M E M O R A N D U M

TO: LeBlanc Cleaners Site File

cc: Marcus Holmes, On-Scene Coordinator (OSC), U.S. Environmental Protection Agency (EPA) Region I, Emergency Planning and Response Branch (EPRB)

FROM: George Mavris, Project Leader, Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team IV (START)

DATE: 11 July 2017

RE: Underground Storage Tank Sampling Activities at the LeBlanc Cleaners Site, Lewiston, Androscoggin County, Maine; Technical Direction Document (TDD) Number (No.) TO1-01-16-02-0003; Task No. 0091. Document Control (DC) No. A-00325.

INTRODUCTION AND PURPOSE

On 3 March 2017, the Maine Department of Environmental Protection (MEDEP) collected an air sample from inside of a fill pipe of an underground storage tank (UST) located in the courtyard of the LeBlanc Cleaners Building, located in Lewiston, Androscoggin County, Maine (ME). The sample was analyzed for volatile organic compounds (VOCs) and petroleum hydrocarbons in air. Three VOCs were detected in this sample, including tetrachloroethylene (PCE) [7,870 micrograms per cubic meter (µg/m^3)], cis-1,2-Dichloroethylene (cis-1,2-DCE) (5,000 µg/m^3), and vinyl chloride (1,280 µg/m^3). Petroleum hydrocarbons detected included C_5 – C_8 aliphatics (560,000 µg/m^3) and C_9 – C_{12} aliphatics (1,900,000 µg/m^3).

Due to the concerns that liquid hazardous substances may be present in the UST where the fill pipe was connected, U.S. Environmental Protection Agency, On-Scene Coordinator Marcus Holmes requested assistance from Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team IV (START), in collecting additional air samples from the fill pipe and liquid samples from the UST.

SITE HISTORY AND BACKGROUND

The LeBlanc Cleaners site is located at 10 Lafayette Street, Lewiston, Androscoggin County, ME (see Attachment A, Figure 1). The geographic coordinates, as measured from the entrance to the property, are 44° 6' 6.21" north latitude and 70° 11' 49.07" west longitude. The site is comprised of a 5,292-square-foot (ft^2) rectangular building, a 972-ft^2 storage shed, and parking areas situated on a 0.24-acre parcel. The site is bordered to the north and west by St. Mary's Hospital and St.

Mary's Medical Center, to the northeast by a residential property, and to the southeast by Lafayette Street. The site is currently developed with a brick building constructed on a concrete slab-on-grade foundation with a flat, steel roof. The boiler room section of the main site building was constructed in the early 1900s. The main site building includes the boiler room, a former dry-cleaning operations room, a bathroom, an office, and a reception area. A rectangular-shaped storage shed is located on the western portion of the site, constructed with wood floors and metal walls.

Around 1914, the site was developed with a wagon repair shop, steam dye facility, and dry cleaning operation. The main building with the former dry cleaning operations was constructed on the site circa 1955. At that time, the site operated one dry cleaning unit which utilized PCE as the primary dry cleaning solvent. According to the property owner, the original dry cleaning machine was vented to the exterior on the western side of the site building. The original dry cleaning unit and associated vent pipe remain on the site but have not operated since the early 1970s. A dry cleaning unit that was in use since the 1970s until 2014 utilized PCE throughout its operations. Dry cleaning operations ceased in November 2014, and used filters, pre-filter lint, and spent solvents from the dry cleaning machine have yet to be disposed of.

The boiler room on the western section of the site contains two 275-gallon oil aboveground storage tanks (AST), a boiler unit, and an air compressor unit. The AST contained heating oil for the space furnace to heat the building and heating oil for the boiler units, which provided steam formerly used by the dry cleaning and drying units. The dry-cleaning section of the site building has concrete floors except for in the reception area, where 12-inch vinyl floor tiles were placed over the concrete floor. The office space in this section of the building is carpeted. It is possible that the floor tiles and/or carpet may be covering certain features of the original floors, such as stained areas. The dry cleaning room has a ceiling-mounted, oil-fired space heater as well as an air compressor located on the southeastern wall. Previous reports mention that there are a number of USTs in the courtyard section of the site east of the ASTs.

Several investigations have been conducted at the site between April 2016 and March 2017. These investigations are summarized in the report entitled, *Removal Program Preliminary Assessment/Site Investigation Report for the LeBlanc Cleaners Site, Lewiston, Androscoggin County, Maine, 27 - 29 April 2016 and 13 - 14 December 2016,* dated February 2017.

SAMPLING ACTIVITIES

On 18 May 2017, START personnel George Mavris and John Burton, and EPA On-Scene Coordinator (OSC) Marcus Holmes mobilized to LeBlanc Cleaners Site to collect air samples from an UST fill pipe and liquid samples from the UST.

START personnel established a support zone and calibrated an air monitoring instrument (MultiRAE Plus unit) with the following sensors: carbon monoxide (CO); hydrogen sulfide (H_2S); VOC; oxygen (O_2); and Lower Explosive Limit (LEL). Background readings on the MultiRAE Plus were as follows: O_2 (20.9%); CO [0 parts per million (ppm)]; H_2S (0 ppm); LEL (0%); and photoionization detector (PID) (0 ppm VOC).

START member G. Mavris conducted a tailgate safety and operations meeting, and START and EPA personnel signed the Health and Safety Plan (HASP). Site activities were conducted in accordance with the site HASP, which was prepared as a separate document, entitled *Weston Solutions, Inc., Region I START Site Health and Safety Plan (HASP), LeBlanc Cleaners Site, 10 Lafayette Street, Lewiston, Maine,* dated May 2017.

Sampling activities were performed in accordance with the site Sampling and Analysis Plan (SAP), which was prepared as a separate document, entitled *Sampling and Analysis Plan for the LeBlanc Cleaners Site, Lewiston, Androscoggin County, Maine (Revision No. 1),* dated May 2017.

START personnel screened the vent pipe to an UST for VOCs using the MultiRAE Plus unit. A reading of 0.6 ppm was recorded for VOCs. The MultiRAE Plus unit was used to screen an exhaust vent in the concrete wall, located left of the fill pipe, where a reading of 0.7 ppm was recorded (see Attachment A, Figure 2 and Attachment B, Photo-Documentation Log). START personnel located the fill port for the UST, cleared debris from around the opening, and attempted to open the fill port. The fill port was approximately 4 inches in diameter and consisted of an inner metal cap with a rectangular groove (see Attachment B, Photo-Documentation Log). An opening existed within the rectangular groove and a reading of 100 ppm was recorded on the MultiRAE Plus unit. A strong solvent-like odor was noted. START made several attempts, using many tools, to unscrew the inner metal cap to access the UST but was unsuccessful.

START attempted to snake a piece of high density polyethylene (HDPE) tubing down the vent pipe to see if the UST could be reached to collect a liquid sample, but was unable to do so. The tubing would not advance beyond the elbow joint of the vent pipe. An attempt was also made to snake HDPE tubing down the opening of the rectangular groove of the fill port, but the tubing could only be advanced approximately 3 inches.

MEDEP personnel Ted Wolfertz and Becky Blais arrived on site and a discussion regarding site activities was held. T. Wolfertz provided information regarding the sampling activities performed by MEDEP on 3 March 2017. T. Wolfertz contacted the Town of Lewiston Public Works Department (PWD) to see if they could provide assistance in opening the fill port to the UST. PWD personnel arrived on site and attempted to open the fill port but were unsuccessful. PWD personnel departed the site and proceeded to their shop to fabricate a tool that would fit into the rectangular groove of the fill port and be used to unscrew the cap.

START personnel removed the elbow to the vent pipe and snaked HDPE tubing down the vent pipe in an attempt to get into the UST. The tubing could only be advanced approximately 6 inches below the ground surface. START collected a grab air sample (SUM_Vent Pipe) from the vent pipe using a 6-liter Summa canister. The brass plug cap on top of the Summa canister was removed, and a piece of HDPE tubing was attached to the Summa using a nylon nut and ferrule set. The other end of the HDPE tubing was inserted approximately 2 feet into the vent pipe, and the valve on the Summa canister was opened slowly allowing collection of an air sample over a 2-minute interval. The elbow fitting was then placed back onto the fill pipe.

START personnel also collected a grab air sample (SUM_Fill Pipe) from the opening in rectangular groove of the fill port using a 6-liter Summa canister, employing the same technique used to collect the air sample from the vent pipe. The HDPE tubing was inserted approximately 2 inches into the opening of the rectangular groove and an air sample was collected over a 1 minute, 45 second interval.

PWD personnel returned to the site with a tool made to fit into the rectangular groove of the fill port cap and the inner cap was unscrewed. Once the outer cap was removed, a second cap was removed from the fill pipe allowing access to the UST. START inserted HDPE tubing down into the UST. The tubing coiled inside of the UST and when removed was wet with a clear, aqueous material. START personnel then inserted a bailer into the fill pipe and filled two clear 8-oz jars with liquid collected from the UST. A solvent-like odor was present during collection of the aqueous samples. The bottom of the UST was approximately 10 feet below the ground surface and contain approximately 2 feet of liquid.

The two jars containing the aqueous samples were allowed to sit for approximately 20 minutes to see if liquid would separate into phases. The liquid did not separate into phases. A slight sheen was noted in both jars. Headspace readings of 187 ppm and 90 ppm were recorded for Jars No. 1 and 2, respectively. Two 40-mL volatile organic analysis (VOA) vials were then filled from Jar No. 1 using a pipette.

Relevant information and observations pertaining to the sample locations were recorded, and the site features were photo-documented (see Attachment B, Photo-documentation Log).

Field activities were completed for the day, and all personnel departed the site.

Chain-of-custody activities (Scribe) were completed following the collection of air and aqueous samples. The aqueous VOA vials were placed in a shipping container (cooler), ice and packing materials sufficient to keep samples cool and protected from damage during shipping were added, and the samples were prepared for transport to the U.S. EPA Office of Environmental Measurement and Evaluation (OEME) Laboratory, North Chelmsford, MA (see Attachment D, Chain-of Custody).

On 19 May 2017, the samples were delivered to OEME for air toxics by gas chromatography/mass spectrometry (GC/MS) and VOAs in water analyses.

Analytical Data Summary

On 9 June 2017, START received the analytical results from OEME. The air samples were analyzed for air toxics by GC/MS using EPA Region I SOP, EIASOP-AIRCAN12. These data are summarized in Attachment C, Table 1 and the complete analytical data can be found be in Attachment E, Analytical Data. Analytical results received from OEME indicate that seven VOCs were detected in the air samples at concentrations above the laboratory reporting limits (RLs). The following VOCs, with maximum concentration and sample number in parentheses, were detected in the air samples: vinyl chloride (4,300 µg/m^3 in SUM_VENT PIPE), cis-1,2-DCE (5,500 µg/m^3

in SUM_VENT PIPE), trichloroethylene (TCE) (400 µg/m^3 in SUM_VENT PIPE), PCE (9,500 µg/m^3 in SUM_FILL PIPE), m/p xylenes (1,000 µg/m^3 in SUM_FILL PIPE), 4-ethyltoluene (13,000 µg/m^3 in SUM_VENT PIPE), and 1,2,4-trimethylbenzene (3,600 µg/m^3 in SUM_VENT PIPE).

