SITE ASSESSMENT REPORT
FOR THE
FOREST CITY HIGH SCHOOL SITE
FOREST CITY, MASON COUNTY, ILLINOIS

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Emergency Response Branch
Region V
77 West Jackson Boulevard
Chicago, IL 60604-3507

Prepared by:

WESTON SOLUTIONS, INC.
750 E. Bunker Ct. Ste 500
Vernon Hills, IL 60061

Date Prepared	October 11, 2012
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WESTON START Project Manager	Tonya Balla
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U.S. EPA On-Scene Coordinator	Ramon Mendoza

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October 11, 2012

Prepared by: _____ Date: 10/11/12
Jeff Bryniarski
WESTON START Member

Reviewed by: _____ Date: 10/11/12
Tonya Balla
WESTON START Project Manager

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LIST OF ABBREVIATIONS AND ACRONYMS

°F	Degree Fahrenheit
µg/kg	Microgram per kilogram
AST	Aboveground storage tank
CFR	*Code of Federal Regulations*
g/mL	Gram per milliliter
GPS	Global positioning system
IEPA	Illinois Environmental Protection Agency
mg/kg	Milligram per kilogram
mg/L	Milligram per liter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OSC	On-Scene Coordinator
PCB	Polychlorinated biphenyl
PPE	Personal protective equipment
RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
START	Superfund Technical Assessment and Response Team
SU	Standard unit
SVOC	Semivolatile organic compound
TACO	Tiered Approach to Corrective Action
TCLP	Toxicity Characteristic Leaching Procedure
TDD	Technical Direction Document
U.S. EPA	United States Environmental Protection Agency
UST	Underground storage tank
VOC	Volatile organic compound
WESTON	Weston Solutions, Inc.

1. INTRODUCTION

The United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to assist the U.S. EPA in performing a site assessment at the Forest City High School Site in Forest City, Mason County, Illinois (the Site; **Figure 1**). Under Technical Direction Document (TDD) No. S05-001-1205-003, U.S. EPA requested that WESTON START document current Site conditions; collect waste solid, waste liquid, and soil samples; obtain photographic documentation of Site conditions and site assessment activities; and evaluate the potential for imminent and substantial threats to the public health or welfare of the United States or the environment posed by Site conditions. On June 14, 2012, WESTON START conducted a site assessment under the direction of U.S. EPA On-Scene Coordinator (OSC) Ramon Mendoza.

This site assessment report is organized into the following sections:

- **Section 1, Introduction –** Provides a brief description of the objective and scope of site assessment activities
- **Section 2, Site Background** – Details the Site description and its known history
- **Section 3, Site Assessment Activities –** Discusses observations, methods, and procedures used during the site assessment
- **Section 4, Analytical Results –** Discusses analytical results for samples collected during the site assessment
- **Section 5, Threats to Human Health and the Environment –** Identifies Site conditions that may warrant a removal action under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
- **Section 6, Conclusions –** Summarizes the site assessment conclusions

Figures and tables are presented after the conclusions section. In addition, **Appendix A** of this report provides a photographic log of Site conditions at the time of the site assessment. **Appendix B** provides the laboratory analytical reports for samples collected during the site assessment. **Appendix C** provides the data validation reports.

2. SITE BACKGROUND

This section discusses the Site description and history.

2.1 SITE DESCRIPTION

The Site is located at 409 Southwest Main Street in the Village of Forest City, Mason County, Illinois (**Figure 1**). The Site's geographical coordinates are 40° 21' 59.76" North latitude and 89° 50' 5.28" West longitude. The Site occupies approximately 4.6 acres and contains the former Forest City High School. The Site is bordered to the north by forested and agricultural land; to the east by Village Park; to the south by South Main Street, the Illinois and Midland Railroad, a private residence, and agricultural land; and to the west by forested land and a vacant commercial property. The closest residences are located approximately 0.5 mile northeast of the Site. The Site is located within the Lower Illinois-Lake Chautauqua watershed. The closest waterway is the southwest flowing Mason-Tazewell Drainage Ditch approximately 0.2 mile south of the Site.

The Site contains three buildings (**Figure 2**). School Building #1, built in 1921, is a two-story brick building that contained the school cafeteria, offices, a boiler room, and classrooms. School Building #1 was partially destroyed by a tornado in 2005. The roof of this building and much of the second and first floor have collapsed. Roofing material from this building was observed on the ground outside the building. Because of the lack of structural stability, only the bathroom of the building is accessible.

School Building #2, built in 1962, is a one-story brick and concrete masonry unit containing a gym, two locker rooms, two bathrooms, a boiler room, and four classrooms currently used as storage rooms. During the site assessment, the building was in a dilapidated state, with floor and ceiling tiles, solid waste, ceramic manufacturing materials, and miscellaneous building debris scattered throughout the building. Many of the windows of School Building #2 are broken, and the roof of the gym has been partially destroyed and now leaks. As a result, the wooden floor of the gym is eroding and decaying.

A Quonset-Shaped Building was built in the 1950s, when the high school consolidated with the area's junior high school. The Quonset-Shaped Building is a two-story sheet metal building containing eight rooms, a woodworking room, a ceramic storeroom, a boiler room, a living area, and several former classrooms currently used as storage rooms. During the site assessment, the rooms contained piles of miscellaneous personal items belonging to the owner as well as ceramic manufacturing materials.

2.2 SITE HISTORY

In 1921, the Regional Board of School Trustees for Logan, Menard, and Mason Counties acquired 10 acres of land of which the Site was a part and established the Forest City High School. In 1984, the Regional Board of School Trustees for Logan, Menard, and Mason Counties sold approximately 4.6 acres of the original 10 acres, the Site, to Mr. Dale Schurtz, Mr. Marion Schurtz, and Ms. Yvonne Schurtz. The remaining 5.4 acres of the property was deeded to the Village of Forest City and currently serves as a park. From 1984 to 1999, Mr. Dale Schurtz used the Site to manufacture and sell ceramic products. The Site currently is used to store ceramic manufacturing materials such as porcelain, glycerin, glazes, paints, glosses, lusters, and kaolin. Reportedly, the Village of Forest City Police frequently responds to calls about trespassing, unauthorized salvaging, and vandals at the Site.

Based on historical operations at the Site, contaminants of concern include, but are not limited to, asbestos, volatile organic compounds (VOC), semivolatile organic compounds (SVOC), ignitable liquids, metals, and polychlorinated biphenyls (PCB). Additionally, the Village of Forest City suspects the presence of friable asbestos and asbestos-containing materials, lead-based paint, abandoned laboratory chemicals, and two underground storage tanks (UST).

WESTON performed a Phase I environmental site assessment for the U.S. EPA under the Brownfield program in April 2012. The Phase I Environmental Site Assessment Report was submitted to the U.S. EPA and the Village of Forest City Mayor in late May 2012.

