COVENTRY ENVIRONMENTAL ASSOCIATES, INC.

PERMA-FILL NORTHEAST Division
PO Box 224
St. Peters • Pennsylvania 19470

(610) 469-6540

December 2, 2019

Mr. Kevin Wachter United Tire Service 4094 Chestnut Street

Emmaus, PA 18049

RE: Third Environmental Characterization Progress Report

United Tire Service 4094 Chestnut Street Emmaus, Pennsylvania

Dear Mr. Wachter:

This third environmental characterization progress report details the site investigative methods/findings implemented at the subject property during the months of October and November, 2019 in order to perform an environmental characterization pursuant to PA code Chapter 245.

1.0 ADDITIONAL SOIL BORING AND MONITORING WELL INSTALLATION

In order to evaluate soil and groundwater quality at the site a total of four additional soil boreholes were advanced using the auger/split spoon drilling method in November, 2019. Four monitoring wells were installed (MW-9, MW-10, MW-11, MW-12) to total depths of 70 feet bgs (Figure 1). Soil samples were collected by split spoon during installation of monitoring wells MW-10, MW-11 and MW-12. The soil samples were field scanned with a photoionization detector (PID) and soil samples were selected based on field observation, preserved and submitted to ALS laboratories (ALS) for analysis of PADEP UST parameters for unleaded gasoline. The drilling logs are provided in Appendix A.

2.0 YOCCOS RESTAURANT TREATMENT SYSTEM

EARTHRES was contracted in early November, 2019 to prepare the DEP public water supply (pws) permit application for the treatment system modification for removal of volatile organic compounds (VOCs) at the Yoccos Restaurant (4042 Chestnut Street). CEA, Earthres and S&G Water Conditioning, Inc. (S&G) conducted a site inspection on November 12, 2019 and performed additional water analysis per engineer specifications. Sampling of the facility supply well (raw) on this date indicated the presence of 3.4 ppb of MTBE and a dissolved lead concentration of 24.1 ppb (lab filtered, see Appendix B). Pursuant to DEP request, a second sample of water will be collected and field filtered for laboratory analysis of lead.

3.0 ADDITIONAL INVESTIGATION

Pursuant to B & B site review, a total of eleven additional soil borings and four additional monitoring wells as shown on Figure 2.0 will be installed utilizing the auger/split spoon drilling method. A professional survey of the site was performed by Bursich, Inc. provided in Appendix C. Soil samples from each boring will be collected for laboratory analysis based on field observation and will be submitted for laboratory analysis of PADEP unleaded gasoline parameters. Boring depth will be limited to 60 feet unless PID readings indicate that the boring needs to be advanced deeper. CEA will install the monitoring wells to a total anticipated depth of 70 feet below grade surface (bgs) to provide further contaminant plume definition. One well is proposed to be installed off-site across Chestnut Street and will require permission from the property owner (V&C). The four inch diameter wells are anticipated to be constructed with 40 feet of solid riser, 30 feet of screen and surface flush manways. The wells will be professionally surveyed for relative elevation and the water table depth in each well will be measured and the direction of groundwater flow will be evaluated.

Following well installation, three well volumes of water will be purged from all monitoring wells and a groundwater sample will collected within the upper two feet of the water column from each well utilizing new, dedicated polyethylene bailers for submittal to a state certified laboratory to be analyzed for the PADEP-UST required parameters for unleaded gasoline. Based on the findings of the groundwater flow and quality investigation, additional wells will be installed in order to provide the necessary plume definition, if warranted.

Following completion of the groundwater and soil quality assessment, an investigation into the deeper bedrock aquifer is warranted and will require the installation of wells into the bedrock. Furthermore, hydraulic testing may be warranted to evaluate site hydrogeology, contaminant migration and remedial technologies.

4.0 SCHEDULE

CEA anticipates the proposed program can be completed within five months, as follows. Assuming no additional investigative activities are required other than those proposed, the site characterization report is anticipated to be completed by April 30, 2020.

December, 2019:

- Obtain V & C off-site access agreement.
- Sample groundwater monitoring wells.
- Well elevation survey, water level measurement and groundwater flow direction.
- Installation of additional soil borings and monitoring wells (dependent on well driller schedule).
- Installation of treatment system at Yoccos restaurant and re-sampling (dependent of DEP review schedule).
- Continue to pursue sampling of private wells.
- PADEP file review of Speedway service station and Buckeye pipeline facility (geology/hydrogeologic data of general area).