The aqueous sample collected from the UST was analyzed for VOAs in water using EPA Region I SOP, EIASOP-VOAGCMS9. These data are summarized in Attachment C, Table 2 and the complete analytical data can be found be in Attachment E, Analytical Data. Analytical results received from OEME indicate that nine VOCs were detected in the aqueous sample at concentrations above the laboratory RLs. The following VOCs, with maximum concentrations in parentheses, were detected in sample UST-1: cis-1,2-DCE [120 micrograms per liter (µg/L)], PCE (24 µg/L), 2-propanone (acetone) (77 µg/L), 2-butanone (methyl ethyl ketone) (19 µg/L), n-propylbenzene (10 µg/L), 1,3,5-trimethylbenzene (220 µg/L), 1,2,4-trimethylbenzene (300 µg/L), n-butylbenzene (12 µg/L), and naphthalene (45 µg/L).

A total of 13 VOCs were detected in the air and aqueous samples collected at the LeBlanc Cleaners Site. Of these 13 VOCs, only three (cis-1,2-DCE, PCE, and 1,2,4-trimethylbenzene) were detected in both the air and aqueous samples.

This page intentionally left blank

.

Attachments

This page intentionally left blank

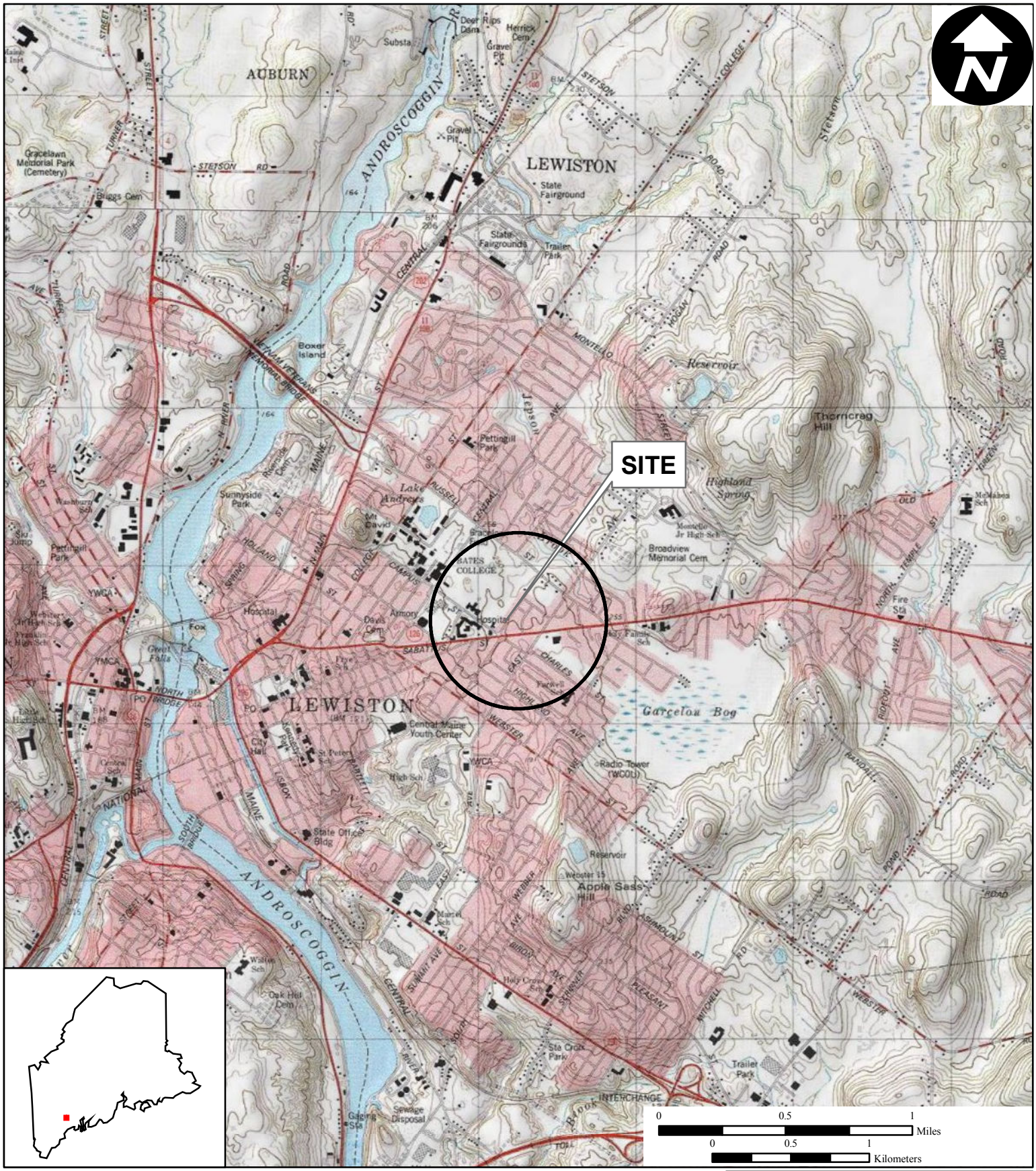

Figure 1

Site Location Map

LeBlanc Cleaners
10 Lafayette Street
Lewiston, Maine

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number:	TO1-01-16-02-0003
Created by:	A. Danikas
Created on:	22 February 2016
Modified by:	A. Danikas
Modified on:	22 February 2016

Data Sources:
Topos: MicroPath/USGS/USA Topo Maps
Quadrangle Name(s):
All other data: START

WESTON SOLUTIONS

E:\ME_gis\LeBlanc Cleaners\MXDs\Figure 1.mxd

Figure 2

Site Diagram and Sample Location Map

LeBlanc Cleaners
10 Lafayette Street
Lewiston, Maine

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number:	TO1-01-16-02-0003
Created by:	A. Danikas
Created on:	22 February 2016
Modified by:	B. Mahany
Modified on:	20 June 2017

LEGEND

- Underground Storage Tank Vent Pipe
- Underground Storage Tank Fill Port

N

Data Sources:

Imagery: ESRI, i-cubed, USDA FSA, USGS AEX, GeoEye, Getmapping, Aerogrid, IGP
Topos: MicroPath
All other data: START

WESTON SOLUTIONS

E:\ME_gis\LeBlanc Cleaners\MXDs\Figure 2.mxd

Attachment B

Photo-Documentation Log

This page intentionally left blank

PHOTOGRAPHY LOG SHEET
LeBlanc Cleaners ● Lewiston, Maine

SCENE: View of vent pipe to underground storage tank (UST) (right) and exhaust vent in wall (left) of LeBlanc Cleaners Building. Photograph taken facing northwest.
DATE: 18 May 2017 **TIME:** 0933 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

SCENE: View of two fill ports for USTs at LeBlanc Cleaners Building. Photograph taken facing northwest.

DATE: 18 May 2017 **TIME:** 0934 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

PHOTOGRAPHY LOG SHEET
LeBlanc Cleaners ● Lewiston, Maine

SCENE: View of exhaust vent in wall of LeBlanc Cleaners Building. Photograph taken facing northwest.

DATE: 18 May 2017 **TIME:** 0934 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

SCENE: View of disconnected hose to exhaust vent in wall inside of LeBlanc Cleaners Building. Photograph taken facing southeast.
DATE: 18 May 2017 **TIME:** 1036 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

PHOTOGRAPHY LOG SHEET
LeBlanc Cleaners ● Lewiston, Maine

SCENE: View of open fill port for UST. Liquid sample collected using dedicated bailer. Photograph taken facing northwest.
DATE: 18 May 2017 **TIME:** 1240 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

SCENE: View of liquid collected from UST. Liquid allowed to sit to determine if it would separate into Phases. Photograph taken facing northwest.
DATE: 18 May 2017 **TIME:** 1240 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

PHOTOGRAPHY LOG SHEET
LeBlanc Cleaners ● Lewiston, Maine

SCENE: View of closed fill port for UST. Photograph taken facing northwest.

DATE: 18 May 2017 **TIME:** 1304 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

SCENE: View of closed and secured fill port for UST. Photograph taken facing northwest.

DATE: 18 May 2017 **TIME:** 1309 hours
PHOTOGRAPHY BY: George Mavris **CAMERA:** iPhone 6

Attachment C

Tables and Spreadsheets

Table 1	Summary of Volatile Organic Compounds Results, Underground Storage Tank Air Samples, LeBlanc Cleaners Site, Lewiston, Maine
Table 2	Summary of Volatile Organic Compounds Results, Underground Storage Tank Aqueous Sample, LeBlanc Cleaners Site, Lewiston, Maine

This page intentionally left blank

TABLE 1

SUMMARY OF VOLATILE ORGANIC COMPOUNDS RESULTS
UNDERGROUND STORAGE TANK AIR SAMPLES
LEBLANC CLEANERS SITE
LEWISTON, MAINE

SAMPLE LOCATION	SUM_FILL PIPE	SUM_VENT PIPE
SAMPLE NUMBER	0091MH-0138	0091MH-0139
LABORATORY NUMBER	AB67168	AB67169
SAMPLE DESCRIPTION	TANK FILL PORT	TANK VENT PIPE
CVOCs		
Vinyl Chloride	3,600	4,300
cis-1,2-Dichloroethylene	4,400	5,500
Trichloroethylene (TCE)	ND (288)	400
Tetrachloroethylene (PCE)	9,500	8,100
NON-CVOCs		
m/p-Xylenes	1,000	ND (484)
4-Ethyltoluene	9,800	13,000
1,2,4-Trimethylbenzene	2,700	3,600

NOTES:

1) Samples analyzed by U.S. EPA Office of Environmental Measurement and Evaluation (OEME) using EPA Region I Standard Operating Procedure (SOP) EIASOP-AIRCAN12 - Air Toxics by GC/MS.
2) All results are reported in micrograms per cubic meter ($\mu g/m^3$).
3) Samples were collected on 18 May 2017 as air grab samples using summa canisters.
4) ND = Not Detected. Reporting Limits provided in parentheses.
5) CVOCs = Chlorinated Volatile Organic Compounds.
6) NON-CVOCs = Non-Chlorinated Volatile Organic Compounds.

TABLE 2

SUMMARY OF VOLATILE ORGANIC COMPOUNDS RESULTS
UNDERGROUND STORAGE TANK AQUEOUS SAMPLES
LEBLANC CLEANERS SITE
LEWISTON, MAINE

SAMPLE LOCATION	UST-1
SAMPLE NUMBER	0091MH-0140
LABORATORY NUMBER	AB67170
SAMPLE DESCRIPTION	AQUEOUS TANK SAMPLE
CVOCs	
cis-1,2-Dichloroethylene	120
Tetrachloroethylene (PCE)	24
NON-CVOCs	
2-Propanone (Acetone)	77
2-Butanone (MEK)	19
N-Propylbenzene	10
1,3,5-Trimethylbenzene	220
1,2,4-Trimethylbenzene	300
N-Butylbenzene	12
Naphthalene	45

NOTES:

1) Samples analyzed by U.S. EPA Office of Environmental Measurement and Ev Evaluation (OEME) using EPA Region I Standard Operating Procedure (SOP) EIASOP-VOAGCMS9 - VOAs in Water.
2) All results are reported in micrograms per Liter (µg/L).
3) Sample was collected on 18 May 2017 using a disposable bailer.
4) CVOCs = Chlorinated Volatile Organic Compounds.
5) NON-CVOCs = Non-Chlorinated Volatile Organic Compounds.