3. SITE ASSESSMENT ACTIVITIES

This section discusses the site reconnaissance and observations, and sampling activities conducted as part of the site assessment.

3.1 SITE RECONNAISSANCE AND OBSERVATIONS

On June 14, 2012, U.S. EPA and WESTON START conducted a site assessment to document Site conditions and evaluate the Site for a potential time-critical removal action. **Appendix A** provides photographic documentation of Site conditions and site assessment activities. During the site assessment, U.S. EPA and WESTON START conducted air monitoring using a Lumex mercury-vapor analyzer, MicroR gamma radiation detector, and MultiRAE multi-gas air monitor to monitor air in the breathing zone for carbon monoxide, hydrogen sulfide, lower explosive limit, oxygen, and VOCs. All ambient air monitoring readings were at or below background levels.

The Site stores ceramic manufacturing materials, including glazes, paints, glosses, lusters, and porcelain. Approximately 3 cubic yards of small containers (4 ounces or less) containing glazes, paints, glosses, lusters, and other products related to the manufacture of ceramic products were observed in multiple rooms in School Building #2. Labels on these containers indicated that many of these products contain lead; methyl ethyl ketone; 1,1,1-trichloroethane; and other chemicals.

A 50-gallon aboveground storage tank (AST) was observed in the courtyard between School Building #1 and School Building #2 (**Figure 2**). This AST is believed to contain propane and was previously used to ignite Bunsen burners in the chemistry classroom. U.S. EPA and WESTON START confirmed that this AST is partially full. A 1,000-gallon AST was observed west of the Quonset-Shaped Building (**Figure 2**). This AST is believed to contain propane for heating the Quonset-Shaped Building.

Two USTs are located at the Site. One 4,000-gallon UST was found west of School Building #2, and one 1,000-gallon UST was found north of the Quonset-shaped building (**Figure 2**). The

4,000-gallon UST was sampled during this site assessment, but the 1,000-gallon contained only residual vapors and not enough liquid volume for waste sample collection.

3.2 SAMPLING ACTIVITIES

On June 14, 2012, U.S. EPA and WESTON START sampled waste solid, waste liquid, and soil at the Site. Three waste solid samples including one duplicate, two waste liquid samples, six soil samples including one duplicate, seven asbestos in soil samples including one duplicate, and one bulk asbestos sample were collected. Each sample type is described below.

Waste samples FCHS-WL01-061412 and FCHS-WL01D-061412 (duplicate) consisted of two-phase liquid from the 4,000-gallon UST west of School Building # 2. Each sample was analyzed in two fractions: oil phase (waste solid) and aqueous phase (waste liquid). However, identical parameters were not able to be run on the duplicate portions of the oil phase or aqueous phase due to limited sample volume. Therefore, since they were duplicate samples which are essentially the same material, the parameters were split so that as much analytical information was available as possible. The oil phase (waste solid) of sample FCHS-WL01-061412 and duplicate FCHS-WL01D-061412 were analyzed for the following: ignitability, metals, PCBs, VOCs, SVOCs, and corrosivity (pH). Sample FCHS-WL01-061412 was also analyzed for bulk density. The aqueous phase of sample FCHS-WL01-061412-AQ was analyzed for SVOCs and total metals. The aqueous phase of sample FCHS-WL01D-061412-AQ was analyzed for ignitability, PCBs, and corrosivity (pH).

Waste liquid sample FCHS-WL02-061412 consisted of a pink liquid collected from a 1-gallon container of pottery glaze labeled “contains lead.” Waste sample FCHS-WL03-061412 consisted of a red, highly viscous liquid/solid collected from three 500-milliliter containers all labeled as pottery glaze from the same manufacturer and labeled “contains lead.” After inspection at the laboratory, it was determined that the matrix of this sample is a waste solid. Both samples were collected from containers in the southwest classroom of School Building #2. Both samples were analyzed for corrosivity (pH), ignitability, and metals. FCHS-WL02-061412 was also analyzed for bulk density.

Six soil samples including one duplicate were collected from the Site. **Figure 3** shows the soil sampling locations, which were documented with a global positioning system (GPS) mapping file. Prior to sampling, soil was field screened using an Innov-X (Alpha Model 4000A) to determine the lead levels (in parts per million). Areas with elevated lead levels were targeted for sampling. Sample FCHS-S05-061412 was collected as a background sample from off-site soil in the adjacent village park. Soil samples were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) lead and Resource Conservation and Recovery Act (RCRA) metals.

Six soil asbestos samples including one duplicate were collected from site soil. **Figure 3** shows the sampling locations, which were documented with a GPS mapping file. Each sample was composited from soil of similar composition within a 3-foot radius. Sample FCHS-A05-061412 was collected as a background sample from off-site soil in the adjacent village park. These samples were analyzed for asbestos.

One bulk asbestos sample (FCHS-B01-061412) was collected from roofing material outside and east of School Building #1. The roofing material was near the gymnasium on the ground.

Sampling activities were conducted in Level D personal protective equipment (PPE) in accordance with the approved site-specific health and safety plan. When applicable, pH paper and a MultiRAE photoionization detector were used to screen sample liquids and solids. Fresh sampling gloves were donned before sampling activities began for each new sample container as necessary. Waste liquid samples were collected using disposable polyethylene bailers, and waste solid, soil, and bulk asbestos samples were collected using disposable polyethylene scoops. All sampling information was recorded in the Site logbook and on the chain-of-custody forms.

The soil samples analyzed for asbestos and the bulk asbestos sample were submitted under chain of custody to the WESTON-procured laboratory STAT Analysis Corporation of Chicago, Illinois. The waste solid, waste liquid, and soil samples were submitted under chain of custody to the WESTON-procured laboratory Microbac Laboratories, Inc., of Merrillville, Indiana.

4. ANALYTICAL RESULTS

Analytical results for corrosivity (pH), ignitibility, and toxicity were compared to the hazardous waste criteria outlined in Title 40 of the *Code of Federal Regulations* (40 CFR), Part 261, to determine if the samples represent materials considered hazardous waste. Analytical results for TCLP metals were compared to the hazardous waste criteria outlined in 40 CFR 261.24. Analytical results for PCBs were compared to the hazardous waste criteria outlined in 40 CFR Part 761.3. Soil sample analytical results for TCLP lead and RCRA metals were compared to U.S. EPA Regional Screening Levels (RSL) for residential and commercial soil. In addition, the soil sample results were compared to the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Corrective Action (TACO) Tier 1 Industrial/Commercial and Residential soil remediation objectives for the ingestion, inhalation, and the soil component of the groundwater ingestion exposure route pathways. **Tables 4-1** through **Table 4-4** summarize results for the waste solid, waste liquid, soil, and asbestos samples, respectively. **Appendix B** provides the laboratory analytical reports, and **Appendix C** provides the data validation reports for the samples. Laboratory analytical results for the waste liquid, waste solid, soil, asbestos in soil, and bulk asbestos samples are summarized below.

