Richard, Philip E - DNR

Dec Ulzolis pot on BARTS [99] Wzolis [99]

From:Ree, Timothy <Tim.Ree@ghd.com>Sent:Friday, November 20, 2015 11:31 AMTo:Richard, Philip E - DNRCc:Frehner, Ron; Storlie, PeteSubject:Penta Wood - WPDES Compliance Sampling 11/2/2015 and 11/10/2015 ~COR-086165Attachments:Lab Report-240-57385-1-086165-02-06-2015-11-10.pdf; Lab
Report-240-57381-1-086165-02-07-2015-11-20.pdf

Phil,

Please find attached the results for the influent, effluent, and between the carbon unit samples collected at the Penta Wood site on 11/2/2015. Also attached are the results for the effluent sample collected on 11/10/2015.

PCP was detected in the effluent at a concentration of 0.14 ug/L on 11/2/2015, which exceeds the permit criteria of 0.1 ug/L. PCP was detected in the effluent at a concentration of 0.047 ug/L on 11/10/2015, which is below the permit criteria. The average PCP concentration is below the permit criteria. WI-DRO and naphthalene were not detected in the effluent sample on 11/2/2015.

PCP was detected in the influent sample on 11/2/2015 at a concentration of 1,100 ug/L. PCP was detected in the sample collected between the carbon units on 11/2/2015 at a concentration of 2.7 ug/L.

Since we are shutting down the system on Monday (11/23/2015), no pumping adjustments will be made to decrease the influent PCP concentration. Following shutdown of the system, the carbon will be removed from the units and disposed at an authorized offsite facility.

Please update Kathy Bartilson (WDNR) and Linda Martin (USEPA).

Regards,

Tim Ree

GHD

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Canton 4101 Shuffel Street NW North Canton, OH 44720 Tel: (330)497-9396

TestAmerica Job ID: 240-57385-1 Client Project/Site: 86165-02-01, Penta Wood

For:

GHD Services Inc. 1801 Old Highway 8 NW Suite 114 St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Jenuse DHeckler

Authorized for release by: 11/10/2015 2:14:12 PM

Denise Heckler, Project Manager II (330)966-9477 denise.heckler@testamericainc.com

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.

Review your project results through

LINKS



Visit us at: www.testamericainc.com

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TestAmerica Job ID: 240-57385-1

Qualifiers

1

GC Semi VO	A
Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Х	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-57385-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-57385-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/03/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample W-151102-TB-ME (240-57385-2) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 11/04/2015 and analyzed on 11/08/2015.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

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

WISCONSIN DRO

Sample W-151102-TB-ME (240-57385-2) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The samples were prepared on 11/04/2015 and analyzed on 11/06/2015.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

TestAmerica Job ID: 240-57385-1



TestAmerica Job ID: 240-57385-1

Job ID: 240-57385-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

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

CHLORINATED HERBICIDES

Samples W-151102-TB-MI (240-57385-1) and W-151102-TB-ME (240-57385-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/04/2015 and analyzed on 11/09/2015 and 11/10/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Sample W-151102-TB-MI (240-57385-1)[4000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

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

TestAmerica Job ID: 240-57385-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CAN
8151A	Herbicides (GC)	SW846	TAL PIT
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL CAN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates. WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396 TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058 Sample Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood TestAmerica Job ID: 240-57385-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-57385-1	W-151102-TB-MI	Water	11/02/15 13:20	11/03/15 09:20
240-57385-2	W-151102-TB-ME	Water	11/02/15 13:30	11/03/15 09:20

Detection Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-57385-1

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Client Sample ID: W-151102-TB-MI						Lab Sample ID: 240-5738				
Analyte Pentachlorophenol	Result 1100	Qualifier	LOQ 99	LOD 15	Unit ug/L	Dil Fac 4000	D	Method 8151A	Prep Type Total/NA	
Client Sample ID: W-1	51102-TB-ME					Lab	Sa	mple ID:	240-57385-2	
Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type	
Pentachlorophenol	0.14		0.099	0.015	ug/L	4	_	8151A	Total/NA	

This Detection Summary does not include radiochemical test results.

2,4-Dichlorophenylacetic acid

TestAmerica Job ID: 240-57385-1

11/04/15 17:10 11/10/15 06:47

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4000

Client Sample ID: W-151102-TB-MI						Lab Sample ID: 240-57385-1					
Date Collected: 11/02/15 13:20							Matrix	: Water			
Date Received: 11/03/15 0	9:20			• and a second			1				
Method: 8151A - Herbicid	les (GC)										
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac		
Pentachlorophenol	1100	1.0	99	15	ug/L		11/04/15 17:10	11/10/15 06:47	4000		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac		

32-140

0 XD

TestAmerica Job ID: 240-57385-1

Matrix: Water

Client Sample ID: W-151102-TB-ME Lab Sample ID: 240-57385-2 Date Collected: 11/02/15 13:30 Date Received: 11/03/15 09:20

Method: 8270C - Semivolatile	Organic Co	mpounds	(GC/MS)						
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<0.069		0.22	0.069	ug/L		11/04/15 09:00	11/08/15 00:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		29 - 110				11/04/15 09:00	11/08/15 00:15	1
2-Fluorophenol (Surr)	35		15-110				11/04/15 09:00	11/08/15 00:15	1
2,4,6-Tribromophenol (Surr)	69		21 - 128				11/04/15 09:00	11/08/15 00:15	1
Nitrobenzene-d5 (Surr)	68		31 - 110				11/04/15 09:00	11/08/15 00:15	1
Phenol-d5 (Surr)	20		10 - 110				11/04/15 09:00	11/08/15 00:15	1
Terphenyl-d14 (Surr)	61		31 - 115				11/04/15 09:00	11/08/15 00:15	1
	GC)								
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.14		0.099	0.015	ug/L		11/04/15 17:10	11/09/15 12:19	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		32 - 140				11/04/15 17:10	11/09/15 12:19	4
Method: WI-DRO - Wisconsin	- Diesel Rai	nge Organ	ics (GC)						
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<0.051		0.10	0.051	mg/L		11/04/15 06:41	11/06/15 18:04	1

Prep Type: Total/NA

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water	•	•	•				Prep	Type: Total/NA
			Pe	ercent Surre	ogate Reco	very (Acce	otance Limits)	
		FBP	2FP	TBP	NBZ	PHL	ТРН	
Lab Sample ID	Client Sample ID	(29-110)	(15-110)	(21-128)	(31-110)	(10-110)	(31-115)	
240-57385-2	W-151102-TB-ME	65	35	69	68	20	61	
LCS 240-205133/22-A	Lab Control Sample	75	66	82	98	56	89	
MB 240-205133/21-A	Method Blank	70	64	79	70	55	80	
Surrogate Legend								
FBP = 2-Fluorobipheny	/I (Surr)				-			
2FP = 2-Fluorophenol ((Surr)							
TBP = 2,4,6-Tribromop	henol (Surr)							
NBZ = Nitrobenzene-d	5 (Surr)							
PHL = Phenol-d5 (Surr)							
TPH = Terphenyl-d14 (Surr)							