Attachment D

Chain-of-Custody Record

This page intentionally left blank

 PN: 17050020

USEPA
Weston Solutions
START IV

CHAIN OF CUSTODY RECORD
Site #: R01-160427MH
Contact Name: John Burton
Contact Phone: 978-621-1214

No: 0091MH-04240-007

Lab: OEME-NERL

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Collection Time (Minutes)
	0091MH-0138	SUM_Fill Pipe	TO-15	Air	5/18/2017	11:15	1	Summa Canister	105 seconds to fill
	0091MH-0139	SUM_Vent Pipe	TO-15	Air	5/18/2017	11:30	1	Summa Canister	120 seconds to fill.
	0091MH-0140	UST-1	VOC/8260	Product	5/18/2017	12:25	2	40 ml VOA	PID Headspace = 187 ppm

Special Instructions: Please run Library Search on TO-15. Please email results to holmes.marcus@epa.gov.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	JB Burton Weston	5/19/17 6:15	ESAT	5-19-17 10:15	1°C

17050020 $VOAMW
17050020 $AIRTX

This page intentionally left blank

Attachment E

Analytical Data

This page intentionally left blank

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

May 31, 2017

Marcus Holmes - Mail Code OSRR02-2
US EPA New England R1

Project Number: 17050020
Project: LeBlanc Cleaners - Lewiston, ME
Analysis: Air Toxics by GC/MS
EPA Chemist: Dan Boudreau

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-AIRCAN12.

Samples were analyzed by GC/MS using an ion trap mass spectrometer. Samples were introduced to the GC via an Entech preconcentrator using cryofocusing. Analysis SOP is based on Compendium Method TO-15, update January 1999.

Conversion of ppbv to ug/m3 = ppbv*(mw/24.45) 24.45 is based on T=25c and P = 760 mm Hg

Date Samples Received by the Laboratory: 05/19/2017

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.

LeBlanc Cleaners - Lewiston, ME

Air Toxics by GC/MS

Client Sample ID:	0091MH-0138	Lab Sample ID:	AB67168
Date of Collection:	5/18/2017	Matrix:	Air
Date of Preparation:	5/24/2017	Amount Prepared:	1.0 mL
Date of Analysis:	5/24/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	2.14
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ppbv	Concentration ug/m3	RL ug/m3	Qualifier
75-71-8	Dichlorodifluoromethane	ND	ND	264	
74-87-3	Methylchloride	ND	ND	110	
1320-37-2	Dichlorotetrafluoroethane	ND	ND	373	
75-01-4	Vinylchloride	**1400**	**3600**	137	
106-99-0	1,3-Butadiene	ND	ND	236	
74-83-9	Methylbromide	ND	ND	208	
75-00-3	Chloroethane	ND	ND	141	
75-69-4	Trichlorofluoromethane	ND	ND	301	
75-35-4	1,1-Dichloroethylene	ND	ND	212	
75-09-2	Methylene Chloride	ND	ND	186	
76-13-1	Trichlorotrifluoroethane	ND	ND	410	
156-60-5	t-1,2-Dichloroethylene	ND	ND	212	
75-34-3	1,1-Dichloroethane	ND	ND	216	
1634-04-4	Methyl-t-Butyl Ether	ND	ND	188	
78-93-3	Methyl Ethyl Ketone	ND	ND	157	
156-59-2	c-1,2-Dichloroethylene	**1100**	**4400**	212	
110-54-3	Hexane	ND	ND	188	
67-66-3	Chloroform	ND	ND	261	
109-99-9	Tetrahydrofuran	ND	ND	157	
107-06-2	1,2-Dichloroethane	ND	ND	216	
71-55-6	1,1,1-Trichloroethane	ND	ND	292	
71-43-2	Benzene	ND	ND	171	
56-23-5	Carbon Tetrachloride	ND	ND	337	
110-82-7	Cyclohexane	ND	ND	184	
78-87-5	1,2-Dichloropropane	ND	ND	247	
75-27-4	Bromodichloromethane	ND	ND	358	
79-01-6	Trichloroethylene	ND	ND	288	
142-82-5	Heptane	ND	ND	218	
10061-01-5	c-1,3-Dichloropropylene	ND	ND	243	
108-10-1	Methyl Isobutyl Ketone	ND	ND	218	
10061-02-6	t-1,3-Dichloropropylene	ND	ND	243	
79-00-5	1,1,2-Trichloroethane	ND	ND	292	
108-88-3	Toluene	ND	ND	201	
591-78-6	2-Hexanone	ND	ND	218	
124-48-1	Dibromochloromethane	ND	ND	456	
106-93-4	1,2-Dibromoethane	ND	ND	411	
127-18-4	Tetrachloroethylene	**1400**	**9500**	363	
108-90-7	Chlorobenzene	ND	ND	246	
100-41-4	Ethylbenzene	ND	ND	232	
1330-20-7	m/p-Xylenes	**240**	**1000**	464	
100-42-5	Styrene	ND	ND	228	
95-47-6	o-Xylene	ND	ND	232	

LeBlanc Cleaners - Lewiston, ME

Air Toxics by GC/MS

Client Sample ID:	0091MH-0138	Lab Sample ID:	AB67168
Date of Collection:	5/18/2017	Matrix:	Air
Date of Preparation:	5/24/2017	Amount Prepared:	1.0 mL
Date of Analysis:	5/24/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	2.14
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ppbv	Concentration ug/m3	RL ug/m3	Qualifier
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	367	
622-96-8	4-Ethyltoluene	**2000**	**9800**	262	
108-67-8	1,3,5-Trimethylbenzene	ND	ND	262	
95-63-6	1,2,4-Trimethylbenzene	**550**	**2700**	262	
100-44-7	Benzylchloride	ND	ND	277	
541-73-1	1,3-Dichlorobenzene	ND	ND	321	
106-46-7	1,4-Dichlorobenzene	ND	ND	321	
95-50-1	1,2-Dichlorobenzene	ND	ND	321	
120-82-1	1,2,4-Trichlorobenzene	ND	ND	397	
87-68-3	Hexachloro-1,3-butadiene	ND	ND	570	
593-60-2	Vinyl Bromide	ND	ND	232	
107-05-1	Allyl Chloride	ND	ND	166	
107-13-1	Acrylonitrile	ND	ND	116	
75-25-2	Bromoform	ND	ND	553	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane,d4	120	82 - 135
Bromofluorobenzene	88	76 - 115
Toluene,d8	97	64 - 125

Comments: Sample chromagram showed fuel oil to be present; when library search performed against NIST 2002 library only hydrocarbo

LeBlanc Cleaners - Lewiston, ME

Air Toxics by GC/MS

Client Sample ID:	0091MH-0139	Lab Sample ID:	AB67169
Date of Collection:	5/18/2017	Matrix:	Air
Date of Preparation:	5/24/2017	Amount Prepared:	1.0 mL
Date of Analysis:	5/24/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	2.23
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ppbv	Concentration ug/m3	RL ug/m3	Qualifier
75-71-8	Dichlorodifluoromethane	ND	ND	275	
74-87-3	Methylchloride	ND	ND	115	
1320-37-2	Dichlorotetrafluoroethane	ND	ND	389	
75-01-4	Vinylchloride	**1700**	**4300**	143	
106-99-0	1,3-Butadiene	ND	ND	246	
74-83-9	Methylbromide	ND	ND	216	
75-00-3	Chloroethane	ND	ND	147	
75-69-4	Trichlorofluoromethane	ND	ND	313	
75-35-4	1,1-Dichloroethylene	ND	ND	221	
75-09-2	Methylene Chloride	ND	ND	194	
76-13-1	Trichlorotrifluoroethane	ND	ND	427	
156-60-5	t-1,2-Dichloroethylene	ND	ND	221	
75-34-3	1,1-Dichloroethane	ND	ND	225	
1634-04-4	Methyl-t-Butyl Ether	ND	ND	196	
78-93-3	Methyl Ethyl Ketone	ND	ND	164	
156-59-2	c-1,2-Dichloroethylene	**1400**	**5500**	221	
110-54-3	Hexane	ND	ND	196	
67-66-3	Chloroform	ND	ND	272	
109-99-9	Tetrahydrofuran	ND	ND	164	
107-06-2	1,2-Dichloroethane	ND	ND	225	
71-55-6	1,1,1-Trichloroethane	ND	ND	304	
71-43-2	Benzene	ND	ND	178	
56-23-5	Carbon Tetrachloride	ND	ND	351	
110-82-7	Cyclohexane	ND	ND	192	
78-87-5	1,2-Dichloropropane	ND	ND	258	
75-27-4	Bromodichloromethane	ND	ND	374	
79-01-6	Trichloroethylene	**74**	**400**	300	
142-82-5	Heptane	ND	ND	227	
10061-01-5	c-1,3-Dichloropropylene	ND	ND	253	
108-10-1	Methyl Isobutyl Ketone	ND	ND	227	
10061-02-6	t-1,3-Dichloropropylene	ND	ND	253	
79-00-5	1,1,2-Trichloroethane	ND	ND	304	
108-88-3	Toluene	ND	ND	210	
591-78-6	2-Hexanone	ND	ND	227	
124-48-1	Dibromochloromethane	ND	ND	475	
106-93-4	1,2-Dibromoethane	ND	ND	428	
127-18-4	Tetrachloroethylene	**1200**	**8100**	378	
108-90-7	Chlorobenzene	ND	ND	256	
100-41-4	Ethylbenzene	ND	ND	242	
1330-20-7	m/p-Xylenes	ND	ND	484	
100-42-5	Styrene	ND	ND	237	
95-47-6	o-Xylene	ND	ND	242	

LeBlanc Cleaners - Lewiston, ME

Air Toxics by GC/MS

Client Sample ID:	0091MH-0139	Lab Sample ID:	AB67169
Date of Collection:	5/18/2017	Matrix:	Air
Date of Preparation:	5/24/2017	Amount Prepared:	1.0 mL
Date of Analysis:	5/24/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	2.23
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ppbv	Concentration ug/m3	RL ug/m3	Qualifier
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	382	
622-96-8	4-Ethyltoluene	**2600**	**13000**	273	
108-67-8	1,3,5-Trimethylbenzene	ND	ND	273	
95-63-6	1,2,4-Trimethylbenzene	**740**	**3600**	273	
100-44-7	Benzylchloride	ND	ND	289	
541-73-1	1,3-Dichlorobenzene	ND	ND	334	
106-46-7	1,4-Dichlorobenzene	ND	ND	334	
95-50-1	1,2-Dichlorobenzene	ND	ND	334	
120-82-1	1,2,4-Trichlorobenzene	ND	ND	414	
87-68-3	Hexachloro-1,3-butadiene	ND	ND	594	
593-60-2	Vinyl Bromide	ND	ND	242	
107-05-1	Allyl Chloride	ND	ND	173	
107-13-1	Acrylonitrile	ND	ND	120	
75-25-2	Bromoform	ND	ND	576	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane,d4	107	82 - 135
Bromofluorobenzene	64	76 - 115
Toluene,d8	95	64 - 125

Comments: Sample chromagram showed fuel oil to be present; when library search performed against NIST 2002 library only hydrocarbo

