



317.916.8000 ▪ www.augustmack.com
1302 North Meridian Street, Suite 300 ▪ Indianapolis, Indiana 46202

June 29, 2020

1234 Capitol Associates LLC
c/o Ms. Carla S. Johnson
Indiana University Health, Inc.
Gateway Building
950 N. Meridian Street, Suite 1200
Indianapolis, Indiana 46204

**Re: Phase II Subsurface Investigation
Johnson Controls Property
1255 N. Senate Avenue
Indianapolis, Indiana
August Mack Project Number JU1036.740**

Dear Ms. Johnson:

In accordance with your request, August Mack Environmental, Inc. (August Mack) has completed subsurface investigation activities at the above-referenced Site. During a recent Phase I Environmental Site Assessment (ESA) performed by August Mack (August Mack Project No. JU0898.710), the following recognized environmental conditions (RECs) were identified:

- The historical use of the Site as a coal/wood yard, auto repair shop, and dry cleaner, and the likely use of hazardous substances and/or petroleum products as part of Site operations prior to environmental regulations.
- The historical use of multiple surrounding properties as dry cleaners, manufacturers, filling stations, and auto repair/body shops, and documented trichloroethylene (TCE) and perchloroethylene or tetrachloroethylene (PCE) impacts on the surrounding properties and along the west Study Site boundary exceeding IDEM Screening Levels (including vapor exposure screening levels). The groundwater contamination in the area is known as the 14th Street Corridor Plume.

August Mack understands that remedial injections were completed on the northwest portion of the Site in late 2019 or early 2020 on behalf of one (1) of the responsible parties of the 14th Street Corridor Plume. Therefore, since groundwater conditions are likely affected by the injections, the purpose of this investigation was to determine if subsurface soil on the subject Site have been impacted by the on-Site REC related to historical on-Site operations and determine if the Site is a potential contributor to the 14th Street Corridor Plume. This report includes a description of the scope of work, a summary of field activities, sampling procedures, laboratory analytical results, and conclusions.



This report was prepared at the request of Ms. Carla S. Johnson of Indiana University Health, Inc., and may be relied on by Indiana University Health, Inc. and 1234 Capitol Associates, LLC. Reliance on the information and conclusions presented in this report by any other party(ies) is not authorized by August Mack.

SUBSURFACE INVESTIGATION

Investigation Locations

August Mack mobilized to the Site on June 11, 2020, to complete the subsurface investigation activities. Prior to starting soil boring activities, ground penetrating radar (GPR), electromagnetic (EM) locating, and other utility locating tools were utilized to clear all boring locations.

A total of four (4) soil borings (SB-1 through SB-4) were advanced at the Site using a Geoprobe® direct push sampling system. Information regarding boring locations is provide below and boring locations are depicted on **Figure 1**.

- SB-1 was advanced on the northern portion of the property, in the vicinity of the former wood/coal yard;
- SB-2 was advanced on the northwest corner of the property, in the area of a former dry cleaner;
- SB-3 was advanced just south of SB-2, in the area of a former auto repair shop; and,
- SB-4 was advanced on the southwest portion of the property, in the area of a former dry cleaner.

Soil Sampling Methodology

Soil boring SB-1 was advanced to a depth of 9 feet below grade (ft bg) to evaluate shallow soil conditions. Soil borings SB-2 and SB-4 were advanced to a depth of 21 ft bg. August Mack attempted to advance SB-3 to 20 ft bg, but hit refusal at 11 ft bg due to the presence of gravel and/or rocks. All soil sample intervals were inspected in the field for odors and staining, and screened using a photoionization detector (PID) to evaluate soil conditions and collect soil samples for laboratory analysis. Field screening results and soil lithological information is provided on soil boring logs included as **Attachment A**.

At SB-1, one (1) soil sample was collected from the highest screened, unsaturated, interval; while, at SB-2 through SB-4, one (1) soil sample was collected from the highest screened interval from 0 to 10 ft bg, and one (1) soil sample was collected from the highest screened or deepest interval from 10 to 21 ft bg. The soil samples were submitted to ENVision Laboratories (Envision) located in Indianapolis, Indiana, for laboratory analysis of the following constituents of concern (COCs):

- SB-1: RCRA 8 metals via United States Environmental Protection Agency (U.S. EPA) SW-846 method 6010; and polycyclic aromatic hydrocarbons (PAHs) via U.S. EPA SW-846 method 8270.
- SB-2 and SB-4: volatile organic compounds (VOCs) via U.S. EPA SW-846 method 8260.
- SB-3: VOCs via U.S. EPA SW-846 method 8260; PAHs via U.S. EPA SW-846 method 8270; polychlorinated biphenyls (PCBs) via U.S. EPA SW-846 method 8082; and, RCRA 8 metals via U.S. EPA SW-846 method 6010.

August Mack field procedures for Geoprobe® soil sampling are provided in **Attachment B**.

Field Observations

Inspection of collected soil samples revealed that the subsurface geology primarily consisted of alternating layers of silty sand, sandy silt and gravelly sand. Brick and asphalt fragments were identified in SB-2 through SB-4, indicative of the presence of fill material. August Mack did not encounter any wet or saturated conditions at the boring locations.

Field observations did not reveal any evidence of staining or odors in the soil borings. In addition, none of the PID readings exceeded 2.3 parts per million (ppm).

Soil Analytical Results

The soil analytical results were compared to the Indiana Department of Environmental Management (IDEM) Remediation Closure Guide (RCG) 2020 Soil Migration to Groundwater (MTG) Screening Levels (SLs), Residential Direct Contact (DC) SLs, Commercial/Industrial DC SLs, and Excavation DC SLs. The laboratory analysis revealed the following results:

- RCRA 8 metal constituents barium, lead, and chromium (total) were detected above laboratory reporting limits, but below their respective RCG SLs at SB-1 (2-4'), SB-3 (4-6'), and SB-3 (10-11'). No other COCs were reported above the laboratory reporting limits.

The soil analytical results are summarized in **Table 1** and a copy of the laboratory analytical report and chain of custody documentation is included in **Attachment C**.

SUMMARY AND CONCLUSION

August Mack has completed the limited Phase II Subsurface Investigation activities at 1255 N. Senate Avenue, Indianapolis, Indiana. A total of four (4) soil borings (SB-1 through SB-4) were advanced at the Site to evaluate if subsurface soil on the subject Site have been impacted by the on-Site REC related to historical on-Site operations, and determine if the Site is a potential contributor to the 14th Street Corridor Groundwater Plume.

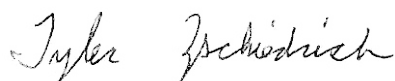
Field observations did not reveal any evidence of staining, odors, or other indications of a release. Laboratory analysis of the soil samples revealed RCRA 8 metals barium, chromium

(total), and lead above laboratory reporting limits, but below their respective RCG SLs in three (3) of the samples. No other COCs were identified above the laboratory reporting limits.

Therefore, based on results of field screening and laboratory analysis of soil samples which revealed all COCs below the most stringent IDEM SLs, there is no evidence of a release at the Site that would contribute to the 14th Street Corridor Groundwater Plume. As such, no further investigation is warranted at this time.

We appreciate the opportunity to provide you with environmental consulting services and trust that this submittal is in accordance with your needs. Please feel free to contact us if you have any questions or comments, or require additional information regarding this project or the project site.

Sincerely,



Tyler Zschiedrich
Senior Environmental Site Assessor



Kaylee Moore
Environmental Site Assessor

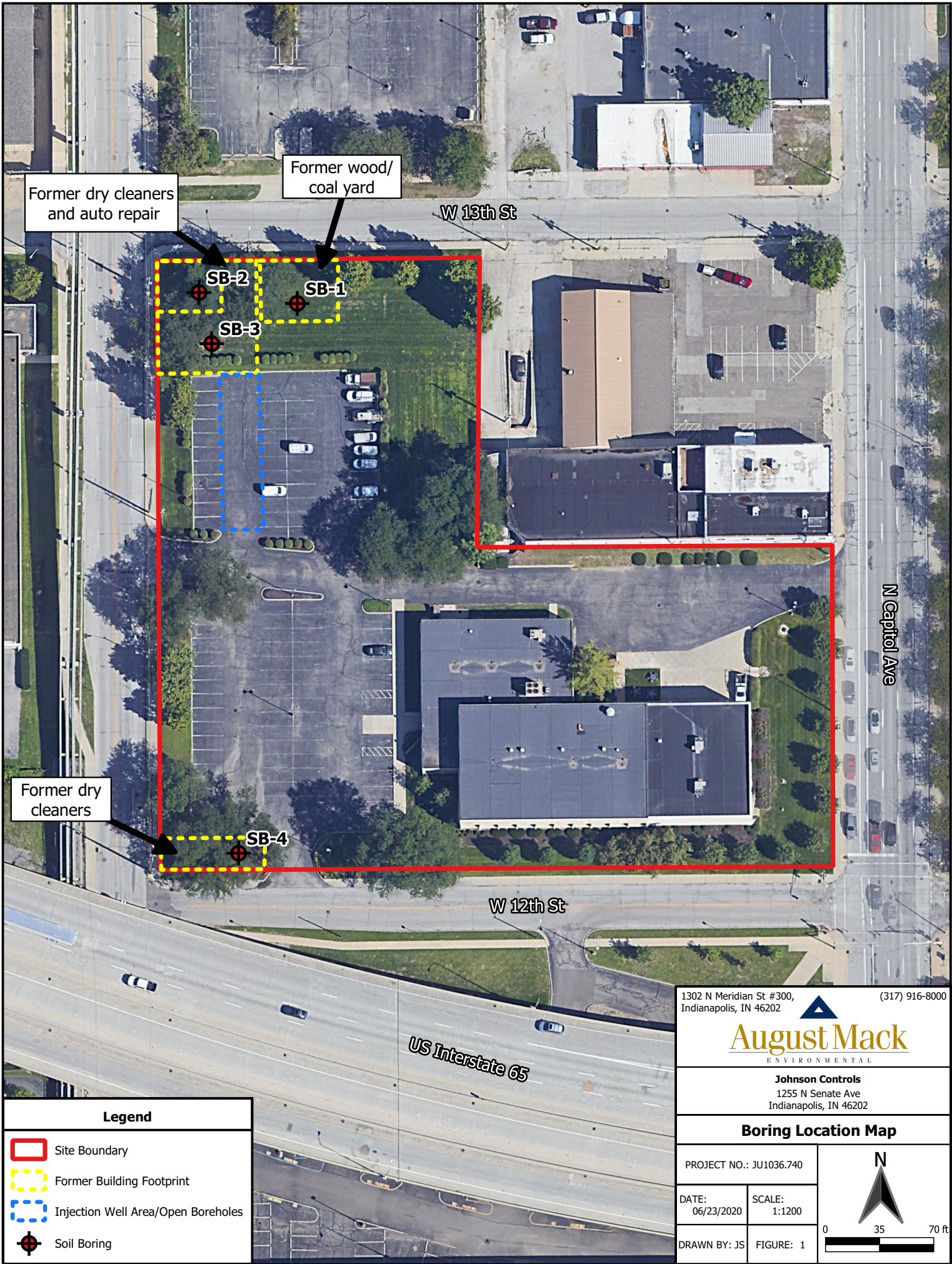


Pilar E. Cuadra, LPG
Practice Leader, Transaction Services

Attachments

FIGURES

Figure 1: Site Plan with Boring Locations



Former dry cleaners
and auto repair

Former wood/
coal yard

W 13th St

SB-2

SB-1

SB-3

Former dry
cleaners

SB-4

W 12th St

N Capitol Ave

US Interstate 65

1302 N Meridian St #300,
Indianapolis, IN 46202 (317) 916-8000

August Mack
ENVIRONMENTAL

Johnson Controls
1255 N Senate Ave
Indianapolis, IN 46202

Boring Location Map

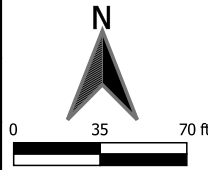
PROJECT NO.: JU1036.740

DATE:
06/23/2020

SCALE:
1:1200

DRAWN BY: JS

FIGURE: 1



Legend

- Site Boundary
- Former Building Footprint
- Injection Well Area/Open Boreholes
- Soil Boring