Method: 8151A - Herbicides (GC) Matrix: Water

			Percen	nt Surrogate Recovery (Acceptance Limits)
		DCPA1	DCPA2	
Lab Sample ID	Client Sample ID	(32-140)	(32-140)	
240-57385-1	W-151102-TB-MI	0 X D	0 X D	
240-57385-2	W-151102-TB-ME	86	77	
_CS 180-159325/2-A	Lab Control Sample	91	80	
_CSD 180-159325/3-A	Lab Control Sample Dup	96	90	
/IB 180-159325/1-A	Method Blank	69	68	
MB 180-159325/1-A	Method Blank	77	76	

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

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Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-205133/21-A Matrix: Water Analysis Batch: 205735							Client Sample ID: Method Blan Prep Type: Total/N Prep Batch: 20513			
-	MB	MB								
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac	
Naphthalene	<0.063		0.20	0.063	ug/L		11/04/15 09:00	11/07/15 19:32	1	
	MB	МВ								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	70		29-110				11/04/15 09:00	11/07/15 19:32	1	
2-Fluorophenol (Surr)	64		15-110				11/04/15 09:00	11/07/15 19:32	1	
2,4,6-Tribromophenol (Surr)	79		21 - 128				11/04/15 09:00	11/07/15 19:32	1	
Nitrobenzene-d5 (Surr)	70		31 - 110				11/04/15 09:00	11/07/15 19:32	1	
Phenol-d5 (Surr)	55		10-110				11/04/15 09:00	11/07/15 19:32	1	
Terphenyl-d14 (Surr)	80		31 - 115				11/04/15 09:00	11/07/15 19:32	1	

Lab Sample ID: LCS 240-205133/22-A Matrix: Water Analysis Batch: 205735

Analysis Batch: 205735			Spike	LCS	LCS				Prep Batch: 205133 %Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Naphthalene			20.0	14.9		ug/L		75	52 - 120
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
2-Fluorobiphenyl (Surr)	75		29 - 110						
2-Fluorophenol (Surr)	66		15-110						
2,4,6-Tribromophenol (Surr)	82		21 - 128						
Nitrobenzene-d5 (Surr)	98		31 - 110						
Phenol-d5 (Surr)	56		10-110						
Terphenyl-d14 (Surr)	89		31 - 115						

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-159 Matrix: Water Analysis Batch: 159715	325/1-A						Client Samp	le ID: Methoc Prep Type: To Prep Batch:	l Blank otal/NA 159325
	MB	MB							
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.016		0.10	0.016	ug/L		11/04/15 17:10	11/09/15 11:08	4
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	69		32 - 140				11/04/15 17:10	11/09/15 11:08	4
Lab Sample ID: MB 180-159	325/1-A						Client Samp	le ID: Method	Blank
Matrix: Water							1	Prep Type: To	otal/NA
Analysis Batch: 159715								Prep Batch:	159325
•	MB	МВ							
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.078		0.50	0.078	ug/L		11/04/15 17:10	11/09/15 11:55	20
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2.4-Dichlorophenylacetic acid	77	*******	32 - 140				11/04/15 17:10	11/09/15 11:55	20

TestAmerica Canton

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Method: 8151A - Herbig	cides (GC) (Continu	ied)										3
Lab Sample ID: LCS 180-1	59325/2-A						Clie	ent Sar	mple ID	: Lab Cor	ntrol Sa	ample	4
Matrix: Water										Prep Ty	pe: Tot	tal/NA	Elithe
Analysis Batch: 159715										Prep Ba	atch: 1	59325	5
			Spike		LCS	LCS				%Rec.			~
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits			6
Pentachlorophenol			5.00		4.82		ug/L		96	40 - 140			0
	LCS	LCS											10-7
Surrogate	%Recoverv	Qualifier	Limits										
2,4-Dichlorophenylacetic acid	91		32 - 140)									8
Lab Sample ID: LCSD 180-	159325/3-A					C	Client Sa	ample	ID: Lat	Control	Sampl	e Dup	Eliter
Matrix: Water										Prep Ty	be: Tot	tal/NA	9
Analysis Batch: 159715										Prep Ba	tch: 1	59325	
			Spike		LCSD	LCSD				%Rec.		RPD	10
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	in an
Pentachlorophenol			5.00		5.63		ug/L		113	40 - 140	15	30	
	LCSD	LCSD											E TOP
Surrogate	%Recovery	Qualifier	Limits										
2,4-Dichlorophenylacetic acid	96		32 - 140)									12
Method: WI-DRO - Wise	consin - D	Diesel Ran	ge Or	ganic	s (G	C)							
Lah Sample ID: MB 240-20	5085/2-0							Clic	nt Sam		othod	Blank	
Matrix: Water	3003/2-A							Cile	ant San	Dron Tvi	etilou		15
Analysis Batch: 205645										Pren Ba	tch: 2	05085	Real Part
Analysis Baton. 200040		МВ МВ								Перьс		00000	
Analyte	Re	esult Qualifier		LOQ		LOD Unit		D P	repared	Analyz	ed	Dil Fac	
WI Diesel Range Organics (C10-C2	28) <0	.050		0.10	0	.050 mg/L		11/0	4/15 06:4	1 11/06/15	17:09	1	
_													
Lab Sample ID: LCS 240-2	05085/3-A						Clie	nt Sar	nple ID	: Lab Cor	trol Sa	ample	
Matrix: Water										Prep Ty	be: Tot	al/NA	
Analysis Batch: 205645										Prep Ba	tch: 2	05085	
			Spike		LCS	LCS				%Rec.			
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits			
WI Diesel Range Organics (C10-C28)			0.500		0.472		mg/L		94	75-115			
Lab Sample ID: LCSD 240-	205085/4-4					0	lient S	ample	ID: Lah	Control	Sample	e Dup	
Matrix: Water	N							mpie		Pren Tvi	be: Tot	al/NA	
Analysis Batch: 205645										Prep Ba	tch: 2	05085	

WI Diesel Range Organics (C10-C28)

Analyte

TestAmerica Canton

%Rec.

