

**Richard, Philip E - DNR**

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Rec 11/20/15  
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**From:** Ree, Timothy <Tim.Ree@ghd.com>  
**Sent:** Friday, November 20, 2015 11:31 AM  
**To:** Richard, Philip E - DNR  
**Cc:** Frehner, Ron; Storlie, Pete  
**Subject:** Penta Wood - WPDES Compliance Sampling 11/2/2015 and 11/10/2015 ~COR-086165  
~  
**Attachments:** Lab Report-240-57385-1-086165-02-06-2015-11-10.pdf; Lab Report-240-57386-1-086165-02-06-2015-11-11.pdf; Lab Report-240-57811-1-086165-02-07-2015-11-20.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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# 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: 240-57385-1

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



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

Denise Heckler, Project Manager II  
(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)

### LINKS

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*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

TestAmerica Job ID: 240-57385-1

## Qualifiers

### GC Semi VOA

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.
X	Surrogate is outside control limits

## 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)

## Case Narrative

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

TestAmerica Job ID: 240-57385-1

**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).



# Case Narrative

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

TestAmerica Job ID: 240-57385-1

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## Job ID: 240-57385-1 (Continued)

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### 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.



# Method Summary

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

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

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

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# Detection Summary

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

TestAmerica Job ID: 240-57385-1

## Client Sample ID: W-151102-TB-MI

## Lab Sample ID: 240-57385-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	1100		99	15	ug/L	4000		8151A	Total/NA

## Client Sample ID: W-151102-TB-ME

## Lab Sample 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.

TestAmerica Canton



# Client Sample Results

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

TestAmerica Job ID: 240-57385-1

**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 09:20

**Method: 8151A - Herbicides (GC)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	1100		99	15	ug/L		11/04/15 17:10	11/10/15 06:47	4000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	0	X D	32 - 140	11/04/15 17:10	11/10/15 06:47	4000



# Client Sample Results

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

TestAmerica Job ID: 240-57385-1

**Client Sample ID: W-151102-TB-ME**

**Lab Sample ID: 240-57385-2**

**Date Collected: 11/02/15 13:30**

**Matrix: Water**

**Date Received: 11/03/15 09:20**

**Method: 8270C - Semivolatile Organic Compounds (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
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
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

**Method: 8151A - Herbicides (GC)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<b>0.14</b>		0.099	0.015	ug/L		11/04/15 17:10	11/09/15 12:19	4
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4-Dichlorophenylacetic acid	86		32 - 140				11/04/15 17:10	11/09/15 12:19	4

**Method: WI-DRO - Wisconsin - Diesel Range Organics (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

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# Surrogate Summary

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

TestAmerica Job ID: 240-57385-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (29-110)	2FP (15-110)	TBP (21-128)	NBZ (31-110)	PHL (10-110)	TPH (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-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

## Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

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

### Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

# QC Sample Results

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

TestAmerica Job ID: 240-57385-1

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

**Lab Sample ID: MB 240-205133/21-A**  
**Matrix: Water**  
**Analysis Batch: 205735**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 205133**

Analyte	MB Result	MB 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
Surrogate	%Recovery	MB 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**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 205133**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Naphthalene	20.0	14.9		ug/L		75	52 - 120
Surrogate	LCS %Recovery	LCS 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 180-159325/1-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**

Analyte	MB Result	MB 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
Surrogate	%Recovery	MB 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 180-159325/1-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**

Analyte	MB Result	MB 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
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		32 - 140				11/04/15 17:10	11/09/15 11:55	20

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# QC Sample Results

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

TestAmerica Job ID: 240-57385-1

## Method: 8151A - Herbicides (GC) (Continued)

**Lab Sample ID: LCS 180-159325/2-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Pentachlorophenol	5.00	4.82		ug/L		96	40 - 140
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			
2,4-Dichlorophenylacetic acid		91		32 - 140			