January, 2020:

- Installation of additional soil borings and monitoring wells.
- Sampling of the site monitoring wells and data evaluation.

February, 2020:

- Possible installation of additional soil borings and monitoring wells.
- Installation of bedrock aquifer monitoring wells.
- Possible vapor intrusion assessment, though available data indicates limited concern for indoor air quality.

March, 2020:

- Sampling of site monitoring wells and data analysis.
- Possible hydraulic testing/data analysis.

April, 2020:

Data analysis and SCR preparation.

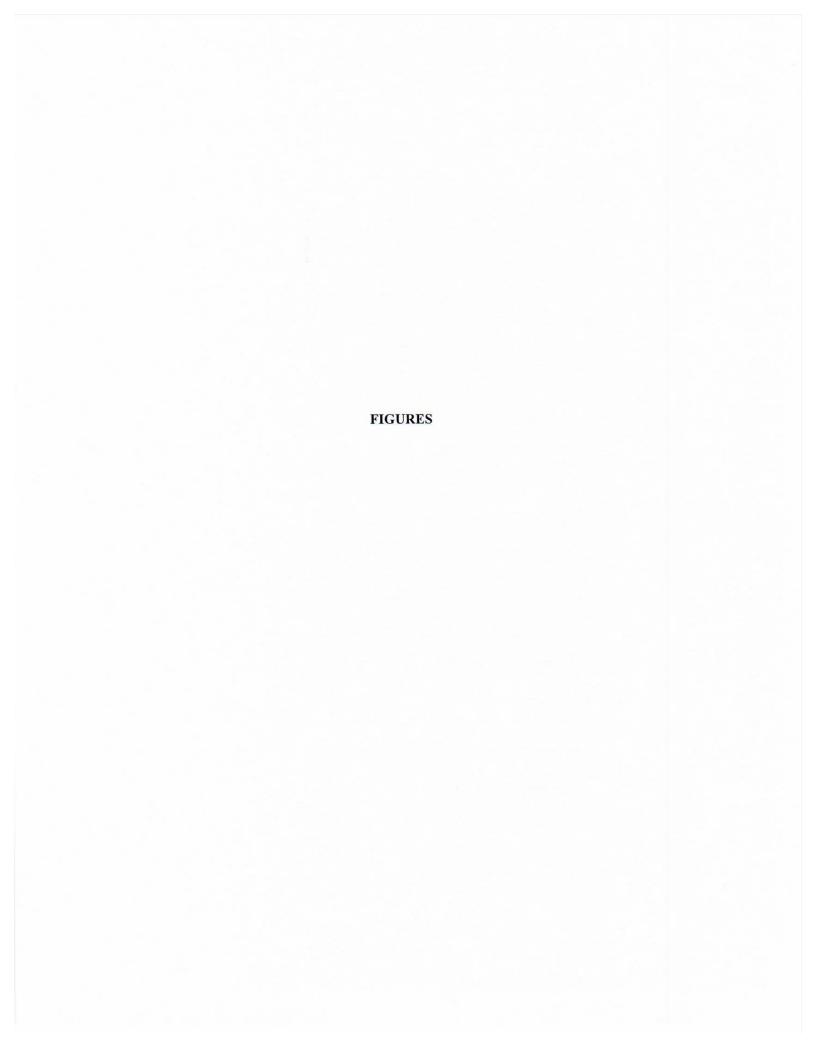
Very Truly Yours,

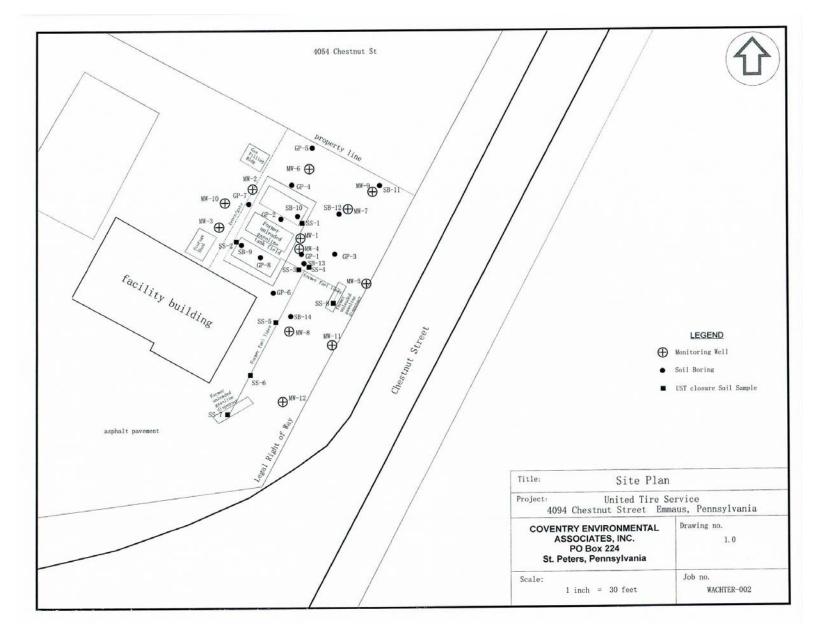
COVENTRY ENVIRONMENTAL ASSOCIATES, INC.