Limits

75-115

D %Rec

97

Spike

Added

0.500

LCSD LCSD

0.486

Result Qualifier Unit

mg/L

RPD

Limit

20

RPD

GC/MS Semi VOA

Flep Datch. 205155					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57385-2	W-151102-TB-ME	Total/NA	Water	3510C	
LCS 240-205133/22-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-205133/21-A	Method Blank	Total/NA	Water	3510C	
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57385-2	W-151102-TB-ME	Total/NA	Water	8270C	205133
LCS 240-205133/22-A	Lab Control Sample	Total/NA	Water	8270C	205133
MB 240-205133/21-A	Method Blank	Total/NA	Water	8270C	205133

GC Semi VOA

Prep Batch: 159325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57385-1	W-151102-TB-MI	Total/NA	Water	8151A	
240-57385-2	W-151102-TB-ME	Total/NA	Water	8151A	
LCS 180-159325/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-159325/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-159325/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 159715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57385-1	W-151102-TB-MI	Total/NA	Water	8151A	159325
240-57385-2	W-151102-TB-ME	Total/NA	Water	8151A	159325
LCS 180-159325/2-A	Lab Control Sample	Total/NA	Water	8151A	159325
LCSD 180-159325/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	159325
MB 180-159325/1-A	Method Blank	Total/NA	Water	8151A	159325
MB 180-159325/1-A	Method Blank	Total/NA	Water	8151A	159325
Prep Batch: 205085					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57385-2	W-151102-TB-ME	Total/NA	Water	3520C	4
LCS 240-205085/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 240-205085/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 240-205085/2-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 205645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57385-2	W-151102-TB-ME	Total/NA	Water	WI-DRO	205085
LCS 240-205085/3-A	Lab Control Sample	Total/NA	Water	WI-DRO	205085
LCSD 240-205085/4-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	205085
MB 240-205085/2-A	Method Blank	Total/NA	Water	WI-DRO	205085

Lab Sample ID: 240-57385-1

Lab Sample ID: 240-57385-2

Client Sample ID: W-151102-TB-MI Date Collected: 11/02/15 13:20 Date Received: 11/03/15 09:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			159325	11/04/15 17:10	CBY	TAL PIT
Total/NA	Analysis	8151A		4000	159715	11/10/15 06:47	JMO	TAL PIT

Client Sample ID: W-151102-TB-ME Date Collected: 11/02/15 13:30 Date Received: 11/03/15 09:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			205133	11/04/15 09:00	CS	TAL CAN
Total/NA	Analysis	8270C		1	205735	11/08/15 00:15	JMG	TAL CAN
Total/NA	Prep	8151A			159325	11/04/15 17:10	CBY	TAL PIT
Total/NA	Analysis	8151A		4	159715	11/09/15 12:19	JMO	TAL PIT
Total/NA	Prep	3520C			205085	11/04/15 06:41	SDE	TAL CAN
Total/NA	Analysis	WI-DRO		1	205645	11/06/15 18:04	DEB	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396 TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Matrix: Water

Matrix: Water

Certification Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood TestAmerica Job ID: 240-57385-1

Laboratory: TestAmerica Canton

The certifications listed below are applicable to this report.	The certifications listed	below are applicable to this report.	
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Authority	Program	EPA Region	Certification ID	Expiration Date	
Wisconsin	State Program	5	999518190	08-31-16	

Laboratory: TestAmerica Pittsburgh The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16

TestAmerica Canton



CHAIN OF CUSTODY AND RECEIVING DOCUMENTS

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CINESTOGA-ROVERS CI	HAIN 18 St Phone:	OF 01 Old Hi Paul, Mi (651) 639	CUS ghway nnesoto -0913	5TC 8 North 2 55112	DY F west, Suite United Si Fax: (651)	RE 114 tates 639-0	CORD 3.7/C3	.8	COC (Se	C NO. SP- PAGE ee Reverse Side fo	01651 <u>l</u> of <u>l</u> r Instructions)
Project No/ Phase/Task Code:	Laborato	ry Name: "	TELS	T by	EBICA	•	Lab Location:	URDY (AN	TIAL	SSOW ID:	
Project Name:	Lab Cont	act:	1 4 01	<u> </u>	ENVE)	Lab Quote No:	00-11) (1)10	1	Cooler No:	
Project Location:		C	ONTAIN		NITITY P					Carrier	
S.BEN, WI	SAMPLE TYPE		. Pre	SERVAT	TION	. :	ANALYSIS	C REQUESTED		Carrier.	
Chemistry Contact:	(c)	(II)		1	Di la	nple				Airbill No:	
Sampler(s):	omp	Acid (H	103) H ₂ SO,	xide r (So	1x25	rs/Sa	520		st	Date Shipped:	
T.M. BRAVN	code ck of () or C	rved loric /	id (HN Acid (Hydro	3x5-g	ntaine	, FS		Reque	Bute Ompped.	
SAMPLE IDENTIFICATION DATE (mm/dd//yy) (th::mm)	Matrix C (see bac Grab (G	Unprese Hydroch	Nitric Ac Sulfuric	Sodium (NaOH) Methano	VOC) EnCores Other:	Total Col	C-Z-A		USW/SW	Comme Special Inst	NTS/
1 W-151002-TB-MI 11/2/15 13:20	WG	2				2	X				
2 W-15 1102- TB-ME 11/2/15 1330	WG	47				C	XXX			and the second	
3						0					
Ge											
18											
5 PZ											
8											
9											
1 0											
1											
1 2		-								-	
1 3											
1 4											
1 5						1					-
TAT Required in business days (use separate COCs for different TATs):		To	otal Nun	nber of (Containers:	8	Notes/ Special Re	quirements:	1		
1 Day 2 Days 3 Days 1 Week 2 Week Other: STA	NOGRO	All Samp	oles in C	ooler m	ust be on C	:00					
RELINQUISHED BY COMPANY	DATE	Тіме		×.	RECE	IVED E	BY	COMPANY		DATE	Тіме
1. TIMBERTHER GHD M	1/2/15	1630	1.	~	100	>		YA		11-2-15	920
			2.	8							/
0/20	_	-	3.	_							
THE CHAIN OF Cust on Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – F	rody is a Lee Receiving La	BAL DOCUM	е <i>мт — А</i> л	.L F IELDS	<i>Musт Be C</i> NK — Shipp	<i>OMPLE</i> er	ETED ACCURATELY GOLDENROD	-Sampling Crew		CRA Form: COC-	10A (20110804)
				9 9	1.3	R.	0	°° ≺ °	5	5 4 ω	N -