**Lab Sample ID: LCSD 180-159325/3-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**  
**%Rec.** **RPD**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Pentachlorophenol	5.00	5.63		ug/L		113	40 - 140	15	30
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
2,4-Dichlorophenylacetic acid		96		32 - 140					

## Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

**Lab Sample ID: MB 240-205085/2-A**  
**Matrix: Water**  
**Analysis Batch: 205645**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 205085**

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<0.050		0.10	0.050	mg/L		11/04/15 06:41	11/06/15 17:09	1

**Lab Sample ID: LCS 240-205085/3-A**  
**Matrix: Water**  
**Analysis Batch: 205645**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 205085**  
**%Rec.**

Analyte	Spike Added	LCS Result	LCS 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-A**  
**Matrix: Water**  
**Analysis Batch: 205645**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 205085**  
**%Rec.** **RPD**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
WI Diesel Range Organics (C10-C28)	0.500	0.486		mg/L		97	75 - 115	3	20

TestAmerica Canton

# QC Association Summary

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

TestAmerica Job ID: 240-57385-1

## GC/MS Semi VOA

### Prep Batch: 205133

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	

### Analysis Batch: 205735

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	
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

TestAmerica Canton



# Lab Chronicle

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

TestAmerica Job ID: 240-57385-1

**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 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared 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**

**Lab Sample ID: 240-57385-2**

**Date Collected: 11/02/15 13:30**

**Matrix: Water**

**Date Received: 11/03/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared 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



# 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.

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

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**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-57385 Chain of Custody





**CONESTOGA-ROVERS & ASSOCIATES**

# CHAIN OF CUSTODY RECORD

1801 Old Highway 8 Northwest, Suite 114  
St. Paul, Minnesota 55112 United States

Phone: (651) 639-0913 Fax: (651) 639-0923

3.7/13.8

COC NO. **SP-01651**

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(See Reverse Side for Instructions)

Project No/ Phase/Task Code: <b>086165-02-</b>				Laboratory Name: <b>TEST AMERICA</b>				Lab Location: <b>NORTH AMUND</b>				SSOW ID:			
Project Name: <b>PENTAGON</b>				Lab Contact:				Lab Quote No:				Cooler No:			
Project Location: <b>S. BEN, WI</b>				SAMPLE TYPE				CONTAINER QUANTITY & PRESERVATION				ANALYSIS REQUESTED (See Back of COC for Definitions)			
Chemistry Contact: <b>GRANT ANDERSON @ GHD.com</b>				Matrix Code (see back of COC) Grab (G) or Comp (C)				Unpreserved Hydrochloric Acid (HCl) Nitric Acid (HNO <sub>3</sub> ) Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) Sodium Hydroxide (NaOH) Methanol/Water (Soil VOC) EnCores 3x5-g, 1x25-g Other:				Total Containers/Sample <b>PCR-817</b> <b>MATTIALE</b> <b>WIDRO</b>			
Sampler(s): <b>T.M. BRAUN</b>															
Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)			DATE (mm/dd/yy)	TIME (hh:mm)							COMMENTS/ SPECIAL INSTRUCTIONS:			
1	W-151102-TB-ME			11/2/15	13:20	W	G	2							
2	W-151102-TB-ME			11/2/15	13:30	W	G	4	2						
3															
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14															
15															
TAT Required in business days (use separate COCs for different TATs): <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week <input checked="" type="checkbox"/> Other: <b>STANDARD</b>						Total Number of Containers: <b>8</b>		Notes/ Special Requirements:							
All Samples in Cooler must be on COC															
RELINQUISHED BY		COMPANY		DATE		TIME		RECEIVED BY		COMPANY		DATE		TIME	
1. <b>Tim Braun</b>		<b>GHD</b>		<b>11/2/15</b>		<b>16:30</b>		1. <b>[Signature]</b>		<b>TA</b>		<b>11-3-15</b>		<b>9:20</b>	
2.								2.							
3.								3.							