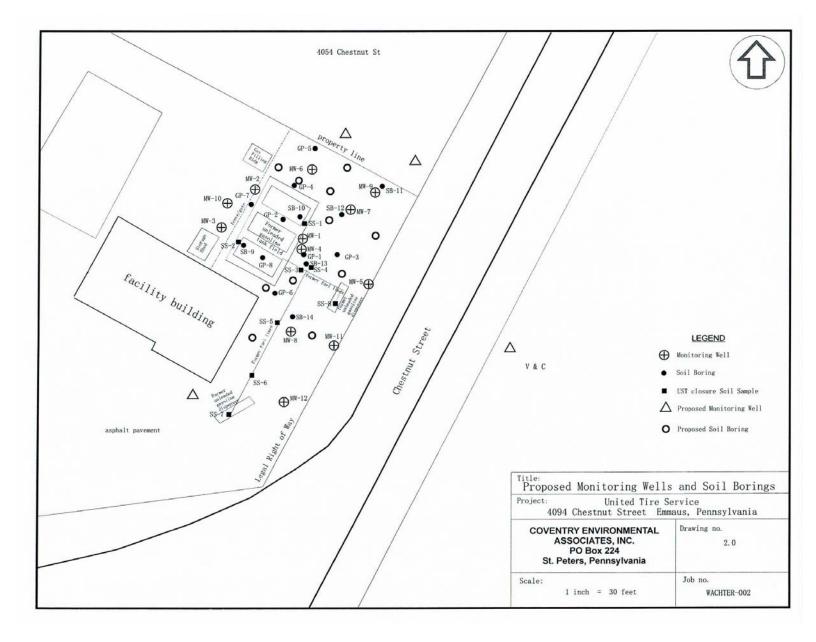
John F. Van Wagenen, P.G.

Principal Hydrogeologist/President

cc. A. Mabus (DEP), M. Bedle (B&B), J. Ferro (ICF)







APPENDIX A DRILLING LOGS

	COVE	NTRY ENVIRONM DRILLIN		SSOC	IATES, INC.	BORING NO: mw-9
PROJE	CT no: UTS-02	DATE: 11/18/			DRILLING METHOD: AU	ger
		Tire Service			DRILLING COMPANY; G	arber well drilling
PROJE	CT LOCATION:	Tiva Candaa			BOREHOLE DIAMETER (IN):	WATER LEVEL (FT):
	4094 C	Tire Service Chestnut St			WEATHER CONDITIONS:	LOGGED BY:
	Emn	naus, PA			dry, cold	jvw
DEPTH (FT)	LITHOLOGIC DESC	CRIPTION	well design	PID	СОММ	ENTS
0	tan, silty clay, dry			0	no petroleum odor	
-				0	PID readings from auger cu	ttings
10				220		
_				0	no petroleum odor	
20				0	_	
				0		
-	same lithlogy, moist, son	ne dolomite gravel		0	No petroleum odor	
30				0		
				1.3		
, manu				2.3		
40						
_				0.9	No petroleum odor	
50	- same lithology, moist			11.3		
50						
<u> </u>				17.9		
60				10.2	_	
				10.4	No Petroleum odor	
70	- end boring @ 70 feet.					
_					well construction: 70 feet total well de	pth
80					surface flush manho 4 inch diameter 40 feet solid casing	(tremie arout)
00					30 feet 0.02" screen	3,55./
_						
90						
100						