4.1 METHOD / SCREENING CRITERIA DEVIATIONS

TCLP analysis was not performed on the liquid waste samples. However, according to the TCLP analytical procedure, "for liquid wastes (i.e., those containing less than 0.5 percent dry solid material), the waste, after filtration through a 0.6 to 0.8 micrometer (μm) glass fiber filter, is defined as the TCLP extract." Therefore, for the purposes of this report, the liquid waste TCL VOC, SVOC, and TAL metals results were compared to the hazardous waste criteria for toxicity outlined in Title 40 of the Code of Federal Regulations (40 CFR), Part 261, Subpart C.

4.2 WASTE SOLID AND WASTE LIQUID ANALYTICAL RESULTS

Ignitability - Flashpoint

- Waste samples FCHS-WL01-061412 (oil phase), FCHS-WL01D-061412 (oil phase), FCHS-WL01D-061412-AQ (aqueous phase), FCHS-WL02-061412, and FCHS-WL03-061412 had flashpoints of greater than 170, greater than 170, greater than 170, 71, and greater than 180 degrees Fahrenheit (°F), respectively (**Tables 4-1 and 4-2**). According

to 40 CFR 261.21, a liquid with a flashpoint below 140 °F exhibits the characteristic of ignitability. Therefore, pursuant to 40 CFR Part 261, Subpart C, 261.21, sample FCHS-WL02-061412 represents a hazardous waste by virtue of the characteristic of ignitability.

Toxicity - RCRA Metals

- Waste solid sample FCHS-WL03-061412 contained barium, cadmium, lead, and silver at 270; 26; 140,000; and 6.4 milligrams per kilogram (mg/kg), respectively (**Table 4-1)**. This material was found to have a bulk density of 1.9 grams per milliliter (g/mL). After converting units with the bulk density multiplier, the barium, cadmium, lead, and silver concentrations were 513; 49.4; 266,000; and 12.16 milligrams per liter (mg/L), respectively. These concentrations exceed the 40 CFR 261.24 screening levels of 100, 1, 5, and 5 mg/L for barium, cadmium, lead, and silver, respectively. Therefore, according to 40 CFR 261.24, sample FCHS-WL03-061412 represents a hazardous waste.

- Waste liquid sample FCHS-WL02-061412 contained lead at 24,000 mg/L (**Table 4-2**). According to 40 CFR 261.24, waste with a lead concentration greater than or equal to 5 mg/L exhibits the characteristic of toxicity. Therefore, according to 40 CFR 261.24, sample FCHS-WL02-061412 represents a hazardous waste.

PCBs

- PCBs were not detected in waste sample FCHS-WL01-061412 (oil phase), FCHS-WL01D-061412 (oil phase), FCHS-WL01-061412-AQ (aqueous phase), or FCHS-WL01D-061412-AQ (aqueous phase). Therefore, according to 40 CFR Part 761.3, none of the samples represents a PCB-containing waste.

Toxicity - VOCs

- Waste samples FCHS-WL01-061412 (oil phase) and FCHS-WL01D-061412 (oil phase) had benzene concentrations of 16,000 and 15,000 micrograms per kilogram (µg/kg), respectively. This material was found to have a bulk density of 0.86 g/mL. After converting units with the bulk density multiplier, samples FCHS-WL01-061412 (oil phase) and FCHS-WL01D-061412 (oil phase) had benzene concentrations of 13.76 and 12.90 mg/L, respectively, which exceed the benzene regulatory concentration of 5 mg/L (see **Table 4-1**). Therefore, according to 40 CFR 261.24, waste samples FCHS-WL01-061412 (oil phase) and FCHS-WL01D-061412 (oil phase) represent a material that meets the definition of hazardous waste by virtue of the characteristic of toxicity.

Toxicity – SVOCs

- Several SVOCs were detected in the oil phase samples. FCHS-WL01-061412 (oil phase) and FCHS-WL01D-061412 (oil phase) each had 2-methylnaphthlane concentrations of

4,100 mg/kg (3,526 mg/L density corrected) and a naphthalene concentration of 1,300 mg/kg (1,118 mg/L density corrected). FCHS-WL01D-061412 also had concentrations of dibenzofuran (160 mg/kg, 137.6 mg/L density corrected), fluorene (340 mg/kg, 292.4 mg/L density corrected), and phenanthrene (710 mg/kg, 610.6 density corrected). Sample FCHS-WL01-061412-AQ (aqueous phase) also contained 2-methylnapthalene at 2,100 ug/l and naphthalene at 710 ug/L. However, according to 40 CFR 261.24, none of the samples are regulated or listed as a hazardous waste.

Corrosivity – pH

- Waste samples FCHS-WL01-061412 (oil phase), FCHS-WL01D-061412 (oil phase), FCHS-WL01D-061412-AQ (aqueous phase), FCHS-WL02-061412, and FCHS-WL03-061412 had pH values of 4.95, 4.95, 5.81, 9.17, and 9.27 standard units (SU), respectively (**Tables 4-1 and 4-2**). According to 40 CFR 261.22, the characteristic of corrosivity is represented by a pH value of greater than or equal to 12.5 SUs or less than or equal to 2 SUs. Therefore, according to 40 CFR 261.22, none of the samples represents a hazardous waste by virtue of the characteristic of corrosivity.

4.2 SOIL ANALYTICAL RESULTS

TCLP Lead

- Soil samples FCHS-S01-061412, FCHS-S02-061412, FCHS-S03-061412, and FCHS-S04-061412 contained TCLP lead at 4.00, 4.95, 0.644, and 0.179 mg/L, respectively (**Table 4-3**). The TACO Tier 1 soil component of the groundwater migration exposure pathway for Class I groundwater is 0.0075 mg/L for TCLP lead. Therefore, the TCLP lead results for soil samples FCHS-S01-061412 through FCHS-S04-061412 exceed the TACO Tier 1 standards.

- Background soil samples FCHS-S05-061412 and FCHS-S05D-061412 contained TCLP lead at 0.0577 and 0.0291 mg/L, respectively.

Arsenic

- Soil samples FCHS-S01-061412, FCHS-S02-061412, FCHS-S03-061412, FCHS-S04-061412, FCHS-S05-061412, and FCHS-S05D-061412 contained arsenic at 3.7, 9.0, 6.4, 6.8, 7.1, and 7.0 mg/kg, respectively (**Table 4-3**). The residential and industrial RSLs for arsenic are 0.39 and 1.6 mg/kg, respectively. Therefore, the arsenic results for soil samples FCHS-S01-061412 through FCHS-S05D-061412 exceed the residential and industrial RSLs. However, the results are only slightly about the offsite background sample results.

