	1	12/14/2019 01:41	WG1396350
1,2,3-Trichloropropane	ND		0.0152	1	12/14/2019 01:41	WG1396350
1,2,4-Trimethylbenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,2,3-Trimethylbenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
1,3,5-Trimethylbenzene	ND		0.00606	1	12/14/2019 01:41	WG1396350
Vinyl chloride	ND		0.00303	1	12/14/2019 01:41	WG1396350
Xylenes, Total	ND		0.00788	1	12/14/2019 01:41	WG1396350
(S) Toluene-d8	107		75.0-131		12/14/2019 01:41	WG1396350
(S) 4-Bromofluorobenzene	105		67.0-138		12/14/2019 01:41	WG1396350
(S) 1,2-Dichloroethane-d4	101		70.0-130		12/14/2019 01:41	WG1396350

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.85	1	12/15/2019 06:20	WG1396180
(S) o-Terphenyl	73.4		18.0-148		12/15/2019 06:20	WG1396180



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.5		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	ND		0.118	1	12/14/2019 10:57	WG1396311
(S) a,a,a-Trifluorotoluene(FID)	103		77.0-120		12/14/2019 10:57	WG1396311

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0296	1	12/14/2019 02:01	WG1396350
Acrylonitrile	ND		0.0148	1	12/14/2019 02:01	WG1396350
Benzene	ND		0.00118	1	12/14/2019 02:01	WG1396350
Bromobenzene	ND		0.0148	1	12/14/2019 02:01	WG1396350
Bromodichloromethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
Bromoform	ND		0.0296	1	12/14/2019 02:01	WG1396350
Bromomethane	ND		0.0148	1	12/14/2019 02:01	WG1396350
n-Butylbenzene	ND		0.0148	1	12/14/2019 02:01	WG1396350
sec-Butylbenzene	ND		0.0148	1	12/14/2019 02:01	WG1396350
tert-Butylbenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
Carbon tetrachloride	ND		0.00592	1	12/14/2019 02:01	WG1396350
Chlorobenzene	ND		0.00296	1	12/14/2019 02:01	WG1396350
Chlorodibromomethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
Chloroethane	ND		0.00592	1	12/14/2019 02:01	WG1396350
Chloroform	ND		0.00296	1	12/14/2019 02:01	WG1396350
Chloromethane	ND		0.0148	1	12/14/2019 02:01	WG1396350
2-Chlorotoluene	ND		0.00296	1	12/14/2019 02:01	WG1396350
4-Chlorotoluene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0296	1	12/14/2019 02:01	WG1396350
1,2-Dibromoethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
Dibromomethane	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,2-Dichlorobenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,3-Dichlorobenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,4-Dichlorobenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
Dichlorodifluoromethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,1-Dichloroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,2-Dichloroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,1-Dichloroethene	ND		0.00296	1	12/14/2019 02:01	WG1396350
cis-1,2-Dichloroethene	ND		0.00296	1	12/14/2019 02:01	WG1396350
trans-1,2-Dichloroethene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,2-Dichloropropane	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,1-Dichloropropene	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,3-Dichloropropane	ND		0.00592	1	12/14/2019 02:01	WG1396350
cis-1,3-Dichloropropene	ND		0.00296	1	12/14/2019 02:01	WG1396350
trans-1,3-Dichloropropene	ND		0.00592	1	12/14/2019 02:01	WG1396350
2,2-Dichloropropane	ND	J4	0.00296	1	12/14/2019 02:01	WG1396350
Di-isopropyl ether	ND		0.00118	1	12/14/2019 02:01	WG1396350
Ethylbenzene	ND		0.00296	1	12/14/2019 02:01	WG1396350
Hexachloro-1,3-butadiene	ND		0.0296	1	12/14/2019 02:01	WG1396350
Isopropylbenzene	ND		0.00296	1	12/14/2019 02:01	WG1396350
p-Isopropyltoluene	ND		0.00592	1	12/14/2019 02:01	WG1396350
2-Butanone (MEK)	0.0462	B	0.0296	1	12/14/2019 02:01	WG1396350
Methylene Chloride	ND		0.0296	1	12/14/2019 02:01	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0296	1	12/14/2019 02:01	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/12/19 10:30

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00118	1	12/14/2019 02:01	WG1396350
Naphthalene	ND		0.0148	1	12/14/2019 02:01	WG1396350
n-Propylbenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
Styrene	ND		0.0148	1	12/14/2019 02:01	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
Tetrachloroethene	0.0159		0.00296	1	12/14/2019 02:01	WG1396350
Toluene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,2,3-Trichlorobenzene	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,2,4-Trichlorobenzene	ND		0.0148	1	12/14/2019 02:01	WG1396350
1,1,1-Trichloroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,1,2-Trichloroethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
Trichloroethene	ND		0.00118	1	12/14/2019 02:01	WG1396350
Trichlorofluoromethane	ND		0.00296	1	12/14/2019 02:01	WG1396350
1,2,3-Trichloropropane	ND		0.0148	1	12/14/2019 02:01	WG1396350
1,2,4-Trimethylbenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,2,3-Trimethylbenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
1,3,5-Trimethylbenzene	ND		0.00592	1	12/14/2019 02:01	WG1396350
Vinyl chloride	ND		0.00296	1	12/14/2019 02:01	WG1396350
Xylenes, Total	ND		0.00769	1	12/14/2019 02:01	WG1396350
(S) Toluene-d8	108		75.0-131		12/14/2019 02:01	WG1396350
(S) 4-Bromofluorobenzene	106		67.0-138		12/14/2019 02:01	WG1396350
(S) 1,2-Dichloroethane-d4	99.8		70.0-130		12/14/2019 02:01	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.73	1	12/15/2019 00:40	WG1396180
(S) o-Terphenyl	79.8		18.0-148		12/15/2019 00:40	WG1396180



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.1		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	ND		0.119	1	12/14/2019 11:17	WG1396311
(S) a,a,a-Trifluorotoluene(FID)	103		77.0-120		12/14/2019 11:17	WG1396311

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0297	1	12/14/2019 02:22	WG1396350
Acrylonitrile	ND		0.0149	1	12/14/2019 02:22	WG1396350
Benzene	ND		0.00119	1	12/14/2019 02:22	WG1396350
Bromobenzene	ND		0.0149	1	12/14/2019 02:22	WG1396350
Bromodichloromethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
Bromoform	ND		0.0297	1	12/14/2019 02:22	WG1396350
Bromomethane	ND		0.0149	1	12/14/2019 02:22	WG1396350
n-Butylbenzene	ND		0.0149	1	12/14/2019 02:22	WG1396350
sec-Butylbenzene	ND		0.0149	1	12/14/2019 02:22	WG1396350
tert-Butylbenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
Carbon tetrachloride	ND		0.00594	1	12/14/2019 02:22	WG1396350
Chlorobenzene	ND		0.00297	1	12/14/2019 02:22	WG1396350
Chlorodibromomethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
Chloroethane	ND		0.00594	1	12/14/2019 02:22	WG1396350
Chloroform	ND		0.00297	1	12/14/2019 02:22	WG1396350
Chloromethane	ND		0.0149	1	12/14/2019 02:22	WG1396350
2-Chlorotoluene	ND		0.00297	1	12/14/2019 02:22	WG1396350
4-Chlorotoluene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0297	1	12/14/2019 02:22	WG1396350
1,2-Dibromoethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
Dibromomethane	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,2-Dichlorobenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,3-Dichlorobenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,4-Dichlorobenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
Dichlorodifluoromethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,1-Dichloroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,2-Dichloroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,1-Dichloroethene	ND		0.00297	1	12/14/2019 02:22	WG1396350
cis-1,2-Dichloroethene	ND		0.00297	1	12/14/2019 02:22	WG1396350
trans-1,2-Dichloroethene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,2-Dichloropropane	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,1-Dichloropropene	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,3-Dichloropropane	ND		0.00594	1	12/14/2019 02:22	WG1396350
cis-1,3-Dichloropropene	ND		0.00297	1	12/14/2019 02:22	WG1396350
trans-1,3-Dichloropropene	ND		0.00594	1	12/14/2019 02:22	WG1396350
2,2-Dichloropropane	ND	J4	0.00297	1	12/14/2019 02:22	WG1396350
Di-isopropyl ether	ND		0.00119	1	12/14/2019 02:22	WG1396350
Ethylbenzene	ND		0.00297	1	12/14/2019 02:22	WG1396350
Hexachloro-1,3-butadiene	ND		0.0297	1	12/14/2019 02:22	WG1396350
Isopropylbenzene	ND		0.00297	1	12/14/2019 02:22	WG1396350
p-Isopropyltoluene	ND		0.00594	1	12/14/2019 02:22	WG1396350
2-Butanone (MEK)	0.0562	B	0.0297	1	12/14/2019 02:22	WG1396350
Methylene Chloride	ND		0.0297	1	12/14/2019 02:22	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0297	1	12/14/2019 02:22	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/12/19 12:30

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00119	1	12/14/2019 02:22	WG1396350
Naphthalene	ND		0.0149	1	12/14/2019 02:22	WG1396350
n-Propylbenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
Styrene	ND		0.0149	1	12/14/2019 02:22	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
Tetrachloroethene	0.00857		0.00297	1	12/14/2019 02:22	WG1396350
Toluene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,2,3-Trichlorobenzene	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,2,4-Trichlorobenzene	ND		0.0149	1	12/14/2019 02:22	WG1396350
1,1,1-Trichloroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,1,2-Trichloroethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
Trichloroethene	ND		0.00119	1	12/14/2019 02:22	WG1396350
Trichlorofluoromethane	ND		0.00297	1	12/14/2019 02:22	WG1396350
1,2,3-Trichloropropane	ND		0.0149	1	12/14/2019 02:22	WG1396350
1,2,4-Trimethylbenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,2,3-Trimethylbenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
1,3,5-Trimethylbenzene	ND		0.00594	1	12/14/2019 02:22	WG1396350
Vinyl chloride	ND		0.00297	1	12/14/2019 02:22	WG1396350
Xylenes, Total	ND		0.00773	1	12/14/2019 02:22	WG1396350
(S) Toluene-d8	108		75.0-131		12/14/2019 02:22	WG1396350
(S) 4-Bromofluorobenzene	105		67.0-138		12/14/2019 02:22	WG1396350
(S) 1,2-Dichloroethane-d4	99.9		70.0-130		12/14/2019 02:22	WG1396350

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.76	1	12/15/2019 00:53	WG1396180
(S) o-Terphenyl	76.5		18.0-148		12/15/2019 00:53	WG1396180



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.6		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.655		0.122	1	12/18/2019 01:56	WG1398077
(S) a,a,a-Trifluorotoluene(FID)	97.3		77.0-120		12/18/2019 01:56	WG1398077