TABLES

Table 1: Soil Analytical Results

	Sample Description:	IDEM 2020 RESIDENTIAL DIRECT CONTACT (*)	IDEM 2020 COMMERCIAL DIRECT CONTACT (**)	IDEM 2020 EXCAVATION DIRECT CONTACT (#)	IDEM 2020 SOIL MIGRATION TO GROUNDWATER (^)	Phase II Subsurface Investigation						
	Sample ID (Depth - ft.):					SB-1 (2-4')	SB-2 (0-2')	SB-2 (14-16')	SB-3 (4-6')	SB-3 (10-11')	SB-4 (8-10')	SB-4 (10-12')
	Sample Date:					6/11/2020	6/11/2020	6/11/2020	6/11/2020	6/11/2020	6/11/2020	6/11/2020
VOLATILE ORGANIC COMPOUNDS (VOCs) VIA USEPA METHOD 8260												
All Analyzed VOCs		Varies	Varies	Varies	Varies	NA	BRL	BRL	BRL	BRL	BRL	BRL
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) VIA USEPA METHOD 8270												
All Analyzed PAHs		Varies	Varies	Varies	Varies	BRL	NA	NA	BRL	BRL	NA	NA
RCRA 8 METALS VIA USEPA METHODS 6010/7471												
Arsenic	9.5	30	920	5.9	<2.5	NA	NA	<2.2	<2.2	NA	NA	
Barium	21,000	100,000	100,000	1,700	61	NA	NA	27	52	NA	NA	
Cadmium	99	980	1,900	NE	<2.5	NA	NA	<2.2	<2.2	NA	NA	
Chromium (Total)	NE	NE	NE	1,000,000	3.1	NA	NA	3.8	9.7	NA	NA	
Lead	400	800	1,000	270	195	NA	NA	18	14	NA	NA	
Mercury	3.1	3.1	3.1	2.1	<1.0	NA	NA	<1.0	<1.0	NA	NA	
Selenium	550	5,800	9,800	5.3	<2.5	NA	NA	<2.2	<2.2	NA	NA	
Silver	550	5,800	9,800	16	<2.5	NA	NA	<2.2	<2.2	NA	NA	
POLYCHLORINATED BIPHENYLS (PCBs) VIA USEPA METHOD 8082												
Aroclor 1016	5.7	51	120	2.7	NA	NA	NA	<0.016	<0.016	NA	NA	
Aroclor 1221	2.8	8.3	520	0.016	NA	NA	NA	<0.016	<0.016	NA	NA	
Aroclor 1232	2.4	7.2	490	0.016	NA	NA	NA	<0.016	<0.016	NA	NA	
Aroclor 1242	3.2	9.5	560	0.24	NA	NA	NA	<0.016	<0.016	NA	NA	
Aroclor 1248	3.2	9.4	550	0.24	NA	NA	NA	<0.016	<0.016	NA	NA	
Aroclor 1254	1.7	9.7	33	0.41	NA	NA	NA	<0.016	<0.016	NA	NA	
Aroclor 1260	3.4	9.9	570	1.1	NA	NA	NA	<0.016	<0.016	NA	NA	

Abbreviations & Notes

BRL = Below laboratory reporting limits

E = Reporting limit (RL) above screening level due to dilution and/or analytical limitations.

IDEM = Indiana Department of Environmental Management

NA = Not Analyzed

NE = Not Established

RCG = Remediation Closure Guide

SLs = Screening Levels

USEPA = United States Environmental Protection Agency

All results and IDEM Screening Levels are reported in milligrams per kilogram (mg/kg).

All IDEM Screening Levels are based on the RCG Table A-6: Screening Levels with updates.

The following denote the symbol and color of screening level exceedances:

* = At or Above 2020 IDEM RCG Residential Direct Contact SLs

** = At or Above 2020 IDEM RCG Commercial/Industrial Direct Contact SLs

= At or Above 2020 IDEM RCG Excavation Direct Contact SLs

^ = At or Above 2020 IDEM RCG Soil Migration to Groundwater SLs

ATTACHMENT A

Soil Boring Logs



SB-1	Project Number: JU1036.740	Date Drilled: 6/11/2020
	Project Name: Phase II Subsurface Investigation	Personnel: S. Powell
	Site Address: 1255 N. Senate Avenue	Driller: C. Hutcheson
	City, State: Indianapolis, IN	Driller License: 1731
	Boring Location: See Figure	Drilling Method: Dual Tube - Direct Push
	Northing*: Not Measured	Easting*: Not Measured
	Surface Elevation: Not Measured	GW Sample Method: Not Measured

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	Screen Interval	Soil Sample Interval	Comments
0	TOPSOIL						
1	SILTY SAND	Dark brown, fine grained, very loose, poorly graded, damp	70	0.8			Soil sample SB-1-2-4 collected at 1420
2							
3		Black, medium grained, well graded		0.6			
4	SANDY SILT	Light brown, non plastic, very soft, damp		0.6			
5			5	0.7			
6							
7				0.7			
8			5	0.7			
9							End of boring at 9'

* = Northing, Easting, and Surface Elevation (State Plane or UTM) are estimated, unless specified in the report to have been surveyed.




SB-2	Project Number: JU1036.740	Date Drilled: 6/11/2020
	Project Name: Phase II Subsurface Investigation	Personnel: S. Powell
	Site Address: 1255 N. Senate Avenue	Driller: C. Hutcheson
	City, State: Indianapolis, IN	Driller License: 1731
	Boring Location: See Figure	Drilling Method: Dual Tube - Direct Push
	Northing*: Not Measured	Easting*: Not Measured
	Surface Elevation: Not Measured	GW Sample Method: Not Measured

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	Screen Interval	Soil Sample Interval	Comments
0	TOPSOIL						
1	GRAVELLY SAND	Brown, medium grained, loose, well graded, damp	70	2.3			Soil sample SB-2-0-2 collected at 1330
2	SILTY SAND	Brown, medium grained, loose, poorly graded, damp		1.6			
3		With trace gravel					
4		Dark brown, coarse grained, medium dense, well graded, damp	50	1.1			Asphalt from 4.5-4.75'
5	SANDY SILT			0.9			Asphalt from 5.5-6.25'
6							
7			50	0.9			
8	SANDY SILT	Dark brown, non plastic, soft, damp		0.9			Brick fragments from 8.25-8.75' Black and orange streaks from 8.75-9.25'
9		With gravel					
10				0.8			
11	SANDY SILT	Brown, non plastic, soft, damp	40	1.1			Soil sample SB-2-14-16 collected at 1330
12	SILTY SAND	Dark brown, coarse grained, medium dense, well graded, damp		1.5			
13	SANDY SILT	Brown, non plastic, soft, damp					
14	GRAVELLY SAND	Brown, medium grained, very loose, poorly graded, damp	30	1.0			
15		With trace gravel		0.9			
16							
17		Moist					
18							
19							
20							

* = Northing, Easting, and Surface Elevation (State Plane or UTM) are estimated, unless specified in the report to have been surveyed.



SB-2	Project Number: JU1036.740	Date Drilled: 6/11/2020
	Project Name: Phase II Subsurface Investigation	Personnel: S. Powell
	Site Address: 1255 N. Senate Avenue	Driller: C. Hutcheson
	City, State: Indianapolis, IN	Driller License: 1731
	Boring Location: See Figure	Drilling Method: Dual Tube - Direct Push
	Northing*: Not Measured	Easting*: Not Measured
	Surface Elevation: Not Measured	GW Sample Method: Not Measured

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	Screen Interval	Soil Sample Interval	Comments
20		GRAVELLY SAND	30	0.9			End of boring at 21'
21							

* = Northing, Easting, and Surface Elevation (State Plane or UTM) are estimated, unless specified in the report to have been surveyed.



SB-3	Project Number: JU1036.740	Date Drilled: 6/11/2020
	Project Name: Phase II Subsurface Investigation	Personnel: S. Powell
	Site Address: 1255 N. Senate Avenue	Driller: C. Hutcheson
	City, State: Indianapolis, IN	Driller License: 1731
	Boring Location: See Figure	Drilling Method: Dual Tube - Direct Push
	Northing*: Not Measured	Easting*: Not Measured
	Surface Elevation: Not Measured	GW Sample Method: Not Measured

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	Screen Interval	Soil Sample Interval	Comments
0	TOPSOIL						
1	SILTY SAND	Brown, fine grained, loose, poorly graded, damp	55	0.5			Orange streaks and red brick fragments from 3-4.5
2							
3	SILTY SAND	Medium grained	55	0.4			
4							
5	GRAVELLY SAND	Brown, medium grained, very loose, well graded, damp	30	0.6			Soil sample SB-3-8-10 collected at 1200 Asphalt fragments from 9.5-10' Soil sample SB-3-10-11 collected at 1200 End of boring (refusal) at 11'
6							
7	SILTY SAND		35	0.6			
8		Brown, medium grained, medium dense, poorly graded, damp					
9	SILTY SAND		35	0.6			
10							
11	CLAYEY SILT	Dark brown, low plasticity, soft, damp		0.7			

* = Northing, Easting, and Surface Elevation (State Plane or UTM) are estimated, unless specified in the report to have been surveyed.