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE - Fully Executed Copy (CRA)

YELLOW - Receiving Laboratory Copy

PINK - Shipper

GOLDENROD - Sampling Crew

CRA Form: COC-10A (20110804)



Client CRA Site Name \_\_\_\_\_ Cooler unpacked by: \_\_\_\_\_  
 Cooler Received on 11-3-15 Opened on 11-3-15

FedEx: 1<sup>st</sup> Grd  UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

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

- Cooler temperature upon receipt
  - IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. 3.7 °C Corrected Cooler Temp. 3.8 °C
  - IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN# 8 (CF -0.5 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
- Were custody seals on the outside of the cooler(s)? If Yes Quantity 1 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
- Shippers' packing slip attached to the cooler(s)? Yes No
- Did custody papers accompany the sample(s)? Yes No
- Were the custody papers relinquished & signed in the appropriate place? Yes No
- Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
- Did all bottles arrive in good condition (Unbroken)? Yes No
- Could all bottle labels be reconciled with the COC? Yes No
- Were correct bottle(s) used for the test(s) indicated? Yes No
- Sufficient quantity received to perform indicated analyses? Yes No
- Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC554612
- Were VOAs on the COC? Yes No
- Were air bubbles >6 mm in any VOA vials? Yes No NA
- Was a trip blank present in the cooler(s)? Trip Blank Lot # \_\_\_\_\_ Yes No

See Multiple Cooler Form

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
 Concerning \_\_\_\_\_

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

15. SAMPLE CONDITION  
 Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION  
 Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
 Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

## Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-57385-1

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

**List Source: TestAmerica Pittsburgh**  
**List Creation: 11/04/15 05:27 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	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 <math><6\text{mm}</math> (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: 240-57386-1

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



Authorized for release by:  
11/11/2015 8:34:11 AM

Denise Heckler, Project Manager II  
(330)966-9477

[denise.heckler@testamericainc.com](mailto:denise.heckler@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.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

TestAmerica Job ID: 240-57386-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)





## Case Narrative

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

TestAmerica Job ID: 240-57386-1

**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.



# Method Summary

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

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

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# Sample Summary

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

TestAmerica Job ID: 240-57386-1

---

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

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# Detection Summary

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

TestAmerica Job ID: 240-57386-1

**Client Sample ID: W-151102-TB-BG**

**Lab Sample ID: 240-57386-1**

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	2.7		0.097	0.015	ug/L	4		8151A	Total/NA

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This Detection Summary does not include radiochemical test results.

TestAmerica Canton

# Client Sample Results

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

TestAmerica Job ID: 240-57386-1

**Client Sample ID: W-151102-TB-BG**

**Lab Sample ID: 240-57386-1**

Date Collected: 11/02/15 13:40

Matrix: Water

Date Received: 11/03/15 09:20

**Method: 8151A - Herbicides (GC)**

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
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	4

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# Surrogate Summary

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

TestAmerica Job ID: 240-57386-1

## Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1 (32-140)	DCPA2 (32-140)
240-57386-1	W-151102-TB-BG	85	77
LCS 180-159325/2-A	Lab Control Sample	91	
LCSD 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

DCPA = 2,4-Dichlorophenylacetic acid



# QC Sample Results

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

TestAmerica Job ID: 240-57386-1

## Method: 8151A - Herbicides (GC)

**Lab Sample ID: MB 180-159325/1-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**

Analyte	MB Result	MB 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

Surrogate	MB %Recovery	MB 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 180-159325/1-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**

Analyte	MB Result	MB 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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		32 - 140	11/04/15 17:10	11/09/15 11:55	20

**Lab Sample ID: LCS 180-159325/2-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	5.00	4.82		ug/L		96	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	91		32 - 140

**Lab Sample ID: LCSD 180-159325/3-A**  
**Matrix: Water**  
**Analysis Batch: 159715**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 159325**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Pentachlorophenol	5.00	5.63		ug/L		113	40 - 140	15	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	96		32 - 140