LeBlanc Cleaners - Lewiston, ME

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Air
Date of Preparation:	5/24/2017	Amount Prepared:	500 mL
Date of Analysis:	5/24/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ppbv	Concentration ug/m3	RL ug/m3	Qualifier
75-71-8	Dichlorodifluoromethane	ND	ND	0.25	
74-87-3	Methylchloride	ND	ND	0.10	
1320-37-2	Dichlorotetrafluoroethane	ND	ND	0.35	
75-01-4	Vinylchloride	ND	ND	0.13	
106-99-0	1,3-Butadiene	ND	ND	0.22	
74-83-9	Methylbromide	ND	ND	0.19	
75-00-3	Chloroethane	ND	ND	0.13	
75-69-4	Trichlorofluoromethane	ND	ND	0.28	
75-35-4	1,1-Dichloroethylene	ND	ND	0.20	
75-09-2	Methylene Chloride	ND	ND	0.17	
76-13-1	Trichlorotrifluoroethane	ND	ND	0.38	
156-60-5	t-1,2-Dichloroethylene	ND	ND	0.20	
75-34-3	1,1-Dichloroethane	ND	ND	0.20	
1634-04-4	Methyl-t-Butyl Ether	ND	ND	0.18	
78-93-3	Methyl Ethyl Ketone	**0.079**	**0.24**	0.15	
156-59-2	c-1,2-Dichloroethylene	ND	ND	0.20	
110-54-3	Hexane	ND	ND	0.18	
67-66-3	Chloroform	ND	ND	0.24	
109-99-9	Tetrahydrofuran	ND	ND	0.15	
107-06-2	1,2-Dichloroethane	ND	ND	0.20	
71-55-6	1,1,1-Trichloroethane	ND	ND	0.27	
71-43-2	Benzene	ND	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	ND	0.32	
110-82-7	Cyclohexane	ND	ND	0.17	
78-87-5	1,2-Dichloropropane	ND	ND	0.23	
75-27-4	Bromodichloromethane	ND	ND	0.34	
79-01-6	Trichloroethylene	ND	ND	0.27	
142-82-5	Heptane	ND	ND	0.20	
10061-01-5	c-1,3-Dichloropropylene	ND	ND	0.23	
108-10-1	Methyl Isobutyl Ketone	ND	ND	0.20	
10061-02-6	t-1,3-Dichloropropylene	ND	ND	0.23	
79-00-5	1,1,2-Trichloroethane	ND	ND	0.27	
108-88-3	Toluene	ND	ND	0.19	
591-78-6	2-Hexanone	ND	ND	0.20	
124-48-1	Dibromochloromethane	ND	ND	0.43	
106-93-4	1,2-Dibromoethane	ND	ND	0.38	
127-18-4	Tetrachloroethylene	ND	ND	0.34	
108-90-7	Chlorobenzene	ND	ND	0.23	
100-41-4	Ethylbenzene	ND	ND	0.22	
1330-20-7	m/p-Xylenes	ND	ND	0.43	
100-42-5	Styrene	ND	ND	0.21	
95-47-6	o-Xylene	ND	ND	0.22	

LeBlanc Cleaners - Lewiston, ME

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Air
Date of Preparation:	5/24/2017	Amount Prepared:	500 mL
Date of Analysis:	5/24/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ppbv	Concentration ug/m3	RL ug/m3	Qualifier
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	0.34	
622-96-8	4-Ethyltoluene	ND	ND	0.25	
108-67-8	1,3,5-Trimethylbenzene	ND	ND	0.25	
95-63-6	1,2,4-Trimethylbenzene	ND	ND	0.25	
100-44-7	Benzylchloride	ND	ND	0.26	
541-73-1	1,3-Dichlorobenzene	ND	ND	0.30	
106-46-7	1,4-Dichlorobenzene	ND	ND	0.30	
95-50-1	1,2-Dichlorobenzene	ND	ND	0.30	
120-82-1	1,2,4-Trichlorobenzene	ND	ND	0.37	
87-68-3	Hexachloro-1,3-butadiene	ND	ND	0.53	
593-60-2	Vinyl Bromide	ND	ND	0.22	
107-05-1	Allyl Chloride	ND	ND	0.16	
107-13-1	Acrylonitrile	ND	ND	0.11	
75-25-2	Bromoform	ND	ND	0.52	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane,d4	105	82 - 135
Bromofluorobenzene	92	76 - 115
Toluene,d8	111	64 - 125

Comments:

LeBlanc Cleaners - Lewiston, ME

Laboratory Duplicate Results

Sample ID: AB67168

PARAMETER	SAMPLE RESULT ppbv	SAMPLE DUPLICATE RESULT ppbv	PRECISION RPD %	QC LIMITS
1,1,1-Trichloroethane	ND	ND	ND	50
1,1,2,2-Tetrachloroethane	ND	ND	ND	50
1,1,2-Trichloroethane	ND	ND	ND	50
1,1-Dichloroethane	ND	ND	ND	50
1,1-Dichloroethylene	ND	ND	ND	50
1,2,4-Trichlorobenzene	ND	ND	ND	50
1,2,4-Trimethylbenzene	550.000	563.000	2.34	50
1,2-Dibromoethane	ND	ND	ND	50
1,2-Dichlorobenzene	ND	ND	ND	50
1,2-Dichloroethane	ND	ND	ND	50
1,2-Dichloropropane	ND	ND	ND	50
1,3,5-Trimethylbenzene	ND	ND	ND	50
1,3-Butadiene	ND	ND	ND	50
1,3-Dichlorobenzene	ND	ND	ND	50
1,4-Dichlorobenzene	ND	ND	ND	50
2-Hexanone	ND	ND	ND	50
4-Ethyltoluene	2000.000	2049.000	2.42	50
Acrylonitrile	ND	ND	ND	50
Allyl Chloride	ND	ND	ND	50
Benzene	ND	ND	ND	50
Benzylchloride	ND	ND	ND	50
Bromodichloromethane	ND	ND	ND	50
Bromoform	ND	ND	ND	50
Carbon Tetrachloride	ND	ND	ND	50
Chlorobenzene	ND	ND	ND	50
Chloroethane	ND	ND	ND	50
Chloroform	ND	ND	ND	50
Cyclohexane	ND	ND	ND	50
Dibromochloromethane	ND	ND	ND	50
Dichlorodifluoromethane	ND	ND	ND	50
Dichlorotetrafluoroethane	ND	ND	ND	50
Ethylbenzene	ND	ND	ND	50
Heptane	ND	ND	ND	50
Hexachloro-1,3-butadiene	ND	ND	ND	50
Hexane	ND	ND	ND	50
Methyl Ethyl Ketone	ND	ND	ND	50
Methyl Isobutyl Ketone	ND	ND	ND	50
Methyl-t-Butyl Ether	ND	ND	ND	50
Methylbromide	ND	ND	ND	50
Methylchloride	ND	ND	ND	50
Methylene Chloride	ND	ND	ND	50
Styrene	ND	ND	ND	50
Tetrachloroethylene	1400.000	1372.000	2.02	50
Tetrahydrofuran	ND	ND	ND	50
Toluene	ND	ND	ND	50

LeBlanc Cleaners - Lewiston, ME

Laboratory Duplicate Results

Sample ID: AB67168

PARAMETER	SAMPLE RESULT ppbv	SAMPLE DUPLICATE RESULT ppbv	PRECISION RPD %	QC LIMITS
Trichloroethylene	ND	ND	ND	50
Trichlorofluoromethane	ND	ND	ND	50
Trichlorotrifluoroethane	ND	ND	ND	50
Vinyl Bromide	ND	ND	ND	50
Vinylchloride	1400.000	1428.000	1.98	50
c-1,2-Dichloroethylene	1100.000	1063.000	3.42	50
c-1,3-Dichloropropylene	ND	ND	ND	50
m/p-Xylenes	240.000	252.000	4.88	50
o-Xylene	ND	ND	ND	50
t-1,2-Dichloroethylene	ND	ND	ND	50
t-1,3-Dichloropropylene	ND	ND	ND	50

Comments:

LeBlanc Cleaners - Lewiston, ME

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ppb/V	LFB RESULT ppb/V	LFB RECOVERY %	QC LIMITS %
1,1,1-Trichloroethane	2.0	2.05	102	70 - 130
1,1,2,2-Tetrachloroethane	2.0	1.88	94	70 - 130
1,1,2-Trichloroethane	2.0	2.04	102	70 - 130
1,1-Dichloroethane	2.0	2.21	110	70 - 130
1,1-Dichloroethylene	2.0	2.37	118	70 - 130
1,2,4-Trichlorobenzene	2.0	1.30	65	70 - 130
1,2,4-Trimethylbenzene	2.0	1.75	88	70 - 130
1,2-Dibromoethane	2.0	2.06	103	70 - 130
1,2-Dichlorobenzene	2.0	1.84	92	70 - 130
1,2-Dichloroethane	2.0	2.30	115	70 - 130
1,2-Dichloropropane	2.0	2.15	108	70 - 130
1,3,5-Trimethylbenzene	2.0	1.93	97	70 - 130
1,3-Butadiene	4.0	4.39	110	70 - 130
1,3-Dichlorobenzene	2.0	1.94	97	70 - 130
1,4-Dichlorobenzene	2.0	1.83	92	70 - 130
2-Hexanone	2.0	0.770	39	70 - 130
4-Ethyltoluene	2.0	1.64	82	70 - 130
Acrylonitrile	2.0	2.23	112	70 - 130
Allyl Chloride	2.0	2.19	110	70 - 130
Benzene	2.0	2.05	102	70 - 130
Benzylchloride	2.0	1.73	87	70 - 130
Bromodichloromethane	2.0	1.99	100	70 - 130
Bromoform	2.0	1.88	94	70 - 130
Carbon Tetrachloride	2.0	2.08	104	70 - 130
Chlorobenzene	2.0	1.87	94	70 - 130
Chloroethane	2.0	2.46	123	70 - 130
Chloroform	2.0	2.19	110	70 - 130
Cyclohexane	2.0	1.83	92	70 - 130
Dibromochloromethane	2.0	1.92	96	70 - 130
Dichlorodifluoromethane	2.0	2.42	121	70 - 130
Dichlorotetrafluoroethane	2.0	2.21	110	70 - 130
Ethylbenzene	2.0	1.88	94	70 - 130
Heptane	2.0	1.88	94	70 - 130
Hexachloro-1,3-butadiene	2.0	1.95	98	70 - 130
Hexane	2.0	2.26	113	70 - 130
Methyl Ethyl Ketone	2.0	1.81	91	70 - 130
Methyl Isobutyl Ketone	2.0	1.31	66	70 - 130
Methyl-t-Butyl Ether	2.0	1.95	98	70 - 130
Methylbromide	2.0	2.74	137	70 - 130
Methylchloride	2.0	1.79	90	70 - 130
Methylene Chloride	2.0	2.35	118	70 - 130
Styrene	2.0	1.98	99	70 - 130
Tetrachloroethylene	2.0	2.11	106	70 - 130
Tetrahydrofuran	2.0	1.95	98	70 - 130
Toluene	2.0	1.93	97	70 - 130
Trichloroethylene	2.0	2.14	107	70 - 130
Trichlorofluoromethane	2.0	2.17	108	70 - 130
Trichlorotrifluoroethane	2.0	2.23	112	70 - 130
Vinyl Bromide	2.0	2.10	105	70 - 130
Vinylchloride	2.0	2.14	107	70 - 130
c-1,2-Dichloroethylene	2.0	2.18	109	70 - 130
c-1,3-Dichloropropylene	2.0	2.02	101	70 - 130

LeBlanc Cleaners - Lewiston, ME

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ppb/V	LFB RESULT ppb/V	LFB RECOVERY %	QC LIMITS %
m/p-Xylenes	4.0	3.66	92	70 - 130
o-Xylene	2.0	1.82	91	70 - 130
t-1,2-Dichloroethylene	2.0	1.97	99	70 - 130
t-1,3-Dichloropropylene	2.0	1.95	98	70 - 130

Comments:

 PN: 17050020

USEPA
Weston Solutions
START IV

CHAIN OF CUSTODY RECORD
Site #: R01-160427MH
Contact Name: John Burton
Contact Phone: 978-621-1214

No: 0091MH-04240-007

Lab: OEME-NERL

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Collection Time (Minutes)
	0091MH-0138	SUM_Fill Pipe	TO-15	Air	5/18/2017	11:15	1	Summa Canister	105 seconds to fill
	0091MH-0139	SUM_Vent Pipe	TO-15	Air	5/18/2017	11:30	1	Summa Canister	120 seconds to fill.
	0091MH-0140	UST-1	VOC/8260	Product	5/18/2017	12:25	2	40 ml VOA	PID Headspace = 187 ppm

Special Instructions: Please run Library Search on TO-15. Please email results to holmes.marcus@epa.gov.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	JL Burton Weston	5/19/17 0:15	ESAT	5-19-17 10:15	1°C

17050020 $VOAMW
17050020 $AIRTX

This page intentionally left blank

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

May 24, 2017

Marcus Holmes - Mail Code OSRR02-2
US EPA New England R1

Project Number: 17050020
Project: LeBlanc Cleaners - Lewiston, ME
Analysis: VOAs in Water
EPA Chemist: Joseph Montanaro

Date Samples Received by the Laboratory: 05/19/2017

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIASOP-VOAGCMS9.