SB-4	Project Number: JU1036.740	Date Drilled: 6/11/2020
	Project Name: Phase II Subsurface Investigation	Personnel: S. Powell
	Site Address: 1255 N. Senate Avenue	Driller: C. Hutcheson
	City, State: Indianapolis, IN	Driller License: 1731
	Boring Location: See Figure	Drilling Method: Dual Tube - Direct Push
	Northing*: Not Measured	Easting*: Not Measured
	Surface Elevation: Not Measured	GW Sample Method: Not Measured

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	Screen Interval	Soil Sample Interval	Comments
0	ASPHALT						
1	GRAVELLY SAND	Brown, medium grained, very loose, poorly graded, loose	40	0.8			Fill material from 0-1'
2							
3	SILTY SAND	Dark brown, medium plasticity, soft, damp	40	0.7			Brick fragments from 3-5.5'
4		Reddish-orange, coarse grained, very loose, well graded, dry					
5				1.0			
6	GRAVELLY SAND	Brown, medium grained, very loose, poorly graded, damp	40	1.5			
7							
8							
9			40	1.9			Soil sample SB-4-8-10 collected at 1100
10							
11				1.7			Soil sample SB-4-10-12 collected at 1100
12							
13			45	1.5			
14				1.3			
15							
16							
17				1.2			
18		Fine grained, soft	50				
19		Moist		1.2			
20							

* = Northing, Easting, and Surface Elevation (State Plane or UTM) are estimated, unless specified in the report to have been surveyed.



SB-4	Project Number: JU1036.740	Date Drilled: 6/11/2020
	Project Name: Phase II Subsurface Investigation	Personnel: S. Powell
	Site Address: 1255 N. Senate Avenue	Driller: C. Hutcheson
	City, State: Indianapolis, IN	Driller License: 1731
	Boring Location: See Figure	Drilling Method: Dual Tube - Direct Push
	Northing*: Not Measured	Easting*: Not Measured
	Surface Elevation: Not Measured	GW Sample Method: Not Measured

Depth (ft.)	Soil Type	Lithology Description	% Recovery	PID (ppm)	Screen Interval	Soil Sample Interval	Comments
20 21	 GRAVELLY SAND		50	1.2			

End of boring at 21'

ATTACHMENT B

Field Procedures

SOIL SAMPLING PROCEDURES

Geoprobe Soil Sampling Activities

Soil borings were advanced using a Geoprobe® Direct Push Dual-Tube Sampling System (Geoprobe®). Soil borings were advanced to the desired depth required for the investigation. Soil samples were collected continuously from each boring location by using the dual-tube tooling, which includes a disposable acetate sample liner. The sampler was recovered with a 4-foot soil sample collected within an acetate liner inside the barrel. A new acetate liner was used for each sample collected. All reusable equipment that contacted the soil samples was decontaminated with a Liquinox® solution and rinsed with water between each sample collection.

Upon retrieving the 4-foot sections of soil, the samples were divided into 2-foot sections and inspected in the field for evidence of contamination (odors, staining, etc.). Each sample was also screened in the field by headspace analysis using a MiniRae® photoionization detector (PID). At SB-1, one (1) soil sample was collected from the highest screened, unsaturated, interval; while, at SB-2 through SB-4, one (1) soil sample was collected from the highest screened interval from 0 to 10 ft bg, and one (1) soil sample was collected from the highest screened or deepest interval from 10 to 20 ft bg. All samples were transferred to clean, labeled sample containers (provided by the laboratory) and placed on ice in a cooler for preservation in the field. The soil samples were submitted to ENVision Laboratories (Envision) located in Indianapolis, Indiana, for laboratory analysis of RCRA 8 metals, PAHs, VOCs, and/or PCBs.

Site Restoration Activities

Upon completion of the field sampling activities, the boreholes were abandoned by manually pouring soil cuttings and bentonite into the boring. Study site restoration was completed by patching the surface materials to match pre-investigation conditions.

ATTACHMENT C

Laboratory Results



ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
Indianapolis, IN 46239
Tel: 317.351.8632
Fax: 317.351.8639
www.envisionlaboratories.com

Mr. Tyler Zschiedrich
August Mack Environmental
1302 North Meridian Street, Suite 300
Indianapolis, IN 46202

June 23, 2020

ENVision Project Number: 2020-1252
Client Project Name: JU1036.740 Johnson Controls

Dear Mr. Zschiedrich,

Please find the attached analytical report for the samples received June 11, 2020. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

The reference for the preservation technique utilized by ENVision Laboratories for Volatile Organics in soil may be found on Table A.1 (p. 42) of Method 5035A: Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples, July 2002, Draft Revision 1.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. ENVision Laboratories looks forward to working with you on your next project.

Yours Sincerely,

Cheryl A. Crum
Director of Project Management
ENVision Laboratories, Inc.



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8270 PAH
Prep Method: EPA 3550C
Analytical Batch: 061220PS

Client Sample ID: SB-1-2-4 **Sample Collection Date/Time:** 6/11/20 14:20
Envision Sample Number: 20-8298 **Sample Received Date/Time:** 6/11/20 14:57
Sample Matrix: soil

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acenaphthene	< 0.41	0.41	
Acenaphthylene	< 0.41	0.41	
Anthracene	< 0.41	0.41	
Benzo(a)anthracene	< 0.41	0.41	
Benzo(a)pyrene	< 0.084	0.084	
Benzo(b)fluoranthene	< 0.41	0.41	
Benzo(g,h,i)perylene	< 0.41	0.41	
Benzo(k)fluoranthene	< 0.41	0.41	
Chrysene	< 0.41	0.41	
Dibenzo(a,h)anthracene	< 0.084	0.084	
Fluoranthene	< 0.41	0.41	
Fluorene	< 0.41	0.41	
Indeno(1,2,3-cd)pyrene	< 0.41	0.41	
1-methylnaphthalene	< 0.41	0.41	
2-methylnaphthalene	< 0.41	0.41	
Naphthalene	< 0.084	0.084	
Phenanthrene	< 0.38	0.38	
Pyrene	< 0.41	0.41	
Nitrobenzene-d5 (surrogate)	35%		
2-Fluorobiphenyl (surrogate)	39%		
p-Terphenyl-d14 (surrogate)	41%		
Analysis Date/Time:	6-12-20/22:04		
Analyst Initials:	ajg		
Date Extracted:	6/12/2020		
Initial Sample Weight:	30 g		
Final Volume:	1.0 mL		
Percent Solids	80%		

All results reported on dry weight basis.



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Analytical Method: EPA 6010B
Prep Method: EPA 3050B

Client Sample ID: SB-1-2-4
Envision Sample Number: 20-8298
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 14:20
Sample Received Date/Time: 6/11/20 14:57

<u>Compounds</u>	<u>Sample Results (mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Flags</u>
Arsenic	< 3	3	
Barium	61	3	
Cadmium	< 3	3	
Chromium	3.1	3	
Lead	195	3	
Selenium	< 3	3	
Silver	< 3	3	

Analysis Date/Time: 6-12-20/13:02
Analyst Initials: gjd
Date Digested: 6/12/2020
Initial Sample Weight: 1.0 g
Final Volume: 50 mL
Analytical Batch: 061220icp

Analytical Method: EPA 7471A

<u>Compounds</u>	<u>Sample Results (mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Flags</u>
Mercury	< 1	1	

Hg Analysis Date/Time: 6-12-20/11:40
Hg Analyst Initials: ajg
Date Digested: 6/12/2020
Initial Sample Weight: 0.6 g
Final Volume: 50 mL
Analytical Batch: 061220hg

Percent Solids 80%

All results reported on dry weight basis.



Analytical Report

ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
Indianapolis, IN 46239
Tel: 317.351.8632
Fax: 317.351.8639
www.envisionlaboratories.com

Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-1-2-4	Sample Collection Date/Time:	6/11/20	14:20
Envision Sample Number:	20-8298	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	20.0%		EPA 1684
Percent Solids	80.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8260
Prep Method: EPA 5035A
Analytical Batch: 061220VS
Client Sample ID: SB-2-0-2
Envision Sample Number: 20-8299
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 13:30
Sample Received Date/Time: 6/11/20 14:57

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acetone	< 0.128	0.128	
Acrolein	< 0.00022	0.001	1
Acrylonitrile	< 0.003	0.003	
Benzene	< 0.006	0.006	
Bromobenzene	< 0.006	0.006	
Bromochloromethane	< 0.006	0.006	
Bromodichloromethane	< 0.006	0.006	
Bromoform	< 0.006	0.006	
Bromomethane	< 0.006	0.006	
n-Butanol	< 0.064	0.064	
2-Butanone (MEK)	< 0.013	0.013	
n-Butylbenzene	< 0.006	0.006	
sec-Butylbenzene	< 0.006	0.006	
tert-Butylbenzene	< 0.006	0.006	
Carbon Disulfide	< 0.006	0.006	
Carbon Tetrachloride	< 0.006	0.006	
Chlorobenzene	< 0.006	0.006	
Chloroethane	< 0.006	0.006	
2-Chloroethylvinylether	< 0.064	0.064	
Chloroform	< 0.006	0.006	
Chloromethane	< 0.006	0.006	
2-Chlorotoluene	< 0.006	0.006	
4-Chlorotoluene	< 0.006	0.006	
1,2-Dibromo-3-chloropropane	< 0.0022	0.0022	
Dibromochloromethane	< 0.006	0.006	
1,2-Dibromoethane (EDB)	< 0.00036	0.001	1
Dibromomethane	< 0.006	0.006	
1,2-Dichlorobenzene	< 0.006	0.006	
1,3-Dichlorobenzene	< 0.006	0.006	
1,4-Dichlorobenzene	< 0.006	0.006	
trans-1,4-Dichloro-2-butene	< 0.006	0.006	
Dichlorodifluoromethane	< 0.006	0.006	
1,1-Dichloroethane	< 0.006	0.006	
1,2-Dichloroethane	< 0.006	0.006	
1,1-Dichloroethene	< 0.006	0.006	


8260 continued...