TestAmerica Canton	Sample Receipt Form/Na	urrative	Logi	in#:	
Client COA		Site Name		Cooler unpa	icked by:
Cooler Received on	11-3-15	Opened on 11.3.15		A	
FedEx: 1 st Grd (Exp)	UPS FAS Stetson C	lient Drop Off · TestAr	nerica Courier	Other	
Receipt After-hours: I	Drop-off Date/Time	Sto	rage Location		
TestAmerica Cooler #	Foam Box	Client Cooler, Box	Other	••••••••••••••••••••••••••••••••••••••	
Packing material u	ised: Bubble Wrap Foai	n Plastic Bag Non	e Other		
COULANT:	weilice Bluelice L	Dry ice water Nor	e		
IR GUN# 53 (C IR GUN# 48 (C IR GUN# 48 (C IR GUN# 5 (C IR GUN# 8 (C 2. Were custody seals -Were custody seals -Were custody seal 3. Shippers' packing s 4. Did custody papers 5. Were the custody pa 6. Was/were the perso 7. Did all bottles arriv 8. Could all bottle labo 9. Were correct bottle(10. Sufficient quantity	F +0.1 °C) Observed Coole F -0.3 °C) Observed Coole F -0.3 °C) Observed Coole F -0.5 °C) Observed Coole on the outside of the cooler(is is on the outside of the cooler(is) is on the bottle(s) or bottle kindling in the bottle(s) or bottle kindling accompany the sample(s)? accompany the sample(s)? apers relinquished & signed is on(s) who collected the sample in good condition (Unbroked els be reconciled with the CC (s) used for the test(s) indicate the correct pH upon receipt?	er Temp. <u>3.7</u> °C Cor er Temp. <u>°C Cor</u> er Temp. <u>°C Cor</u> er Temp. <u>°C Cor</u> s? If Yes Quantity (s) signed & dated? ts (LLHg/MeHg)? In the appropriate place? es clearly identified on the en)? C? ed? d analyses?	rected Cooler To rected Cooler To rected Cooler To rected Cooler To Yes Yes Yes ne COC? Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	emp. <u>7.5</u> °C emp. °C emp. °C emp. °C s No s No s No s No s No s No s No s No	□ See Multiple Cooler Form
 Were VOAs on the Were air bubbles >6 Was a trip blank pre Contacted PM Concerning 	COC? 5 mm in any VOA vials? 2 sent in the cooler(s)? Trip B Date	lank Lot # by	Yes Yes Yes via Verbal V	No No No No Voice Mail Other	
14. CHAIN OF CUST	ODY & SAMPLE DISCRE	PANCIES	-	Samples p	rocessed by:
15. SAMPLE CONDIT Sample(s) Sample(s) Sample(s)	TONwe	re received after the recowere received with t	mmended holdi _ were received ubble >6 mm ir	ng time had expi in a broken cont n diameter. (Noti	red. ainer. fy PM)
16. SAMPLE PRESER Sample(s) Time preserved:	VATION ,Preservative(s) added	/Lot number(s):	were fur	ther preserved in	the laboratory.

Ref: SOP NC-SC-0005, Sample Receiving X:VX-Drive Document Control/SOPs/Work Instructions/Word Version Work Instructions/W7-NC-099V-102115 Cooler Receipt Form doc djl

Login Sample Receipt Checklist

Client: GHD Services Inc.

Login Number: 57385 List Number: 2 Creator: Lonzo, Michael A

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 240-57385-1

List Source: TestAmerica Pittsburgh

List Creation: 11/04/15 05:27 PM



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ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Canton 4101 Shuffel Street NW North Canton, OH 44720 Tel: (330)497-9396

TestAmerica Job ID: 240-57386-1 Client Project/Site: 86165-02-01, Penta Wood

For:

GHD Services Inc. 1801 Old Highway 8 NW Suite 114 St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Jenuse DHeckler

Authorized for release by: 11/11/2015 8:34:11 AM Denise Heckler, Project Manager II (330)966-9477

denise.heckler@testamericainc.com

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.

Review your project results through



The

Expert

Visit us at: www.testamericainc.com

TestAmerica Job ID: 240-57386-1

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Definitions/Glossary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-57386-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-57386-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-57386-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/03/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

CHLORINATED HERBICIDES

Sample W-151102-TB-BG (240-57386-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/04/2015 and analyzed on 11/09/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP).

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

TestAmerica Job ID: 240-57386-1

Method	Method Description	Protocol	Laboratory
8151A	Herbicides (GC)	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TestAmerica Job ID: 240-57386-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-57386-1	W-151102-TB-BG	Water	11/02/15 13:40	11/03/15 09:20

Detection Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood

TestAmerica Job ID: 240-57386-1

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Client Sample ID: W-151102-TB-BG						Sa	mple ID:	240-57386-1
Analyte	Result Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Ргер Туре
Pentachlorophenol	2.7	0.097	0.015	ug/L	4	_	8151A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Job ID: 240-57386-1

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Client Sample ID: W-15	1102-TB-BG					L	ab Sample	e ID: 240-57	386-1
Date Collected: 11/02/15 13:	40							Matrix	Water
	20								
Method: 8151A - Herbicide	s (GC) Result	Qualifier	100		Unit	п	Propared	Analyzod	Dil Eac
Pentachlorophenol	2.7		0.097	0.015	ug/L		11/04/15 17:10	11/09/15 13:07	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	85		32 - 140				11/04/15 17:10	11/09/15 13:07	

TestAmerica Job ID: 240-57386-1

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

			Percent	t Surrogate Recovery (Acceptance Limits)
		DCPA1	DCPA2	
Lab Sample ID	Client Sample ID	(32-140)	(32-140)	
240-57386-1	W-151102-TB-BG	85	77	· · · · · · · · · · · · · · · · · · ·
LCS 180-159325/2-A	Lab Control Sample	91		
_CSD 180-159325/3-A	Lab Control Sample Dup	96		
MB 180-159325/1-A	Method Blank	69		
MB 180-159325/1-A	Method Blank	77		
Surrogate Legend				