Samples were analyzed by GC/MS. Samples were introduced to the GC via a Tekmar pre-concentrator and an Archon autosampler. The analysis SOP is based on US EPA Method 8260B, method 5030B, rev 2.0 SW-846, Rev 2.0,1996. Method 624, 40CFR Part 136 Appendix A, July 1, 1992, and USEPA CLP SOW for Organic Analysis OLM04.2, 1999.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

If you have any questions please call me at 617-918-8340 .

Sincerely,

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside accceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.

LeBlanc Cleaners - Lewiston, ME

VOAs in Water

Client Sample ID:	0091MH-0140	Lab Sample ID:	AB67170
Date of Collection:	5/18/2017	Matrix:	Product
Date of Preparation:	5/19/2017	Amount Prepared:	5 mL
Date of Analysis:	5/19/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	4
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	1 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
74-87-3	Chloromethane	ND	10	
75-01-4	Vinyl Chloride	ND	10	
74-83-9	Bromomethane	ND	10	
75-00-3	Chloroethane	ND	10	
75-69-4	Trichlorofluoromethane	ND	10	
60-29-7	Ethyl Ether	ND	10	
67-64-1	2-Propanone (acetone)	**77**	10	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	10	
75-35-4	1,1-Dichloroethylene	ND	10	
75-15-0	Carbon Disulfide	ND	10	
75-71-8	Dichlorodifluoromethane	ND	10	
75-09-2	Methylene Chloride	ND	10	
107-13-1	Acrylonitrile	ND	10	
1634-04-4	Methyl-t-Butyl Ether	ND	10	
156-60-5	Trans-1,2-Dichloroethylene	ND	10	
75-34-3	1,1-dichloroethane	ND	10	
108-05-4	Vinyl Acetate	ND	10	
78-93-3	2-Butanone (MEK)	**19**	10	
594-20-7	2,2-Dichloropropane	ND	10	
156-59-2	cis-1,2-Dichloroethylene	**120**	10	
67-66-3	Chloroform	ND	10	
74-97-5	Bromochloromethane	ND	10	
109-99-9	Tetrahydrofuran	ND	10	
71-55-6	1,1,1-Trichloroethane	ND	10	
107-06-2	1,2-Dichloroethane	ND	10	
56-23-5	Carbon tetrachloride	ND	10	
71-43-2	Benzene	ND	10	
10061-01-5	c-1,3-dichloropropene	ND	10	
108-88-3	Toluene	ND	10	
10061-02-6	t-1,3-Dichloropropene	ND	10	
79-00-5	1,1,2-Trichloroethane	ND	10	
124-48-1	Dibromochloromethane	ND	10	
108-90-7	Chlorobenzene	ND	10	
563-58-6	1,1-Dichloropropene	ND	10	
79-01-6	Trichloroethylene	ND	10	
78-87-5	1,2-Dichloropropane	ND	10	
75-27-4	Bromodichloromethane	ND	10	
74-95-3	Dibromomethane	ND	10	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	10	
142-28-9	1,3-Dichloropropane	ND	10	
127-18-4	Tetrachloroethylene	**24**	10	
106-93-4	1,2-Dibromoethane	ND	10	

LeBlanc Cleaners - Lewiston, ME

VOAs in Water

Client Sample ID:	0091MH-0140	Lab Sample ID:	AB67170
Date of Collection:	5/18/2017	Matrix:	Product
Date of Preparation:	5/19/2017	Amount Prepared:	5 mL
Date of Analysis:	5/19/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	10
Wet Weight Prepared:	N/A	pH:	4
Volume Extracted:	5 mL	GPC Factor:	N/A
Final Volume:	1 mL		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
591-78-6	2-Hexanone	ND	10	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	
100-41-4	Ethylbenzene	ND	10	
108-38-3/106-42-3	M/P Xylene	ND	20	
95-47-6	Ortho Xylene	ND	10	
100-42-5	Styrene	ND	10	
75-25-2	Bromoform	ND	10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	
98-82-8	Isopropylbenzene	ND	10	
108-86-1	Bromobenzene	ND	10	
96-18-4	1,2,3-Trichloropropane	ND	10	
103-65-1	N-Propylbenzene	**10**	10	
95-49-8	2-Chlorotoluene	ND	10	
106-43-4	4-Chlorotoluene	ND	10	
98-06-6	Tert-Butylbenzene	ND	10	
108-67-8	1,3,5-Trimethylbenzene	**220**	10	
95-63-6	1,2,4-Trimethylbenzene	**300**	10	
135-98-8	Sec-Butylbenzene	ND	10	
541-73-1	1,3-Dichlorobenzene	ND	10	
99-87-6	Para-Isopropyltoluene	ND	10	
106-46-7	1,4-Dichlorobenzene	ND	10	
95-50-1	1,2-Dichlorobenzene	ND	10	
104-51-8	N-Butylbenzene	**12**	10	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	10	
120-82-1	1,2,4-Trichlorobenzene	ND	10	
87-68-3	Hexachlorobutadiene	ND	10	
91-20-3	Naphthalene	**45**	10	
87-61-6	1,2,3-Trichlorobenzene	ND	10	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	102	74 - 136
Toluene-D8	96	85 - 118
1,4-Bromofluorobenzene	98	78 - 111

Comments: Aqueous product was diluted into water and analyzed within seven days of receipt.

LeBlanc Cleaners - Lewiston, ME

Laboratory Blank for $VOAMW

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Product
Date of Preparation:	5/19/2017	Amount Prepared:	5.0 mL
Date of Analysis:	5/19/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	~6
Volume Extracted:	5.0 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
74-87-3	Chloromethane	ND	1.0	
75-01-4	Vinyl Chloride	ND	1.0	
74-83-9	Bromomethane	ND	1.0	
75-00-3	Chloroethane	ND	1.0	
75-69-4	Trichlorofluoromethane	ND	1.0	
60-29-7	Ethyl Ether	ND	1.0	
67-64-1	2-Propanone (acetone)	ND	1.0	
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	1.0	
75-35-4	1,1-Dichloroethylene	ND	1.0	
75-15-0	Carbon Disulfide	ND	1.0	
75-71-8	Dichlorodifluoromethane	ND	1.0	
75-09-2	Methylene Chloride	ND	1.0	
107-13-1	Acrylonitrile	ND	1.0	
1634-04-4	Methyl-t-Butyl Ether	ND	1.0	
156-60-5	Trans-1,2-Dichloroethylene	ND	1.0	
75-34-3	1,1-dichloroethane	ND	1.0	
108-05-4	Vinyl Acetate	ND	1.0	
78-93-3	2-Butanone (MEK)	ND	1.0	
594-20-7	2,2-Dichloropropane	ND	1.0	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	
67-66-3	Chloroform	ND	1.0	
74-97-5	Bromochloromethane	ND	1.0	
109-99-9	Tetrahydrofuran	ND	1.0	
71-55-6	1,1,1-Trichloroethane	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	1.0	
56-23-5	Carbon tetrachloride	ND	1.0	
71-43-2	Benzene	ND	1.0	
10061-01-5	c-1,3-dichloropropene	ND	1.0	
108-88-3	Toluene	ND	1.0	
10061-02-6	t-1,3-Dichloropropene	ND	1.0	
79-00-5	1,1,2-Trichloroethane	ND	1.0	
124-48-1	Dibromochloromethane	ND	1.0	
108-90-7	Chlorobenzene	ND	1.0	
563-58-6	1,1-Dichloropropene	ND	1.0	
79-01-6	Trichloroethylene	ND	1.0	
78-87-5	1,2-Dichloropropane	ND	1.0	
75-27-4	Bromodichloromethane	ND	1.0	
74-95-3	Dibromomethane	ND	1.0	
108-10-1	4-Methyl-2-Pentanone(MIBK)	ND	1.0	
142-28-9	1,3-Dichloropropane	ND	1.0	
127-18-4	Tetrachloroethylene	ND	1.0	
106-93-4	1,2-Dibromoethane	ND	1.0	

LeBlanc Cleaners - Lewiston, ME

Laboratory Blank for $VOAMW

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Product
Date of Preparation:	5/19/2017	Amount Prepared:	5.0 mL
Date of Analysis:	5/19/2017	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	~6
Volume Extracted:	5.0 mL	GPC Factor:	N/A
Final Volume:	N/A		

CAS Number	Compound	Concentration ug/L	RL ug/L	Qualifier
591-78-6	2-Hexanone	ND	1.0	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	
100-41-4	Ethylbenzene	ND	1.0	
108-38-3/106-42-3	M/P Xylene	ND	2.0	
95-47-6	Ortho Xylene	ND	1.0	
100-42-5	Styrene	ND	1.0	
75-25-2	Bromoform	ND	1.0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	
98-82-8	Isopropylbenzene	ND	1.0	
108-86-1	Bromobenzene	ND	1.0	
96-18-4	1,2,3-Trichloropropane	ND	1.0	
103-65-1	N-Propylbenzene	ND	1.0	
95-49-8	2-Chlorotoluene	ND	1.0	
106-43-4	4-Chlorotoluene	ND	1.0	
98-06-6	Tert-Butylbenzene	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	
135-98-8	Sec-Butylbenzene	ND	1.0	
541-73-1	1,3-Dichlorobenzene	ND	1.0	
99-87-6	Para-Isopropyltoluene	ND	1.0	
106-46-7	1,4-Dichlorobenzene	ND	1.0	
95-50-1	1,2-Dichlorobenzene	ND	1.0	
104-51-8	N-Butylbenzene	ND	1.0	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	1.0	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	
87-68-3	Hexachlorobutadiene	ND	1.0	
91-20-3	Naphthalene	ND	1.0	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	

Surrogate Compounds	Recoveries (%)	QC Ranges
1,2-Dichloroethane-D4	102	74 - 136
Toluene-D8	97	85 - 118
1,4-Bromofluorobenzene	96	78 - 111

Comments: Laboratory blank is associated with all samples in this project.