		NTRY ENVIRONM DRILLIN		ASSOCIA	ATES, INC.	BORING NO: mw-10
PROJE	CT no: UTS-02	DATE: 11/19/			DRILLING METHOD: AL	uger
PROJE	CT TITLE: United	Tire Service		1	ORILLING COMPANY;	arber well drilling
PROJE	CT LOCATION: United	Tire Service		E	BOREHOLE DIAMETER (IN):	WATER LEVEL (FT):
		Chestnut St naus, PA			WEATHER CONDITIONS: dry, cold	LOGGED BY: jvw
DEPTH (FT)	LITHOLOGIC DES	CRIPTION	well design	PID	COMM	MENTS
0	tan, silty clay, dry			0	no petroleum odor	
=				0	PID readings from auger cu	uttings
10				0		
				0	no petroleum odor	
20				2 47 44	spoon 20 - 22' no recovery, gravel blocka spoons 22-26"	ge
_	same lithlogy, moist, sor	ne dolomite gravel		178 @ 24' 13.7 6.2 13 @ 26'	Slight petroleum odor no petroleum odor	
30				8.8 4 10.5	spoon 30-32' no petroleum odor	
	semi-competent unit, c	augers penetrated		0.4 4.7 8.5	PID readings from auger cu	ttings
40				0.6	No petroleum odor	
_	- same lithology			0 0 0 0 @ 47 *	spoon 45 -47' no petroleum odor	
50				0		
_				0		
60				0	No Petroleum odor	
				0		
70	- end boring @ 70 feet.				well consruction:	
15					70 feet total well de surface flush manho 4 inch diameter	
80					40 feet solid casing 30 feet 0.02" screen	(tremie grout) 1
_						
90						
_						
100						

	COVE	NTRY ENVIRONM		ASSOCI	ATES, INC.	BORING NO:
PROJE	CT no: UTS-02	DRILLII			DRILLING METHOD:	Auger
		11/20 Tire Service	/19	-	DRILLING COMPANY	
PROJE	CT LOCATION:	THE COLLIEC	OHO		BOREHOLE DIAMETER (IN):	Garber well drilling WATER LEVEL (FT):
	United	Tire Service			8	WATER LEVEL (FI).
		Chestnut St naus, PA			WEATHER CONDITIONS: dry, cold	LOGGED BY:
DEPTH (FT)	LITHOLOGIC DESC	CRIPTION	well design	PID	СОМ	MENTS
0	tan, silty clay, dry			0	no petroleum odor	
-				0	PID readings from auger of	cuttings
10				0	-2 -2	
				0	no petroleum odor	
				0	-	
20	8			0		
-	same lithlogy, moist, som	ne dolomite gravel		0	no petroleum odor	
30				0		
				0		
-				0		
40				0		
V7				0	no petroleum odor	
	- same lithology					
50				0		
_					speep FF F7'	
				0 @ 55'	spoon 55 -57' limited recovery, semi cor no petroleum odor	mpetent
60				0	no perioleom oddi	
- 				0		
70	- end boring @ 70 feet.					
70	end boiling @ 70 Teet.				well construction:	
_					70 feet total well of surface flush man	depth hole
80					4 inch diameter 40 feet solid casing 30 feet 0.02" scree	a (tremie arout)
_						
90						
				-		
100						

		NTRY ENVIRONM DRILLIN		ASSOC	IATES, INC.	BORING NO: mw-12
PROJE	CT no: UTS-02	DATE:	/19, 11/2	2/19	DRILLING METHOD:	Auger
		Tire Service	1000		DRILLING COMPANY;	Garber well drilling
PROJE		Tire Service			BOREHOLE DIAMETER (IN):	WATER LEVEL (FT):
		Chestnut St naus, PA			WEATHER CONDITIONS: dry, cold	LOGGED BY: jvw
DEPTH (FT)	LITHOLOGIC DESC	CRIPTION	well design	PID	СОМ	MENTS
0	tan, silty clay, dry			0	no petroleum odor	
-				0	PID readings from auger of	cuttings
10				0		
				0 17,1	no petroleum odor	
20				1200 @ 18' 123 161 89	spoon 18-20 strong petroleum odor spoon 20-22 poor recovery moderate petroleum odor spoon 22-24'	
_	same lithlogy, moist, son	ne dolomite gravel		236 386 308 1125 @ 26' 227 556	no recovery spoon 24-28 strong petroleum odor	
30				950 1744 962 2119 @ 31'	spoon 28-30' no recovery spoon 30-38' strong petroleum odor	
40				1983 120 744 561 306 681 @ 36' 525 530 559 269 275 521 616 @ 41'	10.10	
40				269 275 521 616 @ 41' 249	spoon 40-42', moderate petroleum odor	
	- same lithology					
50						
_				114 186 568 @ 5- 210	spoon 53-55' slight to moderate petroleum odor t	
60					refusal, center rod damaged, air rotary and open auger well installation to 70	
-						
70	- end boring @ 70 feet.					
_					well consruction: 70 feet total well c surface flush mank	
80					4 inch diameter 40 feet solid casing 30 feet 0.02" scree	g (tremie grout)
_						
90						
-						
100						