Lead

- Soil samples FCHS-S01-061412, FCHS-S02-061412, and FCHS-S03-061412 contained lead at 2,500; 1,100; and 830 mg/kg, respectively (**Table 4-3**). The residential and industrial RSLs for lead are 400 and 800 mg/kg, respectively. The TACO Tier 1 Residential and Industrial/Commercial ingestion standards for lead are 400 and 800 mg/kg, respectively. Therefore, the lead results for soil samples FCHS-S01-061412 through FCHS-S03-061412 exceed the residential and industrial RSLs as well as the TACO Tier 1 Residential and Industrial/Commercial ingestion standards.

4.3 ASBESTOS ANALYTICAL RESULTS

Asbestos in Soil

- Soil sample FCHS-A04-061412 contained asbestos at 1 to 5 percent chrysotile asbestos (**Table 4-4**).

Bulk Asbestos

- Bulk sample FCHS-B01-061412 contained asbestos at 10 to 15 percent chrysotile asbestos (**Table 4-4**).

5. THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Factors to be considered when determining the appropriateness of a potential removal action at a site are delineated in the NCP at 40 CFR 300.415(b)(2). The factors applicable to the Site are summarized below.

- **Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants**

  Based on site assessment laboratory analytical results, ignitable and toxic hazardous wastes are present in containers at the Site. Waste liquid sample FCHS-WL02-061412 collected from a plastic container had a flashpoint of 71 °F, indicating that the sample represents a waste liquid hazardous for the characteristic of ignitability. Many other unmarked containers at the Site likely contain similar materials.

  Waste solid sample FCHS-WL03-061412 contained barium, cadmium, lead, and silver at 270; 26; 140,000; and 6.4 mg/kg, respectively, indicating that the samples represent waste solids hazardous for the characteristic of toxicity. Many other unmarked containers at the Site likely contain similar materials.

  Continued deterioration of containers containing hazardous wastes could result in accidental or intentional releases of hazardous materials, contact with hazardous materials, fire, or a reaction generating toxic gases.

- **High levels of hazardous substances, pollutants, or contaminants in soils largely at or near the surface that may migrate**

  Based on site assessment laboratory analytical results, Site soil contains arsenic at concentrations exceeding the residential and industrial RSLs but near or below the background. In addition, Site soil contains lead at concentrations exceeding the residential and industrial RSLs as well as the TACO Tier 1 Residential and Industrial/Commercial ingestion standards. In the grassy area north of the Site buildings, a natural gradient directs surface water runoff from the Site towards Village Park to the north.

  The closest residences are located approximately 0.5 mile northwest of the Site. The proximity of the Site to nearby commercial and residential areas greatly increases potential threats to the public health or welfare of the United States or the environment if a release of hazardous materials occurs.

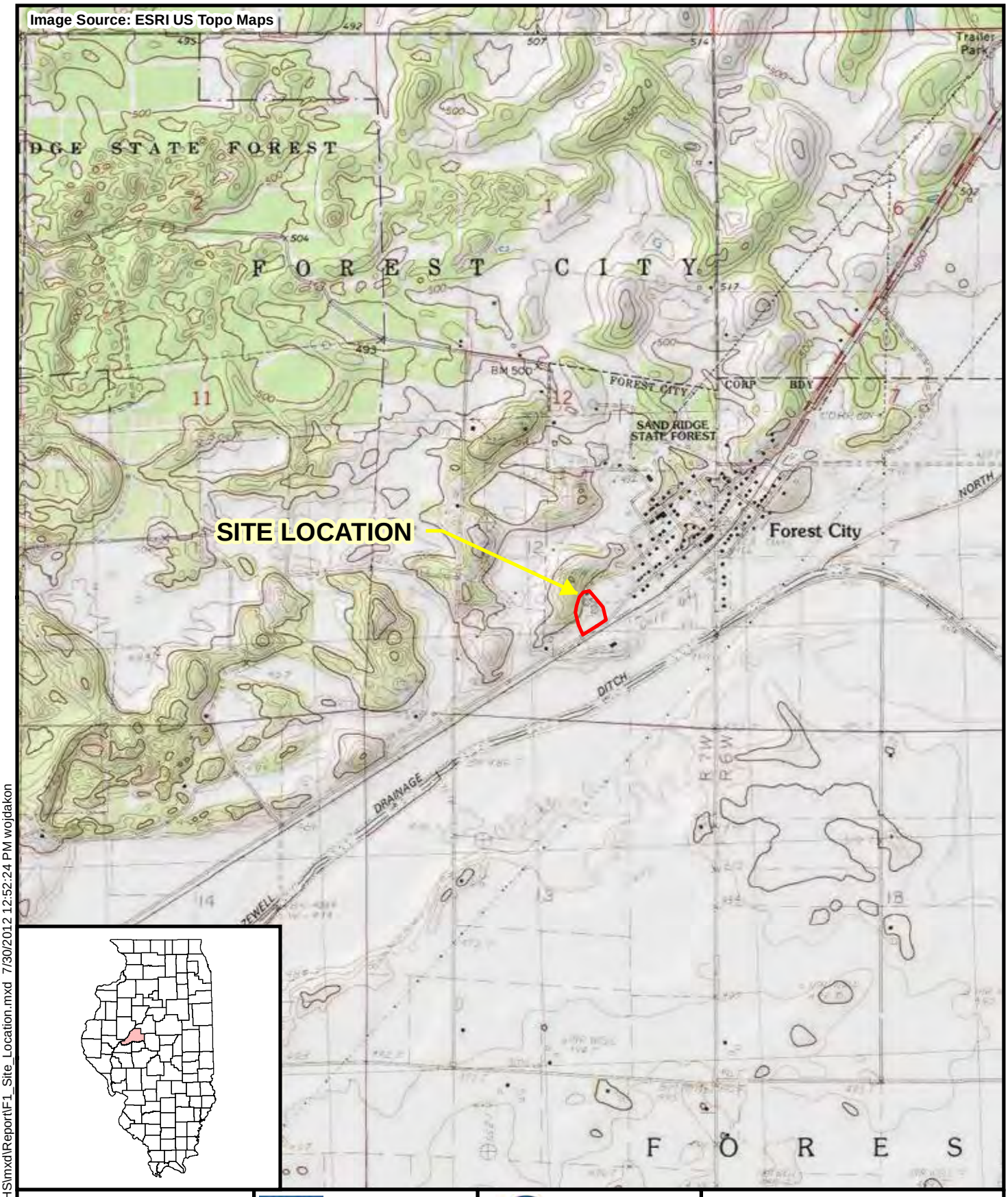
- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released**

  The dilapidated state of Site buildings poses a threat of migration of hazardous substances. School Building #1 has been partially destroyed by a tornado. The roof and much of the second and first floor have collapsed. Roofing material from this building was observed outside the building on the ground. School Building #2 also was in a dilapidated state, with large holes in the roof of the gymnasium. Weather conditions causing freezing and thawing along with precipitation and wind could increase the risk of additional migration of hazardous substances or pollutants from the Site.