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
cis-1,2-Dichloroethene	< 0.006	0.006	
trans-1,2-Dichloroethene	< 0.006	0.006	
1,2-Dichloropropane	< 0.006	0.006	
1,3-Dichloropropane	< 0.006	0.006	
2,2-Dichloropropane	< 0.006	0.006	
1,1-Dichloropropene	< 0.006	0.006	
1,3-Dichloropropene	< 0.006	0.006	
Ethylbenzene	< 0.006	0.006	
Ethyl methacrylate	< 0.128	0.128	
Hexachloro-1,3-butadiene	< 0.006	0.006	
n-Hexane	< 0.013	0.013	
2-Hexanone	< 0.013	0.013	
Iodomethane	< 0.013	0.013	
Isopropylbenzene (Cumene)	< 0.006	0.006	
p-Isopropyltoluene	< 0.006	0.006	
Methylene chloride	< 0.026	0.026	
4-Methyl-2-pentanone (MIBK)	< 0.013	0.013	
Methyl-tert-butyl-ether	< 0.006	0.006	
1-Methylnaphthalene	< 0.006	0.006	
2-Methylnaphthalene	< 0.006	0.006	
Naphthalene	< 0.006	0.006	
n-Propylbenzene	< 0.006	0.006	
Styrene	< 0.006	0.006	
1,1,1,2-Tetrachloroethane	< 0.006	0.006	
1,1,2,2-Tetrachloroethane	< 0.006	0.006	
Tetrachloroethene	< 0.006	0.006	
Toluene	< 0.006	0.006	
1,2,3-Trichlorobenzene	< 0.006	0.006	
1,2,4-Trichlorobenzene	< 0.006	0.006	
1,1,1-Trichloroethane	< 0.006	0.006	
1,1,2-Trichloroethane	< 0.006	0.006	
Trichloroethene	< 0.006	0.006	
Trichlorofluoromethane	< 0.006	0.006	
1,2,3-Trichloropropane	< 0.006	0.006	
1,2,4-Trimethylbenzene	< 0.006	0.006	
1,3,5-Trimethylbenzene	< 0.006	0.006	
Vinyl acetate	< 0.013	0.013	
Vinyl chloride	< 0.003	0.003	
Xylene, M&P	< 0.006	0.006	
Xylene, Ortho	< 0.006	0.006	
Xylene, Total	< 0.013	0.013	
Dibromofluoromethane (surrogate)	108%		
1,2-Dichloroethane-d4 (surrogate)	94%		
Toluene-d8 (surrogate)	85%		
4-bromofluorobenzene (surrogate)	93%		
Analysis Date/Time:	6-12-20/10:35		
Analyst Initials	gjd		

Percent Solids:

78%

All results reported on dry weight basis.



Analytical Report

ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
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Tel: 317.351.8632
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Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-2-0-2	Sample Collection Date/Time:	6/11/20	13:30
Envision Sample Number:	20-8299	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	22.0%		EPA 1684
Percent Solids	78.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8260
Prep Method: EPA 5035A
Analytical Batch: 061220VS
Client Sample ID: SB-2-14-16
Envision Sample Number: 20-8300
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 13:30
Sample Received Date/Time: 6/11/20 14:57

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acetone	< 0.127	0.127	
Acrolein	< 0.00022	0.001	1
Acrylonitrile	< 0.003	0.003	
Benzene	< 0.006	0.006	
Bromobenzene	< 0.006	0.006	
Bromochloromethane	< 0.006	0.006	
Bromodichloromethane	< 0.006	0.006	
Bromoform	< 0.006	0.006	
Bromomethane	< 0.006	0.006	
n-Butanol	< 0.063	0.063	
2-Butanone (MEK)	< 0.013	0.013	
n-Butylbenzene	< 0.006	0.006	
sec-Butylbenzene	< 0.006	0.006	
tert-Butylbenzene	< 0.006	0.006	
Carbon Disulfide	< 0.006	0.006	
Carbon Tetrachloride	< 0.006	0.006	
Chlorobenzene	< 0.006	0.006	
Chloroethane	< 0.006	0.006	
2-Chloroethylvinylether	< 0.063	0.063	
Chloroform	< 0.006	0.006	
Chloromethane	< 0.006	0.006	
2-Chlorotoluene	< 0.006	0.006	
4-Chlorotoluene	< 0.006	0.006	
1,2-Dibromo-3-chloropropane	< 0.0022	0.0022	
Dibromochloromethane	< 0.006	0.006	
1,2-Dibromoethane (EDB)	< 0.00035	0.001	1
Dibromomethane	< 0.006	0.006	
1,2-Dichlorobenzene	< 0.006	0.006	
1,3-Dichlorobenzene	< 0.006	0.006	
1,4-Dichlorobenzene	< 0.006	0.006	
trans-1,4-Dichloro-2-butene	< 0.006	0.006	
Dichlorodifluoromethane	< 0.006	0.006	
1,1-Dichloroethane	< 0.006	0.006	
1,2-Dichloroethane	< 0.006	0.006	
1,1-Dichloroethene	< 0.006	0.006	



8260 continued...

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
cis-1,2-Dichloroethene	< 0.006	0.006	
trans-1,2-Dichloroethene	< 0.006	0.006	
1,2-Dichloropropane	< 0.006	0.006	
1,3-Dichloropropane	< 0.006	0.006	
2,2-Dichloropropane	< 0.006	0.006	
1,1-Dichloropropene	< 0.006	0.006	
1,3-Dichloropropene	< 0.006	0.006	
Ethylbenzene	< 0.006	0.006	
Ethyl methacrylate	< 0.127	0.127	
Hexachloro-1,3-butadiene	< 0.006	0.006	
n-Hexane	< 0.013	0.013	
2-Hexanone	< 0.013	0.013	
Iodomethane	< 0.013	0.013	
Isopropylbenzene (Cumene)	< 0.006	0.006	
p-Isopropyltoluene	< 0.006	0.006	
Methylene chloride	< 0.025	0.025	
4-Methyl-2-pentanone (MIBK)	< 0.013	0.013	
Methyl-tert-butyl-ether	< 0.006	0.006	
1-Methylnaphthalene	< 0.006	0.006	
2-Methylnaphthalene	< 0.006	0.006	
Naphthalene	< 0.006	0.006	
n-Propylbenzene	< 0.006	0.006	
Styrene	< 0.006	0.006	
1,1,1,2-Tetrachloroethane	< 0.006	0.006	
1,1,2,2-Tetrachloroethane	< 0.006	0.006	
Tetrachloroethene	< 0.006	0.006	
Toluene	< 0.006	0.006	
1,2,3-Trichlorobenzene	< 0.006	0.006	
1,2,4-Trichlorobenzene	< 0.006	0.006	
1,1,1-Trichloroethane	< 0.006	0.006	
1,1,2-Trichloroethane	< 0.006	0.006	
Trichloroethene	< 0.006	0.006	
Trichlorofluoromethane	< 0.006	0.006	
1,2,3-Trichloropropane	< 0.006	0.006	
1,2,4-Trimethylbenzene	< 0.006	0.006	
1,3,5-Trimethylbenzene	< 0.006	0.006	
Vinyl acetate	< 0.013	0.013	
Vinyl chloride	< 0.003	0.003	
Xylene, M&P	< 0.006	0.006	
Xylene, Ortho	< 0.006	0.006	
Xylene, Total	< 0.013	0.013	
Dibromofluoromethane (surrogate)	118%		
1,2-Dichloroethane-d4 (surrogate)	113%		
Toluene-d8 (surrogate)	88%		
4-bromofluorobenzene (surrogate)	94%		
Analysis Date/Time:	6-12-20/11:52		
Analyst Initials	gjd		

Percent Solids: 79%

All results reported on dry weight basis.



Analytical Report

ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
Indianapolis, IN 46239
Tel: 317.351.8632
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www.envisionlaboratories.com

Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-2-14-16	Sample Collection Date/Time:	6/11/20	13:30
Envision Sample Number:	20-8300	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	21.0%		EPA 1684
Percent Solids	79.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8260
Prep Method: EPA 5035A
Analytical Batch: 061220VS
Client Sample ID: SB-3-4-6
Envision Sample Number: 20-8301
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 12:00
Sample Received Date/Time: 6/11/20 14:57

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acetone	< 0.109	0.109	
Acrolein	< 0.00018	0.001	1
Acrylonitrile	< 0.002	0.002	
Benzene	< 0.005	0.005	
Bromobenzene	< 0.005	0.005	
Bromochloromethane	< 0.005	0.005	
Bromodichloromethane	< 0.005	0.005	
Bromoform	< 0.005	0.005	
Bromomethane	< 0.005	0.005	
n-Butanol	< 0.054	0.054	
2-Butanone (MEK)	< 0.011	0.011	
n-Butylbenzene	< 0.005	0.005	
sec-Butylbenzene	< 0.005	0.005	
tert-Butylbenzene	< 0.005	0.005	
Carbon Disulfide	< 0.005	0.005	
Carbon Tetrachloride	< 0.005	0.005	
Chlorobenzene	< 0.005	0.005	
Chloroethane	< 0.005	0.005	
2-Chloroethylvinylether	< 0.054	0.054	
Chloroform	< 0.005	0.005	
Chloromethane	< 0.005	0.005	
2-Chlorotoluene	< 0.005	0.005	
4-Chlorotoluene	< 0.005	0.005	
1,2-Dibromo-3-chloropropane	< 0.0018	0.0018	
Dibromochloromethane	< 0.005	0.005	
1,2-Dibromoethane (EDB)	< 0.00030	0.001	1
Dibromomethane	< 0.005	0.005	
1,2-Dichlorobenzene	< 0.005	0.005	
1,3-Dichlorobenzene	< 0.005	0.005	
1,4-Dichlorobenzene	< 0.005	0.005	
trans-1,4-Dichloro-2-butene	< 0.005	0.005	
Dichlorodifluoromethane	< 0.005	0.005	
1,1-Dichloroethane	< 0.005	0.005	
1,2-Dichloroethane	< 0.005	0.005	
1,1-Dichloroethene	< 0.005	0.005	



8260 continued...

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
cis-1,2-Dichloroethene	< 0.005	0.005	
trans-1,2-Dichloroethene	< 0.005	0.005	
1,2-Dichloropropane	< 0.005	0.005	
1,3-Dichloropropane	< 0.005	0.005	
2,2-Dichloropropane	< 0.005	0.005	
1,1-Dichloropropene	< 0.005	0.005	
1,3-Dichloropropene	< 0.005	0.005	
Ethylbenzene	< 0.005	0.005	
Ethyl methacrylate	< 0.109	0.109	
Hexachloro-1,3-butadiene	< 0.005	0.005	
n-Hexane	< 0.011	0.011	
2-Hexanone	< 0.011	0.011	
Iodomethane	< 0.011	0.011	
Isopropylbenzene (Cumene)	< 0.005	0.005	
p-Isopropyltoluene	< 0.005	0.005	
Methylene chloride	< 0.022	0.022	
4-Methyl-2-pentanone (MIBK)	< 0.011	0.011	
Methyl-tert-butyl-ether	< 0.005	0.005	
n-Propylbenzene	< 0.005	0.005	
Styrene	< 0.005	0.005	
1,1,1,2-Tetrachloroethane	< 0.005	0.005	
1,1,2,2-Tetrachloroethane	< 0.005	0.005	
Tetrachloroethene	< 0.005	0.005	
Toluene	< 0.005	0.005	
1,2,3-Trichlorobenzene	< 0.005	0.005	
1,2,4-Trichlorobenzene	< 0.005	0.005	
1,1,1-Trichloroethane	< 0.005	0.005	
1,1,2-Trichloroethane	< 0.005	0.005	
Trichloroethene	< 0.005	0.005	
Trichlorofluoromethane	< 0.005	0.005	
1,2,3-Trichloropropane	< 0.005	0.005	
1,2,4-Trimethylbenzene	< 0.005	0.005	
1,3,5-Trimethylbenzene	< 0.005	0.005	
Vinyl acetate	< 0.011	0.011	
Vinyl chloride	< 0.002	0.002	
Xylene, M&P	< 0.005	0.005	
Xylene, Ortho	< 0.005	0.005	
Xylene, Total	< 0.011	0.011	
Dibromofluoromethane (surrogate)	118%		
1,2-Dichloroethane-d4 (surrogate)	110%		
Toluene-d8 (surrogate)	89%		
4-bromofluorobenzene (surrogate)	91%		
Analysis Date/Time:	6-12-20/12:10		
Analyst Initials	gjd		

Percent Solids: 92%

All results reported on dry weight basis.