# QC Association Summary

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

TestAmerica Job ID: 240-57386-1

## GC Semi VOA

### Prep Batch: 159325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-57386-1	W-151102-TB-BG	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
240-57386-1	W-151102-TB-BG	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





# Lab Chronicle

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

TestAmerica Job ID: 240-57386-1

**Client Sample ID: W-151102-TB-BG**

**Lab Sample ID: 240-57386-1**

**Date Collected: 11/02/15 13:40**

**Matrix: Water**

**Date Received: 11/03/15 09:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			159325	11/04/15 17:10	CBY	TAL PIT
Total/NA	Analysis	8151A		4	159715	11/09/15 13:07	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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# Certification Summary

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

TestAmerica Job ID: 240-57386-1

## 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



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**CHAIN OF CUSTODY  
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**CONESTOGA-ROVERS & ASSOCIATES**

# CHAIN OF CUSTODY RECORD

1801 Old Highway 8 Northwest, Suite 114  
St. Paul, Minnesota 55112 United States

Phone: (651) 639-0913 Fax: (651) 639-0923

3.7/138

COC NO.: **SP-01652**

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(See Reverse Side for Instructions)

Project No/ Phase/Task Code: <b>086165-02</b>			Laboratory Name: <b>TEST AMERICA</b>			Lab Location: <b>N. CANTON, OH</b>			SSOW ID:																																																																																																																																																																																																																																																									
Project Name: <b>PENTAWOOD</b>			Lab Contact:			Lab Quote No:			Cooler No:																																																																																																																																																																																																																																																									
Project Location: <b>SIREN, WI</b>			SAMPLE TYPE			CONTAINER QUANTITY & PRESERVATION			ANALYSIS REQUESTED <small>(See Back of COC for Definitions)</small>																																																																																																																																																																																																																																																									
Chemistry Contact: <b>GRANT. ANDERSON@GHD.COM</b>			Matrix Code <small>(see back of COC)</small>			Grab (G) or Comp (C)			Unpreserved			MS/MSD Request																																																																																																																																																																																																																																																						
Sampler(s): <del>W. BRAN</del> <b>T. BRAN</b>																																																																																																																																																																																																																																																																		
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TAT Required in business days (use separate COCs for different TATs): <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week <input checked="" type="checkbox"/> Other: <b>STANDARD</b>						Total Number of Containers: <b>2</b>			Notes/ Special Requirements:																																																																																																																																																																																																																																																									
<input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week <input checked="" type="checkbox"/> Other: <b>STANDARD</b>						All Samples in Cooler must be on COC																																																																																																																																																																																																																																																												
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THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT - ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE - Fully Executed Copy (CRA)    YELLOW - Receiving Laboratory Copy    PINK - Shipper    GOLDENROD - Sampling Crew    CRA Form: COC-10A (20110804)



Client CRA Site Name \_\_\_\_\_ Cooler unpacked by: \_\_\_\_\_

Cooler Received on 11-3-15 Opened on 11-3-15  
 FedEx: 1<sup>st</sup> Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

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
  - IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. 3.7 °C Corrected Cooler Temp. 3.8 °C
  - IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - 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 1 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)? 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? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Were sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC554612
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 NO

See Multiple Cooler Form

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_  
 Concerning \_\_\_\_\_

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by: \_\_\_\_\_

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15. SAMPLE CONDITION  
 Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.  
 Sample(s) \_\_\_\_\_ were received in a broken container.  
 Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION  
 Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
 Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_



## Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-57386-1

**Login Number: 57386**

**List Number: 2**

**Creator: Lonzo, Michael A**

**List Source: TestAmerica Pittsburgh**

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

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	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 $<6\text{mm}$ ( $1/4''$ ).	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



Authorized for release by:  
11/20/2015 9:43:32 AM

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

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?

