

Put on BRRT
10/21/15

Richard, Philip E - DNR

From: Ree, Timothy <Tim.Ree@ghd.com>
Sent: Wednesday, October 21, 2015 7:48 AM
To: Richard, Philip E - DNR
Cc: Frehner, Ron; Storlie, Pete
Subject: Penta Wood - WPDES Compliance Sampling 10/7/2015 ~COR-086165~
Attachments: Lab Report-240-56348-1-086165-02-06-2015-10-14.pdf; Lab Report-240-56349-1-086165-02-06-2015-10-20.pdf

99

Phil,

Please find attached the results for the influent, effluent, and between the carbon unit samples collected at the Penta Wood site on 10/7/2015.

PCP, WI-DRO, and naphthalene were not detected in the effluent sample.

PCP was detected in the influent sample at a concentration of 600 ug/L, which is lower than the influent PCP concentration of 750 ug/L during September 2015.

PCP was detected in the sample collected between the carbon units at a concentration of 0.30 ug/L, which is slightly higher than during September 2015 (0.15 ug/L) and indicates that a carbon exchange is not required.

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

Regards,

Tim Ree

GHD

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1801 Old Highway 8 NW Suite 114 St. Paul Minnesota 55112 USA | www.ghd.com

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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: 240-56348-1
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:
10/14/2015 4:11:57 PM

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

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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.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	5
Sample Summary	6
Detection Summary	7
Client Sample Results	8
Surrogate Summary	9
QC Sample Results	10
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Chain of Custody	14
Receipt Checklists	17

Definitions/Glossary

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

TestAmerica Job ID: 240-56348-1

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)

Case Narrative

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

TestAmerica Job ID: 240-56348-1

Job ID: 240-56348-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-56348-1

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 10/08/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.7 C.

CHLORINATED HERBICIDES

Sample W-151007-TB-BG (240-56348-1) was analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 10/10/2015 and analyzed on 10/13/2015.

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) associated with analytical batch 180-156588.

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: 240-56348-1

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

Sample Summary

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

TestAmerica Job ID: 240-56348-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-56348-1	W-151007-TB-BG	Water	10/07/15 15:00	10/08/15 09:30

Detection Summary

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

TestAmerica Job ID: 240-56348-1

Client Sample ID: W-151007-TB-BG

Lab Sample ID: 240-56348-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.30		0.096	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: 240-56348-1

Client Sample ID: W-151007-TB-BG

Lab Sample ID: 240-56348-1

Date Collected: 10/07/15 15:00

Matrix: Water

Date Received: 10/08/15 09:30

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.30		0.096	0.015	ug/L		10/10/15 09:00	10/13/15 13:31	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	79		32 - 140				10/10/15 09:00	10/13/15 13:31	4

Surrogate Summary

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

TestAmerica Job ID: 240-56348-1

Method: 8151A - Herbicides (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPA1 (32-140)	DCPA2 (32-140)
240-56348-1	W-151007-TB-BG	79	67 ^c
LCS 180-156588/2-A	Lab Control Sample	81	65
LCSD 180-156588/3-A	Lab Control Sample Dup	89	76
MB 180-156588/1-A	Method Blank	51	47

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

QC Sample Results

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

TestAmerica Job ID: 240-56348-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-156588/1-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 156588

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	<0.078		0.50	0.078	ug/L		10/10/15 09:00	10/13/15 13:07	20

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4-Dichlorophenylacetic acid	51		32 - 140	10/10/15 09:00	10/13/15 13:07	20

Lab Sample ID: LCS 180-156588/2-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 156588

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Pentachlorophenol	5.00	4.52		ug/L		90	40 - 140

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2,4-Dichlorophenylacetic acid	81		32 - 140

Lab Sample ID: LCSD 180-156588/3-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 156588

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Pentachlorophenol	5.00	5.26		ug/L		105	40 - 140	15	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2,4-Dichlorophenylacetic acid	89		32 - 140

QC Association Summary

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

TestAmerica Job ID: 240-56348-1

GC Semi VOA

Prep Batch: 156588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56348-1	W-151007-TB-BG	Total/NA	Water	8151A	
LCS 180-156588/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-156588/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-156588/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 156813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56348-1	W-151007-TB-BG	Total/NA	Water	8151A	156588
LCS 180-156588/2-A	Lab Control Sample	Total/NA	Water	8151A	156588
LCSD 180-156588/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	156588
MB 180-156588/1-A	Method Blank	Total/NA	Water	8151A	156588