6. CONCLUSIONS

The site assessment consisted of site reconnaissance and field sampling conducted on June 14, 2012. During the site assessment, WESTON START observed two USTs, two ASTs, and numerous small containers inside the Site buildings. WESTON START sampled waste solids, waste liquids, and soil at and adjacent to the Site. Three waste solid samples including one duplicate, two waste liquid samples, six soil samples including one duplicate, seven asbestos in soil samples including one duplicate, and one bulk asbestos sample were collected. Analytical results for waste solid and waste liquid samples indicate the presence of ignitable and toxic hazardous wastes in containers at the Site. Analytical results for soil samples indicate the presence of lead, arsenic, and asbestos above regulatory concentrations at the Site. Site contaminants and conditions meet the criteria established in the NCP for a removal action.

FIGURES



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Legend

Property Boundary

0 2,000 Feet

N

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Prepared By:
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Vernon Hills, Illinois 60061

Figure 1
Site Location Map
Forest City High School
Forest City, Mason County, Illinois

Prepared for: U.S. EPA. REGION V Contract No: EP-S5-06-04 TDD: S05-001-1205-003 DCN: 1845-2A-AWWH	Prepared By: WESTON SOLUTIONS, INC 750 E. Bunker Ct., Suite 500 Vernon Hills, Illinois 60061	Figure 2 Site Features Map Forest City High School Forest City, Mason County, Illinois

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Legend

- Soil and Asbestos Sampling Locations
- Property Boundary

0 100 Feet

N

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Figure 3
Soil and Asbestos
Sampling Location Map
Forest City High School
Forest City, Mason County, Illinois

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TABLES

Table 4-1
Waste Solid (Non-Aqueous) Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Location ID		FCHS-WL01		FCHS-WL01		FCHS-WL03	
		Field Sample ID		FCHS-WL01-061412		FCHS-WL01D-061412		FCHS-WL03-061412	
		Sampling Date		6/14/2012		6/14/2012		6/14/2012	
		Sample Units	Action Level	Sample Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L
ASTM D5057 Mod	Bulk density	g/mL	-	0.86	-	-	-	1.9	
ASTM D92-90 Mod	Ignitability	°F	< 140		-	-	-	>180	
SW-846 1010	Ignitability	°F	< 140	>170	-	>170	-	-	-
SW-846 6010B	Arsenic	mg/kg	5	0.5 U	-	0.49 U	-	2.5	4.75
	Barium	mg/kg	100	0.2 U	-	0.2 U	-	270	**513**
	Cadmium	mg/kg	1	0.2 U	-	0.2 U	-	26	**49.4**
	Chromium	mg/kg	5	0.2 U	-	0.2 U	-	1.5	2.85
	Lead	mg/kg	5	0.37 U	-	0.37 U	-	140000 B	**266000**
	Selenium	mg/kg	1	1.5 U	-	1.5 U	-	1.4 U	
	Silver	mg/kg	5	0.5 U	-	0.49 U	-	6.4	**12.16**
SW-846 7471A	Mercury	mg/kg	0.2	0.25 U	-	0.041 U	-	0.035 U	-
SW-846 8082	Aroclor 1016	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1221	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1232	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1242	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1248	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1254	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1260	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1262	ug/kg	--	10000 U	-	10000 U	-	-	-
	Aroclor 1268	ug/kg	--	10000 U	-	10000 U	-	-	-
	Total PCBs	ug/kg	--	10000 U	-	10000 U	-	-	-
SW-846 8260B	1,1,1,2-Tetrachloroethane	ug/kg	--	500 U	-	490 U	-	-	-
	1,1,1-Trichloroethane	ug/kg	--	250 U	-	250 U	-	-	-
	1,1,2,2-Tetrachloroethane	ug/kg	--	250 U	-	250 U	-	-	-
	1,1,2-Trichloroethane	ug/kg	--	250 U	-	250 U	-	-	-
	1,1-Dichloroethane	ug/kg	--	250 U	-	250 U	-	-	-
	1,1-Dichloroethene	ug/kg	0.7	250 U	-	250 U	-	-	-
	1,2-Dichloroethane	ug/kg	--	250 U	-	250 U	-	-	-
	1,2-Dichloropropane	ug/kg	--	250 U	-	250 U	-	-	-
	2-Butanone	ug/kg	--	500 U	-	490 U	-	-	-
	2-Hexanone	ug/kg	--	250 U	-	250 U	-	-	-
	4-Methyl-2-pentanone	ug/kg	--	250 U	-	250 U	-	-	-
	Acetone	ug/kg	--	2500 U	-	2500 U	-	-	-
	Acrolein	ug/kg	--	5000 U	-	4900 U	-	-	-
	Acrylonitrile	ug/kg	--	5000 U	-	4900 U	-	-	-
	Benzene	ug/kg	0.5	16000	**13.76**	15000	**12.9**	-	-
	Bromodichloromethane	ug/kg	--	250 U	-	250 U	-	-	-
	Bromoform	ug/kg	--	250 U	-	250 U	-	-	-
	Bromomethane	ug/kg	--	500 U	-	490 U	-	-	-
	Carbon disulfide	ug/kg	--	500 U	-	490 U	-	-	-
	Carbon tetrachloride	ug/kg	0.5	250 U	-	250 U	-	-	-