Surrogate

2,4-Dichlorophenylacetic acid

TestAmerica Job ID: 240-57386-1

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Method: 8151A - Herbi	icides (GC)												
Lab Sample ID: MB 180-1 Matrix: Water	59325/1-A							C	Clie	ent Samp	ole ID: M Prep Typ	ethod be: To	Blank tal/NA
Analysis Batch: 159715											Prep Ba	tch: 1	59325
	MB	MB											
Analyte	Result	dualifier	LOQ		LOD	Unit		D	P	repared	Analyz	ed	Dil Fac
Pentachlorophenol	<0.016	3	0.10	C	0.016	ug/L		1	1/0	4/15 17:10	11/09/15	11:08	4
	ME	MB											
Surrogate	%Recover	, MD Qualifier	Limits						Р	repared	Analvz	zed	Dil Fac
2,4-Dichlorophenylacetic acid	69)	32 - 140					1	11/0	4/15 17:10	11/09/15	11:08	4
Lab Sample ID: MB 180-1	59325/1-A							C	Clie	ent Samp	ole ID: M	ethod	Blank
Matrix: Water											Prep Typ	be: To	tal/NA
Analysis Batch: 159715											Prep Ba	tch: 1	59325
	MB	MB											
Analyte	Result	Qualifier	LOQ		LOD	Unit		D	Ρ	repared	Analyz	ed	Dil Fac
Pentachlorophenol	<0.078		0.50	C	0.078	ug/L		1	1/0	4/15 17:10	11/09/15	11:55	20
	МВ	MB											
Surrogate	%Recovery	Qualifier	Limits						P	repared	Analyz	ed	Dil Fac
2,4-Dichlorophenylacetic acid	77	,	32 - 140					1	1/0	4/15 17:10	11/09/15	11:55	20
Lab Sample ID: LCS 180-	159325/2-A						Clie	nt S	Sar	nple ID:	Lab Con	trol S	ample
Matrix: Water											Prep Typ	be: To	tal/NA
Analysis Batch: 159715											Prep Ba	tch: 1	59325
			Spike	LCS	LCS						%Rec.		
Analyte			Added	Result	Qua	lifier	Unit		D	%Rec	Limits		
Pentachlorophenol			5.00	4.82			ug/L			96	40 - 140		
	LCS LC	s											
Surrogate	%Recovery Qu	alifier	Limits										
2,4-Dichlorophenylacetic acid	91		32 - 140										
-	-												_
Lab Sample ID: LCSD 180	1-159325/3-A					C	flient Sa	amp	DIe	ID: Lab	Control	Sampl	le Dup
Matrix: Water											Prep Typ	be: Io	tal/NA
Analysis Batch: 159715						_					Prep Ba	tch: 1	59325
			Spike	LCSD	LCS	U			_	_	%Rec.		RPD
Analyte			Added	Result	Qua	lifier	Unit		D	%Rec	Limits	RPD	Limit
Pentachlorophenol			5.00	5.63			ug/L			113	40 - 140	15	30
	LCSD LC	SD											

Limits

32 - 140

%Recovery Qualifier

QC Association Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood TestAmerica Job ID: 240-57386-1

GC Semi VOA

-

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57386-1	W-151102-TB-BG	Total/NA	Water	8151A	
_CS 180-159325/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-159325/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-159325/1-A	Method Blank	Total/NA	Water	8151A	
nalysis Batch: 1597	15				
nalysis Batch: 1597	15				
nalysis Batch: 1597 Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
nalysis Batch: 1597 Lab Sample ID 240-57386-1	15 Client Sample ID W-151102-TB-BG	Prep Type Total/NA	Matrix Water	Method 8151A	Prep Batch 159325
nalysis Batch: 1597 Lab Sample ID 240-57386-1 LCS 180-159325/2-A	15 Client Sample ID W-151102-TB-BG Lab Control Sample	Prep Type Total/NA Total/NA	Matrix Water Water	Method 8151A 8151A	Prep Batch 159325 159325
nalysis Batch: 1597 Lab Sample ID 240-57386-1 LCS 180-159325/2-A LCSD 180-159325/3-A	15 Client Sample ID W-151102-TB-BG Lab Control Sample Lab Control Sample Dup	Prep Type Total/NA Total/NA Total/NA	Matrix Water Water Water	Method 8151A 8151A 8151A 8151A	Prep Batch 159325 159325 159325 159325
nalysis Batch: 1597 Lab Sample ID 240-57386-1 LCS 180-159325/2-A LCSD 180-159325/3-A MB 180-159325/1-A	15 Client Sample ID W-151102-TB-BG Lab Control Sample Lab Control Sample Dup Method Blank	Prep Type Total/NA Total/NA Total/NA Total/NA	Matrix Water Water Water Water Water	Method 8151A 8151A 8151A 8151A 8151A	Prep Batch 159325 159325 159325 159325 159325

Batch

Prepared

159325 11/04/15 17:10 CBY

159715 11/09/15 13:07 JMO

Analyst

Lab

TAL PIT

TAL PIT

Number or Analyzed

Dilution

Factor

4

Run

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Client Sample ID: W-151102-TB-BG Date Collected: 11/02/15 13:40 Date Received: 11/03/15 09:20

Batch

Туре

Prep

Analysis

Prep Type

Total/NA

Total/NA

Laboratory References:

Batch

Method

8151A

8151A

Lab Sample ID: 240-57386-1

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Laboratory: TestAmerica Canton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS

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Project Normale/Laboratory Name: Laboratory Name: TEST AMELLO Laboratory, OH SSOW ID: Project Name: Contact: Laboratory Name: TEST AMELLO Laboratory, OH SSOW ID: Project Name: Contact: Laboratory Name: TEST AMELLO Laboratory, OH SSOW ID: Project Location: SameLic SameLic SameLic Laboratory Name: Cooler No: Project Location: SameLic SameLic Contract: Laboratory Name: Cooler No: SameLic SameLic SameLic Contract: Contract: Laboratory Name: Cooler No: SameLico SameLico SameLico SameLico Contract: Contract: Date Shipped: SameLico: SameLico Date Shipped: Time: Time: </th <th></th> <th></th> <th>Ph</th> <th>St. one:</th> <th>Pau (651</th> <th>ul, M () 63</th> <th>inne: 9-09]</th> <th>sota 13</th> <th>5511</th> <th>2 U Fa</th> <th>Jnite x: (6</th> <th>ed St. 51) (</th> <th>ates 639-(</th> <th>0923</th> <th>3</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>(Se</th> <th>e Reverse Side</th> <th>e for Instru</th> <th>ctions</th>			Ph	St. one:	Pau (651	ul, M () 63	inne: 9-09]	sota 13	5511	2 U Fa	Jnite x: (6	ed St. 51) (ates 639-(0923	3						(Se	e Reverse Side	e for Instru	ctions
Project Name: Lab Contact: Lab Contact: Lab Quote No: Cooler No: Project Location: Samue: Type Contrainer Quantity & Analysis Requested Carrier: Obernatify: Contact: Type Type Contrainer Quantity & Analysis Requested Carrier: Sampler(s): The Contrainer Quantity & Analysis Requested Carrier: Analysis Requested Analysis Requested Carrier: Sampler(s): The Contrainer Quantity & Analysis Requested The Stapped: Tate Shipped: Tate Shipped: It W - 151 (02 - TS - Signed Contrainer) Date: It Market (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	(XL165-02		abo	rator	y Na	me:	T	25	T	An	NER	169	2	La	ab Location	". V.(A	VIU.	.0	H	-	SSOW ID:		
Project Location SAMPLE CONTAINER QUANTITY & PRESERVATION ANALYSIS REQUESTED (Group Back of CCC for Definitions) Carrier: Chamisgy Contact: (CRAMPLE DENTIFICATION AVAILYSIS REQUESTED (Group Back of CCC for Definitions) Arbiti No: Samplet (D): (Contact and provide and none line) DATE Time: Reservation Availy Signature 1 W = 151100 - TS - S.G. 11/2/15/1540 W C 2 1 1 1 2 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 4 1 1 1 1 1 1 1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 3 1 1 1 1 1 1 1 4 1 1 1 1 1 1 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <tr< td=""><td>Project Name:</td><td>L</td><td>Lab (</td><td>Conta</td><td>act:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>L</td><td>ab Quote N</td><td>lo:</td><td><u> </u></td><td></td><td>-/</td><td>-1</td><td></td><td>Cooler No:</td><td></td><td></td></tr<>	Project Name:	L	Lab (Conta	act:									L	ab Quote N	lo:	<u> </u>		-/	-1		Cooler No:		
Commission Content: (CRIMY) Type: PRESERVATION (Sup Bunch of COC for Definitions) Airbit No: Sampler(s): (B)	Project Location:		SAME			C	ONT	AINE	R Q	UAN	τιτγ	&		+	ANA	VSIS	REC		TED	-+	-	Carrier:		
Channel Amode Resource Cost and angle may be contained on one line) Date (how shows) The factor (how shows) Date (Chemistry Contact:		TYP	PE			· P	RES	ERV	ATIO	N		1		(See Bac	k of C	COC fe	or Det	inition	s)				
Sample is: Image: Sa	GRANT. ANDERSOND GHD. COM			b (C)		(HCI)		04)		Soil	25-g		ample	5								Airbill No:		
SAMPLE IDENTIFICATION (Containers of contained on one line) Date (mptod/y) Time (harm) Note (mptod/y)	Sampler(s): (B T, BRAN	Code	ick of CO	s) or Com	erved	hloric Acid	cid (HNO ₃)	: Acid (H ₂ S	Hydroxide	ol/Water (S	s 3x5-g, 1x		ontainers/S	10-0	6						Request	Date Shipper	d:	
W - 151102 - TB - BG 112/15/1340 W G 2 Image: State of the state of	SAMPLE IDENTIFICATION DATE (Containers for each sample may be combined on one line)	(u) Matrix	(see ba	Grab (G	Unprese	Hydroci	Nitric A	Sulfuric	Sodium (NaOH)	Methanov VOC)	EnCore	Other:	Total Co	P CF							MS/MSD	Com Special In	MENTS/ STRUCTI	ONS:
a //	W-151102-TB-BG 11/2/15/34	o v	J	G	2								2	X										
a a	· · · · · · · · · · · · · · · · · · ·															-								
Image: Second State State Costs for different TATs): Image: Total Number of Containers: Image: Second State																				Photo and				
AT Required in business days (use separate COCs for different TATs): Total Number of Containers: 2 Notes/ Special Requirements: I Day 2 Days 3 Days 1 Week 2 Week MOTHER: All Samples in Cooler must be on COC RELINQUISHED BY COMPANY DATE Time: Received by COMPANY DATE Time: 1 J. M. B. Avv G. H.D. H.2/15 1. TAT 11-3. (5 92c			_																					
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RELINQUISHED BY COMPANY DATE TIME RECEIVED BY COMPANY DATE TIME T_m DRAW GHD 11/2/15 16-36 1 TA 11-3-15 926 2 2 2 2 2 1 1 1 1	1 Day 2 Days 3 Days 1 Week 2 Week	JANK	DAG	20	All	Sam	ples	in Co	oler	mus	t be i	on C	oc											
7 m BRAVN (11-3-15 920)	RELINQUISHED BY COMPANY	P/	ATE	_	· · ·	TIME	•;		* e :		F	RECE	IVED I	BY				Co	MPAN	Y		DATE	TH	ME
2.	T, m BRAVN COM GHD	11/2	2/1	5	(6	1.0	0-	1.		-	r	~	>					TZ	F			11-3-15	92	0
								2.					sê.											
3.								3.							1									

TestAmerica Canton Sample Receipt Form/Narrative Login # :	
Canton Facility	d by:
Client <u>Clue</u> Site Name Cooler unpacked	u by.
Cooler Received on <u>11-3-15</u> Upened on <u>11-3-15</u> Upened on <u>11-3-15</u>	
Receipt After-hours: Dron-off Date/Time	
TestAmerica Cooler # Foam Box Client Cooles Box Other	
Packing material used: Bubble Wrap Foam Plastic Bag None Other	
COOLANT: Wet Ice Blue Ice Dry Ice Water None	
1. Cooler temperature upon receipt	
IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. <u>3-7</u> °C Corrected Cooler Temp. <u>3-8</u> °C	
IR GUN# 48 (CF +0.3°C) Observed Cooler TempC Corrected Cooler TempC	
IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C	
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity / Yes No	
-Were custody seals on the outside of the cooler(s) signed & dated? Yes, No NA	,
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No	
3. Shippers' packing slip attached to the cooler(s)? Yes No	
4. Did custody papers accompany the sample(s)?	
5. Were the custody papers relinquished & signed in the appropriate place? (res/No	
7. Did all bottles arrive in good condition (Unbroken)?	
8. Could all bottle labels be reconciled with the COC? 8. Could all bottle labels be reconciled with the COC?	
9. Were correct bottle(s) used for the test(s) indicated?	
10. Sufficient quantity received to perform indicated analyses?	
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip	Lot# <u>HC554612</u>
12. Were VOAs on the COC? Yes No	
13. Were air bubbles >6 mm in any VOA vials? Yes No(NA	
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # Yes (10)	
Contacted PM Date by via Verbal Voice Mail Other	
Concerning	
Samples proce	essed by:
14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	
· · · · · · · · · · · · · · · · · · ·	
15. SAMPLE CONDITION	
Sample(s)	s1*
Sample(s)	2MD
16. SAMPLE PRESERVATION	
Sample(s)	laboratory.
Time preserved:Preservative(s) added/Lot number(s):	·

Ref: SOP NC-SC-0005, Sample Receiving X:\X-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099V-102115 Cooler Receipt Form.doc djl

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Login Sample Receipt Checklist

Client: GHD Services Inc.