LeBlanc Cleaners - Lewiston, ME

MATRIX SPIKE (MS) RECOVERY

Sample ID: AB67170

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
1,1,1,2-Tetrachloroethane	200	ND	220	110	67 - 129
1,1,1-Trichloroethane	200	ND	220	110	75 - 139
1,1,2,2-Tetrachloroethane	200	ND	230	115	50 - 142
1,1,2-Trichloro-1,2,2-Trifluoroetha	200	ND	220	110	55 - 135
1,1,2-Trichloroethane	200	ND	220	110	62 - 142
1,1-Dichloroethylene	200	ND	220	110	80 - 138
1,1-Dichloropropene	200	ND	220	110	73 - 131
1,1-dichloroethane	200	ND	230	115	61 - 152
1,2,3-Trichlorobenzene	200	ND	230	115	49 - 143
1,2,3-Trichloropropane	200	ND	230	115	53 - 135
1,2,4-Trichlorobenzene	200	ND	230	115	63 - 131
1,2,4-Trimethylbenzene	200	300	540	120	79 - 142
1,2-Dibromo-3-Chloropropane	200	ND	210	105	28 - 122
1,2-Dibromoethane	200	ND	220	110	53 - 139
1,2-Dichlorobenzene	200	ND	210	105	74 - 129
1,2-Dichloroethane	200	ND	220	110	61 - 142
1,2-Dichloropropane	200	ND	220	110	71 - 126
1,3,5-Trimethylbenzene	200	220	460	120	77 - 140
1,3-Dichlorobenzene	200	ND	210	105	78 - 127
1,3-Dichloropropane	200	ND	220	110	63 - 130
1,4-Dichlorobenzene	200	ND	210	105	72 - 131
2,2-Dichloropropane	200	ND	220	110	50 - 139
2-Butanone (MEK)	200	19.0	260	120	29 - 163
2-Chlorotoluene	200	ND	220	110	74 - 134
2-Hexanone	200	ND	210	105	36 - 141
2-Propanone (acetone)	200	77.0	280	102	29 - 164
4-Chlorotoluene	200	ND	220	110	68 - 141
4-Methyl-2-Pentanone(MIBK)	200	ND	200	100	35 - 139
Acrylonitrile	200	ND	240	120	42 - 150
Benzene	200	ND	220	110	78 - 134
Bromobenzene	200	ND	210	105	76 - 126
Bromochloromethane	200	ND	220	110	62 - 140
Bromodichloromethane	200	ND	220	110	62 - 133
Bromoform	200	ND	190	95	31 - 133
Bromomethane	200	ND	220	110	58 - 148
Carbon Disulfide	200	ND	230	115	66 - 135
Carbon tetrachloride	200	ND	220	110	62 - 146
Chlorobenzene	200	ND	220	110	74 - 139
Chloroethane	200	ND	230	115	65 - 145
Chloroform	200	ND	230	115	60 - 144
Chloromethane	200	ND	220	110	58 - 134
Dibromochloromethane	200	ND	190	95	34 - 140
Dibromomethane	200	ND	220	110	67 - 125
Dichlorodifluoromethane	200	ND	220	110	30 - 132
Ethyl Ether	200	ND	240	120	58 - 145
Ethylbenzene	200	ND	220	110	73 - 143
Hexachlorobutadiene	200	ND	220	110	56 - 144

LeBlanc Cleaners - Lewiston, ME

MATRIX SPIKE (MS) RECOVERY

Sample ID: AB67170

PARAMETER	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	MS CONCENTRATION ug/L	MS % REC	QC LIMITS (% REC)
Isopropylbenzene	200	ND	240	120	73 - 139
M/P Xylene	400	ND	470	118	79 - 136
Methyl-t-Butyl Ether	200	ND	220	110	50 - 144
Methylene Chloride	200	ND	220	110	70 - 144
N-Butylbenzene	200	12.0	260	124	68 - 143
N-Propylbenzene	200	10.0	240	115	72 - 149
Naphthalene	200	45.0	260	108	33 - 154
Ortho Xylene	200	ND	240	120	80 - 129
Para-Isopropyltoluene	200	ND	250	125	71 - 140
Sec-Butylbenzene	200	ND	250	125	75 - 148
Styrene	200	ND	230	115	61 - 148
Tert-Butylbenzene	200	ND	240	120	71 - 139
Tetrachloroethylene	200	24.0	230	103	45 - 145
Tetrahydrofuran	200	ND	240	120	37 - 143
Toluene	200	ND	220	110	77 - 142
Trans-1,2-Dichloroethylene	200	ND	220	110	79 - 139
Trichloroethylene	200	ND	220	110	65 - 143
Trichlorofluoromethane	200	ND	230	115	58 - 161
Vinyl Acetate	200	ND	200	100	22 - 173
Vinyl Chloride	200	ND	290	145	68 - 139
c-1,3-dichloropropene	200	ND	200	100	51 - 144
cis-1,2-Dichloroethylene	200	120	340	110	59 - 154
t-1,3-Dichloropropene	200	ND	200	100	47 - 145

LeBlanc Cleaners - Lewiston, ME

MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Sample ID:AB67170

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	200	190	95	14.6	40
1,1,1-Trichloroethane	200	200	100	9.52	16
1,1,2,2-Tetrachloroethane	200	200	100	14.0	40
1,1,2-Trichloro-1,2,2-Trifluoroetha	200	190	95	14.6	40
1,1,2-Trichloroethane	200	200	100	9.52	40
1,1-Dichloroethylene	200	200	100	9.52	35
1,1-Dichloropropene	200	200	100	9.52	40
1,1-dichloroethane	200	200	100	14.0	40
1,2,3-Trichlorobenzene	200	200	100	14.0	40
1,2,3-Trichloropropane	200	200	100	14.0	40
1,2,4-Trichlorobenzene	200	200	100	14.0	40
1,2,4-Trimethylbenzene	200	500	100	18.2	40
1,2-Dibromo-3-Chloropropane	200	190	95	10.0	40
1,2-Dibromoethane	200	200	100	9.52	40
1,2-Dichlorobenzene	200	190	95	10.0	40
1,2-Dichloroethane	200	200	100	9.52	23
1,2-Dichloropropane	200	200	100	9.52	40
1,3,5-Trimethylbenzene	200	430	105	13.3	40
1,3-Dichlorobenzene	200	190	95	10.0	40
1,3-Dichloropropane	200	190	95	14.6	40
1,4-Dichlorobenzene	200	190	95	10.0	21
2,2-Dichloropropane	200	210	105	4.65	40
2-Butanone (MEK)	200	240	110	8.70	40
2-Chlorotoluene	200	200	100	9.52	40
2-Hexanone	200	190	95	10.0	40
2-Propanone (acetone)	200	260	92	10.9	40
4-Chlorotoluene	200	200	100	9.52	40
4-Methyl-2-Pentanone(MIBK)	200	190	95	5.13	40
Acrylonitrile	200	210	105	13.3	40
Benzene	200	190	95	14.6	14
Bromobenzene	200	190	95	10.0	40
Bromochloromethane	200	190	95	14.6	40
Bromodichloromethane	200	190	95	14.6	21
Bromoform	200	170	85	11.1	40
Bromomethane	200	190	95	14.6	40
Carbon Disulfide	200	200	100	14.0	40
Carbon tetrachloride	200	200	100	9.52	19
Chlorobenzene	200	190	95	14.6	40
Chloroethane	200	190	95	19.0	40
Chloroform	200	200	100	14.0	16
Chloromethane	200	200	100	9.52	40
Dibromochloromethane	200	170	85	11.1	36
Dibromomethane	200	200	100	9.52	40
Dichlorodifluoromethane	200	200	100	9.52	40
Ethyl Ether	200	210	105	13.3	40
Ethylbenzene	200	200	100	9.52	40
Hexachlorobutadiene	200	190	95	14.6	40
Isopropylbenzene	200	220	110	8.70	40

LeBlanc Cleaners - Lewiston, ME

MATRIX SPIKE DUPLICATE (MSD) RECOVERY

Sample ID:AB67170

PARAMETER	MSD SPIKE ADDED	MSD CONCENTRATION ug/L	MSD % REC	RPD %	QC LIMITS RPD
M/P Xylene	400	420	105	11.7	40
Methyl-t-Butyl Ether	200	200	100	9.52	40
Methylene Chloride	200	200	100	9.52	40
N-Butylbenzene	200	230	109	12.9	40
N-Propylbenzene	200	220	105	9.09	40
Naphthalene	200	240	98	10.2	40
Ortho Xylene	200	220	110	8.70	40
Para-Isopropyltoluene	200	220	110	12.8	40
Sec-Butylbenzene	200	220	110	12.8	40
Styrene	200	210	105	9.09	40
Tert-Butylbenzene	200	210	105	13.3	40
Tetrachloroethylene	200	210	93	10.2	40
Tetrahydrofuran	200	210	105	13.3	40
Toluene	200	190	95	14.6	40
Trans-1,2-Dichloroethylene	200	200	100	9.52	40
Trichloroethylene	200	190	95	14.6	22
Trichlorofluoromethane	200	200	100	14.0	40
Vinyl Acetate	200	180	90	10.5	40
Vinyl Chloride	200	260	130	10.9	19
c-1,3-dichloropropene	200	180	90	10.5	40
cis-1,2-Dichloroethylene	200	310	95	14.6	40
t-1,3-Dichloropropene	200	170	85	16.2	40

LeBlanc Cleaners - Lewiston, ME

Laboratory Duplicate Results

Sample ID: AB67170

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
1,1,1,2-Tetrachloroethane	ND	ND	NC	30
1,1,1-Trichloroethane	ND	ND	NC	30
1,1,2,2-Tetrachloroethane	ND	ND	NC	30
1,1,2-Trichloro-1,2,2-Trifluoroetha	ND	ND	NC	30
1,1,2-Trichloroethane	ND	ND	NC	30
1,1-Dichloroethylene	ND	ND	NC	30
1,1-Dichloropropene	ND	ND	NC	30
1,1-dichloroethane	ND	ND	NC	30
1,2,3-Trichlorobenzene	ND	ND	NC	30
1,2,3-Trichloropropane	ND	ND	NC	30
1,2,4-Trichlorobenzene	ND	ND	NC	30
1,2,4-Trimethylbenzene	300	310	3.28	30
1,2-Dibromo-3-Chloropropane	ND	ND	NC	30
1,2-Dibromoethane	ND	ND	NC	30
1,2-Dichlorobenzene	ND	ND	NC	30
1,2-Dichloroethane	ND	ND	NC	30
1,2-Dichloropropane	ND	ND	NC	30
1,3,5-Trimethylbenzene	220	230	4.44	30
1,3-Dichlorobenzene	ND	ND	NC	30
1,3-Dichloropropane	ND	ND	NC	30
1,4-Dichlorobenzene	ND	ND	NC	30
2,2-Dichloropropane	ND	ND	NC	30
2-Butanone (MEK)	19.0	21.0	10.0	30
2-Chlorotoluene	ND	ND	NC	30
2-Hexanone	ND	ND	NC	30
2-Propanone (acetone)	77.0	79.0	2.56	30
4-Chlorotoluene	ND	ND	NC	30
4-Methyl-2-Pentanone(MIBK)	ND	ND	NC	30
Acrylonitrile	ND	ND	NC	30
Benzene	ND	ND	NC	30
Bromobenzene	ND	ND	NC	30
Bromochloromethane	ND	ND	NC	30
Bromodichloromethane	ND	ND	NC	30
Bromoform	ND	ND	NC	30
Bromomethane	ND	ND	NC	30
Carbon Disulfide	ND	ND	NC	30
Carbon tetrachloride	ND	ND	NC	30
Chlorobenzene	ND	ND	NC	30
Chloroethane	ND	ND	NC	30
Chloroform	ND	ND	NC	30
Chloromethane	ND	ND	NC	30
Dibromochloromethane	ND	ND	NC	30
Dibromomethane	ND	ND	NC	30
Dichlorodifluoromethane	ND	ND	NC	30
Ethyl Ether	ND	ND	NC	30
Ethylbenzene	ND	ND	NC	30
Hexachlorobutadiene	ND	ND	NC	30
Isopropylbenzene	ND	ND	NC	30
M/P Xylene	ND	20.0	NC	30
Methyl-t-Butyl Ether	ND	ND	NC	30