 **Ask  
The  
Expert**

Visit us at:  
[www.testamericainc.com](http://www.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

TestAmerica Job ID: 240-57811-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
<sup>^</sup> 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.
♠	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)

# Case Narrative

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

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 Summary

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

TestAmerica Job ID: 240-57811-1

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

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**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



# Sample Summary

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

TestAmerica Job ID: 240-57811-1

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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

TestAmerica Job ID: 240-57811-1

**Client Sample ID: W-151110-PS-WE**

**Lab Sample 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 Canton



# Client Sample Results

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

TestAmerica Job ID: 240-57811-1

**Client Sample ID: W-151110-PS-WE**

**Lab Sample ID: 240-57811-1**

Date Collected: 11/10/15 13:30

Matrix: Water

Date Received: 11/12/15 09:15

<b>Method: 8151A - Herbicides (GC)</b>										
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	^c	32 - 140				11/14/15 10:30	11/18/15 18:23	4	

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# Surrogate Summary

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

TestAmerica Job ID: 240-57811-1

## Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPA1 (32-140)
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

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPA2 (32-140)
LCS 180-160497/2-A	Lab Control Sample	79
MB 180-160497/1-A	Method Blank	44
MB 180-160497/1-A	Method Blank	55

#### Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

# QC Sample Results

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

TestAmerica Job ID: 240-57811-1

## Method: 8151A - Herbicides (GC)

**Lab Sample ID: MB 180-160497/1-A**  
**Matrix: Water**  
**Analysis Batch: 160918**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 160497**

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.078		0.50	0.078	ug/L		11/14/15 10:30	11/18/15 16:23	20
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	55		32 - 140				11/14/15 10:30	11/18/15 16:23	20

**Lab Sample ID: MB 180-160497/1-A**  
**Matrix: Water**  
**Analysis Batch: 160918**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 160497**

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.016		0.10	0.016	ug/L		11/14/15 10:30	11/18/15 17:59	4
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	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**  
**Matrix: Water**  
**Analysis Batch: 160918**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 160497**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Pentachlorophenol	5.00	4.55		ug/L		91	40 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	79		32 - 140				

**Lab Sample ID: LCSD 180-160497/3-A**  
**Matrix: Water**  
**Analysis Batch: 160918**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 160497**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Pentachlorophenol	5.00	6.89	*	ug/L		138	40 - 140	41	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
2,4-Dichlorophenylacetic acid	102		32 - 140						

TestAmerica Canton



# QC Association Summary

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

TestAmerica Job ID: 240-57811-1

## GC Semi VOA

### 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: 160918

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



# Lab Chronicle

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

TestAmerica Job ID: 240-57811-1

**Client Sample ID: W-151110-PS-WE**

**Lab Sample ID: 240-57811-1**

**Date Collected: 11/10/15 13:30**

**Matrix: Water**

**Date Received: 11/12/15 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared 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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# Certification Summary

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

TestAmerica Job ID: 240-57811-1

## 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

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY  
AND  
RECEIVING DOCUMENTS**



240-57811 Chain of Custody

- 1
- 2
- 3
- 4
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- 13
- 14
- 15