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8270 PAH
Prep Method: EPA 3550C
Analytical Batch: 061220PS

Client Sample ID: SB-3-4-6
Envision Sample Number: 20-8301
Sample Matrix: soil
Sample Collection Date/Time: 6/11/20 12:00
Sample Received Date/Time: 6/11/20 14:57

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acenaphthene	< 0.36	0.36	
Acenaphthylene	< 0.36	0.36	
Anthracene	< 0.36	0.36	
Benzo(a)anthracene	< 0.36	0.36	
Benzo(a)pyrene	< 0.073	0.073	
Benzo(b)fluoranthene	< 0.36	0.36	
Benzo(g,h,i)perylene	< 0.36	0.36	
Benzo(k)fluoranthene	< 0.36	0.36	
Chrysene	< 0.36	0.36	
Dibenzo(a,h)anthracene	< 0.073	0.073	
Fluoranthene	< 0.36	0.36	
Fluorene	< 0.36	0.36	
Indeno(1,2,3-cd)pyrene	< 0.36	0.36	
1-methylnaphthalene	< 0.36	0.36	
2-methylnaphthalene	< 0.36	0.36	
Naphthalene	< 0.073	0.073	
Phenanthrene	< 0.33	0.33	
Pyrene	< 0.36	0.36	
Nitrobenzene-d5 (surrogate)	48%		
2-Fluorobiphenyl (surrogate)	52%		
p-Terphenyl-d14 (surrogate)	53%		
Analysis Date/Time:	6-12-20/22:31		
Analyst Initials:	ajg		
Date Extracted:	6/12/2020		
Initial Sample Weight:	30 g		
Final Volume:	1.0 mL		

Percent Solids 92%

All results reported on dry weight basis.



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Analytical Method: EPA 6010B
Prep Method: EPA 3050B

Client Sample ID: SB-3-4-6
Envision Sample Number: 20-8301
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 12:00
Sample Received Date/Time: 6/11/20 14:57

<u>Compounds</u>	<u>Sample Results (mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Flags</u>
Arsenic	< 2	2	
Barium	27	2	
Cadmium	< 2	2	
Chromium	3.8	2	
Lead	18	2	
Selenium	< 2	2	
Silver	< 2	2	

Analysis Date/Time: 6-12-20/13:04
Analyst Initials: gjd
Date Digested: 6/12/2020
Initial Sample Weight: 1.0 g
Final Volume: 50 mL
Analytical Batch: 061220icp

Analytical Method: EPA 7471A

<u>Compounds</u>	<u>Sample Results (mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Flags</u>
Mercury	< 1	1	

Hg Analysis Date/Time: 6-12-20/11:42
Hg Analyst Initials: ajg
Date Digested: 6/12/2020
Initial Sample Weight: 0.6 g
Final Volume: 50 mL
Analytical Batch: 061220hg

Percent Solids 92%

All results reported on dry weight basis.



Analytical Report

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Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-3-4-6	Sample Collection Date/Time:	6/11/20	12:00
Envision Sample Number:	20-8301	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	8.0%		EPA 1684
Percent Solids	92.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8260
Prep Method: EPA 5035A
Analytical Batch: 061220VS

Client Sample ID: SB-3-10-11 **Sample Collection Date/Time:** 6/11/20 12:00
Envision Sample Number: 20-8302 **Sample Received Date/Time:** 6/11/20 14:57
Sample Matrix: soil

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acetone	< 0.108	0.108	
Acrolein	< 0.00018	0.001	1
Acrylonitrile	< 0.002	0.002	
Benzene	< 0.005	0.005	
Bromobenzene	< 0.005	0.005	
Bromochloromethane	< 0.005	0.005	
Bromodichloromethane	< 0.005	0.005	
Bromoform	< 0.005	0.005	
Bromomethane	< 0.005	0.005	
n-Butanol	< 0.054	0.054	
2-Butanone (MEK)	< 0.011	0.011	
n-Butylbenzene	< 0.005	0.005	
sec-Butylbenzene	< 0.005	0.005	
tert-Butylbenzene	< 0.005	0.005	
Carbon Disulfide	< 0.005	0.005	
Carbon Tetrachloride	< 0.005	0.005	
Chlorobenzene	< 0.005	0.005	
Chloroethane	< 0.005	0.005	
2-Chloroethylvinylether	< 0.054	0.054	
Chloroform	< 0.005	0.005	
Chloromethane	< 0.005	0.005	
2-Chlorotoluene	< 0.005	0.005	
4-Chlorotoluene	< 0.005	0.005	
1,2-Dibromo-3-chloropropane	< 0.0018	0.0018	
Dibromochloromethane	< 0.005	0.005	
1,2-Dibromoethane (EDB)	< 0.00030	0.001	1
Dibromomethane	< 0.005	0.005	
1,2-Dichlorobenzene	< 0.005	0.005	
1,3-Dichlorobenzene	< 0.005	0.005	
1,4-Dichlorobenzene	< 0.005	0.005	
trans-1,4-Dichloro-2-butene	< 0.005	0.005	
Dichlorodifluoromethane	< 0.005	0.005	
1,1-Dichloroethane	< 0.005	0.005	
1,2-Dichloroethane	< 0.005	0.005	
1,1-Dichloroethene	< 0.005	0.005	



8260 continued...

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
cis-1,2-Dichloroethene	< 0.005	0.005	
trans-1,2-Dichloroethene	< 0.005	0.005	
1,2-Dichloropropane	< 0.005	0.005	
1,3-Dichloropropane	< 0.005	0.005	
2,2-Dichloropropane	< 0.005	0.005	
1,1-Dichloropropene	< 0.005	0.005	
1,3-Dichloropropene	< 0.005	0.005	
Ethylbenzene	< 0.005	0.005	
Ethyl methacrylate	< 0.108	0.108	
Hexachloro-1,3-butadiene	< 0.005	0.005	
n-Hexane	< 0.011	0.011	
2-Hexanone	< 0.011	0.011	
Iodomethane	< 0.011	0.011	
Isopropylbenzene (Cumene)	< 0.005	0.005	
p-Isopropyltoluene	< 0.005	0.005	
Methylene chloride	< 0.022	0.022	
4-Methyl-2-pentanone (MIBK)	< 0.011	0.011	
Methyl-tert-butyl-ether	< 0.005	0.005	
n-Propylbenzene	< 0.005	0.005	
Styrene	< 0.005	0.005	
1,1,1,2-Tetrachloroethane	< 0.005	0.005	
1,1,2,2-Tetrachloroethane	< 0.005	0.005	
Tetrachloroethene	< 0.005	0.005	
Toluene	< 0.005	0.005	
1,2,3-Trichlorobenzene	< 0.005	0.005	
1,2,4-Trichlorobenzene	< 0.005	0.005	
1,1,1-Trichloroethane	< 0.005	0.005	
1,1,2-Trichloroethane	< 0.005	0.005	
Trichloroethene	< 0.005	0.005	
Trichlorofluoromethane	< 0.005	0.005	
1,2,3-Trichloropropane	< 0.005	0.005	
1,2,4-Trimethylbenzene	< 0.005	0.005	
1,3,5-Trimethylbenzene	< 0.005	0.005	
Vinyl acetate	< 0.011	0.011	
Vinyl chloride	< 0.002	0.002	
Xylene, M&P	< 0.005	0.005	
Xylene, Ortho	< 0.005	0.005	
Xylene, Total	< 0.011	0.011	
Dibromofluoromethane (surrogate)	106%		
1,2-Dichloroethane-d4 (surrogate)	115%		
Toluene-d8 (surrogate)	104%		
4-bromofluorobenzene (surrogate)	93%		
Analysis Date/Time:	6-12-20/12:27		
Analyst Initials	gjd		

Percent Solids: 93%

All results reported on dry weight basis.



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8270 PAH
Prep Method: EPA 3550C
Analytical Batch: 061220PS

Client Sample ID: SB-3-10-11 **Sample Collection Date/Time:** 6/11/20 12:00
Envision Sample Number: 20-8302 **Sample Received Date/Time:** 6/11/20 14:57
Sample Matrix: soil

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acenaphthene	< 0.35	0.35	
Acenaphthylene	< 0.35	0.35	
Anthracene	< 0.35	0.35	
Benzo(a)anthracene	< 0.35	0.35	
Benzo(a)pyrene	< 0.072	0.072	
Benzo(b)fluoranthene	< 0.35	0.35	
Benzo(g,h,i)perylene	< 0.35	0.35	
Benzo(k)fluoranthene	< 0.35	0.35	
Chrysene	< 0.35	0.35	
Dibenzo(a,h)anthracene	< 0.072	0.072	
Fluoranthene	< 0.35	0.35	
Fluorene	< 0.35	0.35	
Indeno(1,2,3-cd)pyrene	< 0.35	0.35	
1-methylnaphthalene	< 0.35	0.35	
2-methylnaphthalene	< 0.35	0.35	
Naphthalene	< 0.072	0.072	
Phenanthrene	< 0.32	0.32	
Pyrene	< 0.35	0.35	
Nitrobenzene-d5 (surrogate)	41%		
2-Fluorobiphenyl (surrogate)	45%		
p-Terphenyl-d14 (surrogate)	48%		
Analysis Date/Time:	6-12-20/22:58		
Analyst Initials:	ajg		
Date Extracted:	6/12/2020		
Initial Sample Weight:	30 g		
Final Volume:	1.0 mL		
Percent Solids	93%		

All results reported on dry weight basis.