Table 4-1
Waste Solid (Non-Aqueous) Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Location ID		FCHS-WL01		FCHS-WL01		FCHS-WL03	
		Field Sample ID		FCHS-WL01-061412		FCHS-WL01D-061412		FCHS-WL03-061412	
		Sampling Date		6/14/2012		6/14/2012		6/14/2012	
		Sample Units	Action Level	Sample Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L
SW-846 8260B	Chlorobenzene	ug/kg	100	250 U	-	250 U	-	-	-
	Chloroethane	ug/kg	--	500 U	-	490 U	-	-	-
	Chloroform	ug/kg	6	250 U	-	250 U	-	-	-
	Chloromethane	ug/kg	--	500 U	-	490 U	-	-	-
	cis-1,2-Dichloroethene	ug/kg	--	250 U	-	250 U	-	-	-
	cis-1,3-Dichloropropene	ug/kg	--	250 U	-	250 U	-	-	-
	Dibromochloromethane	ug/kg	--	250 U	-	250 U	-	-	-
	Ethylbenzene	ug/kg	--	120000	103.2	110000	94.6	-	-
	m,p-Xylene	ug/kg	--	530000	455.8	520000	447.2	-	-
	Methylene chloride	ug/kg	--	500 U		490 U		-	-
	Methyl-tert-butyl ether	ug/kg	--	380	0.3268	400	0.344	-	-
	o-Xylene	ug/kg	--	250000	215	260000	223.6	-	-
	Styrene	ug/kg	--	250 U	-	250 U	-	-	-
	Tetrachloroethene	ug/kg	0.7	250 U	-	250 U	-	-	-
	Toluene	ug/kg	--	190000	163.4	180000	154.8	-	-
	Total 1,2-dichloroethene	ug/kg	--	500 U	-	490 U	-	-	-
	Total xylenes	ug/kg	--	780000	670.8	780000	670.8	-	-
	trans-1,2-Dichloroethene	ug/kg	--	250 U	-	250 U	-	-	-
	trans-1,3-Dichloropropene	ug/kg	--	250 U	-	250 U	-	-	-
	Trichloroethene	ug/kg	0.5	250 U	-	250 U	-	-	-
	Trichlorofluoromethane	ug/kg	--	500 U	-	490 U	-	-	-
	Vinyl acetate	ug/kg	--	500 U	-	490 U	-	-	-
	Vinyl chloride	ug/kg	0.2	500 U	-	490 U	-	-	-
SW-846 8270C	1,2,4-Trichlorobenzene	mg/Kg	--	1000 U	-	100 U	-	-	-
	1,2-Dichlorobenzene	mg/Kg	--	1000 U	-	100 U	-	-	-
	1,2-Diphenyl-hydrazine	mg/Kg	--	1000 U	-	100 U	-	-	-
	1,3-Dichlorobenzene	mg/Kg	--	1000 U	-	100 U	-	-	-
	1,4-Dichlorobenzene	mg/Kg	7.5	1000 U	-	100 U	-	-	-
	2,2´-oxybis(1-chloropropane)	mg/Kg	--	1000 U	-	100 U	-	-	-
	2,4,5-Trichlorophenol	mg/Kg	400	1000 U	-	100 U	-	-	-
	2,4,6-Trichlorophenol	mg/Kg	2	1000 U	-	100 U	-	-	-
	2,4-Dichlorophenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	2,4-Dimethylphenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	2,4-Dinitrophenol	mg/Kg	0.13	5000 U	-	500 U	-	-	-
	2,4-Dinitrotoluene	mg/Kg	--	1000 U	-	100 U	-	-	-
	2,6-Dichlorophenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	2,6-Dinitrotoluene	mg/Kg	--	1000 U	-	100 U	-	-	-
	2-Chloronaphthalene	mg/Kg	--	1000 U	-	100 U	-	-	-
	2-Chlorophenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	2-Methylnaphthalene	mg/Kg	--	4100	3526	4100	3526	-	-
	2-Methylphenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	2-Nitroaniline	mg/Kg	--	5000 U	-	500 U	-	-	-

Table 4-1
Waste Solid (Non-Aqueous) Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Location ID		FCHS-WL01		FCHS-WL01		FCHS-WL03	
		Field Sample ID		FCHS-WL01-061412		FCHS-WL01D-061412		FCHS-WL03-061412	
		Sampling Date		6/14/2012		6/14/2012		6/14/2012	
		Sample Units	Action Level	Sample Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L
SW-846 8270C	2-Nitrophenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	3,3´-Dichlorobenzidine	mg/Kg	--	5000 U	-	500 U	-	-	-
	3/4-Methylphenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	3-Nitroaniline	mg/Kg	--	5000 U	-	500 U	-	-	-
	4,6-Dinitro-2-methylphenol	mg/Kg	--	5000 U	-	500 U	-	-	-
	4-Bromophenyl phenyl ether	mg/Kg	--	1000 U	-	100 U	-	-	-
	4-Chloro-3-methylphenol	mg/Kg	--	2000 U	-	200 U	-	-	-
	4-Chloroaniline	mg/Kg	--	1000 U	-	100 U	-	-	-
	4-Chlorophenyl phenyl ether	mg/Kg	--	1000 U	-	100 U	-	-	-
	4-Nitroaniline	mg/Kg	--	5000 U	-	500 U	-	-	-
	4-Nitrophenol	mg/Kg	--	5000 U	-	500 U	-	-	-
	Acenaphthene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Acenaphthylene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Acetophenone	mg/Kg	--	1000 U	-	100 U	-	-	-
	Aniline	mg/Kg	--	1000 U	-	100 U	-	-	-
	Anthracene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Benzidine	mg/Kg	--	5000 U	-	500 U	-	-	-
	Benzo[a]anthracene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Benzo[a]pyrene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Benzo[b]fluoranthene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Benzo[g,h,i]perylene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Benzo[k]fluoranthene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Benzyl alcohol	mg/Kg	--	2000 U	-	200 U	-	-	-
	Bis(2-chloroethoxy)methane	mg/Kg	--	1000 U	-	100 U	-	-	-
	Bis(2-chloroethyl)ether	mg/Kg	--	1000 U	-	100 U	-	-	-
	Bis(2-ethylhexyl)phthalate	mg/Kg	--	1000 U	-	100 U	-	-	-
	Butyl benzyl phthalate	mg/Kg	--	1000 U	-	100 U	-	-	-
	Carbazole	mg/Kg	--	1000 U	-	100 U	-	-	-
	Chrysene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Dibenz[a,h]anthracene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Dibenzofuran	mg/Kg	--	1000 U	-	160	137.6	-	-
	Diethyl phthalate	mg/Kg	--	1000 U	-	100 U	-	-	-
	Dimethyl phthalate	mg/Kg	--	1000 U	-	100 U	-	-	-
	Di-n-butyl phthalate	mg/Kg	--	1000 U	-	100 U	-	-	-
	Di-n-octyl phthalate	mg/Kg	--	1000 U	-	100 U	-	-	-
	Fluoranthene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Fluorene	mg/Kg	--	1000 U	-	340	292.4	-	-
	Hexachlorobenzene	mg/Kg	0.13	1000 U	-	100 U	-	-	-
	Hexachlorobutadiene	mg/Kg	0.5	1000 U	-	100 U	-	-	-
	Hexachlorocyclopentadiene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Hexachloroethane	mg/Kg	3	1000 U	-	100 U	-	-	-
	Indeno[1,2,3cd]pyrene	mg/Kg	--	1000 U	-	100 U	-	-	-