**TestAmerica Canton**  
4101 Shuffel Street, N. H.

3.2/C3.3

Chain of Custody Record

031742

**TestAmerica**

North Canton, OH 44720  
Phone: 330.497.9396 Fax: 330.497.0772

Regulatory Program:  DW  NPDES  RCRA  Other: grant.anderson@ghd.com

THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Client Contact		Project Manager: <u>J. Ree</u>		Site Contact:		Date: <u>11-10-15</u>		COC No:											
Company Name: <u>GHD</u>		Tel/Fax:		Lab Contact: <u>D. Heckler</u>		Carrier: <u>FEDEX</u>		1 of 1 COCs											
Address: <u>1801 Old Hwy 8.</u>		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS / MSD (Y/N) <u>PCP</u>				Sampler: <u>P. Storie</u>											
City/State/Zip: <u>St. Paul, MN 55112</u>		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS						For Lab Use Only:											
Phone: <u>651-639-0913</u>		TAT if different from Below <u>STANDARD</u>						Walk-in Client:											
Fax:		<input type="checkbox"/> 2 weeks						Lab Sampling:											
Project Name: <u>086165-02-01</u>		<input type="checkbox"/> 1 week						Job / SDG No.:											
Site: <u>Penta Wood</u>		<input type="checkbox"/> 2 days																	
P O #		<input type="checkbox"/> 1 day																	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:												
<u>W-151110-PS-WE</u>		<u>11-10-15</u>	<u>1330</u>	<u>G</u>	<u>W</u>	<u>2</u>	<u>Weekly Effluent.</u>												
Page 15 of 17		/		/		/		/											
										Preservation Used: 1= Ice 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)							
										Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.		<input type="checkbox"/> Return to Client		<input checked="" type="checkbox"/> Disposal by Lab		<input type="checkbox"/> Archive for _____ Months			
										<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown		Special Instructions/QC Requirements & Comments:							
										Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.:			
										Relinquished by: <u>[Signature]</u>		Company: <u>GHD</u>		Date/Time: <u>11-10-15/1600</u>		Received by: <u>[Signature]</u>		Company: <u>TA</u>	
										Relinquished by:		Company:		Date/Time:		Received by:		Date/Time: <u>11-12-15 915</u>	
										Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	
										Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	

TestAmerica Canton Sample Receipt Form/Narrative		Login #: <u>67811</u>
Canton Facility		
Client <u>GAD</u>	Site Name _____	Cooler unpacked by: <u>[Signature]</u>
Cooler Received on <u>11-12-15</u>	Opened on <u>11-12-15</u>	
FedEx: 1 <sup>st</sup> Grd <input checked="" type="checkbox"/> UPS FAS Stetson Client Drop Off TestAmerica Courier Other		
Receipt After-hours: Drop-off Date/Time _____		Storage Location _____
TestAmerica Cooler # _____ Foam Box <input checked="" type="checkbox"/> Client Cooler Box Other _____		
Packing material used: Bubble Wrap <input checked="" type="checkbox"/> Foam Plastic Bag None Other _____		
COOLANT: Wet Ice <input checked="" type="checkbox"/> Blue Ice Dry Ice Water None		
1. Cooler temperature upon receipt		
IR GUN# 53 (CF +0.1 °C) Observed Cooler Temp. <u>3.2</u> °C Corrected Cooler Temp. <u>3.3</u> °C		<input type="checkbox"/> See Multiple Cooler Form
IR GUN# 48 (CF -0.3 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C		
<del>IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C</del>		
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 <u>1</u>		Yes No
-Were custody seals on the outside of the cooler(s) signed & dated?		Yes No <u>NA</u>
-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?		Yes <u>No</u>
3. Shippers' packing slip attached to the cooler(s)?		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?		Yes No
7. Did all bottles arrive in good condition (Unbroken)?		Yes No
8. Could all bottle labels be reconciled with the COC?		Yes No
9. Were correct bottle(s) used for the test(s) indicated?		Yes No
10. Sufficient quantity received to perform indicated analyses?		Yes No
11. Were sample(s) at the correct pH upon receipt?		Yes No <u>NA</u> pH Strip Lot# <u>HC554612</u>
12. Were VOAs on the COC?		Yes <u>No</u>
13. Were air bubbles >6 mm in any VOA vials?		Yes No <u>NA</u>
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____		Yes <u>No</u>
Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other		
Concerning _____		

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	Samples processed by: _____
_____	
_____	
_____	
_____	
_____	
_____	
_____	
_____	

15. SAMPLE CONDITION

Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.

Sample(s) \_\_\_\_\_ were received in a broken container.

Sample(s) \_\_\_\_\_ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) \_\_\_\_\_ were further preserved in the 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

## Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-57811-1

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

**List Source: TestAmerica Pittsburgh**  
**List Creation: 11/13/15 02:21 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