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Analytical Method: EPA 6010B
Prep Method: EPA 3050B

Client Sample ID: SB-3-10-11
Envision Sample Number: 20-8302
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 12:00
Sample Received Date/Time: 6/11/20 14:57

<u>Compounds</u>	<u>Sample Results (mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Flags</u>
Arsenic	< 2	2	
Barium	52	2	
Cadmium	< 2	2	
Chromium	9.7	2	
Lead	14	2	
Selenium	< 2	2	
Silver	< 2	2	

Analysis Date/Time: 6-12-20/13:07
Analyst Initials: gjd
Date Digested: 6/12/2020
Initial Sample Weight: 1.0 g
Final Volume: 50 mL
Analytical Batch: 061220icp

Analytical Method: EPA 7471A

<u>Compounds</u>	<u>Sample Results (mg/kg)</u>	<u>Reporting Limit (mg/kg)</u>	<u>Flags</u>
Mercury	< 1	1	

Hg Analysis Date/Time: 6-12-20/11:44
Hg Analyst Initials: ajg
Date Digested: 6/12/2020
Initial Sample Weight: 0.6 g
Final Volume: 50 mL
Analytical Batch: 061220hg

Percent Solids 93%

All results reported on dry weight basis.



Analytical Report

ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
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www.envisionlaboratories.com

Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-3-10-11	Sample Collection Date/Time:	6/11/20	12:00
Envision Sample Number:	20-8302	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	7.0%		EPA 1684
Percent Solids	93.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8260
Prep Method: EPA 5035A
Analytical Batch: 061220VS
Client Sample ID: SB-4-8-10
Envision Sample Number: 20-8303
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 11:00
Sample Received Date/Time: 6/11/20 14:57

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acetone	< 0.120	0.120	
Acrolein	< 0.00020	0.001	1
Acrylonitrile	< 0.002	0.002	
Benzene	< 0.006	0.006	
Bromobenzene	< 0.006	0.006	
Bromochloromethane	< 0.006	0.006	
Bromodichloromethane	< 0.006	0.006	
Bromoform	< 0.006	0.006	
Bromomethane	< 0.006	0.006	
n-Butanol	< 0.060	0.060	
2-Butanone (MEK)	< 0.012	0.012	
n-Butylbenzene	< 0.006	0.006	
sec-Butylbenzene	< 0.006	0.006	
tert-Butylbenzene	< 0.006	0.006	
Carbon Disulfide	< 0.006	0.006	
Carbon Tetrachloride	< 0.006	0.006	
Chlorobenzene	< 0.006	0.006	
Chloroethane	< 0.006	0.006	
2-Chloroethylvinylether	< 0.060	0.060	
Chloroform	< 0.006	0.006	
Chloromethane	< 0.006	0.006	
2-Chlorotoluene	< 0.006	0.006	
4-Chlorotoluene	< 0.006	0.006	
1,2-Dibromo-3-chloropropane	< 0.0020	0.0020	
Dibromochloromethane	< 0.006	0.006	
1,2-Dibromoethane (EDB)	< 0.00034	0.001	1
Dibromomethane	< 0.006	0.006	
1,2-Dichlorobenzene	< 0.006	0.006	
1,3-Dichlorobenzene	< 0.006	0.006	
1,4-Dichlorobenzene	< 0.006	0.006	
trans-1,4-Dichloro-2-butene	< 0.006	0.006	
Dichlorodifluoromethane	< 0.006	0.006	
1,1-Dichloroethane	< 0.006	0.006	
1,2-Dichloroethane	< 0.006	0.006	
1,1-Dichloroethene	< 0.006	0.006	


8260 continued...

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
cis-1,2-Dichloroethene	< 0.006	0.006	
trans-1,2-Dichloroethene	< 0.006	0.006	
1,2-Dichloropropane	< 0.006	0.006	
1,3-Dichloropropane	< 0.006	0.006	
2,2-Dichloropropane	< 0.006	0.006	
1,1-Dichloropropene	< 0.006	0.006	
1,3-Dichloropropene	< 0.006	0.006	
Ethylbenzene	< 0.006	0.006	
Ethyl methacrylate	< 0.120	0.120	
Hexachloro-1,3-butadiene	< 0.006	0.006	
n-Hexane	< 0.012	0.012	
2-Hexanone	< 0.012	0.012	
Iodomethane	< 0.012	0.012	
Isopropylbenzene (Cumene)	< 0.006	0.006	
p-Isopropyltoluene	< 0.006	0.006	
Methylene chloride	< 0.024	0.024	
4-Methyl-2-pentanone (MIBK)	< 0.012	0.012	
Methyl-tert-butyl-ether	< 0.006	0.006	
1-Methylnaphthalene	< 0.006	0.006	
2-Methylnaphthalene	< 0.006	0.006	
Naphthalene	< 0.006	0.006	
n-Propylbenzene	< 0.006	0.006	
Styrene	< 0.006	0.006	
1,1,1,2-Tetrachloroethane	< 0.006	0.006	
1,1,2,2-Tetrachloroethane	< 0.006	0.006	
Tetrachloroethene	< 0.006	0.006	
Toluene	< 0.006	0.006	
1,2,3-Trichlorobenzene	< 0.006	0.006	
1,2,4-Trichlorobenzene	< 0.006	0.006	
1,1,1-Trichloroethane	< 0.006	0.006	
1,1,2-Trichloroethane	< 0.006	0.006	
Trichloroethene	< 0.006	0.006	
Trichlorofluoromethane	< 0.006	0.006	
1,2,3-Trichloropropane	< 0.006	0.006	
1,2,4-Trimethylbenzene	< 0.006	0.006	
1,3,5-Trimethylbenzene	< 0.006	0.006	
Vinyl acetate	< 0.012	0.012	
Vinyl chloride	< 0.002	0.002	
Xylene, M&P	< 0.006	0.006	
Xylene, Ortho	< 0.006	0.006	
Xylene, Total	< 0.012	0.012	
Dibromofluoromethane (surrogate)	104%		
1,2-Dichloroethane-d4 (surrogate)	104%		
Toluene-d8 (surrogate)	101%		
4-bromofluorobenzene (surrogate)	92%		
Analysis Date/Time:	6-12-20/12:44		
Analyst Initials	gjd		

Percent Solids:

83%

All results reported on dry weight basis.



Analytical Report

ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
Indianapolis, IN 46239
Tel: 317.351.8632
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www.envisionlaboratories.com

Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-4-8-10	Sample Collection Date/Time:	6/11/20	11:00
Envision Sample Number:	20-8303	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	17.0%		EPA 1684
Percent Solids	83.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252
Analytical Method: EPA 8260
Prep Method: EPA 5035A
Analytical Batch: 061220VS
Client Sample ID: SB-4-10-12
Envision Sample Number: 20-8304
Sample Matrix: soil

Sample Collection Date/Time: 6/11/20 11:00
Sample Received Date/Time: 6/11/20 14:57

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
Acetone	< 0.116	0.116	
Acrolein	< 0.00020	0.001	1
Acrylonitrile	< 0.002	0.002	
Benzene	< 0.006	0.006	
Bromobenzene	< 0.006	0.006	
Bromochloromethane	< 0.006	0.006	
Bromodichloromethane	< 0.006	0.006	
Bromoform	< 0.006	0.006	
Bromomethane	< 0.006	0.006	
n-Butanol	< 0.058	0.058	
2-Butanone (MEK)	< 0.012	0.012	
n-Butylbenzene	< 0.006	0.006	
sec-Butylbenzene	< 0.006	0.006	
tert-Butylbenzene	< 0.006	0.006	
Carbon Disulfide	< 0.006	0.006	
Carbon Tetrachloride	< 0.006	0.006	
Chlorobenzene	< 0.006	0.006	
Chloroethane	< 0.006	0.006	
2-Chloroethylvinylether	< 0.058	0.058	
Chloroform	< 0.006	0.006	
Chloromethane	< 0.006	0.006	
2-Chlorotoluene	< 0.006	0.006	
4-Chlorotoluene	< 0.006	0.006	
1,2-Dibromo-3-chloropropane	< 0.0020	0.0020	
Dibromochloromethane	< 0.006	0.006	
1,2-Dibromoethane (EDB)	< 0.00033	0.001	1
Dibromomethane	< 0.006	0.006	
1,2-Dichlorobenzene	< 0.006	0.006	
1,3-Dichlorobenzene	< 0.006	0.006	
1,4-Dichlorobenzene	< 0.006	0.006	
trans-1,4-Dichloro-2-butene	< 0.006	0.006	
Dichlorodifluoromethane	< 0.006	0.006	
1,1-Dichloroethane	< 0.006	0.006	
1,2-Dichloroethane	< 0.006	0.006	
1,1-Dichloroethene	< 0.006	0.006	


8260 continued...

Compounds	Sample Results (mg/kg)	Rep. Limit (mg/kg)	Flags
cis-1,2-Dichloroethene	< 0.006	0.006	
trans-1,2-Dichloroethene	< 0.006	0.006	
1,2-Dichloropropane	< 0.006	0.006	
1,3-Dichloropropane	< 0.006	0.006	
2,2-Dichloropropane	< 0.006	0.006	
1,1-Dichloropropene	< 0.006	0.006	
1,3-Dichloropropene	< 0.006	0.006	
Ethylbenzene	< 0.006	0.006	
Ethyl methacrylate	< 0.116	0.116	
Hexachloro-1,3-butadiene	< 0.006	0.006	
n-Hexane	< 0.012	0.012	
2-Hexanone	< 0.012	0.012	
Iodomethane	< 0.012	0.012	
Isopropylbenzene (Cumene)	< 0.006	0.006	
p-Isopropyltoluene	< 0.006	0.006	
Methylene chloride	< 0.023	0.023	
4-Methyl-2-pentanone (MIBK)	< 0.012	0.012	
Methyl-tert-butyl-ether	< 0.006	0.006	
1-Methylnaphthalene	< 0.006	0.006	
2-Methylnaphthalene	< 0.006	0.006	
Naphthalene	< 0.006	0.006	
n-Propylbenzene	< 0.006	0.006	
Styrene	< 0.006	0.006	
1,1,1,2-Tetrachloroethane	< 0.006	0.006	
1,1,2,2-Tetrachloroethane	< 0.006	0.006	
Tetrachloroethene	< 0.006	0.006	
Toluene	< 0.006	0.006	
1,2,3-Trichlorobenzene	< 0.006	0.006	
1,2,4-Trichlorobenzene	< 0.006	0.006	
1,1,1-Trichloroethane	< 0.006	0.006	
1,1,2-Trichloroethane	< 0.006	0.006	
Trichloroethene	< 0.006	0.006	
Trichlorofluoromethane	< 0.006	0.006	
1,2,3-Trichloropropane	< 0.006	0.006	
1,2,4-Trimethylbenzene	< 0.006	0.006	
1,3,5-Trimethylbenzene	< 0.006	0.006	
Vinyl acetate	< 0.012	0.012	
Vinyl chloride	< 0.002	0.002	
Xylene, M&P	< 0.006	0.006	
Xylene, Ortho	< 0.006	0.006	
Xylene, Total	< 0.012	0.012	
Dibromofluoromethane (surrogate)	108%		
1,2-Dichloroethane-d4 (surrogate)	98%		
Toluene-d8 (surrogate)	98%		
4-bromofluorobenzene (surrogate)	92%		
Analysis Date/Time:	6-12-20/13:01		
Analyst Initials	gjd		

Percent Solids:

86%

All results reported on dry weight basis.