Lab Chronicle

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

TestAmerica Job ID: 240-56348-1

Client Sample ID: W-151007-TB-BG

Lab Sample ID: 240-56348-1

Date Collected: 10/07/15 15:00

Matrix: Water

Date Received: 10/08/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			156588	10/10/15 09:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	156813	10/13/15 13:31	JMO	TAL PIT

Laboratory References:

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: 240-56348-1

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

CHAIN OF CUSTODY AND RECEIVING DOCUMENTS



240-56348 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

COC No. **SP-01661**

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/ Phase/Task Code: 086165-02 Laboratory Name: TEST AMERICA Lab Location: N. Cannon, OH SSOW ID:

Project Name: PENTAWOOD Lab Contact: Lab Quote No: Cooler No:

Project Location: S. REN. WI SAMPLE TYPE: CONTAINER QUANTITY & PRESERVATION ANALYSIS REQUESTED (See Back of COC for Definitions) Carrier:

Chemistry Contact: GRANT.ANDERSON@GHD.COM Sampler(s): T. BRAUN Matrix Code (see back of COC) Grab (G) or Comp (C) Unpreserved Hydrochloric Acid (HCl) Nitric Acid (HNO₃) Sulfuric Acid (H₂SO₄) Sodium Hydroxide (NaOH) Methanol/Water (Soil VOC) EnCores 3x5-g, 1x25-g Other: Total Containers/Sample: 2 MS/MSD Request: X Airbill No:

Item: 1 SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line) W-151007-TB-BG DATE (mm/dd/yy) 10/07/15 TIME (hh:mm) 1500 COMMENTS/SPECIAL INSTRUCTIONS:

Item	SAMPLE IDENTIFICATION	DATE	TIME	Matrix Code	Grab (G) or Comp (C)	Unpreserved	Hydrochloric Acid (HCl)	Nitric Acid (HNO ₃)	Sulfuric Acid (H ₂ SO ₄)	Sodium Hydroxide (NaOH)	Methanol/Water (Soil VOC)	EnCores 3x5-g, 1x25-g	Other:	Total Containers/Sample	MS/MSD Request	COMMENTS/SPECIAL INSTRUCTIONS:
1	W-151007-TB-BG	10/07/15	1500	WG	2									2	X	
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

TAT Required in business days (use separate COCs for different TATs): 1 Day 2 Days 3 Days 1 Week 2 Week Other: STANDARD Total Number of Containers: 2 Notes/ Special Requirements: All Samples in Cooler must be on COC

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
<u>Tim Braun</u>	<u>GHD</u>	<u>10/7/15</u>	<u>1630</u>	<u>Alex Culen</u>	<u>TA</u>	<u>10/8/15</u>	<u>930</u>

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

TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login #: 56348

Client CIRA Site Name _____ Cooler unpacked by: Alan G.
 Cooler Received on 10/15/15 Opened on 10/15/15
 FedEx: 1st 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 _____

1. Cooler temperature upon receipt
- | | | | |
|------------------------|-------------------------------------|--------------------------------------|---|
| IR GUN# A (CF +1.0 °C) | Observed Cooler Temp. _____ °C | Corrected Cooler Temp. _____ °C | |
| IR GUN# 4 (CF +0.5 °C) | Observed Cooler Temp. _____ °C | Corrected Cooler Temp. _____ °C | <input type="checkbox"/> See Multiple Cooler Form |
| IR GUN# 5 (CF +0.4 °C) | Observed Cooler Temp. _____ °C | Corrected Cooler Temp. _____ °C | |
| IR GUN# 8 (CF -1.5 °C) | Observed Cooler Temp. <u>2.2</u> °C | Corrected Cooler Temp. <u>0.7</u> °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)? 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 use
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 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 NO

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: 240-56348-1

Login Number: 56348
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 10/09/15 11:36 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <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: 240-56349-1

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:

10/20/2015 4:38:04 PM

Nathan Pietras, Project Manager II
(330)966-8296

nathan.pietras@testamericainc.com

Designee for

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

denise.heckler@testamericainc.com

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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.

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Method Summary	6
Sample Summary	7
Detection Summary	8
Client Sample Results	9
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	14
Lab Chronicle	15
Certification Summary	16
Chain of Custody	17
Receipt Checklists	21

Definitions/Glossary

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

TestAmerica Job ID: 240-56349-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
π	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: 240-56349-1

Job ID: 240-56349-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: GHD Services Inc.

Project: 86165-02-01, Penta Wood

Report Number: 240-56349-1

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.

The 8151A Chlorinated Herbicides analysis was performed at the TestAmerica Pittsburgh Laboratory.

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 10/8/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.7° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Sample W-151007-TB-ME (240-56349-1) was analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The sample was prepared on 10/12/2015 and analyzed on 10/13/2015.