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0306	1	12/14/2019 02:43	WG1396350
Acrylonitrile	ND		0.0153	1	12/14/2019 02:43	WG1396350
Benzene	ND		0.00122	1	12/14/2019 02:43	WG1396350
Bromobenzene	ND		0.0153	1	12/14/2019 02:43	WG1396350
Bromodichloromethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
Bromoform	ND		0.0306	1	12/14/2019 02:43	WG1396350
Bromomethane	ND		0.0153	1	12/14/2019 02:43	WG1396350
n-Butylbenzene	ND		0.0153	1	12/14/2019 02:43	WG1396350
sec-Butylbenzene	ND		0.0153	1	12/14/2019 02:43	WG1396350
tert-Butylbenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
Carbon tetrachloride	ND		0.00612	1	12/14/2019 02:43	WG1396350
Chlorobenzene	ND		0.00306	1	12/14/2019 02:43	WG1396350
Chlorodibromomethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
Chloroethane	ND		0.00612	1	12/14/2019 02:43	WG1396350
Chloroform	ND		0.00306	1	12/14/2019 02:43	WG1396350
Chloromethane	ND		0.0153	1	12/14/2019 02:43	WG1396350
2-Chlorotoluene	ND		0.00306	1	12/14/2019 02:43	WG1396350
4-Chlorotoluene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0306	1	12/14/2019 02:43	WG1396350
1,2-Dibromoethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
Dibromomethane	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,2-Dichlorobenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,3-Dichlorobenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,4-Dichlorobenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
Dichlorodifluoromethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,1-Dichloroethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,2-Dichloroethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,1-Dichloroethene	ND		0.00306	1	12/14/2019 02:43	WG1396350
cis-1,2-Dichloroethene	0.0363		0.00306	1	12/14/2019 02:43	WG1396350
trans-1,2-Dichloroethene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,2-Dichloropropane	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,1-Dichloropropene	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,3-Dichloropropane	ND		0.00612	1	12/14/2019 02:43	WG1396350
cis-1,3-Dichloropropene	ND		0.00306	1	12/14/2019 02:43	WG1396350
trans-1,3-Dichloropropene	ND		0.00612	1	12/14/2019 02:43	WG1396350
2,2-Dichloropropane	ND	J4	0.00306	1	12/14/2019 02:43	WG1396350
Di-isopropyl ether	ND		0.00122	1	12/14/2019 02:43	WG1396350
Ethylbenzene	ND		0.00306	1	12/14/2019 02:43	WG1396350
Hexachloro-1,3-butadiene	ND		0.0306	1	12/14/2019 02:43	WG1396350
Isopropylbenzene	ND		0.00306	1	12/14/2019 02:43	WG1396350
p-Isopropyltoluene	ND		0.00612	1	12/14/2019 02:43	WG1396350
2-Butanone (MEK)	0.0415	B	0.0306	1	12/14/2019 02:43	WG1396350
Methylene Chloride	ND		0.0306	1	12/14/2019 02:43	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0306	1	12/14/2019 02:43	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/12/19 08:30

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00122	1	12/14/2019 02:43	WG1396350
Naphthalene	ND		0.0153	1	12/14/2019 02:43	WG1396350
n-Propylbenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
Styrene	ND		0.0153	1	12/14/2019 02:43	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
Tetrachloroethene	1.58		0.00306	1	12/14/2019 02:43	WG1396350
Toluene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,2,3-Trichlorobenzene	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,2,4-Trichlorobenzene	ND		0.0153	1	12/14/2019 02:43	WG1396350
1,1,1-Trichloroethane	0.00487		0.00306	1	12/14/2019 02:43	WG1396350
1,1,2-Trichloroethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
Trichloroethene	0.293		0.00122	1	12/14/2019 02:43	WG1396350
Trichlorofluoromethane	ND		0.00306	1	12/14/2019 02:43	WG1396350
1,2,3-Trichloropropane	ND		0.0153	1	12/14/2019 02:43	WG1396350
1,2,4-Trimethylbenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,2,3-Trimethylbenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
1,3,5-Trimethylbenzene	ND		0.00612	1	12/14/2019 02:43	WG1396350
Vinyl chloride	ND		0.00306	1	12/14/2019 02:43	WG1396350
Xylenes, Total	ND		0.00796	1	12/14/2019 02:43	WG1396350
(S) Toluene-d8	108		75.0-131		12/14/2019 02:43	WG1396350
(S) 4-Bromofluorobenzene	105		67.0-138		12/14/2019 02:43	WG1396350
(S) 1,2-Dichloroethane-d4	98.8		70.0-130		12/14/2019 02:43	WG1396350

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.90	1	12/15/2019 01:56	WG1396180
(S) o-Terphenyl	62.7		18.0-148		12/15/2019 01:56	WG1396180



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.7		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	ND		0.130	1	12/18/2019 02:16	WG1398077
(S) a,a,a-Trifluorotoluene(FID)	95.4		77.0-120		12/18/2019 02:16	WG1398077

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0326	1	12/14/2019 03:04	WG1396350
Acrylonitrile	ND		0.0163	1	12/14/2019 03:04	WG1396350
Benzene	ND		0.00130	1	12/14/2019 03:04	WG1396350
Bromobenzene	ND		0.0163	1	12/14/2019 03:04	WG1396350
Bromodichloromethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
Bromoform	ND		0.0326	1	12/14/2019 03:04	WG1396350
Bromomethane	ND		0.0163	1	12/14/2019 03:04	WG1396350
n-Butylbenzene	ND		0.0163	1	12/14/2019 03:04	WG1396350
sec-Butylbenzene	ND		0.0163	1	12/14/2019 03:04	WG1396350
tert-Butylbenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
Carbon tetrachloride	ND		0.00652	1	12/14/2019 03:04	WG1396350
Chlorobenzene	ND		0.00326	1	12/14/2019 03:04	WG1396350
Chlorodibromomethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
Chloroethane	ND		0.00652	1	12/14/2019 03:04	WG1396350
Chloroform	ND		0.00326	1	12/14/2019 03:04	WG1396350
Chloromethane	ND		0.0163	1	12/14/2019 03:04	WG1396350
2-Chlorotoluene	ND		0.00326	1	12/14/2019 03:04	WG1396350
4-Chlorotoluene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0326	1	12/14/2019 03:04	WG1396350
1,2-Dibromoethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
Dibromomethane	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,2-Dichlorobenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,3-Dichlorobenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,4-Dichlorobenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
Dichlorodifluoromethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,1-Dichloroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,2-Dichloroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,1-Dichloroethene	ND		0.00326	1	12/14/2019 03:04	WG1396350
cis-1,2-Dichloroethene	ND		0.00326	1	12/14/2019 03:04	WG1396350
trans-1,2-Dichloroethene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,2-Dichloropropane	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,1-Dichloropropene	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,3-Dichloropropane	ND		0.00652	1	12/14/2019 03:04	WG1396350
cis-1,3-Dichloropropene	ND		0.00326	1	12/14/2019 03:04	WG1396350
trans-1,3-Dichloropropene	ND		0.00652	1	12/14/2019 03:04	WG1396350
2,2-Dichloropropane	ND	J4	0.00326	1	12/14/2019 03:04	WG1396350
Di-isopropyl ether	ND		0.00130	1	12/14/2019 03:04	WG1396350
Ethylbenzene	ND		0.00326	1	12/14/2019 03:04	WG1396350
Hexachloro-1,3-butadiene	ND		0.0326	1	12/14/2019 03:04	WG1396350
Isopropylbenzene	ND		0.00326	1	12/14/2019 03:04	WG1396350
p-Isopropyltoluene	ND		0.00652	1	12/14/2019 03:04	WG1396350
2-Butanone (MEK)	0.0484	B	0.0326	1	12/14/2019 03:04	WG1396350
Methylene Chloride	ND		0.0326	1	12/14/2019 03:04	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0326	1	12/14/2019 03:04	WG1396350

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/12/19 11:00

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00130	1	12/14/2019 03:04	WG1396350
Naphthalene	ND		0.0163	1	12/14/2019 03:04	WG1396350
n-Propylbenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
Styrene	ND		0.0163	1	12/14/2019 03:04	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
Tetrachloroethene	0.0283		0.00326	1	12/14/2019 03:04	WG1396350
Toluene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,2,3-Trichlorobenzene	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,2,4-Trichlorobenzene	ND		0.0163	1	12/14/2019 03:04	WG1396350
1,1,1-Trichloroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,1,2-Trichloroethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
Trichloroethene	ND		0.00130	1	12/14/2019 03:04	WG1396350
Trichlorofluoromethane	ND		0.00326	1	12/14/2019 03:04	WG1396350
1,2,3-Trichloropropane	ND		0.0163	1	12/14/2019 03:04	WG1396350
1,2,4-Trimethylbenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,2,3-Trimethylbenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
1,3,5-Trimethylbenzene	ND		0.00652	1	12/14/2019 03:04	WG1396350
Vinyl chloride	ND		0.00326	1	12/14/2019 03:04	WG1396350
Xylenes, Total	ND		0.00848	1	12/14/2019 03:04	WG1396350
(S) Toluene-d8	108		75.0-131		12/14/2019 03:04	WG1396350
(S) 4-Bromofluorobenzene	104		67.0-138		12/14/2019 03:04	WG1396350
(S) 1,2-Dichloroethane-d4	97.8		70.0-130		12/14/2019 03:04	WG1396350

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		5.22	1	12/15/2019 01:05	WG1396180
(S) o-Terphenyl	72.5		18.0-148		12/15/2019 01:05	WG1396180



Total Solids by Method 2540 G-2011

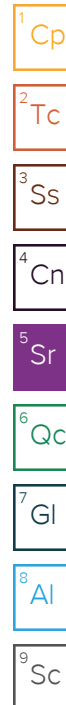
Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	12/14/2019 18:18	WG1396502

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.691		0.116	1	12/18/2019 02:37	WG1398077
(S) a,a,a-Trifluorotoluene(FID)	94.6		77.0-120		12/18/2019 02:37	WG1398077

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0291	1	12/14/2019 03:25	WG1396350
Acrylonitrile	ND		0.0145	1	12/14/2019 03:25	WG1396350
Benzene	ND		0.00116	1	12/14/2019 03:25	WG1396350
Bromobenzene	ND		0.0145	1	12/14/2019 03:25	WG1396350
Bromodichloromethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
Bromoform	ND		0.0291	1	12/14/2019 03:25	WG1396350
Bromomethane	ND		0.0145	1	12/14/2019 03:25	WG1396350
n-Butylbenzene	ND		0.0145	1	12/14/2019 03:25	WG1396350
sec-Butylbenzene	ND		0.0145	1	12/14/2019 03:25	WG1396350
tert-Butylbenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
Carbon tetrachloride	ND		0.00581	1	12/14/2019 03:25	WG1396350
Chlorobenzene	ND		0.00291	1	12/14/2019 03:25	WG1396350
Chlorodibromomethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
Chloroethane	ND		0.00581	1	12/14/2019 03:25	WG1396350
Chloroform	ND		0.00291	1	12/14/2019 03:25	WG1396350
Chloromethane	ND		0.0145	1	12/14/2019 03:25	WG1396350
2-Chlorotoluene	ND		0.00291	1	12/14/2019 03:25	WG1396350
4-Chlorotoluene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,2-Dibromo-3-Chloropropane	ND		0.0291	1	12/14/2019 03:25	WG1396350
1,2-Dibromoethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
Dibromomethane	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,2-Dichlorobenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,3-Dichlorobenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,4-Dichlorobenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
Dichlorodifluoromethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,1-Dichloroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,2-Dichloroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,1-Dichloroethene	ND		0.00291	1	12/14/2019 03:25	WG1396350
cis-1,2-Dichloroethene	0.0135		0.00291	1	12/14/2019 03:25	WG1396350
trans-1,2-Dichloroethene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,2-Dichloropropane	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,1-Dichloropropene	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,3-Dichloropropane	ND		0.00581	1	12/14/2019 03:25	WG1396350
cis-1,3-Dichloropropene	ND		0.00291	1	12/14/2019 03:25	WG1396350
trans-1,3-Dichloropropene	ND		0.00581	1	12/14/2019 03:25	WG1396350
2,2-Dichloropropane	ND	J4	0.00291	1	12/14/2019 03:25	WG1396350
Di-isopropyl ether	ND		0.00116	1	12/14/2019 03:25	WG1396350
Ethylbenzene	ND		0.00291	1	12/14/2019 03:25	WG1396350
Hexachloro-1,3-butadiene	ND		0.0291	1	12/14/2019 03:25	WG1396350
Isopropylbenzene	ND		0.00291	1	12/14/2019 03:25	WG1396350
p-Isopropyltoluene	ND		0.00581	1	12/14/2019 03:25	WG1396350
2-Butanone (MEK)	0.0399	B	0.0291	1	12/14/2019 03:25	WG1396350
Methylene Chloride	ND		0.0291	1	12/14/2019 03:25	WG1396350
4-Methyl-2-pentanone (MIBK)	ND		0.0291	1	12/14/2019 03:25	WG1396350





Collected date/time: 12/12/19 11:30

L1170349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	ND		0.00116	1	12/14/2019 03:25	WG1396350
Naphthalene	ND		0.0145	1	12/14/2019 03:25	WG1396350
n-Propylbenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
Styrene	ND		0.0145	1	12/14/2019 03:25	WG1396350
1,1,1,2-Tetrachloroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,1,2,2-Tetrachloroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,1,2-Trichlorotrifluoroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
Tetrachloroethene	1.53		0.00291	1	12/14/2019 03:25	WG1396350
Toluene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,2,3-Trichlorobenzene	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,2,4-Trichlorobenzene	ND		0.0145	1	12/14/2019 03:25	WG1396350
1,1,1-Trichloroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,1,2-Trichloroethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
Trichloroethene	0.105		0.00116	1	12/14/2019 03:25	WG1396350
Trichlorofluoromethane	ND		0.00291	1	12/14/2019 03:25	WG1396350
1,2,3-Trichloropropane	ND		0.0145	1	12/14/2019 03:25	WG1396350
1,2,4-Trimethylbenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,2,3-Trimethylbenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
1,3,5-Trimethylbenzene	ND		0.00581	1	12/14/2019 03:25	WG1396350
Vinyl chloride	ND		0.00291	1	12/14/2019 03:25	WG1396350
Xylenes, Total	ND		0.00756	1	12/14/2019 03:25	WG1396350
(S) Toluene-d8	105		75.0-131		12/14/2019 03:25	WG1396350
(S) 4-Bromofluorobenzene	102		67.0-138		12/14/2019 03:25	WG1396350
(S) 1,2-Dichloroethane-d4	100		70.0-130		12/14/2019 03:25	WG1396350

1	Cp
2	Tc
3	Ss
4	Cn
5	Sr
6	Qc
7	Gl
8	Al
9	Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	ND		4.65	1	12/15/2019 01:18	WG1396180
(S) o-Terphenyl	69.8		18.0-148		12/15/2019 01:18	WG1396180

Method Blank (MB)

(MB) R3482577-1 12/14/19 18:18

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1170349-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1170349-03 12/14/19 18:18 • (DUP) R3482577-3 12/14/19 18:18

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	82.5	82.0	1	0.615		10

Laboratory Control Sample (LCS)

(LCS) R3482577-2 12/14/19 18:18

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.1	100	85.0-115	



Method Blank (MB)

(MB) R3482764-4 12/14/19 08:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0381	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	104			77.0-120

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3482764-2 12/14/19 07:35 • (LCSD) R3482764-3 12/14/19 07:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.47	5.55	99.5	101	72.0-127			1.45	20
(S) a,a,a-Trifluorotoluene(FID)				114	114	77.0-120				

L1168529-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1168529-01 12/14/19 14:50 • (MS) R3482764-7 12/14/19 17:53 • (MSD) R3482764-8 12/14/19 18:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	142	115	250	254	94.9	97.4	25	10.0-151			1.45	28
(S) a,a,a-Trifluorotoluene(FID)					117	119		77.0-120				



Method Blank (MB)

(MB) R3483507-2 12/17/19 22:40

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0248	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	99.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3483507-1 12/17/19 21:59

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.32	115	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			113	77.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3483247-3 12/13/19 20:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Method Blank (MB)

(MB) R3483247-3 12/13/19 20:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	0.0423		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	103			67.0-138
(S) 1,2-Dichloroethane-d4	102			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483247-1 12/13/19 18:45 • (LCSD) R3483247-2 12/13/19 19:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.542	0.559	86.7	89.4	10.0-160			3.09	31
Acrylonitrile	0.625	0.665	0.737	106	118	45.0-153			10.3	22
Benzene	0.125	0.116	0.129	92.8	103	70.0-123			10.6	20
Bromobenzene	0.125	0.112	0.126	89.6	101	73.0-121			11.8	20
Bromodichloromethane	0.125	0.117	0.129	93.6	103	73.0-121			9.76	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483247-1 12/13/19 18:45 • (LCSD) R3483247-2 12/13/19 19:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Bromoform	0.125	0.116	0.133	92.8	106	64.0-132			13.7	20
Bromomethane	0.125	0.0834	0.0963	66.7	77.0	56.0-147			14.4	20
n-Butylbenzene	0.125	0.113	0.131	90.4	105	68.0-135			14.8	20
sec-Butylbenzene	0.125	0.114	0.131	91.2	105	74.0-130			13.9	20
tert-Butylbenzene	0.125	0.109	0.129	87.2	103	75.0-127			16.8	20
Carbon tetrachloride	0.125	0.113	0.124	90.4	99.2	66.0-128			9.28	20
Chlorobenzene	0.125	0.116	0.126	92.8	101	76.0-128			8.26	20
Chlorodibromomethane	0.125	0.115	0.131	92.0	105	74.0-127			13.0	20
Chloroethane	0.125	0.0820	0.0983	65.6	78.6	61.0-134			18.1	20
Chloroform	0.125	0.119	0.133	95.2	106	72.0-123			11.1	20
Chloromethane	0.125	0.141	0.161	113	129	51.0-138			13.2	20
2-Chlorotoluene	0.125	0.114	0.127	91.2	102	75.0-124			10.8	20
4-Chlorotoluene	0.125	0.119	0.134	95.2	107	75.0-124			11.9	20
1,2-Dibromo-3-Chloropropane	0.125	0.0966	0.109	77.3	87.2	59.0-130			12.1	20
1,2-Dibromoethane	0.125	0.120	0.134	96.0	107	74.0-128			11.0	20
Dibromomethane	0.125	0.126	0.137	101	110	75.0-122			8.37	20
1,2-Dichlorobenzene	0.125	0.117	0.133	93.6	106	76.0-124			12.8	20
1,3-Dichlorobenzene	0.125	0.118	0.135	94.4	108	76.0-125			13.4	20
1,4-Dichlorobenzene	0.125	0.116	0.132	92.8	106	77.0-121			12.9	20
Dichlorodifluoromethane	0.125	0.120	0.136	96.0	109	43.0-156			12.5	20
1,1-Dichloroethane	0.125	0.133	0.147	106	118	70.0-127			10.0	20
1,2-Dichloroethane	0.125	0.122	0.134	97.6	107	65.0-131			9.38	20
1,1-Dichloroethene	0.125	0.117	0.128	93.6	102	65.0-131			8.98	20
cis-1,2-Dichloroethene	0.125	0.111	0.122	88.8	97.6	73.0-125			9.44	20
trans-1,2-Dichloroethene	0.125	0.113	0.127	90.4	102	71.0-125			11.7	20
1,2-Dichloropropane	0.125	0.135	0.144	108	115	74.0-125			6.45	20
1,1-Dichloropropene	0.125	0.121	0.133	96.8	106	73.0-125			9.45	20
1,3-Dichloropropane	0.125	0.124	0.140	99.2	112	80.0-125			12.1	20
cis-1,3-Dichloropropene	0.125	0.121	0.135	96.8	108	76.0-127			10.9	20
trans-1,3-Dichloropropene	0.125	0.124	0.134	99.2	107	73.0-127			7.75	20
2,2-Dichloropropane	0.125	0.151	0.172	121	138	59.0-135		J4	13.0	20
Di-isopropyl ether	0.125	0.148	0.162	118	130	60.0-136			9.03	20
Ethylbenzene	0.125	0.114	0.128	91.2	102	74.0-126			11.6	20
Hexachloro-1,3-butadiene	0.125	0.149	0.181	119	145	57.0-150			19.4	20
Isopropylbenzene	0.125	0.115	0.128	92.0	102	72.0-127			10.7	20
p-Isopropyltoluene	0.125	0.114	0.132	91.2	106	72.0-133			14.6	20
2-Butanone (MEK)	0.625	0.687	0.782	110	125	30.0-160			12.9	24
Methylene Chloride	0.125	0.123	0.132	98.4	106	68.0-123			7.06	20
4-Methyl-2-pentanone (MIBK)	0.625	0.677	0.741	108	119	56.0-143			9.03	20
Methyl tert-butyl ether	0.125	0.135	0.152	108	122	66.0-132			11.8	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3483247-1 12/13/19 18:45 • (LCSD) R3483247-2 12/13/19 19:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.125	0.0969	0.113	77.5	90.4	59.0-130			15.3	20
n-Propylbenzene	0.125	0.113	0.127	90.4	102	74.0-126			11.7	20
Styrene	0.125	0.119	0.130	95.2	104	72.0-127			8.84	20
1,1,1,2-Tetrachloroethane	0.125	0.120	0.130	96.0	104	74.0-129			8.00	20
1,1,2,2-Tetrachloroethane	0.125	0.127	0.138	102	110	68.0-128			8.30	20
Tetrachloroethene	0.125	0.123	0.137	98.4	110	70.0-136			10.8	20
Toluene	0.125	0.114	0.126	91.2	101	75.0-121			10.0	20
1,1,2-Trichlorotrifluoroethane	0.125	0.119	0.131	95.2	105	61.0-139			9.60	20
1,2,3-Trichlorobenzene	0.125	0.128	0.142	102	114	59.0-139			10.4	20
1,2,4-Trichlorobenzene	0.125	0.140	0.156	112	125	62.0-137			10.8	20
1,1,1-Trichloroethane	0.125	0.123	0.132	98.4	106	69.0-126			7.06	20
1,1,2-Trichloroethane	0.125	0.123	0.136	98.4	109	78.0-123			10.0	20
Trichloroethene	0.125	0.121	0.132	96.8	106	76.0-126			8.70	20
Trichlorofluoromethane	0.125	0.120	0.130	96.0	104	61.0-142			8.00	20
1,2,3-Trichloropropane	0.125	0.117	0.135	93.6	108	67.0-129			14.3	20
1,2,3-Trimethylbenzene	0.125	0.113	0.128	90.4	102	74.0-124			12.4	20
1,2,4-Trimethylbenzene	0.125	0.113	0.124	90.4	99.2	70.0-126			9.28	20
1,3,5-Trimethylbenzene	0.125	0.108	0.125	86.4	100	73.0-127			14.6	20
Vinyl chloride	0.125	0.101	0.109	80.8	87.2	63.0-134			7.62	20
Xylenes, Total	0.375	0.344	0.388	91.7	103	72.0-127			12.0	20
(S) Toluene-d8				107	105	75.0-131				
(S) 4-Bromofluorobenzene				107	107	67.0-138				
(S) 1,2-Dichloroethane-d4				104	105	70.0-130				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1169922-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1169922-01 12/13/19 20:51 • (MS) R3483247-4 12/14/19 03:46 • (MSD) R3483247-5 12/14/19 04:07

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acetone	0.625	ND	0.311	0.315	49.8	50.4	1	10.0-160			1.28	40
Acrylonitrile	0.625	ND	0.646	0.599	103	95.8	1	10.0-160			7.55	40
Benzene	0.125	ND	0.0841	0.0779	67.3	62.3	1	10.0-149			7.65	37
Bromobenzene	0.125	ND	0.0852	0.0875	68.2	70.0	1	10.0-156			2.66	38
Bromodichloromethane	0.125	ND	0.0885	0.0845	70.8	67.6	1	10.0-143			4.62	37
Bromoform	0.125	ND	0.0914	0.0915	73.1	73.2	1	10.0-146			0.109	36
Bromomethane	0.125	ND	0.0462	0.0412	37.0	33.0	1	10.0-149			11.4	38
n-Butylbenzene	0.125	ND	0.0865	0.0886	69.2	70.9	1	10.0-160			2.40	40
sec-Butylbenzene	0.125	ND	0.0849	0.0891	67.9	71.3	1	10.0-159			4.83	39
tert-Butylbenzene	0.125	ND	0.0827	0.0850	66.2	68.0	1	10.0-156			2.74	39



L1169922-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1169922-01 12/13/19 20:51 • (MS) R3483247-4 12/14/19 03:46 • (MSD) R3483247-5 12/14/19 04:07

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.125	ND	0.0726	0.0701	58.1	56.1	1	10.0-145			3.50	37
Chlorobenzene	0.125	ND	0.0851	0.0825	68.1	66.0	1	10.0-152			3.10	39
Chlorodibromomethane	0.125	ND	0.0927	0.0900	74.2	72.0	1	10.0-146			2.96	37
Chloroethane	0.125	ND	0.0402	0.0413	32.2	33.0	1	10.0-146			2.70	40
Chloroform	0.125	ND	0.0882	0.0815	70.6	65.2	1	10.0-146			7.90	37
Chloromethane	0.125	ND	0.103	0.0969	82.4	77.5	1	10.0-159			6.10	37
2-Chlorotoluene	0.125	ND	0.0828	0.0835	66.2	66.8	1	10.0-159			0.842	38
4-Chlorotoluene	0.125	ND	0.0872	0.0854	69.8	68.3	1	10.0-155			2.09	39
1,2-Dibromo-3-Chloropropane	0.125	ND	0.0653	0.0704	52.2	56.3	1	10.0-151			7.52	39
1,2-Dibromoethane	0.125	ND	0.105	0.0997	84.0	79.8	1	10.0-148			5.18	34
Dibromomethane	0.125	ND	0.103	0.0951	82.4	76.1	1	10.0-147			7.98	35
1,2-Dichlorobenzene	0.125	ND	0.0934	0.0937	74.7	75.0	1	10.0-155			0.321	37
1,3-Dichlorobenzene	0.125	ND	0.0952	0.0932	76.2	74.6	1	10.0-153			2.12	38
1,4-Dichlorobenzene	0.125	ND	0.0923	0.0937	73.8	75.0	1	10.0-151			1.51	38
Dichlorodifluoromethane	0.125	ND	0.0852	0.0748	68.2	59.8	1	10.0-160			13.0	35
1,1-Dichloroethane	0.125	ND	0.0915	0.0868	73.2	69.4	1	10.0-147			5.27	37
1,2-Dichloroethane	0.125	ND	0.100	0.0984	80.0	78.7	1	10.0-148			1.61	35
1,1-Dichloroethene	0.125	ND	0.0755	0.0722	60.4	57.8	1	10.0-155			4.47	37
cis-1,2-Dichloroethene	0.125	ND	0.0816	0.0754	65.3	60.3	1	10.0-149			7.90	37
trans-1,2-Dichloroethene	0.125	ND	0.0811	0.0719	64.9	57.5	1	10.0-150			12.0	37
1,2-Dichloropropane	0.125	ND	0.104	0.0963	83.2	77.0	1	10.0-148			7.69	37
1,1-Dichloropropene	0.125	ND	0.0822	0.0741	65.8	59.3	1	10.0-153			10.4	35
1,3-Dichloropropane	0.125	ND	0.107	0.107	85.6	85.6	1	10.0-154			0.000	35
cis-1,3-Dichloropropene	0.125	ND	0.0931	0.0890	74.5	71.2	1	10.0-151			4.50	37
trans-1,3-Dichloropropene	0.125	ND	0.102	0.0989	81.6	79.1	1	10.0-148			3.09	37
2,2-Dichloropropane	0.125	ND	0.0655	0.0648	52.4	51.8	1	10.0-138			1.07	36
Di-isopropyl ether	0.125	ND	0.118	0.109	94.4	87.2	1	10.0-147			7.93	36
Ethylbenzene	0.125	ND	0.0815	0.0777	65.2	62.2	1	10.0-160			4.77	38
Hexachloro-1,3-butadiene	0.125	ND	0.112	0.116	89.6	92.8	1	10.0-160			3.51	40
Isopropylbenzene	0.125	ND	0.0799	0.0813	63.9	65.0	1	10.0-155			1.74	38
p-Isopropyltoluene	0.125	ND	0.0864	0.0882	69.1	70.6	1	10.0-160			2.06	40
2-Butanone (MEK)	0.625	0.0283	0.701	0.592	108	90.2	1	10.0-160			16.9	40
Methylene Chloride	0.125	ND	0.0555	0.0451	44.4	36.1	1	10.0-141			20.7	37
4-Methyl-2-pentanone (MIBK)	0.625	ND	0.569	0.567	91.0	90.7	1	10.0-160			0.352	35
Methyl tert-butyl ether	0.125	ND	0.111	0.104	88.8	83.2	1	11.0-147			6.51	35
Naphthalene	0.125	ND	0.0600	0.0752	48.0	60.2	1	10.0-160			22.5	36
n-Propylbenzene	0.125	ND	0.0808	0.0815	64.6	65.2	1	10.0-158			0.863	38
Styrene	0.125	ND	0.0873	0.0828	69.8	66.2	1	10.0-160			5.29	40
1,1,1,2-Tetrachloroethane	0.125	ND	0.0884	0.0879	70.7	70.3	1	10.0-149			0.567	39
1,1,2,2-Tetrachloroethane	0.125	ND	0.106	0.102	84.8	81.6	1	10.0-160			3.85	35

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



L1169922-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1169922-01 12/13/19 20:51 • (MS) R3483247-4 12/14/19 03:46 • (MSD) R3483247-5 12/14/19 04:07

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.125	ND	0.0850	0.0832	68.0	66.6	1	10.0-156			2.14	39
Toluene	0.125	ND	0.0819	0.0782	65.5	62.6	1	10.0-156			4.62	38
1,1,2-Trichlorotrifluoroethane	0.125	ND	0.0739	0.0703	59.1	56.2	1	10.0-160			4.99	36
1,2,3-Trichlorobenzene	0.125	ND	0.0797	0.103	63.8	82.4	1	10.0-160			25.5	40
1,2,4-Trichlorobenzene	0.125	ND	0.103	0.111	82.4	88.8	1	10.0-160			7.48	40
1,1,1-Trichloroethane	0.125	ND	0.0805	0.0743	64.4	59.4	1	10.0-144			8.01	35
1,1,2-Trichloroethane	0.125	ND	0.104	0.101	83.2	80.8	1	10.0-160			2.93	35
Trichloroethene	0.125	ND	0.0827	0.0774	66.2	61.9	1	10.0-156			6.62	38
Trichlorofluoromethane	0.125	ND	0.0481	0.0441	38.5	35.3	1	10.0-160			8.68	40
1,2,3-Trichloropropane	0.125	ND	0.101	0.101	80.8	80.8	1	10.0-156			0.000	35
1,2,3-Trimethylbenzene	0.125	ND	0.0892	0.0873	71.4	69.8	1	10.0-160			2.15	36
1,2,4-Trimethylbenzene	0.125	ND	0.0829	0.0849	66.3	67.9	1	10.0-160			2.38	36
1,3,5-Trimethylbenzene	0.125	ND	0.0829	0.0809	66.3	64.7	1	10.0-160			2.44	38
Vinyl chloride	0.125	ND	0.0690	0.0624	55.2	49.9	1	10.0-160			10.0	37
Xylenes, Total	0.375	ND	0.247	0.241	65.9	64.3	1	10.0-160			2.46	38
(S) Toluene-d8					106	108		75.0-131				
(S) 4-Bromofluorobenzene					104	105		67.0-138				
(S) 1,2-Dichloroethane-d4					102	103		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3482485-1 12/14/19 22:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	78.2			18.0-148

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS)

(LCS) R3482485-2 12/14/19 22:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	50.0	45.4	90.8	50.0-150	
(S) o-Terphenyl			78.5	18.0-148	

L1170058-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1170058-05 12/14/19 23:49 • (MS) R3482485-3 12/15/19 00:02 • (MSD) R3482485-4 12/15/19 00:15

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	50.0	U	36.3	43.5	72.6	87.0	1	50.0-150			18.0	20
(S) o-Terphenyl					56.5	64.1		18.0-148				



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

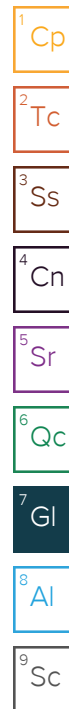
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.





Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

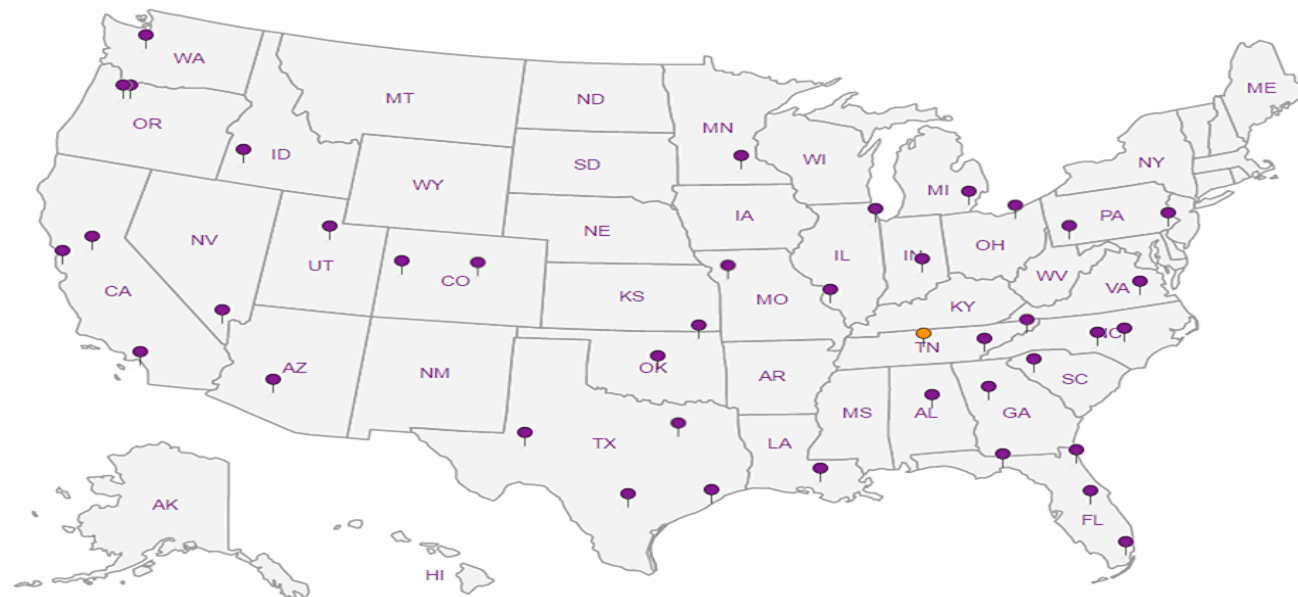
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



1/16/2020

Mr. Winthrop McCormack
Clendenin Consulting & Remediation Group
116-C2 Edwards Ferry Road

Leesburg VA 20176

Project Name: Amato Industries
Project #: 18006
Workorder #: 2001045

Dear Mr. Winthrop McCormack

The following report includes the data for the above referenced project for sample(s) received on 1/4/2020 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott
Project Manager

WORK ORDER #: 2001045

Work Order Summary

CLIENT:	Mr. Winthrop McCormack Clendenin Consulting & Remediation Group 116-C2 Edwards Ferry Road Leesburg, VA 20176	BILL TO:	Ms. Samantha Kirk Clendenin Consulting & Remediation Group 116-C2 Edwards Ferry Road Leesburg, VA 20176
PHONE:	703-771-8816	P.O. #	
FAX:	703-771-8825	PROJECT #	18006 Amato Industries
DATE RECEIVED:	01/04/2020	CONTACT:	Ausha Scott
DATE COMPLETED:	01/16/2020		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	B-9	Modified TO-15	0.8 "Hg	14.9 psi
02A	B-15	Modified TO-15	0.2 "Hg	15.6 psi
03A	Lab Blank	Modified TO-15	NA	NA
03B	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
04B	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA
05B	LCS	Modified TO-15	NA	NA
05BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 01/16/20

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15
Clendenin Consulting & Remediation Group
Workorder# 2001045

Two 1 Liter Summa Canister (100% Certified) samples were received on January 04, 2020. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	TO-15	ATL Modifications
Initial Calibration	<=30% RSD with 2 compounds allowed out to < 40% RSD	<=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on samples B-9 and B-15 due to the presence of high level target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds EPA METHOD TO-15 GC/MS

Client Sample ID: B-9

Lab ID#: 2001045-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	21	23	160	180
trans-1,2-Dichloroethene	21	42	82	170
1,1-Dichloroethane	21	33	84	130
cis-1,2-Dichloroethene	21	4000	82	16000
Chloroform	21	77	100	380
1,1,1-Trichloroethane	21	240	110	1300
Trichloroethene	21	9900	110	53000
Tetrachloroethene	21	41000	140	280000

Client Sample ID: B-15

Lab ID#: 2001045-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.0	22	4.1	88
Chloroform	1.0	91	5.1	440
1,1,1-Trichloroethane	1.0	1.7	5.7	9.3
Trichloroethene	1.0	45	5.6	240
Toluene	1.0	1.4	3.9	5.1
Tetrachloroethene	1.0	220	7.0	1500
m,p-Xylene	1.0	1.1	4.5	4.7

Client Sample ID: B-9

Lab ID#: 2001045-01A

EPA METHOD TO-15 GC/MS

File Name:	14010811	Date of Collection:	1/2/20 11:49:00 AM
Dil. Factor:	4.14	Date of Analysis:	1/8/20 12:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	21	Not Detected	100	Not Detected
Freon 114	21	Not Detected	140	Not Detected
Chloromethane	83	Not Detected	170	Not Detected
Vinyl Chloride	21	Not Detected	53	Not Detected
1,3-Butadiene	21	Not Detected	46	Not Detected
Bromomethane	83	Not Detected	320	Not Detected
Chloroethane	83	Not Detected	220	Not Detected
Freon 11	21	Not Detected	120	Not Detected
Ethanol	83	Not Detected	160	Not Detected
Freon 113	21	23	160	180
1,1-Dichloroethene	21	Not Detected	82	Not Detected
Acetone	83	Not Detected	200	Not Detected
2-Propanol	83	Not Detected	200	Not Detected
Carbon Disulfide	83	Not Detected	260	Not Detected
3-Chloropropene	83	Not Detected	260	Not Detected
Methylene Chloride	83	Not Detected	290	Not Detected
Methyl tert-butyl ether	21	Not Detected	75	Not Detected
trans-1,2-Dichloroethene	21	42	82	170
Hexane	21	Not Detected	73	Not Detected
1,1-Dichloroethane	21	33	84	130
2-Butanone (Methyl Ethyl Ketone)	83	Not Detected	240	Not Detected
cis-1,2-Dichloroethene	21	4000	82	16000
Tetrahydrofuran	21	Not Detected	61	Not Detected
Chloroform	21	77	100	380
1,1,1-Trichloroethane	21	240	110	1300
Cyclohexane	21	Not Detected	71	Not Detected
Carbon Tetrachloride	21	Not Detected	130	Not Detected
2,2,4-Trimethylpentane	21	Not Detected	97	Not Detected
Benzene	21	Not Detected	66	Not Detected
1,2-Dichloroethane	21	Not Detected	84	Not Detected
Heptane	21	Not Detected	85	Not Detected
Trichloroethene	21	9900	110	53000
1,2-Dichloropropane	21	Not Detected	96	Not Detected
1,4-Dioxane	83	Not Detected	300	Not Detected
Bromodichloromethane	21	Not Detected	140	Not Detected
cis-1,3-Dichloropropene	21	Not Detected	94	Not Detected
4-Methyl-2-pentanone	21	Not Detected	85	Not Detected
Toluene	21	Not Detected	78	Not Detected
trans-1,3-Dichloropropene	21	Not Detected	94	Not Detected
1,1,2-Trichloroethane	21	Not Detected	110	Not Detected
Tetrachloroethene	21	41000	140	280000
2-Hexanone	83	Not Detected	340	Not Detected

Client Sample ID: B-9

Lab ID#: 2001045-01A

EPA METHOD TO-15 GC/MS

File Name:	14010811	Date of Collection: 1/2/20 11:49:00 AM
Dil. Factor:	4.14	Date of Analysis: 1/8/20 12:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	21	Not Detected	180	Not Detected
1,2-Dibromoethane (EDB)	21	Not Detected	160	Not Detected
Chlorobenzene	21	Not Detected	95	Not Detected
Ethyl Benzene	21	Not Detected	90	Not Detected
m,p-Xylene	21	Not Detected	90	Not Detected
o-Xylene	21	Not Detected	90	Not Detected
Styrene	21	Not Detected	88	Not Detected
Bromoform	21	Not Detected	210	Not Detected
Cumene	21	Not Detected	100	Not Detected
1,1,2,2-Tetrachloroethane	21	Not Detected	140	Not Detected
Propylbenzene	21	Not Detected	100	Not Detected
4-Ethyltoluene	21	Not Detected	100	Not Detected
1,3,5-Trimethylbenzene	21	Not Detected	100	Not Detected
1,2,4-Trimethylbenzene	21	Not Detected	100	Not Detected
1,3-Dichlorobenzene	21	Not Detected	120	Not Detected
1,4-Dichlorobenzene	21	Not Detected	120	Not Detected
alpha-Chlorotoluene	21	Not Detected	110	Not Detected
1,2-Dichlorobenzene	21	Not Detected	120	Not Detected
1,2,4-Trichlorobenzene	83	Not Detected	610	Not Detected
Hexachlorobutadiene	83	Not Detected	880	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: B-15

Lab ID#: 2001045-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010717	Date of Collection:	1/2/20 12:14:00 PM
Dil. Factor:	10.4	Date of Analysis:	1/7/20 08:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.2	Not Detected	26	Not Detected
Freon 114	1.0	Not Detected	7.3	Not Detected
Chloromethane	5.2	Not Detected	11	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	5.2	Not Detected	20	Not Detected
Chloroethane	5.2	Not Detected	14	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	5.2	Not Detected	9.8	Not Detected
Freon 113	1.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	Not Detected	25	Not Detected
2-Propanol	5.2	Not Detected	13	Not Detected
Carbon Disulfide	5.2	Not Detected	16	Not Detected
3-Chloropropene	5.2	Not Detected	16	Not Detected
Methylene Chloride	2.1	Not Detected	7.2	Not Detected
Methyl tert-butyl ether	1.0	Not Detected	3.7	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	5.2	Not Detected	18	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.2	Not Detected	15	Not Detected
cis-1,2-Dichloroethene	1.0	22	4.1	88
Tetrahydrofuran	5.2	Not Detected	15	Not Detected
Chloroform	1.0	91	5.1	440
1,1,1-Trichloroethane	1.0	1.7	5.7	9.3
Cyclohexane	1.0	Not Detected	3.6	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.5	Not Detected
2,2,4-Trimethylpentane	5.2	Not Detected	24	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.2	Not Detected
Heptane	5.2	Not Detected	21	Not Detected
Trichloroethene	1.0	45	5.6	240
1,2-Dichloropropane	1.0	Not Detected	4.8	Not Detected
1,4-Dioxane	1.0	Not Detected	3.7	Not Detected
Bromodichloromethane	1.0	Not Detected	7.0	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.3	Not Detected
Toluene	1.0	1.4	3.9	5.1
trans-1,3-Dichloropropene	1.0	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.7	Not Detected
Tetrachloroethene	1.0	220	7.0	1500
2-Hexanone	5.2	Not Detected	21	Not Detected

Client Sample ID: B-15

Lab ID#: 2001045-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010717	Date of Collection: 1/2/20 12:14:00 PM
Dil. Factor:	10.4	Date of Analysis: 1/7/20 08:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.0	Not Detected	8.8	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	8.0	Not Detected
Chlorobenzene	1.0	Not Detected	4.8	Not Detected
Ethyl Benzene	1.0	Not Detected	4.5	Not Detected
m,p-Xylene	1.0	1.1	4.5	4.7
o-Xylene	1.0	Not Detected	4.5	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	11	Not Detected
Cumene	1.0	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.1	Not Detected
Propylbenzene	1.0	Not Detected	5.1	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.1	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.1	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
alpha-Chlorotoluene	1.0	Not Detected	5.4	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	5.2	Not Detected	38	Not Detected
Hexachlorobutadiene	5.2	Not Detected	55	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	92	70-130

Client Sample ID: Lab Blank

Lab ID#: 2001045-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010706	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 01:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	1.0	Not Detected	2.4	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2001045-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010706	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 01:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 2001045-03B

EPA METHOD TO-15 GC/MS

File Name:	14010805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/8/20 09:56 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
1,3-Butadiene	5.0	Not Detected	11	Not Detected
Bromomethane	20	Not Detected	78	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	20	Not Detected	62	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	20	Not Detected	69	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2001045-03B

EPA METHOD TO-15 GC/MS

File Name:	14010805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/8/20 09:56 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	20	Not Detected	150	Not Detected
Hexachlorobutadiene	20	Not Detected	210	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: CCV

Lab ID#: 2001045-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 10:17 AM

Compound	%Recovery
Freon 12	106
Freon 114	103
Chloromethane	106
Vinyl Chloride	100
1,3-Butadiene	98
Bromomethane	113
Chloroethane	108
Freon 11	101
Ethanol	116
Freon 113	100
1,1-Dichloroethene	97
Acetone	105
2-Propanol	103
Carbon Disulfide	107
3-Chloropropene	102
Methylene Chloride	100
Methyl tert-butyl ether	108
trans-1,2-Dichloroethene	102
Hexane	102
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	113
cis-1,2-Dichloroethene	100
Tetrahydrofuran	105
Chloroform	103
1,1,1-Trichloroethane	103
Cyclohexane	101
Carbon Tetrachloride	77
2,2,4-Trimethylpentane	104
Benzene	112
1,2-Dichloroethane	111
Heptane	112
Trichloroethene	107
1,2-Dichloropropane	108
1,4-Dioxane	109
Bromodichloromethane	103
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	118
Toluene	108
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	109
Tetrachloroethene	104
2-Hexanone	115

Client Sample ID: CCV

Lab ID#: 2001045-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 10:17 AM

Compound	%Recovery
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	103
Chlorobenzene	104
Ethyl Benzene	106
m,p-Xylene	98
o-Xylene	101
Styrene	96
Bromoform	106
Cumene	97
1,1,2,2-Tetrachloroethane	111
Propylbenzene	88
4-Ethyltoluene	89
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	92
1,4-Dichlorobenzene	88
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	114
Hexachlorobutadiene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: CCV

Lab ID#: 2001045-04B

EPA METHOD TO-15 GC/MS

File Name:	14010802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/8/20 08:44 AM

Compound	%Recovery
Freon 12	101
Freon 114	101
Chloromethane	109
Vinyl Chloride	94
1,3-Butadiene	106
Bromomethane	98
Chloroethane	95
Freon 11	112
Ethanol	108
Freon 113	105
1,1-Dichloroethene	108
Acetone	107
2-Propanol	109
Carbon Disulfide	99
3-Chloropropene	103
Methylene Chloride	109
Methyl tert-butyl ether	113
trans-1,2-Dichloroethene	94
Hexane	108
1,1-Dichloroethane	107
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	108
Tetrahydrofuran	102
Chloroform	103
1,1,1-Trichloroethane	108
Cyclohexane	102
Carbon Tetrachloride	109
2,2,4-Trimethylpentane	108
Benzene	100
1,2-Dichloroethane	104
Heptane	96
Trichloroethene	100
1,2-Dichloropropane	97
1,4-Dioxane	98
Bromodichloromethane	100
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	90
Toluene	98
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	92
Tetrachloroethene	98
2-Hexanone	99

Client Sample ID: CCV

Lab ID#: 2001045-04B

EPA METHOD TO-15 GC/MS

File Name:	14010802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/8/20 08:44 AM

Compound	%Recovery
Dibromochloromethane	99
1,2-Dibromoethane (EDB)	98
Chlorobenzene	96
Ethyl Benzene	98
m,p-Xylene	96
o-Xylene	97
Styrene	103
Bromoform	98
Cumene	98
1,1,2,2-Tetrachloroethane	97
Propylbenzene	97
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	92
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	84
Hexachlorobutadiene	87

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCS

Lab ID#: 2001045-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 11:00 AM

Compound	%Recovery	Method Limits
Freon 12	119	70-130
Freon 114	112	70-130
Chloromethane	121	70-130
Vinyl Chloride	112	70-130
1,3-Butadiene	104	70-130
Bromomethane	122	70-130
Chloroethane	119	70-130
Freon 11	111	70-130
Ethanol	139 Q	70-130
Freon 113	105	70-130
1,1-Dichloroethene	106	70-130
Acetone	114	70-130
2-Propanol	121	70-130
Carbon Disulfide	118	70-130
3-Chloropropene	119	70-130
Methylene Chloride	107	70-130
Methyl tert-butyl ether	117	70-130
trans-1,2-Dichloroethene	121	70-130
Hexane	117	70-130
1,1-Dichloroethane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	129	70-130
cis-1,2-Dichloroethene	99	70-130
Tetrahydrofuran	120	70-130
Chloroform	111	70-130
1,1,1-Trichloroethane	113	70-130
Cyclohexane	114	70-130
Carbon Tetrachloride	112	70-130
2,2,4-Trimethylpentane	120	70-130
Benzene	124	70-130
1,2-Dichloroethane	118	70-130
Heptane	129	70-130
Trichloroethene	124	70-130
1,2-Dichloropropane	120	70-130
1,4-Dioxane	128	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	132 Q	70-130
4-Methyl-2-pentanone	144 Q	70-130
Toluene	124	70-130
trans-1,3-Dichloropropene	109	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	102	70-130
2-Hexanone	130	70-130

Client Sample ID: LCS

Lab ID#: 2001045-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 11:00 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	110	70-130
Ethyl Benzene	114	70-130
m,p-Xylene	106	70-130
o-Xylene	105	70-130
Styrene	107	70-130
Bromoform	113	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	111	70-130
Propylbenzene	90	70-130
4-Ethyltoluene	88	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	86	70-130
alpha-Chlorotoluene	135 Q	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	93	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCSD

Lab ID#: 2001045-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 11:35 AM

Compound	%Recovery	Method Limits
Freon 12	119	70-130
Freon 114	112	70-130
Chloromethane	122	70-130
Vinyl Chloride	114	70-130
1,3-Butadiene	109	70-130
Bromomethane	122	70-130
Chloroethane	120	70-130
Freon 11	114	70-130
Ethanol	146 Q	70-130
Freon 113	108	70-130
1,1-Dichloroethene	109	70-130
Acetone	119	70-130
2-Propanol	128	70-130
Carbon Disulfide	118	70-130
3-Chloropropene	121	70-130
Methylene Chloride	111	70-130
Methyl tert-butyl ether	119	70-130
trans-1,2-Dichloroethene	123	70-130
Hexane	116	70-130
1,1-Dichloroethane	115	70-130
2-Butanone (Methyl Ethyl Ketone)	134 Q	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	124	70-130
Chloroform	115	70-130
1,1,1-Trichloroethane	117	70-130
Cyclohexane	114	70-130
Carbon Tetrachloride	114	70-130
2,2,4-Trimethylpentane	112	70-130
Benzene	126	70-130
1,2-Dichloroethane	123	70-130
Heptane	124	70-130
Trichloroethene	129	70-130
1,2-Dichloropropane	124	70-130
1,4-Dioxane	135 Q	70-130
Bromodichloromethane	123	70-130
cis-1,3-Dichloropropene	138 Q	70-130
4-Methyl-2-pentanone	146 Q	70-130
Toluene	119	70-130
trans-1,3-Dichloropropene	125	70-130
1,1,2-Trichloroethane	127	70-130
Tetrachloroethene	113	70-130
2-Hexanone	146 Q	70-130

Client Sample ID: LCSD

Lab ID#: 2001045-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	21010704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/7/20 11:35 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	129	70-130
1,2-Dibromoethane (EDB)	115	70-130
Chlorobenzene	112	70-130
Ethyl Benzene	113	70-130
m,p-Xylene	99	70-130
o-Xylene	100	70-130
Styrene	104	70-130
Bromoform	129	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	122	70-130
Propylbenzene	87	70-130
4-Ethyltoluene	81	70-130
1,3,5-Trimethylbenzene	86	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	89	70-130
1,4-Dichlorobenzene	82	70-130
alpha-Chlorotoluene	138 Q	70-130
1,2-Dichlorobenzene	93	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	93	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 2001045-05B

EPA METHOD TO-15 GC/MS

File Name: 14010803
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/8/20 09:07 AM

Compound	%Recovery	Method Limits
Freon 12	109	70-130
Freon 114	108	70-130
Chloromethane	114	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	104	70-130
Bromomethane	106	70-130
Chloroethane	100	70-130
Freon 11	121	70-130
Ethanol	113	70-130
Freon 113	110	70-130
1,1-Dichloroethene	116	70-130
Acetone	117	70-130
2-Propanol	117	70-130
Carbon Disulfide	111	70-130
3-Chloropropene	113	70-130
Methylene Chloride	118	70-130
Methyl tert-butyl ether	118	70-130
trans-1,2-Dichloroethene	111	70-130
Hexane	117	70-130
1,1-Dichloroethane	110	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	109	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	113	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	116	70-130
2,2,4-Trimethylpentane	114	70-130
Benzene	106	70-130
1,2-Dichloroethane	109	70-130
Heptane	105	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	102	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	110	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	104	70-130
trans-1,3-Dichloropropene	110	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	102	70-130
2-Hexanone	106	70-130

Client Sample ID: LCS

Lab ID#: 2001045-05B

EPA METHOD TO-15 GC/MS

File Name: 14010803
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/8/20 09:07 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	103	70-130
o-Xylene	103	70-130
Styrene	107	70-130
Bromoform	105	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	99	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	85	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCSD

Lab ID#: 2001045-05BB

EPA METHOD TO-15 GC/MS

File Name: 14010804
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/8/20 09:34 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	109	70-130
Chloromethane	112	70-130
Vinyl Chloride	105	70-130
1,3-Butadiene	107	70-130
Bromomethane	99	70-130
Chloroethane	108	70-130
Freon 11	122	70-130
Ethanol	116	70-130
Freon 113	110	70-130
1,1-Dichloroethene	116	70-130
Acetone	117	70-130
2-Propanol	117	70-130
Carbon Disulfide	110	70-130
3-Chloropropene	106	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	116	70-130
trans-1,2-Dichloroethene	111	70-130
Hexane	118	70-130
1,1-Dichloroethane	114	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	108	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	116	70-130
Cyclohexane	111	70-130
Carbon Tetrachloride	118	70-130
2,2,4-Trimethylpentane	115	70-130
Benzene	107	70-130
1,2-Dichloroethane	108	70-130
Heptane	105	70-130
Trichloroethene	109	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	108	70-130
Bromodichloromethane	105	70-130
cis-1,3-Dichloropropene	111	70-130
4-Methyl-2-pentanone	98	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	101	70-130
2-Hexanone	107	70-130

Client Sample ID: LCSD

Lab ID#: 2001045-05BB

EPA METHOD TO-15 GC/MS

File Name: 14010804
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 1/8/20 09:34 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	105	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	105	70-130
o-Xylene	101	70-130
Styrene	108	70-130
Bromoform	104	70-130
Cumene	101	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	109	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	86	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130

**CCRG****Clendenin Consulting & Remediation Group**

116-C2 Edwards Ferry Road
Leesburg, Virginia 20176

TEL: 703/771-8816

DAILY FIELD REPORT

Project No.: 18006

Date: 3/6/19

Project Name: Amato Industries

Start Work: 6:00 AM End Work: 5:30 PM

Total Time: 11.5 Hrs.

Permit No.: N/A

Client: Joe Amato

Contractor: GSI Mid-Atlantic

Client's Representative: Brian St. Clair

Contractor's Supt.: Tim Niblett

Visitors (Name & Firm): Bruce Clendenin, Steve Plescow, Dan Fluhart & crew

Weather (AM & PM): windy, cold

Temp.: 30s F

WORK PERFORMED BY CONTRACTOR (Each item show type, location & quantity):

- Arrived at Amato Industries early to meet with Dan Fluhart of Fluhart Mechanical HVAC, LLC and Brian St. Clair to take a look at the HVAC system of the office building. Dan had a small crew with him and we walked around, with Brian and the maintenance man Steve, up in the loft where the duct work is exposed. We also looked at the main unit in the furnace room and all of the supply and return vents throughout the office.
- Around 9:00am, GSI arrived at Amato Industries in Silver Spring, MD to run Geoprobe exploratory borings for discreet and composite soil sampling in the region of soil contamination near vapor well B-2. A vapor well was also re-installed at the location of B-5. A total of 12 geoprobe borings were done by B-2 plus the 1 vapor well installed by B-5. The details for the vapor well at B-5 are as follows:
- **B-5:** 4' depth; vapor implant installed; no water; No PID readings; sealed with bentonite at top and tubing coiled in zip-lock bag
- A Geoprobe rig was used to take sleeve samples at 12 locations around B-2 (See Figure). The locations were determined generally by moving 10 feet in all directions of B-2 and then moving further in 10 feet increments, avoiding obstructions above ground and the assumed locations of utilities under the ground. Mainly, a sanitary line which runs NE to SW and the large tanks nearby.
- A PID was used to take vapor readings throughout every sleeve sample taken, 2 sets of samples were taken from each sleeve: Two 2oz jar samples were taken for lab testing, and one 16oz jar composite sample was taken for contamination removal purposes. The lab samples were placed immediately in a cooler, and the composite samples were covered in foil and sealed and placed in the truck cab. After they had warmed up, PID readings were taken from the cab samples again and recorded. Generally, each sleeve had consistent field PID readings throughout the whole sleeve, so no discreet samples were taken. All borings went to a depth of 5 feet, table depths indicate depth of highest PID reading.
- After the borings were complete, GSI filled all the holes and smoothed the tops with concrete. Leftover cuttings were placed in the steel drum left on site from GSI previously.

- Brought the samples to office, selected 10 lab samples to send out and made one composite sample of several locations as well (CG-13), sent the samples out at the end of the day and refrigerated the extras. The next day, took PID readings of the extras again after letting them warm up. Details of all samples' PID readings can be seen below.

Sample	Depth	Field PID	Cab PID	Office PID	Lab Samples	CG-13
G-1	2'	75	359	398	G-1 @ 2'	
G-2	3-4'	17	227	412	G-2 @ 2.5-5'	G-2
G-3	1-2'	10	118	153		
G-4	0-2'	2	5.8	42		
G-5	0-1.5'	38	397	788	G-5 @ 0-1.5'	G-5
G-6	5'	600	5000+	5000+	G-6 @ 5'	
G-7	5'	3	167	175	G-7 @ 5'	G-7
G-8	5'	1-3	368	1009	G-8 @ 2.5-5'	
G-9	0-5'	60	1429	5000+	G-9 @ 0-2'	
G-10	5'	610	5000+	5000+	G-10 @ 5'	G-10
G-11	0-5'	10	540	289	G-11 @ 2.5-5'	G-11
G-12	0-5'	10	29	209	G-12 @ 2.5-5'	

Report By: JWM

Reviewed By:

Date:

Site Copy Received By: _____

Company: _____

Attachments: x Sketch

x Photo

Data Sheet

Other:

Talbot Avenue, LLC VCP
18006 - 11/6/2019



Soil samples from these
— locations were used to create a
composite sample on 5/3/19

600 Gal
PERC AST
(Permanently
removed from
operation in January
2019)

---Warehouse---

B-12

G-12

G-8

G-7

G-4

G-1

G-5

G-3

G-2

G-9

G-11

G-10

G-6

B-2

G

D

Approx. sanitary line

Amato Office

Amato Warehouse

Talbot Avenue, LLC VCP
18006 - 11/6/2019

On 3/6/2019, CCRG and GSI took soil samples from the region of soil contamination near vapor well B-2. A Geoprobe rig was used to take sleeves of samples at 12 different locations around B-2. These locations were determined by moving 10 feet in all directions from B-2 then moving further in 10 foot increments. Above ground obstructions and sanitary line obstructions had to be taken into account. Two sets of samples were taken from each sleeve. Two 2oz jar samples were taken to be sent out for lab testing and one 16oz jar composite sample was taken. The composite sample was randomly composed of samples from G-2, G-5, G-7, G-10, and G-11.

**Semi Volatile Organic
Compounds (GC/MS)
Detected in Composite
Sample CG-13**

Analyte	Concentration (mg/kg)
Acenaphthene	1.39
Anthracene	3.36
Benzo(a)anthracene	6.63
Benzo(b)fluoranthene	7.46
Benzo(k)fluoranthene	2.41
Benzo(g,h,i)perylene	3.24
Benzo(a)pyrene	*5.44
Chrysene	6.22
Dibenz(a,h)anthracene	0.837
Fluoranthene	16.0
Fluorene	1.64
Indeno(1,2,3-cd)pyrene	3.83
Naphthalene	0.401
Phenanthrene	13
Pyrene	12.9

*=Above EPA screening levels on Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019

**Volatile Organic Compounds
Detected in Composite
Sample CG-13 (GC/MS)**

Analyte	Concentration (mg/kg)
Benzene	0.00213
cis-1,2-Dichloroethene	0.0421
Tetrachloroethene	0.444
Trichloroethene	0.0357
1,2,4-Trimethylbenzene	0.00951
1,2,3-Trimethylbenzene	0.0111
1,3,5-Trimethylbenzene	0.0053

**Metals Detected in
Composite sample CG-13**

Analyte	Concentration (mg/kg)
Barium	52.7
Chromium	*99.1
Lead	27.0
Mercury	0.126

*=Further testing must be done to determine the type of chromium

**Polychlorinated Biphenyls
(GC) Detected in Composite
Sample CG-13**

Analyte	Concentration (mg/kg)
PCB 1254	0.0420

Talbot Avenue, LLC VCP
18006 - 11/6/2019

Wet Chemistry Detected in
Composite Sample CG-13

Analyte	Concentration (mg/kg)
Oil & Grease (Hexane Extr)	700



ANALYTICAL REPORT

March 14, 2019

Clendenin Consulting Group - VA

Sample Delivery Group: L1076531
Samples Received: 03/07/2019
Project Number: 18006
Description: Amato Property

Report To: Samantha Kirk
116 C2 Edwards Ferry Road
Leesburg, VA 20176

Entire Report Reviewed By:

Pam Langford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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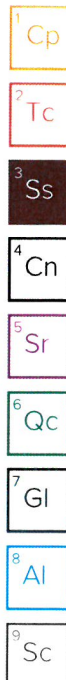


SAMPLE SUMMARY

ONE LAB. NATIONWIDE



G-1 L1076531-01 Solid				Collected by WM	Collected date/time 03/06/19 09:45	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	8	03/08/19 09:55	03/10/19 18:34	DWR	Mt. Juliet, TN
G-2 L1076531-02 Solid				Collected by WM	Collected date/time 03/06/19 09:55	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1248332	1	03/08/19 09:55	03/11/19 17:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1249515	40	03/08/19 09:55	03/14/19 11:34	BMB	Mt. Juliet, TN
G-5 L1076531-03 Solid				Collected by WM	Collected date/time 03/06/19 10:15	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	8	03/08/19 09:55	03/10/19 19:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1249192	800	03/08/19 09:55	03/13/19 17:07	JAH	Mt. Juliet, TN
G-6 L1076531-04 Solid				Collected by WM	Collected date/time 03/06/19 10:40	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	200	03/08/19 09:55	03/10/19 19:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1248083	20000	03/08/19 09:55	03/11/19 18:29	DWR	Mt. Juliet, TN
G-7 L1076531-05 Solid				Collected by WM	Collected date/time 03/06/19 11:00	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	1	03/08/19 09:55	03/10/19 15:07	DWR	Mt. Juliet, TN
G-8 L1076531-06 Solid				Collected by WM	Collected date/time 03/06/19 11:15	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	1	03/08/19 09:55	03/10/19 15:26	DWR	Mt. Juliet, TN
G-9 L1076531-07 Solid				Collected by WM	Collected date/time 03/06/19 11:25	Received date/time 03/07/19 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248258	1	03/11/19 16:11	03/11/19 16:23	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	40	03/08/19 09:55	03/10/19 19:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1248083	800	03/08/19 09:55	03/11/19 18:47	DWR	Mt. Juliet, TN



SAMPLE SUMMARY

ONE LAB. NATIONWIDE



G-10 L1076531-08 Solid

Collected by WM
Collected date/time 03/06/19 11:45
Received date/time 03/07/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248261	1	03/11/19 15:58	03/11/19 16:07	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	80	03/08/19 09:55	03/10/19 20:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1248083	800	03/08/19 09:55	03/11/19 19:06	DWR	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

G-11 L1076531-09 Solid

Collected by WM
Collected date/time 03/06/19 11:55
Received date/time 03/07/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248261	1	03/11/19 15:58	03/11/19 16:07	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1248332	1	03/08/19 09:55	03/11/19 17:40	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1249515	40	03/08/19 09:55	03/14/19 11:53	BMB	Mt. Juliet, TN

4 Cn

5 Sr

6 Qc

7 Gl

G-12 L1076531-10 Solid

Collected by WM
Collected date/time 03/06/19 12:10
Received date/time 03/07/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248261	1	03/11/19 15:58	03/11/19 16:07	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	1	03/08/19 09:55	03/10/19 15:45	DWR	Mt. Juliet, TN

8 Al

9 Sc

CG-13 L1076531-11 Solid

Collected by WM
Collected date/time 03/06/19 13:00
Received date/time 03/07/19 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1248261	1	03/11/19 15:58	03/11/19 16:07	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9071B	WG1247876	1	03/10/19 11:50	03/10/19 13:33	DAD	Mt. Juliet, TN
Mercury by Method 7471A	WG1248027	1	03/10/19 20:41	03/11/19 13:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1247085	1	03/09/19 13:52	03/12/19 17:49	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1248003	25	03/08/19 09:55	03/10/19 20:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1247709	1	03/08/19 09:55	03/10/19 16:04	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1247915	100	03/10/19 08:17	03/10/19 15:13	KME	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1247960	1	03/11/19 12:41	03/11/19 19:59	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1247941	10	03/11/19 13:12	03/12/19 02:48	JNJ	Mt. Juliet, TN



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Pam Langford
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.2		1	03/11/2019 16:07	WG1248261

1 Cp

2 Tc

Wet Chemistry by Method 9071B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Oil & Grease (Hexane Extr)	700		100	1	03/10/2019 13:33	WG1247876

3 Ss

4 Cn

Mercury by Method 7471A

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	0.126		0.0200	1	03/11/2019 13:55	WG1248027

5 Sr

6 Qc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	03/12/2019 17:49	WG1247085
Barium	52.7		0.500	1	03/12/2019 17:49	WG1247085
Cadmium	ND		0.500	1	03/12/2019 17:49	WG1247085
Chromium	99.1		1.00	1	03/12/2019 17:49	WG1247085
Lead	27.0		0.500	1	03/12/2019 17:49	WG1247085
Selenium	ND		2.00	1	03/12/2019 17:49	WG1247085
Silver	ND		1.00	1	03/12/2019 17:49	WG1247085

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	ND		2.50	25	03/10/2019 20:40	WG1248003
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	96.4		77.0-120		03/10/2019 20:40	WG1248003

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		0.0250	1	03/10/2019 16:04	WG1247709
Acrylonitrile	ND		0.0125	1	03/10/2019 16:04	WG1247709
Benzene	0.00213		0.00100	1	03/10/2019 16:04	WG1247709
Bromobenzene	ND	J4	0.0125	1	03/10/2019 16:04	WG1247709
Bromodichloromethane	ND	J4	0.00250	1	03/10/2019 16:04	WG1247709
Bromoform	ND		0.0250	1	03/10/2019 16:04	WG1247709
Bromomethane	ND		0.0125	1	03/10/2019 16:04	WG1247709
n-Butylbenzene	ND		0.0125	1	03/10/2019 16:04	WG1247709
sec-Butylbenzene	ND		0.0125	1	03/10/2019 16:04	WG1247709
tert-Butylbenzene	ND		0.00500	1	03/10/2019 16:04	WG1247709
Carbon tetrachloride	ND		0.00500	1	03/10/2019 16:04	WG1247709
Chlorobenzene	ND		0.00250	1	03/10/2019 16:04	WG1247709
Chlorodibromomethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
Chloroethane	ND		0.00500	1	03/10/2019 16:04	WG1247709
Chloroform	ND		0.00250	1	03/10/2019 16:04	WG1247709
Chloromethane	ND		0.0125	1	03/10/2019 16:04	WG1247709
2-Chlorotoluene	ND	J4	0.00250	1	03/10/2019 16:04	WG1247709
4-Chlorotoluene	ND		0.00500	1	03/10/2019 16:04	WG1247709
1,2-Dibromo-3-Chloropropane	ND	J4	0.0250	1	03/10/2019 16:04	WG1247709
1,2-Dibromoethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
Dibromomethane	ND		0.00500	1	03/10/2019 16:04	WG1247709



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
1,2-Dichlorobenzene	ND		0.00500	1	03/10/2019 16:04	WG1247709
1,3-Dichlorobenzene	ND		0.00500	1	03/10/2019 16:04	WG1247709
1,4-Dichlorobenzene	ND		0.00500	1	03/10/2019 16:04	WG1247709
Dichlorodifluoromethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,1-Dichloroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,2-Dichloroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,1-Dichloroethene	ND		0.00250	1	03/10/2019 16:04	WG1247709
cis-1,2-Dichloroethene	0.0421		0.00250	1	03/10/2019 16:04	WG1247709
trans-1,2-Dichloroethene	ND		0.00500	1	03/10/2019 16:04	WG1247709
1,2-Dichloropropane	ND		0.00500	1	03/10/2019 16:04	WG1247709
1,1-Dichloropropene	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,3-Dichloropropane	ND		0.00500	1	03/10/2019 16:04	WG1247709
cis-1,3-Dichloropropene	ND		0.00250	1	03/10/2019 16:04	WG1247709
trans-1,3-Dichloropropene	ND		0.00500	1	03/10/2019 16:04	WG1247709
2,2-Dichloropropane	ND		0.00250	1	03/10/2019 16:04	WG1247709
Di-isopropyl ether	ND		0.00100	1	03/10/2019 16:04	WG1247709
Ethylbenzene	ND		0.00250	1	03/10/2019 16:04	WG1247709
Hexachloro-1,3-butadiene	ND		0.0250	1	03/10/2019 16:04	WG1247709
Isopropylbenzene	ND		0.00250	1	03/10/2019 16:04	WG1247709
p-Isopropyltoluene	ND		0.00500	1	03/10/2019 16:04	WG1247709
2-Butanone (MEK)	ND		0.0250	1	03/10/2019 16:04	WG1247709
Methylene Chloride	ND		0.0250	1	03/10/2019 16:04	WG1247709
4-Methyl-2-pentanone (MIBK)	ND		0.0250	1	03/10/2019 16:04	WG1247709
Methyl tert-butyl ether	ND		0.00100	1	03/10/2019 16:04	WG1247709
Naphthalene	ND	J3	0.0125	1	03/10/2019 16:04	WG1247709
n-Propylbenzene	ND		0.00500	1	03/10/2019 16:04	WG1247709
Styrene	ND		0.0125	1	03/10/2019 16:04	WG1247709
1,1,1,2-Tetrachloroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,1,2,2-Tetrachloroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,1,2-Trichlorotrifluoroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
Tetrachloroethene	0.444		0.00250	1	03/10/2019 16:04	WG1247709
Toluene	ND		0.00500	1	03/10/2019 16:04	WG1247709
1,2,3-Trichlorobenzene	ND	J3	0.00250	1	03/10/2019 16:04	WG1247709
1,2,4-Trichlorobenzene	ND	J3	0.0125	1	03/10/2019 16:04	WG1247709
1,1,1-Trichloroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,1,2-Trichloroethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
Trichloroethene	0.0357		0.00100	1	03/10/2019 16:04	WG1247709
Trichlorofluoromethane	ND		0.00250	1	03/10/2019 16:04	WG1247709
1,2,3-Trichloropropane	ND		0.0125	1	03/10/2019 16:04	WG1247709
1,2,4-Trimethylbenzene	0.00951		0.00500	1	03/10/2019 16:04	WG1247709
1,2,3-Trimethylbenzene	0.0111		0.00500	1	03/10/2019 16:04	WG1247709
1,3,5-Trimethylbenzene	0.00530		0.00500	1	03/10/2019 16:04	WG1247709
Vinyl chloride	ND		0.00250	1	03/10/2019 16:04	WG1247709
Xylenes, Total	ND		0.00650	1	03/10/2019 16:04	WG1247709
(S) Toluene-d8	94.0		75.0-131		03/10/2019 16:04	WG1247709
(S) 4-Bromofluorobenzene	98.7		67.0-138		03/10/2019 16:04	WG1247709
(S) 1,2-Dichloroethane-d4	120		70.0-130		03/10/2019 16:04	WG1247709

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/FID) High Fraction	ND		400	100	03/10/2019 15:13	WG1247915
(S) o-Terphenyl	72.4	J7	18.0-148		03/10/2019 15:13	WG1247915

Sample Narrative:

L1076531-11 WG1247915: Cannot run at lower dilution due to viscosity of extract



Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
PCB 1016	ND		0.0170	1	03/11/2019 19:59	WG1247960
PCB 1221	ND		0.0170	1	03/11/2019 19:59	WG1247960
PCB 1232	ND		0.0170	1	03/11/2019 19:59	WG1247960
PCB 1242	ND		0.0170	1	03/11/2019 19:59	WG1247960
PCB 1248	ND		0.0170	1	03/11/2019 19:59	WG1247960
PCB 1254	0.0420	P	0.0170	1	03/11/2019 19:59	WG1247960
PCB 1260	ND		0.0170	1	03/11/2019 19:59	WG1247960
(S) Decachlorobiphenyl	73.1		10.0-135		03/11/2019 19:59	WG1247960
(S) Tetrachloro-m-xylene	69.8		10.0-139		03/11/2019 19:59	WG1247960

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acenaphthene	1.39		0.333	10	03/12/2019 02:48	WG1247941
Acenaphthylene	ND		0.333	10	03/12/2019 02:48	WG1247941
Anthracene	3.36		0.333	10	03/12/2019 02:48	WG1247941
Benidine	ND		3.33	10	03/12/2019 02:48	WG1247941
Benzo(a)anthracene	6.63		0.333	10	03/12/2019 02:48	WG1247941
Benzo(b)fluoranthene	7.46		0.333	10	03/12/2019 02:48	WG1247941
Benzo(k)fluoranthene	2.41		0.333	10	03/12/2019 02:48	WG1247941
Benzo(g,h,i)perylene	3.24		0.333	10	03/12/2019 02:48	WG1247941
Benzo(a)pyrene	5.44		0.333	10	03/12/2019 02:48	WG1247941
Bis(2-chloroethoxy)methane	ND		3.33	10	03/12/2019 02:48	WG1247941
Bis(2-chloroethyl)ether	ND		3.33	10	03/12/2019 02:48	WG1247941
Bis(2-chloroisopropyl)ether	ND		3.33	10	03/12/2019 02:48	WG1247941
4-Bromophenyl-phenylether	ND		3.33	10	03/12/2019 02:48	WG1247941
2-Chloronaphthalene	ND		0.333	10	03/12/2019 02:48	WG1247941
4-Chlorophenyl-phenylether	ND		3.33	10	03/12/2019 02:48	WG1247941
Chrysene	6.22		0.333	10	03/12/2019 02:48	WG1247941
Dibenz(a,h)anthracene	0.837		0.333	10	03/12/2019 02:48	WG1247941
3,3-Dichlorobenzidine	ND		3.33	10	03/12/2019 02:48	WG1247941
2,4-Dinitrotoluene	ND		3.33	10	03/12/2019 02:48	WG1247941
2,6-Dinitrotoluene	ND		3.33	10	03/12/2019 02:48	WG1247941
Fluoranthene	16.0		0.333	10	03/12/2019 02:48	WG1247941
Fluorene	1.64		0.333	10	03/12/2019 02:48	WG1247941
Hexachlorobenzene	ND		3.33	10	03/12/2019 02:48	WG1247941
Hexachloro-1,3-butadiene	ND		3.33	10	03/12/2019 02:48	WG1247941
Hexachlorocyclopentadiene	ND		3.33	10	03/12/2019 02:48	WG1247941
Hexachloroethane	ND		3.33	10	03/12/2019 02:48	WG1247941
Indeno(1,2,3-cd)pyrene	3.83		0.333	10	03/12/2019 02:48	WG1247941
Isophorone	ND		3.33	10	03/12/2019 02:48	WG1247941
Naphthalene	0.401		0.333	10	03/12/2019 02:48	WG1247941
Nitrobenzene	ND		3.33	10	03/12/2019 02:48	WG1247941
n-Nitrosodimethylamine	ND		3.33	10	03/12/2019 02:48	WG1247941
n-Nitrosodiphenylamine	ND		3.33	10	03/12/2019 02:48	WG1247941
n-Nitrosodi-n-propylamine	ND		3.33	10	03/12/2019 02:48	WG1247941
Phenanthrene	13.0		0.333	10	03/12/2019 02:48	WG1247941
Benzylbutyl phthalate	ND		3.33	10	03/12/2019 02:48	WG1247941
Bis(2-ethylhexyl)phthalate	ND		3.33	10	03/12/2019 02:48	WG1247941
Di-n-butyl phthalate	ND		3.33	10	03/12/2019 02:48	WG1247941
Diethyl phthalate	ND		3.33	10	03/12/2019 02:48	WG1247941
Dimethyl phthalate	ND		3.33	10	03/12/2019 02:48	WG1247941
Di-n-octyl phthalate	ND		3.33	10	03/12/2019 02:48	WG1247941
Pyrene	12.9		0.333	10	03/12/2019 02:48	WG1247941
1,2,4-Trichlorobenzene	ND		3.33	10	03/12/2019 02:48	WG1247941
4-Chloro-3-methylphenol	ND		3.33	10	03/12/2019 02:48	WG1247941

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
2-Chlorophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
2,4-Dichlorophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
2,4-Dimethylphenol	ND		3.33	10	03/12/2019 02:48	WG1247941
4,6-Dinitro-2-methylphenol	ND		3.33	10	03/12/2019 02:48	WG1247941
2,4-Dinitrophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
2-Nitrophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
4-Nitrophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
Pentachlorophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
Phenol	ND		3.33	10	03/12/2019 02:48	WG1247941
2,4,6-Trichlorophenol	ND		3.33	10	03/12/2019 02:48	WG1247941
(S) 2-Fluorophenol	82.8		12.0-120		03/12/2019 02:48	WG1247941
(S) Phenol-d5	71.1		10.0-120		03/12/2019 02:48	WG1247941
(S) Nitrobenzene-d5	84.5		10.0-122		03/12/2019 02:48	WG1247941
(S) 2-Fluorobiphenyl	65.7		15.0-120		03/12/2019 02:48	WG1247941
(S) 2,4,6-Tribromophenol	84.8		10.0-127		03/12/2019 02:48	WG1247941
(S) p-Terphenyl-d14	70.8		10.0-120		03/12/2019 02:48	WG1247941

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
P	RPD between the primary and confirmatory analysis exceeded 40%.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Clendenin Consulting Group - VA

116 C2 Edwards Ferry Road
Leesburg, VA 20176

Report to:
Samantha Kirk

Project
Description: Amato Property

Phone: 703-771-8816
Fax: 703-771-8825

Collected by (print):

Collected by (signature):

Immediately

Packed on Ice N Y

Billing Information:

Accounts Payable
P.O. Drawer
Leesburg, VA 20178-7406

Email To: Sam@clendeninconsulting.com

City/State
Collected:

Lab Project #
CLECONLVA-18006

P.O. #

Quote #

Rush? (Lab MUST Be Notified)

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Date Results Needed

Pres
Chk

Analysis / Container / Preservative

DRO, 8082, QGHEX, 8270 4ozClr-NoPres
RCRA METALS 2ozClr-NoPres
TS 4ozClr-NoPres
V8260 40mlAmb/MeOH5ml/Syr

Chain of Custody Page ____ of ____



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



L# L1076531
B093

Accnum: CLECONLVA
Template: T146991
Prelogin: P696523
TSR: 633 - Pam Langford
PB: T6 3-4-A

Shipped Via: FedEX Ground

Remarks Sample # (lab only)

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative
G-1	G	SS	2'	3/6/19	9:45	1	X X
G-2	G	SS	2.5-5'	3/6/19	9:55	1	X X
G-5	G	SS	0-1.5'	3/6/19	10:15	1	X X
G-6	G	SS	5'	3/6/19	10:40	1	X X
G-7	G	SS	5'	3/6/19	11:00	1	X X
G-8	G	SS	2.5-5'	3/6/19	11:15	1	X X
G-9	G	SS	0-2'	3/6/19	11:25	1	X X
G-10	G	SS	5'	3/6/19	11:45	1	X X
G-11	G	SS	2.5-5'	3/6/19	11:55	1	X X
G-12	G	SS	2.5-5'	3/6/19	12:10	1	X X

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Wastewater
DW - Drinking Water
OT - Other

Remarks:

pH Temp

Flow Other

Samples returned via:

UPS FedEx Courier

Tracking # 4876 1077 0500

Trip Blank Received: Yes (No)
HCL / MeOH
TBR

Sample Receipt Checklist
COC Seal Present/Intact: NP
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
if Applicable
VOA Zero Headspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N

RAD SCREEN: <0.5 mrad/hr

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp: °C

Bottles Received: 13

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date: 3/7/19

Time: 9:00

Hold: Condition: OK

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Date: 3/7/19

Time: 9:00

Hold: Condition: OK

[illegible]

Troy Dunlap



Login #: L1076531	Client: CLECONLVA	Date: 3/7/19	Evaluated by: Troy Dunlap
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Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	
Temperature not in range	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
pH not in range.	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

**Login Comments: Received G-1 at 0955 which is time for G-2. Logged per COC.
Received G-2 at 0945 which is time for G-1. Logged per COC.**

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:	Client Contact:				

Login Instructions:

Please proceed per chain of custody per Samantha Kirk.