Analytical Report

ENVision Laboratories, Inc.
1439 Sadlier Circle West Drive
Indianapolis, IN 46239
Tel: 317.351.8632
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www.envisionlaboratories.com

Client Name: AUGUST MACK
Project ID: JOHNSON CONTROLS
Client Project Manager: TYLER ZSCHIEDRICH
ENVision Project Number: 2020-1252

Client Sample ID:	SB-4-10-12	Sample Collection Date/Time:	6/11/20	11:00
Envision Sample Number:	20-8304	Sample Received Date/Time:	6/11/20	14:57
Sample Matrix:	soil			

<u>Analyte</u>	<u>Sample Results</u>	<u>Flags</u>	<u>Method</u>
Percent Moisture	14.0%		EPA 1684
Percent Solids	86.0%		EPA 1684
Analysis Date:	6/15/20		
Analyst Initials	jc		



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

June 23, 2020

Ms. Cheryl Crum

ENVISION LABORATORIES, INC.

1439 Sandlier Cir. W. Drive

Indianapolis, IN 46239

Project ID: 2020-1252

First Environmental File ID: 20-3222

Date Received: June 15, 2020

Dear Ms. Cheryl Crum:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 1002922020-6: effective 06/05/2020 through 02/28/2021.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Ryan Gerrick
Project Manager



Case Narrative

ENVISION LABORATORIES, INC.

Lab File ID: **20-3222**

Project ID: **2020-1252**

Date Received: **June 15, 2020**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected	
20-3222-001	20-8301/SB-3-4-6	6/11/2020	12:00
20-3222-002	20-8302/SB-3-10-11	6/11/2020	12:00

Sample Batch Comments:

Sample acceptance criteria were met.



Case Narrative

ENVISION LABORATORIES, INC.

Lab File ID: **20-3222**

Project ID: **2020-1252**

Date Received: **June 15, 2020**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.



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Analytical Report

Client: ENVISION LABORATORIES, INC.

Project ID: 2020-1252

Sample ID: 20-8301/SB-3-4-6

Sample No: 20-3222-001

Date Collected: 06/11/20

Time Collected: 12:00

Date Received: 06/15/20

Date Reported: 06/23/20

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total		Method: 2540B		
Analysis Date: 06/16/20				
Total Solids	91.80		%	
Polychlorinated biphenyls (PCBs)		Method: 8082		
Analysis Date: 06/22/20		Preparation Method 3546		
		Preparation Date: 06/17/20		
Aroclor 1016	< 0.016	0.016	mg/kg	
Aroclor 1221	< 0.016	0.016	mg/kg	
Aroclor 1232	< 0.016	0.016	mg/kg	
Aroclor 1242	< 0.016	0.016	mg/kg	
Aroclor 1248	< 0.016	0.016	mg/kg	
Aroclor 1254	< 0.016	0.016	mg/kg	
Aroclor 1260	< 0.016	0.016	mg/kg	

Sample QC Summary:

Surrogate Recovery

Method	Analyte	QC Result	%R Limits	
			Low	High
8082	Decachlorobiphenyl (Surr)	%R: 44.2	28	136
8082	Tetrachloro-m-xylene (Surr)	%R: 67.6	61	127



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Analytical Report

Client: ENVISION LABORATORIES, INC.

Date Collected: 06/11/20

Project ID: 2020-1252

Time Collected: 12:00

Sample ID: 20-8302/SB-3-10-11

Date Received: 06/15/20

Sample No: 20-3222-002

Date Reported: 06/23/20

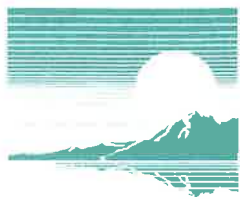
Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total	Method: 2540B			
Analysis Date: 06/16/20				
Total Solids	84.97		%	

Polychlorinated biphenyls (PCBs) **Method: 8082** **Preparation Method 3546**
 Analysis Date: 06/22/20 Preparation Date: 06/17/20

Aroclor 1016	< 0.016	0.016	mg/kg
Aroclor 1221	< 0.016	0.016	mg/kg
Aroclor 1232	< 0.016	0.016	mg/kg
Aroclor 1242	< 0.016	0.016	mg/kg
Aroclor 1248	< 0.016	0.016	mg/kg
Aroclor 1254	< 0.016	0.016	mg/kg
Aroclor 1260	< 0.016	0.016	mg/kg

Sample QC Summary:		Surrogate Recovery		%R Limits	
Method	Analyte	QC Result		Low	High
8082	Decachlorobiphenyl (Surr)	%R:	44.7	28	136
8082	Tetrachloro-m-xylene (Surr)	%R:	73.1	61	127



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Quality Control Summary

Client: ENVISION LABORATORIES, INC.

Lab File ID: 20-3222

Project ID: 2020-1252

QC Lab#	Time QC Code	Parameter	Reported Result	Units	QC Result	%R Limits Low High	RPD Limit
Parameter: Polychlorinated biphenyls (PCBs)		Analytical Method:	8082		Analytical WS #: 196535	Analysis Date:	6/22/2020
		Prep Method:	3546		Prep WS#: 32372	Prep Date:	6/17/2020
LCS60151	LCS	Aroclor 1016	182	ug/kg	%R: 72.6	72 - 126	
	LCS	Aroclor 1260	150	ug/kg	%R: 60	56 - 121	
Method Blank6015	BLK	Aroclor 1016	< 80.0	ug/kg	0	-	
	BLK	Aroclor 1221	< 80.0	ug/kg	0	-	
	BLK	Aroclor 1232	< 80.0	ug/kg	0	-	
	BLK	Aroclor 1242	< 80.0	ug/kg	0	-	
	BLK	Aroclor 1248	< 80.0	ug/kg	0	-	
	BLK	Aroclor 1254	< 160	ug/kg	0	-	
	BLK	Aroclor 1260	< 160	ug/kg	0	-	

* The QC indicator is outside control limits. %R = percent recovery; RPD = Relative percent difference
 CB = Calibration Blank; CCVS = Continuing Calibration Verification Standard; MS = Matrix Spike;
 MSD = Matrix Spike Duplicate; LCS = Laboratory Control Spike; SURR = Surrogate Spiking Compound;
 PB = Procedure Blank; BLK = Method Blank; D = QCI diluted out.



CHAIN OF CUSTODY RECORD

ENVision Laboratories, Inc. | 1439 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-8632 | Fax: (317) 351-8639

Client: ENVision Labs	Invoice Address: See Above	REQUESTED PARAMETERS <div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); transform-origin: center;"> PCB PCB Limits 20 mg/l Manganese </div>
Report Address: See Above	Project Name: 2020-1252	
Report To: Cheryl Hunt	Lab Contact:	
Phone: See Above	Sampled by:	
Fax:	P.O. Number:	
Desired TAT: (Please Circle One) 1-day 2-day 3-day Std (5-7 bus. days)	QA/QC Required: (circle if applicable) Level III Level IV	

Sample Integrity:

Cooler Temp: 14.2 °C (Circle)

Samples on Ice? Yes No

Samples Intact? Yes No

Custody Seal: Yes No

ENVision provided bottles: Yes No

VOC vials free of head-space: Yes No

pH checked? Yes No

Method 5035 collection used? Yes No

5035 samples received within 48 hr of Collection? Yes No

Please indicate number of containers per preservative below

[illegible]

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Chabaret	11-12-20	11:00	NG	6/15/20	12:00



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EPA 8260 Quality Control Data

ENVision Batch Number: 061220VS

<u>Method Blank (MB):</u>	<u>MB Results (ug/kg)</u>	<u>Rep Lim (ug/kg)</u>	<u>Flag</u>
Acetone	< 100	100	
Acrolein	< 0.17	1	1
Acrylonitrile	< 2	2	
Benzene	< 5	5	
Bromobenzene	< 5	5	
Bromochloromethane	< 5	5	
Bromodichloromethane	< 5	5	
Bromoform	< 5	5	
Bromomethane	< 5	5	
n-Butanol	< 50	50	
2-Butanone (MEK)	< 10	10	
n-Butylbenzene	< 5	5	
sec-Butylbenzene	< 5	5	
tert-Butylbenzene	< 5	5	
Carbon Disulfide	< 5	5	
Carbon Tetrachloride	< 5	5	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
2-Chloroethylvinylether	< 50	50	
Chloroform	< 5	5	
Chloromethane	< 5	5	
2-Chlorotoluene	< 5	5	
4-Chlorotoluene	< 5	5	
1,2-Dibromo-3-chloropropane	< 1.7	1.7	
Dibromochloromethane	< 5	5	
1,2-Dibromoethane (EDB)	< 0.28	1	1
Dibromomethane	< 5	5	
1,2-Dichlorobenzene	< 5	5	
1,3-Dichlorobenzene	< 5	5	
1,4-Dichlorobenzene	< 5	5	
trans-1,4-Dichloro-2-butene	< 5	5	
Dichlorodifluoromethane	< 5	5	
1,1-Dichloroethane	< 5	5	
1,2-Dichloroethane	< 5	5	
1,1-Dichloroethene	< 5	5	
cis-1,2-Dichloroethene	< 5	5	
trans-1,2-Dichloroethene	< 5	5	
1,2-Dichloropropane	< 5	5	
1,3-Dichloropropane	< 5	5	
2,2-Dichloropropane	< 5	5	
1,1-Dichloropropene	< 5	5	
1,3-Dichloropropene	< 5	5	
Ethylbenzene	< 5	5	
Ethyl methacrylate	< 100	100	



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8260 QC Continued...