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.

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

WISCONSIN DRO

Sample W-151007-TB-ME (240-56349-1) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The sample was prepared on 10/10/2015 and analyzed on 10/14/2015.

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

Case Narrative

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

TestAmerica Job ID: 240-56349-1

Job ID: 240-56349-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

CHLORINATED HERBICIDES

Samples W-151007-TB-ME (240-56349-1) and W-151007-TB-MI (240-56349-2) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 10/10/2015 and analyzed on 10/13/2015 and 10/14/2015.

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.

2,4-Dichlorophenylacetic acid failed the surrogate recovery criteria low for W-151007-TB-MI (240-56349-2).

Sample W-151007-TB-MI (240-56349-2)[2000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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: 240-56349-1

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: 240-56349-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-56349-1	W-151007-TB-ME	Water	10/07/15 15:10	10/08/15 09:30
240-56349-2	W-151007-TB-MI	Water	10/07/15 15:20	10/08/15 09:30

Detection Summary

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

TestAmerica Job ID: 240-56349-1

Client Sample ID: W-151007-TB-ME

Lab Sample ID: 240-56349-1

No Detections.

Client Sample ID: W-151007-TB-MI

Lab Sample ID: 240-56349-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	600		49	7.5	ug/L	2000		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: 240-56349-1

Client Sample ID: W-151007-TB-ME

Lab Sample ID: 240-56349-1

Date Collected: 10/07/15 15:10

Matrix: Water

Date Received: 10/08/15 09:30

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

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<0.060		0.19	0.060	ug/L		10/12/15 09:37	10/13/15 13:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	51		29 - 110				10/12/15 09:37	10/13/15 13:41	1
2-Fluorophenol (Surr)	23		15 - 110				10/12/15 09:37	10/13/15 13:41	1
2,4,6-Tribromophenol (Surr)	51		21 - 128				10/12/15 09:37	10/13/15 13:41	1
Nitrobenzene-d5 (Surr)	51		31 - 110				10/12/15 09:37	10/13/15 13:41	1
Phenol-d5 (Surr)	13		10 - 110				10/12/15 09:37	10/13/15 13:41	1
Terphenyl-d14 (Surr)	55		31 - 115				10/12/15 09:37	10/13/15 13:41	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.015		0.095	0.015	ug/L		10/10/15 09:00	10/13/15 14:18	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	54		32 - 140				10/10/15 09:00	10/13/15 14:18	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		10/10/15 08:06	10/14/15 00:02	1

Client Sample Results

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

TestAmerica Job ID: 240-56349-1

Client Sample ID: W-151007-TB-MI

Lab Sample ID: 240-56349-2

Date Collected: 10/07/15 15:20

Matrix: Water

Date Received: 10/08/15 09:30

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	600		49	7.5	ug/L		10/10/15 09:00	10/14/15 10:55	2000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	0	X ^c	32 - 140				10/10/15 09:00	10/14/15 10:55	2000

Surrogate Summary

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

TestAmerica Job ID: 240-56349-1

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)
240-56349-1	W-151007-TB-ME	51	23	51	51	13	55
LCS 240-201407/21-A	Lab Control Sample	64	58	69	85	48	75
MB 240-201407/20-A	Method Blank	75	69	78	74	57	85

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)
240-56349-1	W-151007-TB-ME	54	45 ^c
240-56349-2	W-151007-TB-MI	0 X ^c	0 X ^c
LCS 180-156588/2-A	Lab Control Sample	81	65
LCSD 180-156588/3-A	Lab Control Sample Dup	89	76
MB 180-156588/1-A	Method Blank	51	47
MB 180-156588/1-A	Method Blank	43	41

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

QC Sample Results

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

TestAmerica Job ID: 240-56349-1

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

Lab Sample ID: MB 240-201407/20-A
Matrix: Water
Analysis Batch: 201594

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201407

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Naphthalene	<0.063		0.20	0.063	ug/L		10/12/15 09:37	10/13/15 10:49	1
Surrogate	MB	MB	Limits			D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
2-Fluorobiphenyl (Surr)	75		29 - 110				10/12/15 09:37	10/13/15 10:49	1
2-Fluorophenol (Surr)	69		15 - 110				10/12/15 09:37	10/13/15 10:49	1
2,4,6-Tribromophenol (Surr)	78		21 - 128				10/12/15 09:37	10/13/15 10:49	1
Nitrobenzene-d5 (Surr)	74		31 - 110				10/12/15 09:37	10/13/15 10:49	1
Phenol-d5 (Surr)	57		10 - 110				10/12/15 09:37	10/13/15 10:49	1
Terphenyl-d14 (Surr)	85		31 - 115				10/12/15 09:37	10/13/15 10:49	1

Lab Sample ID: LCS 240-201407/21-A
Matrix: Water
Analysis Batch: 201594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201407
%Rec.