Table 4-1
Waste Solid (Non-Aqueous) Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Location ID		FCHS-WL01		FCHS-WL01		FCHS-WL03	
		Field Sample ID		FCHS-WL01-061412		FCHS-WL01D-061412		FCHS-WL03-061412	
		Sampling Date		6/14/2012		6/14/2012		6/14/2012	
		Sample Units	Action Level	Sample Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L	Result	Density Corrected Result mg/L
SW-846 8270C	Isophorone	mg/Kg	--	1000 U	-	100 U	-	-	-
	Naphthalene	mg/Kg	--	1300	1118	1300	1118	-	-
	Nitrobenzene	mg/Kg	2	1000 U	-	100 U	-	-	-
	N-Nitrosodimethylamine	mg/Kg	--	1000 U	-	100 U	-	-	-
	N-Nitrosodi-n-propylamine	mg/Kg	--	1000 U	-	100 U	-	-	-
	N-Nitrosodiphenylamine	mg/Kg	--	1000 U	-	100 U	-	-	-
	Pentachlorophenol	mg/Kg	100	5000 U	-	500 U	-	-	-
	Phenanthrene	mg/Kg	--	1000 U	-	710	610.6	-	-
	Phenol	mg/Kg	--	1000 U	-	100 U	-	-	-
	Pyrene	mg/Kg	--	1000 U	-	100 U	-	-	-
	Pyridine	mg/Kg	5	1000 U	-	100 U	-	-	-
	Total Cresol	mg/Kg	200	1000 U	-	100 U	-	-	-
SW-846 9045C	pH	SU	<=2 or >=12.5	4.95	-	4.95	-	9.27	-

Notes:

Results highlighted in yellow exceed the screening criteria at 40 CFR, Part 261.

For the purposes of this report, the liquid waste TCL VOC, SVOC, and TAL metals results were compared to the hazardous waste criteria for toxicity outlined in Title 40 of the Code of Federal Regulations (40 CFR), Part 261, Subpart C.

"-" = Analysis not requested, limit not defined, or conversion to mg/L not conducted

40 CFR = Title 40 of the *Code of Federal Regulations*

°F = Degree Fahrenheit

ug/kg = Microgram per kilogram

B = Detected in associated method blank at a concentration above routine reporting limit

g/mL = Gram per milliliter

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

SU = Standard unit

U = Not detected

Table 4-2
Waste Liquid Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Location ID		FCHS-WL01	FCHS-WL01	FCHS-WL02
		Field Sample ID		FCHS-WL01-061412-AQ	FCHS-WL01D-061412-AQ	FCHS-WL02-061412
		Sampling Date		6/14/2012	6/14/2012	6/14/2012
		Unit	Action Level	Result		
SM 4500-H+ B-20	pH	SU	<=2 or >=12.5	-		9.17 H
SW-846 9045C	pH	SU	<=2 or >=12.5	-	5.81	-
SW-846 1010	Ignitability	°F	< 140	-	>170	**71**
SW-846 6010B	Arsenic	mg/L	5	0.063	-	0.41
	Barium	mg/L	100	0.32	-	22
	Cadmium	mg/L	1	0.0051	-	0.61
	Chromium	mg/L	5	0.043	-	0.39
	Lead	mg/L	5	0.52	-	**24000**
	Selenium	mg/L	1	0.03 U	-	0.3 U
	Silver	mg/L	5	0.014	-	0.96
SW-846 7470A	Mercury	mg/L	0.2	0.00026	-	0.0031
SW-846 8082	Aroclor 1016	ug/L	-	-	0.98 U	-
	Aroclor 1221	ug/L	-	-	0.98 U	-
	Aroclor 1232	ug/L	-	-	0.98 U	-
	Aroclor 1242	ug/L	-	-	0.98 U	-
	Aroclor 1248	ug/L	-	-	0.98 U	-
	Aroclor 1254	ug/L	-	-	0.98 U	-
	Aroclor 1260	ug/L	-	-	0.98 U	-
	Aroclor 1262	ug/L	-	-	0.98 U	-
	Aroclor 1268	ug/L	-	-	0.98 U	-
	Total PCBs	ug/L	-	-	0.98 U	-
SW-846 8270C	1,2,4-Trichlorobenzene	ug/L	--	270 U	-	-
	1,2-Dichlorobenzene	ug/L	--	270 U	-	-
	1,2-Diphenyl-hydrazine	ug/L	--	270 U	-	-
	1,3-Dichlorobenzene	ug/L	--	270 U	-	-
	1,4-Dichlorobenzene	ug/L	7.5	270 U	-	-
	2,2´-oxybis(1-chloropropane)	ug/L	--	270 U	-	-
	2,4,5-Trichlorophenol	ug/L	400	270 U	-	-
	2,4,6-Trichlorophenol	ug/L	2	270 U	-	-
	2,4-Dichlorophenol	ug/L	--	270 U	-	-
	2,4-Dimethylphenol	ug/L	--	270 U	-	-
	2,4-Dinitrophenol	ug/L	0.13	1400 U	-	-
	2,4-Dinitrotoluene	ug/L	--	270 U	-	-
	2,6-Dichlorophenol	ug/L	--	270 U	-	-
	2,6-Dinitrotoluene	ug/L	--	270 U	-	-
	2-Chloronaphthalene	ug/L	--	270 U	-	-
	2-Chlorophenol	ug/L	--	270 U	-	-
	2-Methylnaphthalene	ug/L	--	2100	-	-
	2-Methylphenol	ug/L	--	270 U	-	-
	2-Nitroaniline	ug/L	--	1400 U	-	-
	2-Nitrophenol	ug/L	--	270 U	-	-
	3,3´-Dichlorobenzidine	ug/L	--	1400 U	-	-
	3/4-Methylphenol	ug/L	--	270 U	-	-
	3-Nitroaniline	ug/L	--	1400 U	-	-