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Job Number: 240-57386-1

Login Number: 57386 List Number: 2			List Source: TestAmerica Pittsburgh List Creation: 11/04/15 05:27 PM
Creator: Lonzo, Michael A			
Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> <td></td>	True		
The cooler's custody seal, if present, is intact.	True		
Sample custody seals, if present, are intact.	True		
The cooler or samples do not appear to have been compromised or tampered with.	True		
Samples were received on ice.	True		
Cooler Temperature is acceptable.	True		

Cooler Temperature is recorded.	True
COC is present.	True
COC is filled out in ink and legible.	True
COC is filled out with all pertinent information.	True
Is the Field Sampler's name present on COC?	True
There are no discrepancies between the containers received and the COC.	True
Samples are received within Holding Time.	True
Sample containers have legible labels.	True
Containers are not broken or leaking.	True
Sample collection date/times are provided.	True
Appropriate sample containers are used.	True
Sample bottles are completely filled.	True
Sample Preservation Verified.	True
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True
Multiphasic samples are not present.	True
Samples do not require splitting or compositing.	True
Residual Chlorine Checked.	N/A



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Canton 4101 Shuffel Street NW North Canton, OH 44720 Tel: (330)497-9396

TestAmerica Job ID: 240-57811-1 Client Project/Site: 86165-02-01, Penta Wood

For:

GHD Services Inc. 1801 Old Highway 8 NW Suite 114 St. Paul, Minnesota 55112

Attn: Mr. Grant Anderson

Jenuse DHeckler

Authorized for release by: 11/20/2015 9:43:32 AM Denise Heckler, Project Manager II

(330)966-9477 denise.heckler@testamericainc.com

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.

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Definitions/Glossary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood

Qualifiers

GC Semi V	A
Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 240-57811-1

Job ID: 240-57811-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-57811-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 11/12/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.2 C.

CHLORINATED HERBICIDES

Sample W-151110-PS-WE (240-57811-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 11/14/2015 and analyzed on 11/18/2015.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Pentachlorophenol exceeded the RPD limit for LCSD 180-160497/3-A.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 180-160497.

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

Method	Method Description	Protocol	Laboratory
8151A	Herbicides (GC)	SW846	TAL PIT

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TestAmerica Job ID: 240-57811-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-57811-1	W-151110-PS-WE	Water	11/10/15 13:30	11/12/15 09:15

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Detection Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood

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TestAmerica Job ID: 240-57811-1

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Client Sample ID: W-1	51110-PS-WE					Lab S	Sa	mple ID:	240-57811-1
Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.047	J *	0.094	0.015	ug/L	4	_	8151A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Job ID: 240-57811-1

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Client Sample ID: W-151 Date Collected: 11/10/15 13:3		×			L	ab Sample	e ID: 240-57 Matrix:	811-1 Water	
Date Received: 11/12/15 09:1	15							<u> </u>	1
Method: 8151A - Herbicides	s (GC)								
Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.047	J *	0.094	0.015	ug/L		11/14/15 10:30	11/18/15 18:23	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	62	^ <u>c</u>	32 - 140				11/14/15 10:30	11/18/15 18:23	

Method: 8151A - Herbicides (GC) Matrix: Water Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) DCPA1 (32 - 140)Lab Sample ID **Client Sample ID** 240-57811-1 W-151110-PS-WE 62 ^c LCSD 180-160497/3-A Lab Control Sample Dup 102 Surrogate Legend DCPA = 2,4-Dichlorophenylacetic acid Method: 8151A - Herbicides (GC)

Matrix: Water

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Prep Type: Total/NA

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			Percent Surr	rogate Recove	ry (Acceptance L	imits)	
		DCPA2					
Lab Sample ID	Client Sample ID	(32-140)					
LCS 180-160497/2-A	Lab Control Sample	79					1
MB 180-160497/1-A	Method Blank	44					
MB 180-160497/1-A	Method Blank	55					
Surrogate Legend							
DCPA = 2.4-Dichlorop	henvlacetic acid						

Surrogate

2,4-Dichlorophenylacetic acid

TestAmerica Job ID: 240-57811-1

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Method: 8151A - Herbi	icides (GC)	han de la company										110
Lab Sample ID: MB 180-1 Matrix: Water Analysis Batch: 160918	60497/1-A	MB						CI	ient Samı	ole ID: Me Prep Typ Prep Ba	ethod e: To tch: 1	Blank tal/NA 60497
Analyte	Result	Qualifier	100			Unit	1	D	Prenared	Analyz	he	Dil Fac
Pentachlorophenol	<0.078	Guunner	0.50		078			11	/14/15 10·30	11/18/15 1	6.23	20
i entaenereprierer	0.010		0,00			ug/L			1 1 10 10.00	11/10/10	0.20	20
	MB	МВ										
Surrogate	%Recovery	Qualifier	Limits						Prepared	Analyz	ed	Dil Fac
2,4-Dichlorophenylacetic acid	55		32 - 140					11.	/14/15 10:30	11/18/15 1	16:23	20
Lab Sample ID: MB 180-1	60497/1-A							CI	ient Sam	ole ID: Me	thod	Blank
Matrix: Water										Ргер Тур	e: To	tal/NA
Analysis Batch: 160918										Prep Ba	tch: 1	60497
	MB	MB										
Analyte	Result	Qualifier	LOQ		LOD	Unit	1	D	Prepared	Analyz	ed	Dil Fac
Pentachlorophenol	<0.016		0.10	C	0.016	ug/L		11	/14/15 10:30	11/18/15 1	7:59	4
	МВ	MB										
Surrogate	%Recovery	Qualifier	Limits						Prepared	Analyz	ed	Dil Fac
2,4-Dichlorophenylacetic acid	44		32 - 140					11.	/14/15 10:30	11/18/15	17:59	4
Lab Sample ID: LCS 180-	160497/2-A						Clie	nt Sa	ample ID:	Lab Con	trol S	ample
Matrix: Water										Prep Typ	e: To	tal/NA
Analysis Batch: 160918										Prep Ba	tch: 1	60497
			Spike	LCS	LCS					%Rec.		
Analyte			Added	Result	Qua	lifier	Unit		%Rec	Limits		
Pentachlorophenol			5.00	4.55			ug/L		91	40 - 140		
	LCS LC	s										
Surrogate	%Recovery Qu	alifier	Limits									
2,4-Dichlorophenylacetic acid	79		32 - 140									
	400407/0 4								ID. Lak	O a m fan a l C		- Dum
Lab Sample ID: LCSD 180	J-160497/3-A					C	lient Sa	ampi	e ID: Lab	Control S	ampi	
Matrix: Water										Prep Typ	e: 10	CO 407
Analysis Batch: 160918			Snike		109	п				чтер ва	icn: 1	0049/ RPD
Analyte				Result	0113	lifier	Unit	г	%Rec	l imite	RPD	Limit
Pentachlorophenol			5.00	6.80	*	mer			138	40_140	41	30
1 entechiorophenol			0.00	0.09			agri		100	10-110	11	00
	LCSD LC	SD										