LeBlanc Cleaners - Lewiston, ME

Laboratory Duplicate Results

Sample ID: AB67170

PARAMETER	SAMPLE RESULT ug/L	SAMPLE DUPLICATE RESULT ug/L	PRECISION RPD %	QC LIMITS
Methylene Chloride	ND	ND	NC	30
N-Butylbenzene	12.0	12.0	0.00	30
N-Propylbenzene	10.0	11.0	9.52	30
Naphthalene	45.0	47.0	4.35	30
Ortho Xylene	ND	ND	NC	30
Para-Isopropyltoluene	ND	ND	NC	30
Sec-Butylbenzene	ND	ND	NC	30
Styrene	ND	ND	NC	30
Tert-Butylbenzene	ND	ND	NC	30
Tetrachloroethylene	24.0	25.0	4.08	30
Tetrahydrofuran	ND	ND	NC	30
Toluene	ND	ND	NC	30
Trans-1,2-Dichloroethylene	ND	ND	NC	30
Trichloroethylene	ND	ND	NC	30
Trichlorofluoromethane	ND	ND	NC	30
Vinyl Acetate	ND	ND	NC	30
Vinyl Chloride	ND	ND	NC	30
c-1,3-dichloropropene	ND	ND	NC	30
cis-1,2-Dichloroethylene	120	120	0.00	30
t-1,3-Dichloropropene	ND	ND	NC	30

LeBlanc Cleaners - Lewiston, ME

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/mL	LFB RESULT ug/mL	LFB RECOVERY %	QC LIMITS %
1,1,1,2-Tetrachloroethane	20	21.0	105	79 - 136
1,1,1-Trichloroethane	20	21.0	105	75 - 146
1,1,2,2-Tetrachloroethane	20	21.0	105	62 - 141
1,1,2-Trichloro-1,2,2-Trifluoroeth	20	21.0	105	56 - 130
1,1,2-Trichloroethane	20	21.0	105	75 - 138
1,1-Dichloroethylene	20	20.0	100	75 - 136
1,1-Dichloropropene	20	21.0	105	77 - 137
1,1-dichloroethane	20	21.0	105	76 - 142
1,2,3-Trichlorobenzene	20	21.0	105	64 - 143
1,2,3-Trichloropropane	20	21.0	105	66 - 133
1,2,4-Trichlorobenzene	20	21.0	105	80 - 131
1,2,4-Trimethylbenzene	20	22.0	110	74 - 155
1,2-Dibromo-3-Chloropropane	20	18.0	90	37 - 139
1,2-Dibromoethane	20	21.0	105	72 - 135
1,2-Dichlorobenzene	20	21.0	105	85 - 128
1,2-Dichloroethane	20	21.0	105	74 - 138
1,2-Dichloropropane	20	21.0	105	83 - 124
1,3,5-Trimethylbenzene	20	22.0	110	80 - 145
1,3-Dichlorobenzene	20	21.0	105	84 - 130
1,3-Dichloropropane	20	21.0	105	77 - 129
1,4-Dichlorobenzene	20	20.0	100	82 - 128
2,2-Dichloropropane	20	21.0	105	32 - 171
2-Butanone (MEK)	20	20.0	100	38 - 179
2-Chlorotoluene	20	21.0	105	78 - 134
2-Hexanone	20	18.0	90	45 - 158
2-Propanone (acetone)	20	20.0	100	14 - 209
4-Chlorotoluene	20	21.0	105	75 - 144
4-Methyl-2-Pentanone(MIBK)	20	18.0	90	40 - 144
Acrylonitrile	20	21.0	105	52 - 154
Benzene	20	20.0	100	83 - 130
Bromobenzene	20	21.0	105	85 - 126
Bromochloromethane	20	21.0	105	69 - 137
Bromodichloromethane	20	21.0	105	70 - 143
Bromoform	20	19.0	95	51 - 136
Bromomethane	20	19.0	95	65 - 140
Carbon Disulfide	20	21.0	105	68 - 140
Carbon tetrachloride	20	21.0	105	70 - 144
Chlorobenzene	20	20.0	100	84 - 131
Chloroethane	20	20.0	100	70 - 134
Chloroform	20	21.0	105	76 - 141
Chloromethane	20	20.0	100	63 - 123
Dibromochloromethane	20	19.0	95	39 - 154
Dibromomethane	20	21.0	105	79 - 124
Dichlorodifluoromethane	20	21.0	105	37 - 117
Ethyl Ether	20	20.0	100	67 - 140
Ethylbenzene	20	21.0	105	81 - 133
Hexachlorobutadiene	20	20.0	100	68 - 146
Isopropylbenzene	20	22.0	110	78 - 137
M/P Xylene	40	42.0	105	68 - 155
Methyl-t-Butyl Ether	20	20.0	100	63 - 144
Methylene Chloride	20	21.0	105	75 - 140
N-Butylbenzene	20	22.0	110	69 - 147
N-Propylbenzene	20	21.0	105	76 - 138

LeBlanc Cleaners - Lewiston, ME

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ug/mL	LFB RESULT ug/mL	LFB RECOVERY %	QC LIMITS %
Naphthalene	20	19.0	95	53 - 155
Ortho Xylene	20	21.0	105	85 - 135
Para-Isopropyltoluene	20	22.0	110	77 - 141
Sec-Butylbenzene	20	21.0	105	80 - 141
Styrene	20	22.0	110	82 - 139
Tert-Butylbenzene	20	22.0	110	75 - 144
Tetrachloroethylene	20	20.0	100	32 - 173
Tetrahydrofuran	20	20.0	100	47 - 149
Toluene	20	21.0	105	85 - 134
Trans-1,2-Dichloroethylene	20	21.0	105	80 - 138
Trichloroethylene	20	20.0	100	76 - 135
Trichlorofluoromethane	20	23.0	115	60 - 149
Vinyl Acetate	20	18.0	90	38 - 187
Vinyl Chloride	20	25.0	125	66 - 133
c-1,3-dichloropropene	20	19.0	95	68 - 149
cis-1,2-Dichloroethylene	20	21.0	105	76 - 143
t-1,3-Dichloropropene	20	19.0	95	62 - 160

Comments:

LeBlanc Cleaners - Lewiston, ME

LABORATORY FORTIFIED DUPLICATE (LFB Dup) RECOVERY

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
1,1,1,2-Tetrachloroethane	20	100	5	50
1,1,1-Trichloroethane	21	105	0	50
1,1,2,2-Tetrachloroethane	21	105	0	50
1,1,2-Trichloro-1,2,2-Trifluoroetha	21	105	0	50
1,1,2-Trichloroethane	20	100	5	50
1,1-Dichloroethylene	20	100	0	52
1,1-Dichloropropene	20	100	5	50
1,1-dichloroethane	20	100	5	50
1,2,3-Trichlorobenzene	21	105	0	50
1,2,3-Trichloropropane	20	100	5	50
1,2,4-Trichlorobenzene	20	100	5	50
1,2,4-Trimethylbenzene	21	105	5	50
1,2-Dibromo-3-Chloropropane	18	90	0	50
1,2-Dibromoethane	21	105	0	50
1,2-Dichlorobenzene	20	100	5	50
1,2-Dichloroethane	20	100	5	50
1,2-Dichloropropane	20	100	5	50
1,3,5-Trimethylbenzene	21	105	5	50
1,3-Dichlorobenzene	20	100	5	50
1,3-Dichloropropane	20	100	5	50
1,4-Dichlorobenzene	20	100	0	50
2,2-Dichloropropane	20	100	5	50
2-Butanone (MEK)	20	100	0	50
2-Chlorotoluene	20	100	5	50
2-Hexanone	18	90	0	50
2-Propanone (acetone)	18	90	11	50
4-Chlorotoluene	20	100	5	50
4-Methyl-2-Pentanone(MIBK)	18	90	0	50
Acrylonitrile	21	105	0	50
Benzene	20	100	0	50
Bromobenzene	20	100	5	50
Bromochloromethane	20	100	5	50
Bromodichloromethane	21	105	0	50
Bromoform	18	90	5	50
Bromomethane	20	100	5	50
Carbon Disulfide	20	100	5	50
Carbon tetrachloride	20	100	5	50
Chlorobenzene	20	100	0	34
Chloroethane	20	100	0	50
Chloroform	20	100	5	50
Chloromethane	20	100	0	50
Dibromochloromethane	18	90	5	50
Dibromomethane	20	100	5	50
Dichlorodifluoromethane	21	105	0	50
Ethyl Ether	20	100	0	50
Ethylbenzene	20	100	5	50
Hexachlorobutadiene	20	100	0	50
Isopropylbenzene	21	105	5	50
M/P Xylene	41	103	2	50
Methyl-t-Butyl Ether	19	95	5	50
Methylene Chloride	20	100	5	50

LeBlanc Cleaners - Lewiston, ME

LABORATORY FORTIFIED DUPLICATE (LFB Dup) RECOVERY

COMPOUND	LFB Dup CONCENTRATION ug/L	LFB Dup RECOVERY %	RPD %	QC LIMITS RPD
N-Butylbenzene	21	105	5	50
N-Propylbenzene	21	105	0	50
Naphthalene	19	95	0	50
Ortho Xylene	21	105	0	50
Para-Isopropyltoluene	21	105	5	50
Sec-Butylbenzene	21	105	0	50
Styrene	21	105	5	50
Tert-Butylbenzene	21	105	5	50
Tetrachloroethylene	20	100	0	50
Tetrahydrofuran	21	105	5	50
Toluene	20	100	5	50
Trans-1,2-Dichloroethylene	20	100	5	50
Trichloroethylene	20	100	0	27
Trichlorofluoromethane	22	110	4	50
Vinyl Acetate	18	90	0	50
Vinyl Chloride	23	115	8	50
c-1,3-dichloropropene	18	90	5	50
cis-1,2-Dichloroethylene	20	100	5	50
t-1,3-Dichloropropene	18	90	5	50

Samples in Batch: AB67170

PN: 17050020

USEPA
Weston Solutions
START IV

CHAIN OF CUSTODY RECORD
Site #: R01-160427MH
Contact Name: John Burton
Contact Phone: 978-621-1214

No: 0091MH-04240-007

Lab: OEME-NERL

Lab #	Sample #	Location	Analyses	Matrix	Collected	Sample Time	Numb Cont	Container	Collection Time (Minutes)
	0091MH-0138	SUM_Fill Pipe	TO-15	Air	5/18/2017	11:15	1	Summa Canister	105 seconds to fill
	0091MH-0139	SUM_Vent Pipe	TO-15	Air	5/18/2017	11:30	1	Summa Canister	120 seconds to fill.
	0091MH-0140	UST-1	VOC/8260	Product	5/18/2017	12:25	2	40 ml VOA	PID Headspace = 187 ppm

Special Instructions: Please run Library Search on TO-15. Please email results to holmes.marcus@epa.gov.