Table 4-2
Waste Liquid Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

		Location ID		FCHS-WL01	FCHS-WL01	FCHS-WL02
		Field Sample ID		FCHS-WL01-061412-AQ	FCHS-WL01D-061412-AQ	FCHS-WL02-061412
		Sampling Date		6/14/2012	6/14/2012	6/14/2012
Analytical Method	Chemical Name	Unit	Action Level	Result		
SW-846 8270C	4,6-Dinitro-2-methylphenol	ug/L	--	1400 U	-	-
	4-Bromophenyl phenyl ether	ug/L	--	270 U	-	-
	4-Chloro-3-methylphenol	ug/L	--	540 U	-	-
	4-Chloroaniline	ug/L	--	270 U	-	-
	4-Chlorophenyl phenyl ether	ug/L	--	270 U	-	-
	4-Nitroaniline	ug/L	--	1400 U	-	-
	4-Nitrophenol	ug/L	--	1400 U	-	-
	Acenaphthene	ug/L	--	270 U	-	-
	Acenaphthylene	ug/L	--	270 U	-	-
	Acetophenone	ug/L	--	270 U	-	-
	Aniline	ug/L	--	270 U	-	-
	Anthracene	ug/L	--	270 U	-	-
	Benzidine	ug/L	--	1400 U	-	-
	Benzo[a]anthracene	ug/L	--	270 U	-	-
	Benzo[a]pyrene	ug/L	--	270 U	-	-
	Benzo[b]fluoranthene	ug/L	--	270 U	-	-
	Benzo[g,h,i]perylene	ug/L	--	270 U	-	-
	Benzo[k]fluoranthene	ug/L	--	270 U	-	-
	Benzyl alcohol	ug/L	--	540 U	-	-
	Bis(2-chloroethoxy)methane	ug/L	--	270 U	-	-
	Bis(2-chloroethyl)ether	ug/L	--	270 U	-	-
	Bis(2-ethylhexyl)phthalate	ug/L	--	270 U	-	-
	Butyl benzyl phthalate	ug/L	--	270 U	-	-
	Carbazole	ug/L	--	270 U	-	-
	Chrysene	ug/L	--	270 U	-	-
	Dibenz[a,h]anthracene	ug/L	--	270 U	-	-
	Dibenzofuran	ug/L	--	270 U	-	-
	Diethyl phthalate	ug/L	--	270 U	-	-
	Dimethyl phthalate	ug/L	--	270 U	-	-
	Di-n-butyl phthalate	ug/L	--	270 U	-	-
	Di-n-octyl phthalate	ug/L	--	270 U	-	-
	Fluoranthene	ug/L	--	270 U	-	-
	Fluorene	ug/L	--	270 U	-	-
	Hexachlorobenzene	ug/L	0.13	270 U	-	-
	Hexachlorobutadiene	ug/L	0.5	270 U	-	-
	Hexachlorocyclopentadiene	ug/L	--	270 U	-	-
	Hexachloroethane	ug/L	3	270 U	-	-
	Indeno[1,2,3cd]pyrene	ug/L	--	270 U	-	-
	Isophorone	ug/L	--	270 U	-	-

Table 4-2
Waste Liquid Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Location ID		FCHS-WL01	FCHS-WL01	FCHS-WL02
		Field Sample ID		FCHS-WL01-061412-AQ	FCHS-WL01D-061412-AQ	FCHS-WL02-061412
		Sampling Date		6/14/2012	6/14/2012	6/14/2012
		Unit	Action Level	Result		
SW-846 8270C	Naphthalene	ug/L	--	710	-	-
	Nitrobenzene	ug/L	2	270 U	-	-
	N-Nitrosodimethylamine	ug/L	--	270 U	-	-
	N-Nitrosodi-n-propylamine	ug/L	--	270 U	-	-
	N-Nitrosodiphenylamine	ug/L	--	270 U	-	-
	Pentachlorophenol	ug/L	100	1400 U	-	-
	Phenanthrene	ug/L	--	270 U	-	-
	Phenol	ug/L	--	270 U	-	-
	Pyrene	ug/L	--	270 U	-	-
	Pyridine	ug/L	5	270 U	-	-
	Total Cresol	ug/L	200	270 U	-	-

Notes:

Results highlighted in yellow exceed the screening criteria at 40 CFR, Part 261.

For the purposes of this report, the liquid waste TCL VOC, SVOC, and TAL metals results were compared to the hazardous waste criteria for toxicity outlined in Title 40 of the Code of Federal Regulations (40 CFR), Part 261, Subpart C.

"-" = Analysis not requested or limit not defined

40 CFR = Title 40 of the *Code of Federal Regulations*

°F = Degree Fahrenheit

ug/L = Microgram per liter

H = Sample was prepared or analyzed outside of analytical method holding time

ID = Identification

mg/L = Milligram per liter

SU = Standard unit

U = Not detected

Table 4-3
Soil Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Unit	Screening Criteria							FCHS-S01 FCHS-S01-061412 6/14/2012 Result	FCHS-S01 FCHS-S01-061412-TCLP 6/14/2012 Result
			RSL-RES	RSL-IND	TACO-IC-ING	TACO-IC-INH	TACO-MGW	TACO-R-ING	TACO-R-INH		
1311/6010B	Lead, TCLP	mg/L	-	-	-		0.0075			-	**4 B [d]**
SW-846 6010B	Arsenic	mg/kg	0.39	1.6	-	1200	-	13	750	**3.7 [ab]**	-
	Barium	mg/kg	15000	190000	140000	910000	-	5500	690000	360	-
	Cadmium	mg/kg	70	800	2000	2800	-	78	1800	3.1	-
	Chromium	mg/kg	-	-	6100	420	-	230	270	12	-
	Lead	mg/kg	400	800	800	-	-	400	-	**2500 [abce]**	-
	Selenium	mg/kg	390	5100	10000	-	-	390	-	1.3 U	-
	Silver	mg/kg	390	5100	10000	-	-	390	-	0.44 U	-
SW-846 7471A	Mercury	mg/kg	10	43	610	16	-	23	10	0.058	-

Notes:

"-" = Analysis not requested or criterion not available

B = Detected in associated method blank at a concentration above the routine reporting limit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

RSL-RES Regional Screening Levels - Residential

RSL-IND Regional Screening Levels - Industrial

TACO-IC-ING Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Ingestion Pathway

TACO-IC-INH Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Inhalation Pathway

TACO-MGW Tiered Approach to Corrective Action Objectives -Migration to Groundwater Pathway

TACO-R-ING Tiered Approach to Corrective Action Objectives - Residential - Ingestion Pathway

TACO-R-INH Tiered Approach to Corrective Action Objectives - Residential - Inhalation Pathway

[a] Exceeds RSL-IND screening criterion

[b] Exceeds RSL-RES screening criterion

[c] Exceeds TACO-IC-ING screening criterion

[d] Exceeds TACO-IC-MGW screening criterion

[e] Exceeds TACO-R-ING screening criterion

Table 4-3
Soil Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Unit	Screening Criteria							FCHS-S02 FCHS-S02-061412 6/14/2012	FCHS-S02 FCHS-S02-061412-TCLP 6/14/2012
			RSL-RES	RSL-IND	TACO-IC-ING	TACO-IC-INH	TACO-MGW	TACO-R-ING	TACO-R-INH	Result	Result
1311/6010B	Lead, TCLP	mg/L	-	-	-		0.0075			-	**4.95 B [d]**
SW-846 6010B	Arsenic	mg/kg	0.39	1.6	-	1200	-	13	750	**9 [ab]**	-
	Barium	mg/kg	15000	190000	140000	910000	-	5500	690000	150	-
	Cadmium	mg/kg	70	800	2000	2800	-	78	1800	0.41	-
	Chromium	mg/kg	-	-	6100	420	-	230	270	8.1	-
	Lead	mg/kg	400	800	800	-	-	400	-	**1100 [abce]**	-
	Selenium	mg/kg	390	5100	10000	-	-	390	-	1.3 U	-
	Silver	mg/kg	390	5100	10000	-	-	390	-	0.44 U	-
SW-846 7471A	Mercury	mg/kg	10	43	610	16	-	23	10	0.16	-

Notes:

"-" = