

THE LEADER IN ENVIRONMENTAL TESTING

## **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 240-2164-1

Client Project/Site: Penta Wood Products Site

For:

CH2M Hill, Inc. 135 South 84th Street Suite 400 Milwaukee, Wisconsin 53214

Attn: Ms. Shannon Olson

Kon Luyen

Authorized for release by: 08/16/2011 03:20:29 PM

Kenneth Kuzior
Project Manager II
ken.kuzior@testamericainc.com

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### **Definitions/Glossary**

Client: CH2M Hill, Inc.

TestAmerica Job ID: 240-2164-1

Project/Site: Penta Wood Products Site

Toxicity Equivalent Quotient (Dioxin)

### **Qualifiers**

### GC Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| В         | Compound was found in the blank and sample.  |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.      |
|           |  |

### **Glossary**

TEQ

| 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   |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| EDL            | Estimated Detection Limit (Dioxin)   |
| EPA            | United States Environmental Protection Agency  |
| MDL            | Method Detection Limit   |
| ML             | Minimum Level (Dioxin)   |
| ND             | Not detected at the reporting limit (or method detection limit if shown)                                   |
| PQL            | Practical Quantitation Limit   |
| RL             | Reporting Limit  |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                       |
| TEF            | Toxicity Equivalent Factor (Dioxin)  |

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#### **Case Narrative**

Client: CH2M Hill, Inc.

TestAmerica Job ID: 240-2164-1

Project/Site: Penta Wood Products Site

Job ID: 240-2164-1

**Laboratory: TestAmerica North Canton** 

Narrative

#### **CASE NARRATIVE**

Client: CH2M Hill, Inc.

**Project: Penta Wood Products Site** 

**Report Number: 240-2164-1** 

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 North 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 07/22/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.2 C.

#### **CHLORINATED HERBICIDES**

Samples 11CP04-54 (240-2164-1), 11CP04-55 (240-2164-2) and 11CP04-56 (240-2164-3) were analyzed for chlorinated herbicides in accordance with EPA SW-846 Method 8151A. The samples were analyzed on 07/27/2011.

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 was detected in method blank MB 180-8280/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Samples 11CP04-54 (240-2164-1)[400X], 11CP04-55 (240-2164-2)[400X] and 11CP04-56 (240-2164-3)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the herbicides analyses.

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### **Case Narrative**

Client: CH2M Hill, Inc.

TestAmerica Job ID: 240-2164-1

Project/Site: Penta Wood Products Site

Job ID: 240-2164-1 (Continued)

**Laboratory: TestAmerica North Canton (Continued)** 

All other quality control parameters were within the acceptance limits.

#### PERCENT SOLIDS

Samples 11CP04-54 (240-2164-1), 11CP04-55 (240-2164-2) and 11CP04-56 (240-2164-3) were analyzed for percent solids in accordance with EPA SW846 Method 3550C. The samples were analyzed on 07/22/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

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### **Method Summary**

Client: CH2M Hill, Inc.

Project/Site: Penta Wood Products Site

TestAmerica Job ID: 240-2164-1

| Method   | Method Description | Protocol | Laboratory |
|----------|--------------------|----------|------------|
| 8151A    | Herbicides (GC)    | SW846    | TAL PIT    |
| Moisture | Percent Moisture   | EPA      | TAL PIT    |

### Protocol References:

EPA = US Environmental Protection Agency

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: CH2M Hill, Inc.

Project/Site: Penta Wood Products Site

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 240-2164-1    | 11CP04-54        | Solid  | 07/21/11 12:00 | 07/22/11 10:15 |
| 240-2164-2    | 11CP04-55        | Solid  | 07/21/11 12:15 | 07/22/11 10:15 |
| 240-2164-3    | 11CP04-56        | Solid  | 07/21/11 12:30 | 07/22/11 10:15 |

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TestAmerica Job ID: 240-2164-1

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### **Detection Summary**

Client: CH2M Hill, Inc.

Project/Site: Penta Wood Products Site

TestAmerica Job ID: 240-2164-1

| Client Sample ID: 11CP04-54 |        |           |     |     |       | _ak     | Sample | ID: 240-2164-1 |                |
|-----------------------------|--------|-----------|-----|-----|-------|---------|--------|----------------|----------------|
| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D      | Method         | Prep Type      |
| Pentachlorophenol           | 700    | В         | 230 | 23  | ug/Kg | 400     | ₩      | 8151A          | Total/NA       |
| Client Sample ID: 11CP04-55 |        |           |     |     |       | ı       | _at    | Sample         | ID: 240-2164-2 |
| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D      | Method         | Prep Type      |
| Pentachlorophenol           | 620    | В         | 240 | 24  | ug/Kg | 400     | ₩      | 8151A          | Total/NA       |
| Client Sample ID: 11CP04-56 |        |           |     |     |       | ı       | _at    | Sample         | ID: 240-2164-3 |
| Analyte                     | Result | Qualifier | RL  | MDL | Unit  | Dil Fac | D      | Method         | Prep Type      |
| Pentachlorophenol           | 500    | В         | 59  | 5.9 | ug/Kg | 100     | ₩      | 8151A          | Total/NA       |

### Client Sample Results

Client: CH2M Hill, Inc.

Project/Site: Penta Wood Products Site

Lab Sample ID: 240-2164-1

Client Sample ID: 11CP04-54 Date Collected: 07/21/11 12:00

TestAmerica Job ID: 240-2164-1

Date Received: 07/22/11 10:15

**Matrix: Solid** Percent Solids: 96.1

Method: 8151A - Herbicides (GC)

Analyte Result Qualifier RL MDL Unit Dil Fac D Prepared Analyzed 230 07/25/11 05:39 07/27/11 14:32 Pentachlorophenol 700 23 ug/Kg 400 В

Surrogate % Recovery Qualifier Limits Prepared Analyzed Dil Fac 2,4-Dichlorophenylacetic acid 07/25/11 05:39 07/27/11 14:32 42 - 140 53 400

Client Sample ID: 11CP04-55 Lab Sample ID: 240-2164-2

**Matrix: Solid** 

Date Received: 07/22/11 10:15 Percent Solids: 93.1

Method: 8151A - Herbicides (GC)

Date Collected: 07/21/11 12:15

MDL Unit Analyte RL D Prepared Dil Fac Result Qualifier Analyzed 240 07/25/11 05:39 07/27/11 14:56 620 24 ug/Kg 400 Pentachlorophenol В

Surrogate % Recovery Qualifier Limits Prepared Dil Fac Analyzed 2,4-Dichlorophenylacetic acid 42 - 140 07/25/11 05:39 07/27/11 14:56 400 57

Client Sample ID: 11CP04-56 Lab Sample ID: 240-2164-3

Date Collected: 07/21/11 12:30 **Matrix: Solid** 

Percent Solids: 93.7

Method: 8151A - Herbicides (GC)

Date Received: 07/22/11 10:15

Analyte Result Qualifier MDL Unit Dil Fac D Prepared Analyzed 5.9 ug/Kg 07/25/11 05:39 07/27/11 15:20 100 Pentachlorophenol 500 В

Surrogate Dil Fac % Recovery Qualifier Limits Prepared Analyzed 2,4-Dichlorophenylacetic acid 07/25/11 05:39 54 42 - 140 07/27/11 15:20 100

### **Surrogate Summary**

Client: CH2M Hill, Inc.

TestAmerica Job ID: 240-2164-1

Project/Site: Penta Wood Products Site

Method: 8151A - Herbicides (GC)

Matrix: Solid Prep Type: Total/NA

|                   |                        |          | Percent Surrogate Recovery (Acceptance Limits) |
|-------------------|------------------------|----------|--|
|                   |                        | DCPA1    |  |
| Lab Sample ID     | Client Sample ID       | (42-140) |  |
| 240-2164-1        | 11CP04-54              | 53       |  |
| 240-2164-2        | 11CP04-55              | 57       |  |
| 240-2164-3        | 11CP04-56              | 54       |  |
| LCS 180-8280/2-A  | Lab Control Sample     | 85       |  |
| LCSD 180-8280/3-A | Lab Control Sample Dup | 83       |  |
| MB 180-8280/1-A   | Method Blank           | 68       |  |
| Surrogate Legend  |                        |          |  |

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Prepared

Project/Site: Penta Wood Products Site

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 180-8280/1-A

**Matrix: Solid** 

Analyte

**Analysis Batch: 8666** 

Client: CH2M Hill, Inc.

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Prep Batch: 8280

Prep Batch: 8280

Dil Fac

Pentachlorophenol 1.10 Jp 11 1.1 ug/Kg 07/25/11 05:39 07/27/11 12:32 20

RL

Lab Sample ID: MB 180-8280/1-A Client Sample ID: Method Blank **Matrix: Solid** 

Prep Type: Total/NA **Analysis Batch: 8672** 

MDL Unit

Prep Batch: 8280 мв мв

Surrogate % Recovery Qualifier Limits Dil Fac Prepared Analyzed 2,4-Dichlorophenylacetic acid 68 42 - 140 07/25/11 05:39 07/27/11 12:56

Lab Sample ID: LCS 180-8280/2-A **Client Sample ID: Lab Control Sample** 

**Matrix: Solid** 

**Analysis Batch: 8672** 

LCS LCS Spike

MB MB

Result Qualifier

% Rec. Analyte Added Result Qualifier Unit D % Rec Limits Pentachlorophenol 40.0 26.9 ug/Kg 67 60 - 140

LCS LCS

Surrogate % Recovery Qualifier Limits 2,4-Dichlorophenylacetic acid 42 - 140 85

Lab Sample ID: LCSD 180-8280/3-A

**Matrix: Solid** 

**Analysis Batch: 8672** Prep Batch: 8280 LCSD LCSD Spike % Rec. RPD Analyte Added Result Qualifier Limits RPD Limit Unit % Rec Pentachlorophenol 40.0 25.3 ug/Kg 63 60 - 140

LCSD LCSD

Surrogate % Recovery Qualifier Limits 2,4-Dichlorophenylacetic acid 83 42 - 140

TestAmerica North Canton

### **QC Association Summary**

Client: CH2M Hill, Inc.

TestAmerica Job ID: 240-2164-1

Project/Site: Penta Wood Products Site

### **GC Semi VOA**

### Prep Batch: 8280

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| MB 180-8280/1-A   | Method Blank           | Total/NA  | Solid  | 8151A  |            |
| MB 180-8280/1-A   | Method Blank           | Total/NA  | Solid  | 8151A  |            |
| LCS 180-8280/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8151A  |            |
| LCSD 180-8280/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8151A  |            |
| 240-2164-1        | 11CP04-54              | Total/NA  | Solid  | 8151A  |            |
| 240-2164-2        | 11CP04-55              | Total/NA  | Solid  | 8151A  |            |
| 240-2164-3        | 11CP04-56              | Total/NA  | Solid  | 8151A  |            |

### Analysis Batch: 8666

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| MB 180-8280/1-A | Method Blank     | Total/NA  | Solid  | 8151A  | 8280       |

### **Analysis Batch: 8672**

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| MB 180-8280/1-A   | Method Blank           | Total/NA  | Solid  | 8151A  | 8280       |
| LCS 180-8280/2-A  | Lab Control Sample     | Total/NA  | Solid  | 8151A  | 8280       |
| 240-2164-1        | 11CP04-54              | Total/NA  | Solid  | 8151A  | 8280       |
| 240-2164-2        | 11CP04-55              | Total/NA  | Solid  | 8151A  | 8280       |
| 240-2164-3        | 11CP04-56              | Total/NA  | Solid  | 8151A  | 8280       |
| LCSD 180-8280/3-A | Lab Control Sample Dup | Total/NA  | Solid  | 8151A  | 8280       |

### **General Chemistry**

### Analysis Batch: 8206

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method Prep Batch |
|---------------|------------------|-----------|--------|-------------------|
| 240-2164-1    | 11CP04-54        | Total/NA  | Solid  | Moisture          |
| 240-2164-2    | 11CP04-55        | Total/NA  | Solid  | Moisture          |
| 240-2164-2 DU | 11CP04-55        | Total/NA  | Solid  | Moisture          |
| 240-2164-3    | 11CP04-56        | Total/NA  | Solid  | Moisture          |

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### **Lab Chronicle**

Client: CH2M Hill, Inc.

Project/Site: Penta Wood Products Site

Client Sample ID: 11CP04-54 Date Collected: 07/21/11 12:00

Date Received: 07/22/11 10:15

Lab Sample ID: 240-2164-1

TestAmerica Job ID: 240-2164-1

**Matrix: Solid** 

Percent Solids: 96.1

|           | Batch    | Batch    |             | Dilution | Batch  | Prepared       |         |         |
|-----------|----------|----------|-------------|----------|--------|----------------|---------|---------|
| Prep Type | Type     | Method   | Run         | Factor   | Number | Or Analyzed    | Analyst | Lab     |
| Total/NA  | Prep     | 8151A    | <del></del> |          | 8280   | 07/25/11 05:39 | KG      | TAL PIT |
| Total/NA  | Analysis | 8151A    |             | 400      | 8672   | 07/27/11 14:32 | DE      | TAL PIT |
| Total/NA  | Analysis | Moisture |             | 1        | 8206   | 07/22/11 16:10 | DW      | TAL PIT |

Client Sample ID: 11CP04-55 Lab Sample ID: 240-2164-2

Date Collected: 07/21/11 12:15 **Matrix: Solid** Date Received: 07/22/11 10:15 Percent Solids: 93.1

|           | Batch    | Batch    |     | Dilution | Batch  | Prepared       |         |         |
|-----------|----------|----------|-----|----------|--------|----------------|---------|---------|
| Prep Type | Type     | Method   | Run | Factor   | Number | Or Analyzed    | Analyst | Lab     |
| Total/NA  | Prep     | 8151A    |     |          | 8280   | 07/25/11 05:39 | KG      | TAL PIT |
| Total/NA  | Analysis | 8151A    |     | 400      | 8672   | 07/27/11 14:56 | DE      | TAL PIT |
| Total/NA  | Analysis | Moisture |     | 1        | 8206   | 07/22/11 16:10 | DW      | TAL PIT |

Client Sample ID: 11CP04-56 Lab Sample ID: 240-2164-3

Date Collected: 07/21/11 12:30 **Matrix: Solid** 

Date Received: 07/22/11 10:15 Percent Solids: 93.7

|           | Batch    | Batch    |             | Dilution | Batch  | Prepared       |         |         |
|-----------|----------|----------|-------------|----------|--------|----------------|---------|---------|
| Prep Type | Type     | Method   | Run         | Factor   | Number | Or Analyzed    | Analyst | Lab     |
| Total/NA  | Prep     | 8151A    | <del></del> |          | 8280   | 07/25/11 05:39 | KG      | TAL PIT |
| Total/NA  | Analysis | 8151A    |             | 100      | 8672   | 07/27/11 15:20 | DE      | TAL PIT |
| Total/NA  | Analysis | Moisture |             | 1        | 8206   | 07/22/11 16:10 | DW      | TAL PIT |

### Laboratory References:

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

### **Certification Summary**

Client: CH2M Hill, Inc.

TestAmerica Job ID: 240-2164-1

Project/Site: Penta Wood Products Site

TestAmerica Pittsburgh

Wisconsin

| Laboratory               | Authority      | Program             | EPA Region | Certification ID |
|--------------------------|----------------|---------------------|------------|------------------|
| TestAmerica North Canton | ACLASS         | DoD ELAP            |            | ADE-1437         |
| TestAmerica North Canton | California     | NELAC               | 9          | 01144CA          |
| TestAmerica North Canton | Connecticut    | State Program       | 1          | PH-0590          |
| TestAmerica North Canton | Florida        | NELAC               | 4          | E87225           |
| TestAmerica North Canton | Georgia        | Georgia EPD         | 4          | N/A              |
| TestAmerica North Canton | Illinois       | NELAC               | 5          | 200004           |
| TestAmerica North Canton | Kansas         | NELAC               | 7          | E-10336          |
| TestAmerica North Canton | Kentucky       | State Program       | 4          | 58               |
| TestAmerica North Canton | Minnesota      | NELAC               | 5          | 039-999-348      |
| TestAmerica North Canton | Nevada         | State Program       | 9          | OH-000482008A    |
| TestAmerica North Canton | New Jersey     | NELAC               | 2          | OH001            |
| TestAmerica North Canton | New York       | NELAC               | 2          | 10975            |
| TestAmerica North Canton | Ohio           | OVAP                | 5          | CL0024           |
| TestAmerica North Canton | Pennsylvania   | NELAC               | 3          | 68-00340         |
| TestAmerica North Canton | USDA           | USDA                |            | P330-08-00123    |
| TestAmerica North Canton | West Virginia  | West Virginia DEP   | 3          | 210              |
| TestAmerica North Canton | Wisconsin      | State Program       | 5          | 999518190        |
| TestAmerica Pittsburgh   | ACLASS         | DoD ELAP            |            | ADE-1422         |
| TestAmerica Pittsburgh   | Arkansas       | State Program       | 6          | 88-0690          |
| TestAmerica Pittsburgh   | California     | NELAC               | 9          | 4224CA           |
| TestAmerica Pittsburgh   | Connecticut    | State Program       | 1          | PH-0688          |
| TestAmerica Pittsburgh   | Florida        | NELAC               | 4          | E871008          |
| TestAmerica Pittsburgh   | Illinois       | NELAC               | 5          | 002602           |
| TestAmerica Pittsburgh   | Kansas         | NELAC               | 7          | E-10350          |
| TestAmerica Pittsburgh   | Louisiana      | NELAC               | 6          | 04041            |
| TestAmerica Pittsburgh   | New Hampshire  | NELAC               | 1          | 203011           |
| TestAmerica Pittsburgh   | New Jersey     | NELAC               | 2          | PA005            |
| TestAmerica Pittsburgh   | New York       | NELAC               | 2          | 11182            |
| TestAmerica Pittsburgh   | North Carolina | North Carolina DENR | 4          | 434              |
| TestAmerica Pittsburgh   | Pennsylvania   | NELAC               | 3          | 02-00416         |
| TestAmerica Pittsburgh   | Pennsylvania   | State Program       | 3          | 02-416           |
| TestAmerica Pittsburgh   | South Carolina | State Program       | 4          | 89014002         |
| TestAmerica Pittsburgh   | USDA           | USDA                |            | P-Soil-01        |
| TestAmerica Pittsburgh   | USDA           | USDA                |            | P330-10-00139    |
| TestAmerica Pittsburgh   | Utah           | NELAC               | 8          | STLP             |
| TestAmerica Pittsburgh   | West Virginia  | West Virginia DEP   | 3          | 142              |
|                          |                |                     |            |                  |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

State Program

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| Client No: 11CP04 SDG No: | (Date / Time)  (Date / Time) | SAMPLE COLLECT SAMPLE | S: 7/21/2011 17:30 S: 7/21/2011 |
|---------------------------|---|--|---|
|                           | Sampler<br>Signature:<br>Received By  | STATION<br>LOCATION<br>PWP-STAIN-1   |   |
|                           | 1y Record (Date / Time)   | TAGNO/<br>PRESERVATIVE/ Boutes<br>5C-7741 (Ice Only) (1)   | 42 43 45  |
| of Custody                | Chain of Custod Reinquished By 15 Mil. A. Bure, 2 3 3 4   | ANALYSIS/<br>TURNAROUND  | 1 for laboratory QC:    Cow, M = Low/Meditum, H = High  |
| Generic Chain of Custody  | 7121/2011 Fedex & 723 829/ 8665 2-828/-8654 TEST AMERICA NORTH 4104-SHUFFEL ST NW NORTH-GANTON OH 44720 (330)-866-9789-   | MATRIXI CONCI<br>SAMPLER TYPE<br>Soil (>12")/3:3 FT LIG  | L/G Pe used   |
|                           | Date Shipped: 712 Carrier Name: Fe Artbill: \$723 Shipped to: TE SO) Alffin DR 94 PiffsDugdh, Ph NG   | SAMPLE NO.<br>11CP04-54  | Shipment for Case Complete?N Analysis Key: PCP. = PCP   |

### **Login Sample Receipt Checklist**

Client: CH2M Hill, Inc.

Job Number: 240-2164-1

Login Number: 2164 List Source: TestAmerica North Canton

List Number: 1

Creator: McFadden, John

| Question   | Answer | Comment |
|--|--------|---------|
| Radioactivity either was not measured or, if measured, is at or below background | N/A    |         |
| The cooler's custody seal, if present, is 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   | 3.2     |
| 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 sample IDs on the containers 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   |         |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.     | True   |         |
| Multiphasic samples are not present.   | True   |         |
| Samples do not require splitting or compositing.                                 | True   |         |
| Residual Chlorine Checked.   | N/A    |         |

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Client: CH2M Hill, Inc.

List Source: TestAmerica Pittsburgh

List Creation: 07/22/11 03:01 PM

Job Number: 240-2164-1

Login Number: 2164 List Number: 1

Creator: Radzevick, Jaclyn

| Question   | Answer | Comment |
|--|--------|---------|
| Radioactivity either was not measured or, if measured, is at or below background | N/A    |         |
| The cooler's custody seal, if present, is 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 sample IDs on the containers 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.  | N/A    |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |         |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.     | N/A    |         |
| Multiphasic samples are not present.   | True   |         |
| Samples do not require splitting or compositing.                                 | True   |         |
| Residual Chlorine Checked.   | N/A    |         |
|  |        |         |

**TestAmerica North Canton**