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	JL Burton Weston	5/19/17 0:15	ESAT	5-19-17 10:15	1°C

17050020 $VOAMW
17050020 $AIRTX

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

DATE: June 20, 2017

SUBJ: Site Investigation Closure Memorandum
LeBlanc Cleaners Site
10 Lafayette Street, Lewiston, ME 04240

FROM: Marcus Holmes, On-Scene Coordinator
Emergency Response and Removal Section II

THRU: William Lovely, Chief
Emergency Response and Removal Section II

TO: LeBlanc Cleaners Site File

In accordance with section 300.410 of the National Contingency Plan (NCP), a Removal Site Evaluation, consisting of a Preliminary Assessment and Site Investigation (PA/SI), has been undertaken at the LeBlanc Cleaners Site ("Site") in Lewiston, Maine. The findings of the Removal Site Evaluation have been evaluated under the criteria set forth in section 300.415 of the NCP, section 104(a) and (b) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. § 9604(a) and (b) and Clean Water Act (CWA) § 311(c)(i) as amended by the Oil Pollution Act (OPA) § 4201(a). The Removal Site Evaluation has led to the determination that a Removal Action **is not** appropriate at this time.

The findings of the Removal Site Evaluation are outlined below.

1. Source and nature of the release or threat of release

   a. The Removal Site Evaluation consisted of the following actions:

      i. Review of Maine Department of Environmental Protection's Phase I Environmental Site Assessment Report generated by Ransom Consulting, Inc. dated May 4, 2015.

      ii. Review of Maine Department of Environmental Protection's "Notice of Violation" to LeBlanc Cleaners dated September 14, 2015.

iii. Review of Maine Department of Environmental Protection's Phase II Environmental Site Assessment Report generated by CES, Inc. dated October 29, 2015.

iv. The Site Investigation on April 27th through April 29th 2016, December 13th through 14th 2016, and May 18th 2017.

v. Generating a PA/SI report by EPA's contractor, Weston Solutions, Inc., titled "Removal Program Preliminary Assessment/Site Investigation Report for the LeBlanc Cleaners Site" dated February 2017.

b. Based on the information available at this time, the principal hazardous substances or pollutants or contaminants that are being released or for which there is threat of release include but are not necessarily limited to the list below.

Hazardous Substances or Pollutants or Contaminants	Media
VOCs [Tetrachloroethylene, Trichloroethylene]	soil
VOCs [Tetrachloroethylene, Trichloroethylene]	container [5-gallon drum]

2. Evaluation of the threat to public health, welfare and the environment

a. Federal Agency for Toxic Substances and Disease Registry:

Threat☐ No Threat☐ Evaluation Not Necessary [X]

b. Endangerment to the ecosystem:

Threat☐ No Threat☐ Evaluation Not Necessary [X]

3. The Removal Site Evaluation was terminated pursuant to § 300.410(f) of the NCP for the following reason(s).

☐ There is no release.

☐ The source is neither a "vessel" nor a "facility" as defined in section 300.5 of the NCP.

☐ The release involves neither a hazardous substance, nor a pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the United States.

☐ It is subject to the limitations on response specified in •300.400(b)(1) through (3). The release is

- ☐ of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found.
- ☐ from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures.
- ☐ into public or private drinking water supplies due to deterioration of the system through ordinary use.

☒ The amount, quantity, or concentration released does not warrant a Federal response.

☐ A party responsible for the release, or any other person, is providing appropriate response, and on-scene monitoring by EPA is not required.

☐ The Removal Site Evaluation is complete.

4. As reflected in Section 3, above, the Removal Site Evaluation was terminated due to its completion, and not for other reasons.

a. The factors listed below, found in Section 300.415(b)(2) of the NCP, are applicable to this Site.

☒ Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.

☒ Actual or potential contamination of drinking water supplies or sensitive ecosystems.

☐ Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

☐ High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate.

☐ Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

☐ Threat of fire or explosion.

☐ The availability of other appropriate Federal or State response mechanisms to respond to the release.

☐ Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

b. The absence of the conditions specified in Section 4.a., above, indicate that a Removal Action under section 300.415 of the NCP **is not** necessary.

Sub-surface soil and soil gas samples at and adjacent to the Site show that high concentrations of soil vapor contamination are limited to the unoccupied building (Site). In addition, the sample results that depict the soil vapor concentration plume do not pose an imminent threat to nearby human populations.

c. In light of the magnitude of the threat or potential threat to health, welfare, or the environment, the appropriate categorization of a Removal Action at this Site is:

Emergency☐ Time-Critical☐ Non Time-Critical☐

5. As reflected in Section 3, above, the Removal Site Evaluation was terminated due to its completion, and not for other reasons.

a. As found in section 300.410(e)(1) of the NCP, the OSC shall determine whether a release governed by CWA section 311(c)(1), as amended by OPA section 4201(a), has occurred.

☐ There is a release, or potential threat of release, as governed by the CWA as amended by OPA.

☒ There is not a release, or potential threat of release, as governed by the CWA as amended by OPA.

b. The absence of the conditions specified in Section 5.a., above, indicate that an Oil Spill Response under Appendix E to Part 300 of the NCP **is not** necessary.

Electronic cc:

William Lovely, Chief, Emergency Response and Removal Section II, OSRR
Meghan Cassidy, Chief, Technical Support & Site Assessment Section, OSRR
Patti Ludwig, EPRB, OSRR
Brian Beneski, Manager, Division of Remediation, Maine DEP
Ted Wolfertz, Project Manager, Division of Remediation, Maine DEP
Alfred LeBlanc, Owner

Encl: PA/SI Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

July 11, 2017

Mr. Alfred LeBlanc
P.O. Box 1236
Auburn, ME 04211

RE: LeBlanc Cleaners Removal Site, Lewiston, ME 04240

Dear Mr. LeBlanc,

This letter is a follow-up to one you recently received dated April 13, 2017, in which you were provided with the Interim *Removal Program Preliminary Assessment/Site Investigation Report for the LeBlanc Cleaners Site, in Lewiston, Maine.* Included with this letter is the Final Site Investigation Report titled *Underground Storage Tank Sampling Activities Memorandum* dated July 11, 2017.

We have determined that the source is not impacting the indoor air of buildings adjacent to the site. However, the source beneath the building may be continuing to generate vapors inside the building. In addition, small amounts of PCE are stored in containers inside the building, but not enough to warrant an immediate federal response.

EPA will be closing out this site out under our Emergency Planning and Response Branch and transitioning it back to the Maine Department of Environmental Protection (MEDEP) for follow-up actions and next steps. EPA will retain its interest in the site, in case future contamination issues arise or there are issues requiring an immediate federal response.

If you have any questions regarding the site status and close-out activities, feel free to contact me with the information below.

Again, thank you for your patience and cooperation throughout this process.

Sincerely,

Marcus Holmes
Environmental Engineer, On-Scene Coordinator
EPA Region 1, OSRR, EPRB, R&RII
holmes.marcus@epa.gov
Office: 617-918-1630
Fax: 617-918-0630

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

July 11, 2017

Maine Department of Environmental Protection
ATTN: Ted Wolfertz
17 State House Station
Augusta, ME 04333

RE: LeBlanc Cleaners Removal Site, Lewiston, ME 04240

Dear Mr. Wolfertz,

This letter is a follow-up to one you recently received dated April 13, 2017, in which you were provided with the Interim *Removal Program Preliminary Assessment/Site Investigation Report for the LeBlanc Cleaners Site, in Lewiston, Maine.* Included with this letter is the Final Site Investigation Report titled *Underground Storage Tank Sampling Activities Memorandum* dated July 11, 2017.

We have determined that the source is not impacting the indoor air of buildings adjacent to the site. However, the source beneath the building may be continuing to generate vapors inside the building. In addition, small amounts of PCE are stored in containers inside the building, but not enough to warrant an immediate federal response.

EPA will be closing out this site out under our Emergency Planning and Response Branch and transitioning it back to the Maine Department of Environmental Protection (MEDEP) for follow-up actions and next steps. EPA will retain its interest in the site, in case future contamination issues arise or there are issues requiring an immediate federal response.

If you have any questions regarding the site status and close-out activities, feel free to contact me with the information below.

Again, thank you for your patience and cooperation throughout this process.

Sincerely,

Marcus Holmes
Environmental Engineer, On-Scene Coordinator
EPA Region 1, OSRR, EPRB, R&RII
holmes.marcus@epa.gov
Office: 617-918-1630
Fax: 617-918-0630

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

July 11, 2017

St. Mary's Health System
Plant Operations
ATTN: Ronald Vachon, Director
P.O. Box 7291
Lewiston, ME 04243

RE: LeBlanc Cleaners Removal Site, Lewiston, ME 04240

Dear Mr. Vachon,

This letter is a follow-up to one you recently received dated April 13, 2017, in which you were provided with the Interim *Removal Program Preliminary Assessment/Site Investigation Report for the LeBlanc Cleaners Site, in Lewiston, Maine.* Included with this letter is the Final Site Investigation Report titled *Underground Storage Tank Sampling Activities Memorandum* dated July 11, 2017.

We have determined that the source is not impacting the indoor air of buildings adjacent to the site. However, the source beneath the building may be continuing to generate vapors inside the building. In addition, small amounts of PCE are stored in containers inside the building, but not enough to warrant an immediate federal response.

EPA will be closing out this site out under our Emergency Planning and Response Branch and transitioning it back to the Maine Department of Environmental Protection (MEDEP) for follow-up actions and next steps. EPA will retain its interest in the site, in case future contamination issues arise or there are issues requiring an immediate federal response.

If you have any questions regarding the site status and close-out activities, feel free to contact me with the information below.

Again, thank you for your patience and cooperation throughout this process.

Sincerely,

Marcus Holmes
Environmental Engineer, On-Scene Coordinator
EPA Region 1, OSRR, EPRB, R&RII
holmes.marcus@epa.gov
Office: 617-918-1630
Fax: 617-918-0630

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

July 11, 2017

City of Lewiston, Maine
Department of Public Works
ATTN: David A. Jones, Director
103 Adams Avenue
Lewiston, ME 04240

RE: LeBlanc Cleaners Removal Site, Lewiston, ME 04240

Dear Mr. Jones,

This letter is a follow-up to one you recently received dated April 13, 2017, in which you were provided with the Interim *Removal Program Preliminary Assessment/Site Investigation Report for the LeBlanc Cleaners Site, in Lewiston, Maine.* Included with this letter is the Final Site Investigation Report titled *Underground Storage Tank Sampling Activities Memorandum* dated July 11, 2017.

We have determined that the source is not impacting the indoor air of buildings adjacent to the site. However, the source beneath the building may be continuing to generate vapors inside the building. In addition, small amounts of PCE are stored in containers inside the building, but not enough to warrant an immediate federal response.

EPA will be closing out this site out under our Emergency Planning and Response Branch and transitioning it back to the Maine Department of Environmental Protection (MEDEP) for follow-up actions and next steps. EPA will retain its interest in the site, in case future contamination issues arise or there are issues requiring an immediate federal response.

If you have any questions regarding the site status and close-out activities, feel free to contact me with the information below.

Again, thank you for your patience and cooperation throughout this process.

Sincerely,

Marcus Holmes
Environmental Engineer, On-Scene Coordinator
EPA Region 1, OSRR, EPRB, R&RII
holmes.marcus@epa.gov
Office: 617-918-1630
Fax: 617-918-0630