APPENDIX B LABORATORY DATA SHEETS



Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Edison 777 New Durham Road Edison, NJ 08817 Tel: (732)549-3900

Laboratory Job ID: 460-196304-1 Client Project/Site: 4042 Chest

For

Coventry Environmental Associates Inc PO BOX 224 Saint Peters, Pennsylvania 19470

Attn: John Van Wagenen

See Miller

Authorized for release by: 11/18/2019 2:04:58 PM

Jill Miller, Senior Project Manager (484)685-0871

jill.miller@testamericainc.com

..... LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: Coventry Environmental Associates Inc Project/Site: 4042 Chest

Job ID: 460-196304-1

2

Job ID: 460-196304-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative 460-196304-1

Comments

No additional comments.

Receipt

The samples were received on 11/12/2019 3:54 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Coventry Environmental Associates Inc Project/Site: 4042 Chest

Job ID: 460-196304-1

	ė		44

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID	
460-196304-1	4042 Chest-RAW	Water	11/12/19 10:30	11/12/19 15:54	1,000,000,000,000	
460-196304-2	Trip Blank	Water	11/12/19 10:30	11/12/19 15:54		





Client: Coventry Environmental Associates Inc Project/Site: 4042 Chest

Client Sample ID: 4042 Chest-RAW

Date Collected: 11/12/19 10:30 Date Received: 11/12/19 15:54 Lab Sample ID: 460-196304-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
1,2,4-Trimethylbenzene	0.10	U	0.50	0.10	ug/L	-	11/15/19 12:11	1	SZD
1,2-Dichloroethane	0.11	U	0.50	0.11	ug/L		11/15/19 12:11	1	SZD
1,3,5-Trimethylbenzene	0.12	U	0.50	0.12	ug/L		11/15/19 12:11	1	SZD
Benzene	0.11	U	0.50	0.11	ug/L		11/15/19 12:11	1	SZD
Ethylbenzene	0.090	U	0.50	0.090	ug/L		11/15/19 12:11	1	SZD
Isopropylbenzene	0.14	U	0.50	0.14	ug/L		11/15/19 12:11	1	SZD
Methyl t-butyl ether	3.4		0.50	0.090			11/15/19 12:11	1	SZD
Naphthalene	0.080	U	0.50	0.080	ug/L		11/15/19 12:11	1	SZD
Toluene	0.11	U	0.50	0.11	ug/L		11/15/19 12:11	1	SZD
Xylenes, Total	0.32	U	0.50		ug/L		11/15/19 12:11	1	SZD
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analysi
1,2-Dichlorobenzene-d4	92		70 - 130				11/15/19 12:11		SZD
Bromofluorobenzene	93		70 - 130				11/15/19 12:11	1	SZD
Method: 504.1 LL - EDB,	DBCP and 1,2,3-	TCP (GC)							
	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
Analyte	0.0022	and the same of th	RL 0.0088	MDL 0.0022	Unit ug/L	D	Analyzed 11/15/19 19:52		Analyst JCK
Analyte 1,2-Dibromoethane		Ū				D	Committee Commit	1	JCK
Analyte 1,2-Dibromoethane Surrogate	0.0022	Ū	0.0088			D	11/15/19 19:52	1 Dil Fac	JCK
Analyte 1,2-Dibromoethane Surrogate Pentachloroethane	0.0022 %Recovery 104	U Qualifier	0.0088 <i>Limits</i>			D	11/15/19 19:52 Analyzed	1 Dil Fac	JCK Analysi
Analyte 1,2-Dibromoethane Surrogate Pentachloroethane Method: 200.8 - Metals (I	0.0022 %Recovery 104 CP/MS) - Dissolv	U Qualifier	0.0088 <i>Limits</i>		ug/L	D D	11/15/19 19:52 Analyzed	Dil Fac	Analyst