<u>Method Blank (MB)</u>	<u>MB Results (ug/kg)</u>	<u>Rep Lim (ug/kg)</u>	<u>Flag</u>
Hexachloro-1,3-butadiene	< 5	5	
2-Hexanone	< 10	10	
n-Hexane	< 10	10	
Iodomethane	< 10	10	
Isopropylbenzene (Cumene)	< 5	5	
p-Isopropyltoluene	< 5	5	
Methylene chloride	< 20	20	
4-Methyl-2-pentanone (MIBK)	< 10	10	
Methyl-tert-butyl-ether	< 5	5	
1-Methylnaphthalene	< 5	5	
2-Methylnaphthalene	< 5	5	
Naphthalene	< 5	5	
n-Propylbenzene	< 5	5	
Styrene	< 5	5	
1,1,1,2-Tetrachloroethane	< 5	5	
1,1,2,2-Tetrachloroethane	< 5	5	
Tetrachloroethene	< 5	5	
Toluene	< 5	5	
1,2,3-Trichlorobenzene	< 5	5	
1,2,4-Trichlorobenzene	< 5	5	
1,1,1-Trichloroethane	< 5	5	
1,1,2-Trichloroethane	< 5	5	
Trichloroethene	< 5	5	
Trichlorofluoromethane	< 5	5	
1,2,3-Trichloropropane	< 5	5	
1,2,4-Trimethylbenzene	< 5	5	
1,3,5-Trimethylbenzene	< 5	5	
Vinyl acetate	< 10	10	
Vinyl chloride	< 2	2	
Xylene, M&P	< 5	5	
Xylene, Ortho	< 5	5	
Xylenes, Total	< 10	10	
Dibromofluoromethane (surrogate)	116%		
1,2-Dichloroethane-d4 (surrogate)	105%		
Toluene-d8 (surrogate)	98%		
4-bromofluorobenzene (surrogate)	97%		
Analysis Date/Time:	6-12-20/10:27		
Analyst Initials	gjd		



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8260 QC Continued...

<u>LCS/LCSD:</u>	<u>LCS Results (ug/kg)</u>	<u>LCS/LCSD Conc. (ug/kg)</u>	<u>LCSD Result (ug/kg)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>% D</u>	<u>Flag</u>
Vinyl Chloride	54.1	50	46.2	108%	92%	15.8	
1,1-Dichloroethene	57.7	50	49.8	115%	100%	14.7	
trans-1,2-Dichloroethene	54.0	50	54.5	108%	109%	0.9	
Methyl-tert-butyl ether	57.3	50	57.4	115%	115%	0.2	
1,1-Dichloroethane	49.5	50	48.9	99%	98%	1.2	
cis-1,2-Dichloroethene	48.0	50	49.4	96%	99%	2.9	
Chloroform	51.5	50	51.3	103%	103%	0.4	
1,1,1-Trichloroethane	51.0	50	54.4	102%	109%	6.5	
Benzene	47.0	50	46.0	94%	92%	2.2	
Trichloroethene	48.8	50	49.9	98%	100%	2.2	
Toluene	44.4	50	47.3	89%	95%	6.3	
1,1,1,2-Tetrachloroethane	50.9	50	51.5	102%	103%	1.2	
Chlorobenzene	49.2	50	49.5	98%	99%	0.6	
Ethylbenzene	49.8	50	50.3	100%	101%	1.0	
o-Xylene	45.3	50	48.1	91%	96%	6.0	
n-Propylbenzene	51.0	50	51.2	102%	102%	0.4	
Dibromofluoromethane (surrogate)	107%		97%				
1,2-Dichloroethane-d4 (surrogate)	102%		100%				
Toluene-d8 (surrogate)	95%		99%				
4-bromofluorobenzene (surrogate)	103%		107%				
Analysis Date/Time:	6-12-20/09:40		6-12-20/10:10				
Analyst Initials	gjd		gjd				



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EPA 8270 PAH Quality Control Data

ENVision Batch Number: 061220PS1

<u>Method Blank (MB):</u>	<u>Method Blank</u> <u>Results (mg/kg)</u>	<u>Reporting Limit</u> <u>(mg/kg)</u>	<u>Flag</u>
Acenaphthene	< 0.33	0.33	
Acenaphthylene	< 0.33	0.33	
Anthracene	< 0.33	0.33	
Benzo(a)anthracene	< 0.33	0.33	
Benzo(a)pyrene	< 0.067	0.067	
Benzo(b)fluoranthene	< 0.33	0.33	
Benzo(g,h,i)perylene	< 0.33	0.33	
Benzo(k)fluoranthene	< 0.33	0.33	
Chrysene	< 0.33	0.33	
Dibenzo(a,h)anthracene	< 0.067	0.067	
Fluoranthene	< 0.33	0.33	
Fluorene	< 0.33	0.33	
Indeno(1,2,3-cd)pyrene	< 0.33	0.33	
1-methylnaphthalene	< 0.33	0.33	
2-methylnaphthalene	< 0.33	0.33	
Naphthalene	< 0.067	0.067	
Phenanthrene	< 0.30	0.30	
Pyrene	< 0.33	0.33	
Nitrobenzene-d5 (surrogate)	38%		
2-Fluorobiphenyl (surrogate)	45%		
p-Terphenyl-d14 (surrogate)	48%		
Analysis Date/Time	6-12-20/20:42		
Analyst Initials	ajg		
Date Extracted	6/12/2020		
Initial Sample Weight:	30 g		
Final Volume	1.0 mL		



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<u>LCS:</u>	<u>LCS Results</u>	<u>LCS</u> <u>Concentration</u>	<u>LCS Recovery</u>	<u>Flag</u>
Acenaphthene	22.5	50	45%	
Acenaphthylene	23.8	50	48%	
Anthracene	20.8	50	42%	
Benzo(a)anthracene	20.4	50	41%	
Benzo(a)pyrene	20.3	50	41%	
Benzo(b)fluoranthene	20.3	50	41%	
Benzo(g,h,i)perylene	21.6	50	43%	
Benzo(k)fluoranthene	21.0	50	42%	
Chrysene	21.1	50	42%	
Dibenzo(a,h)anthracene	21.3	50	43%	
Fluoranthene	21.7	50	43%	
Fluorene	23.1	50	46%	
Indeno(1,2,3-cd)pyrene	21.4	50	43%	
1-methylnaphthalene	23.7	50	47%	
2-methylnaphthalene	23.4	50	47%	
Naphthalene	23.3	50	47%	
Phenanthrene	22.5	50	45%	
Pyrene	20.9	50	42%	
Nitrobenzene-d5 (surrogate)	38%			
2-Fluorobiphenyl (surrogate)	42%			
p-Terphenyl-d14 (surrogate)	38%			
Analysis Date/Time:	6-12-20/21:09			
Analyst Initials:	ajg			
Date Extracted:	6/12/2020			
Initial Sample Weight:	30 g			
Final Volume:	1.0 mL			



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EPA 6010B/7471A Metals Quality Control Data

ENVision Batch Number: 061220hg/061220icp

<u>Method Blank (MB):</u>	<u>MB Results (mg/kg)</u>	<u>Rep Lim (mg/kg)</u>	<u>Flag</u>
Arsenic	< 2	2	
Barium	< 2	2	
Cadmium	< 2	2	
Chromium	< 2	2	
Lead	< 2	2	
Mercury	< 1	1	
Selenium	< 2	2	
Silver	< 2	2	

Analysis Date/Time: 6-12-20/11:24/6-12-20/12:42icp

Analyst Initials: gjd

<u>Laboratory Control Standard:</u>	<u>LCS Results(ppm)</u>	<u>LCS Conc(ppm)</u>	<u>% Rec</u>	<u>Flag</u>
Arsenic	0.48	0.50	96%	
Barium	0.53	0.50	106%	
Cadmium	0.54	0.50	108%	
Chromium	0.48	0.50	96%	
Lead	0.52	0.50	104%	
Mercury	0.00499	0.005	100%	
Selenium	0.50	0.50	100%	
Silver	0.50	0.50	100%	

Analysis Date/Time: 6-12-20/11:27/6-12-20/12:40icp

Analyst Initials: gjd



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Flag Number

1

Comments

Reported value is below the reporting limit but above the MDL.



ENVision Laboratories, Inc. | 1439 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-8632 | Fax: (317) 351-8639

Client: August Mack		Invoice Address: Same		REQUESTED PARAMETERS										Sample Integrity: Cooler Temp: 4 °C (Circle) Samples on Ice? Yes No Samples Intact? Yes No Custody Seal: Yes No ENVision provided bottles: Yes No VOC vials free of head-space: Yes No N/A pH checked? Yes No N/A Method 5035 collection used? Yes No 5035 samples received within 48 hr of Collection? Yes No						
Report Address: 1302 N. Meridian Indianapolis, IN 46202		Project Name: Johnson Controls		VOCs PAH Metals PCBs										Please indicate number of containers per preservative below						
Report To: Tyler Zschiedrach		Lab Contact: Cheryl																		
Phone: 812-528-0371		Sampled by: Shelby Powell																		
Fax:		P.O. Number: JU1036740																		
Desired TAT: (Please Circle One) 1-day 2-day 3-day Std (5-7 bus. days)				QA/QC Required: (circle if applicable) Level III Level IV																
Sample ID	Coll. Date	Coll. Time	Comp (C) Grab (G)	Matrix										HCl	HNO ₃	H ₂ SO ₄	NaOH	Other	None	ENVision Sample ID
SB-1-2-4	6/11/20	1420	G	SL		X	X													20-8298
SB-2-0-2		1530	G	SL	X															20-8299
SB-2-4-6		1530	G	SL	X															
SB-2-14-16		1330	G	SL	X															20-8300
SB-3-8-4-6		1200	G	SL	X	X	X	X												20-8301
SB-3-10-11		1200	G	SL	X	X	X	X												20-8302
SB-4-8-10		1100	G	SL	X															20-8303
SB-4-10-12		1100	G	SL	X															20-8304
Comments:																				
Relinquished by: [Signature]					Date: 6/11/20		Time: 1457		Received by: [Signature]					Date: 6/11/20		Time: 1457				

5035 CHECK-IN SHEET

Client Name: AUGUST MACK

ENVision project#: 2020-1252

Cooler Temp: 4 °C

Method 5035A used: YES X NO ☐

ENVision provided tared vials w/stir bars & Terra Core T-handles: YES X NO ☐

5035A samples were received within 48 hrs of collection: YES X NO ☐

5035A samples were frozen within 48 hrs of collection by lab: YES X NO ☐

If NO, did client freeze samples? YES ☐ NO ☐

5035A Table A.1 Reference:

Sample is extruded into an empty sealed vial and cooled to $4^{\circ} \pm 2^{\circ}\text{C}$ for no more than 48 hours then frozen to $< -7^{\circ}\text{C}$ upon laboratory receipt.

Methanol was added to a vial from each sample for Medium-Level dilution within 48 hrs of collection: YES X NO ☐

5035A Table A.1 Reference:

Sample is extruded into an empty sealed vial and cooled to $4^{\circ} \pm 2^{\circ}\text{C}$ for no more than 48 hours then preserved with methanol upon laboratory receipt.

Performed by/Date: LISA GARRETT 06-11-20