TestAmerica Canton

Limits

32-140

%Recovery Qualifier

QC Association Summary

Client: GHD Services Inc. Project/Site: 86165-02-01, Penta Wood TestAmerica Job ID: 240-57811-1

GC Semi VOA

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Prep Batch: 160497					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57811-1	W-151110-PS-WE	Total/NA	Water	8151A	
LCS 180-160497/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-160497/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-160497/1-A	Method Blank	Total/NA	Water	8151A	
Analysis Batch: 1609	18				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57811-1	W-151110-PS-WE	Total/NA	Water	8151A	160497
LCS 180-160497/2-A	Lab Control Sample	Total/NA	Water	8151A	160497
LCSD 180-160497/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	160497
MB 180-160497/1-A	Method Blank	Total/NA	Water	8151A	160497
MB 180-160497/1-A	Method Blank	Total/NA	Water	8151A	160497

Client Sample ID: W-151110-PS-WE Date Collected: 11/10/15 13:30 Date Received: 11/12/15 09:15

Lab Sample ID: 240-57811-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			160497	11/14/15 10:30	CBY	TAL PIT
Total/NA	Analysis	8151A		4	160918	11/18/15 18:23	JMO	TAL PIT

Laboratory References:

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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Laboratory: TestAmerica Canton

The certification	s listed below	are applicable to	this report.
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Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999518190	08-31-16

Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16



TestAmerica Laboratories, Inc.

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CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



TestAmerica Canton 3 4101 Shuffel Street, H. H.	12/03,3	Chain o	of Custody Record	031742	TestAmerica
North Canton, OH 44720		_	- Grant.ande	nson light, com	THE LEADER IN ENVIRONMENTAL TESTING - TestAmerica Laboratories, Inc.
Phone: 330.497.9396 Fax: 330.497.0772	Regulatory Program:	DW NPDES	S RCRA Other:	ato: 11 11 : er	TAL-8210 (0713)
Company Name: GHO	Tel/Fax:		Lab Contact: D Llac view C		of COCs
Address: 1801 Old Hall 8	Analysis Turnaround	Time		THE FEE	Sampler: P. starla
City/State/Zip: St. Panl, MN 55112	CALENDAR DAYS WORK	KING DAYS			For Lab Use Only:
Phone: 651-639-0913	TAT if different from Below	TAN DAND			Walk-in Client:
Fax:	2 weeks				Lab Sampling:
Project Name: 086165-02-01	1 week				
PO#	2 days	-	/ Mile		Job / SDG No.:
	Sample		MS		
1 1	Sample Sample Type	# 06	orm		
Sample Identification	Date Time G=Grab)	Matrix Cont.	Filte		Sample Specific Notes:
W-151110-PS-WE	11-10/15 1330 G	W21	MM X		Weekly Effluent
1	1				
/					1
)
2					
1					
	/				(
6					
Preservation Used: 17 Ice) 2= HCI; 3= H2SO4; 4=HNO3;	5=NaOH; 6= Other	I.			
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Pleas	se List any EPA Waste Codes for t	he sample in the	Sample Disposal (A fee may be a	ssessed if samples are retained	l longer than 1 month)
Comments Section if the lab is to dispose of the sample.		and a solution			
Special Instructions/QC Requirements & Comments:		wn	Return to Client	osal by Lab	Months
Custody Seels Intact: Yes No	Custody Seal No.:		Cooler Temp. ("C): Obs'c	d:Corr'd:	Therm ID No.:
Relinquished by	Company: CILO	Date/Time:	Received by:	Company:	Date/Time:
Polinguighed by	SITU	11.13/160	600	-T.A	11-12-15 915
	Company:	Date/Time:	Received by:	Company:	Date/Time:
Belinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
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TestAmerica Canton Sample Receipt Form/Narrative	ogin # : <u>61511</u>
	Cooler unpacked by:
Chehr 94412 Sile Name	to
EedEx: 1 st Grd Fyp LIPS FAS Stetson Client Drop Off Test America Courie	er Other
Receipt After-hours: Drop-off Date/Time Storage Locatic	
TestAmerica Cooler # Foam Box Client Cooler Box Other	
Packing material used: Bubble Wrap Foam Plastic Bag None Other	·
COOLANT: Wet Ice Blue Ice Dry Ice Water None	
1. Cooler temperature upon receipt	Temp 3.3 °C
IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. °C Corrected Cooler	rr Temp. °C □See Multiple
IR GUN# 5 (CF +0.4 °C)—Observed Cooler Temp. C Corrected Cooler	er Temp°C Cooler Form
IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. °C Corrected Cooler	r Temp°C
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity	@s No
-Were custody seals on the outside of the cooler(s) signed & dated?	Les No NA
- were custody seals on the bolle(s) or bollie Kits (LLrig/Merig)?	Yes No
4. Did custody papers accompany the sample(s)?	Yes No
5. Were the custody papers relinquished & signed in the appropriate place?	YES No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Kes No
7. Did all bottles arrive in good condition (Unbroken)?	No No
8. Could all bottle labels be reconciled with the COC?	Vec No
9. Were correct dottie(s) used for the test(s) indicated?	Veg No
11. Were sample(s) at the correct pH upon receipt?	Yes No XA pH Strip Lot# <u>HC554612</u>
12. Were VOAs on the COC?	Yes Do
13. Were air bubbles >6 mm in any VOA vials?	Yes No NA
14. Was a trip blank present in the cooler(s)? Trip Blank Lot #	Yes
Contacted PM Date by via Verba	l Voice Mail Other
Concerning2att	
	Samples processed by:
14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	
	·
	×
15. SAMPLE CONDITION	
Sample(s)were received after the recommended h	olding time had expired.
Sample(s) were recei	ived in a broken container.
Sample(s) were received with bubble >6 m	nm in diameter. (Notity PM)
16. SAMPLE PRESERVATION	_
Sample(s)were	e further preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):	·

Ref: SOP NC-SC-0005, Sample Receiving X:W-Drive Document Control\SOPs\Work Instructions\Word Version Work Instructions\WI-NC-099V-102115 Cooler Receipt Form.doc djl

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4 5 6

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Login Sample Receipt Checklist

Client: GHD Services Inc.

-12-

Job Number: 240-57811-1

List Source: TestAmerica Pittsburgh

List Creation: 11/13/15 02:21 PM

Login Number: 57811 List Number: 2 Creator: Lonzo, Michael A

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td> <td></td>	True		
The cooler's custody seal, if present, is intact.	True		
Sample custody seals, if present, are intact.	True		
The cooler or samples do not appear to have been compromised or tampered with.	True		
Samples were received on ice.	True		
Cooler Temperature is acceptable.	True		
Cooler Temperature is recorded.	True		
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		