Client Sample ID: Trip Blank

Date Collected: 11/12/19 10:30 Date Received: 11/12/19 15:54 Lab Sample ID: 460-196304-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
1,2,4-Trimethylbenzene	0.10	U	0.50	0.10	ug/L		11/15/19 10:15	1	SZD
1,2-Dichloroethane	0.11	U	0.50	0.11	ug/L		11/15/19 10:15	1	SZD
1,3,5-Trimethylbenzene	0.12	U	0.50	0.12	ug/L		11/15/19 10:15	1	SZD
Benzene	0.11	U	0.50	0.11	ug/L		11/15/19 10:15		SZD
Ethylbenzene	0.090	U	0.50	0.090	BASS.		11/15/19 10:15		SZD
Isopropylbenzene	0.14	U	0.50	0.14	ug/L		11/15/19 10:15	1	SZD
Methyl t-butyl ether	0.090	U	0.50	0.090	ug/L		11/15/19 10:15	1	SZD
Naphthalene	0.080	U	0.50	0.080	ug/L		11/15/19 10:15	1	SZD
Toluene	0.11	U	0.50		ug/L		11/15/19 10:15	1	SZD
Xylenes, Total	0.32	U	0.50		ug/L		11/15/19 10:15	1	SZD
Surrogate	%Recovery	Qualifier	Limits				Analyzed	Dil Fac	Analyst
1,2-Dichlorobenzene-d4	95	· 	70 - 130				11/15/19 10:15	1	SZD
Bromofluorobenzene	95		70 - 130				11/15/19 10:15	1	SZD
Method: 504.1 LL - EDB,	DBCP and 1.2.3-	TCP (GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Analyzed	Dil Fac	Analyst
1,2-Dibromoethane	0.0022	U	0.0088	0.0022	ug/L	-	11/15/19 20:02	The state of the s	JCK

Client Sample Results

Client: Coventry Environmental Associates Inc

Project/Site: 4042 Chest

Surrogate

Pentachloroethane

Job ID: 460-196304-1

Lab Sample ID: 460-196304-2

Matrix: Water

Client Sample ID: Trip Blank

Date Collected: 11/12/19 10:30 Date Received: 11/12/19 15:54

%Recovery Qualifier Limits
110 70 - 130

 Analyzed
 Dil Fac
 Analyst

 11/15/19 20:02
 1 JCK

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	Chain of Custody Record	ora 364448 🔅 eurofins Fovironment Testin
Address:	PWS Perm	4.6 ° Kop-2
	Regulatory Program: Now INPDES RORA Other:	
Client Co	alren	COC No:
Company Name: (aventry trul HSSOC.	Tel/Email: JVRNWAF 802 Caul Lab Contact:	Carrier: of COCs
	Analysis Turna	Sampler:
1.0 -169 10 CO	CALENDAR DAYS WORKING DAYS	Malk-in Client
Fax:	IAI if dimerent from Below 5 cm >	Lab Sampling:
Project Name: 4042 Chest		
	2 days	Job / SDG No.:
PO#	1 day	196307
	Sample	
Sample Identification	Sample Sample (C=Comp. #of @ fr f. d. Date Time G=Grab) Matrix Cont.	Sample Specific Notes:
34 Chat - RAW	(w 7 N	
Trio hank		
		460-196304 Chain of Custody
6		
Preservation Osott 1= fee, 2= HCL, 3= H2SO4; 4= HN03; 5=NaOH; 6= Other	THE PERSON NAMED IN COLUMN	
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please Comments Section if the lab is to dispose of the sample.	Please List any EPA Waste Codes for the sample in the	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Non-Hazard Hammable Skin Irritant	Poison B Unknown	Disposal by Lab Archive for Months
Special Instructions/QC Requirements & Comments:	CAS Filter - Lead	
Custody See Intact: Tes No	Custody Seal No.: (*C): Obs'd.	Obs'd:Corr'd:Therm ID No.:
	Company: Date/Time: Received by:	Company: Date Time: 1554
M	Company Las Daterfine: Received by	Company: A Date/Time: 1810
Relinquished by:	Company 1 26 20 Materithey Resident Manager 59	Company Date Time:
Acres A	The state of the s	TICAL HILLIGHT POINT

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APPENDIX C SITE SURVEY PLANS