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Naphthalene	20.0	12.6		ug/L		63	52 - 120
Surrogate	LCS	LCS	Limits				
	%Recovery	Qualifier					
2-Fluorobiphenyl (Surr)	64		29 - 110				
2-Fluorophenol (Surr)	58		15 - 110				
2,4,6-Tribromophenol (Surr)	69		21 - 128				
Nitrobenzene-d5 (Surr)	85		31 - 110				
Phenol-d5 (Surr)	48		10 - 110				
Terphenyl-d14 (Surr)	75		31 - 115				

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-156588/1-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 156588

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	<0.078		0.50	0.078	ug/L		10/10/15 09:00	10/13/15 13:07	20
Surrogate	MB	MB	Limits			D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
2,4-Dichlorophenylacetic acid	51		32 - 140				10/10/15 09:00	10/13/15 13:07	20

Lab Sample ID: MB 180-156588/1-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 156588

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	<0.016		0.10	0.016	ug/L		10/10/15 09:00	10/13/15 13:54	4
Surrogate	MB	MB	Limits			D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
2,4-Dichlorophenylacetic acid	43		32 - 140				10/10/15 09:00	10/13/15 13:54	4

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QC Sample Results

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

TestAmerica Job ID: 240-56349-1

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

Lab Sample ID: LCS 180-156588/2-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 156588
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Pentachlorophenol	5.00	4.52		ug/L		90	40 - 140
<i>Surrogate</i>		<i>%Recovery</i>	<i>Qualifier</i>				<i>Limits</i>
2,4-Dichlorophenylacetic acid		81					32 - 140

Lab Sample ID: LCSD 180-156588/3-A
Matrix: Water
Analysis Batch: 156813

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 156588
%Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Pentachlorophenol	5.00	5.26		ug/L		105	40 - 140	15	30
<i>Surrogate</i>		<i>%Recovery</i>	<i>Qualifier</i>				<i>Limits</i>		
2,4-Dichlorophenylacetic acid		89					32 - 140		

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

Lab Sample ID: MB 240-201291/7-A
Matrix: Water
Analysis Batch: 201687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201291

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		10/10/15 08:06	10/13/15 20:52	1

Lab Sample ID: LCS 240-201291/8-A
Matrix: Water
Analysis Batch: 201687

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201291
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
WI Diesel Range Organics (C10-C28)	0.500	0.449		mg/L		90	75 - 115

Lab Sample ID: LCSD 240-201291/9-A
Matrix: Water
Analysis Batch: 201687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 201291
%Rec. RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
WI Diesel Range Organics (C10-C28)	0.500	0.489		mg/L		98	75 - 115	8	20

QC Association Summary

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

TestAmerica Job ID: 240-56349-1

GC/MS Semi VOA

Prep Batch: 201407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-1	W-151007-TB-ME	Total/NA	Water	3510C	
LCS 240-201407/21-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-201407/20-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 201594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-1	W-151007-TB-ME	Total/NA	Water	8270C	201407
LCS 240-201407/21-A	Lab Control Sample	Total/NA	Water	8270C	201407
MB 240-201407/20-A	Method Blank	Total/NA	Water	8270C	201407

GC Semi VOA

Prep Batch: 156588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-1	W-151007-TB-ME	Total/NA	Water	8151A	
240-56349-2	W-151007-TB-MI	Total/NA	Water	8151A	
LCS 180-156588/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 180-156588/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 180-156588/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 156813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-1	W-151007-TB-ME	Total/NA	Water	8151A	156588
LCS 180-156588/2-A	Lab Control Sample	Total/NA	Water	8151A	156588
LCSD 180-156588/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	156588
MB 180-156588/1-A	Method Blank	Total/NA	Water	8151A	156588
MB 180-156588/1-A	Method Blank	Total/NA	Water	8151A	156588

Analysis Batch: 156949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-2	W-151007-TB-MI	Total/NA	Water	8151A	156588

Prep Batch: 201291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-1	W-151007-TB-ME	Total/NA	Water	3520C	
LCS 240-201291/8-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 240-201291/9-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 240-201291/7-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 201687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-56349-1	W-151007-TB-ME	Total/NA	Water	WI-DRO	201291
LCS 240-201291/8-A	Lab Control Sample	Total/NA	Water	WI-DRO	201291
LCSD 240-201291/9-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	201291
MB 240-201291/7-A	Method Blank	Total/NA	Water	WI-DRO	201291

TestAmerica Canton

Lab Chronicle

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

TestAmerica Job ID: 240-56349-1

Client Sample ID: W-151007-TB-ME

Lab Sample ID: 240-56349-1

Date Collected: 10/07/15 15:10

Matrix: Water

Date Received: 10/08/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			201407	10/12/15 09:37	JDR	TAL CAN
Total/NA	Analysis	8270C		1	201594	10/13/15 13:41	JMG	TAL CAN
Total/NA	Prep	8151A			156588	10/10/15 09:00	CBY	TAL PIT
Total/NA	Analysis	8151A		4	156813	10/13/15 14:18	JMO	TAL PIT
Total/NA	Prep	3520C			201291	10/10/15 08:06	CSC	TAL CAN
Total/NA	Analysis	WI-DRO		1	201687	10/14/15 00:02	DEB	TAL CAN

Client Sample ID: W-151007-TB-MI

Lab Sample ID: 240-56349-2

Date Collected: 10/07/15 15:20

Matrix: Water

Date Received: 10/08/15 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			156588	10/10/15 09:00	CBY	TAL PIT
Total/NA	Analysis	8151A		2000	156949	10/14/15 10:55	JMO	TAL PIT

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: 240-56349-1

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.

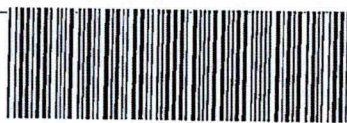
Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998027800	08-31-16

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

**CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS**



240-56349 Chain of Custody



CONESTOGA-ROVERS & ASSOCIATES

221001

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

COC NO.: **SP-01663**

PAGE 1 OF 1

(See Reverse Side for Instructions)

Project No/Phase/Task Code: 086165-02				Laboratory Name: TEST AMERICA				Lab Location: N. Canton, OH				SSOW ID:																																											
Project Name: PENTWOOD				Lab Contact:				Lab Quote No:				Cooler No:																																											
Project Location: SIREN, WI				SAMPLE TYPE				CONTAINER QUANTITY & PRESERVATION				ANALYSIS REQUESTED <small>(See Back of COC for Definitions)</small>																																											
Chemistry Contact: GRANT. ANDERSON@GHD.COM				Matrix Code (see back of COC)				Grab (G) or Comp (C)				Unpreserved				Hydrochloric Acid (HCl)				Nitric Acid (HNO ₃)				Sulfuric Acid (H ₂ SO ₄)				Sodium Hydroxide (NaOH)				Methanol/Water (Soil VOC)				EnCores 3x5-g, 1x25-g				Other:				Total Containers/Sample				MS/MSD Request				Carrier:			
Sampler(s): T. BRAUN																																																				Airbill No:			
SAMPLE IDENTIFICATION <small>(Containers for each sample may be combined on one line)</small>				DATE <small>(mm/dd/yy)</small>				TIME <small>(hh:mm)</small>				COMMENTS/ SPECIAL INSTRUCTIONS:																																											
1	W-151007-TB-ME			10/7/15				15:10				WG 4 2				6 X				X				X																															
2	W-151007-TB-ME			10/07/15				15:20				WG 2				2 X																																							

Page 18 of 21
10/20/2015

TAT Required in business days (use separate COCs for different TATs):
 1 Day 2 Days 3 Days 1 Week 2 Week Other: **STANDARD**

Total Number of Containers: **8** Notes/Special Requirements:
 All Samples in Cooler must be on COC

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1. T. BRAUN	GHD	10/7/15	16:30	1. Alex Culver	TA	10/8/15	9:38
				2.			
				3.			

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

TestAmerica Canton Sample Receipt Form/Narrative

Login # : 56349

Canton Facility

Client CRA

Site Name

Cooler unpacked by:

Cooler Received on 10/18/15

Opened on 10/18/15

Alan Gel

FedEx: 1st Grd (X) 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# A (CF +1.0 °C) Observed Cooler Temp. °C Corrected Cooler Temp. °C

IR GUN# 4 (CF +0.5 °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 -1.5 °C) Observed Cooler Temp. 2.2 °C Corrected Cooler Temp. 0.7 °C

See Multiple Cooler Form

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)? 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

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):

TestAmerica Canton

4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record



TestAmerica
DER IN ENVIRONMENTAL TESTING

Form containing sections: Client Information (Sub Contract Lab), Analysis Requested, Sample Identification - Client ID (Lab ID), Possible Hazard Identification, and Custody Seals Intact. Includes fields for dates, times, sample types, and signatures.

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 240-56349-1

Login Number: 56349
List Number: 2
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh
List Creation: 10/09/15 11:36 AM

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	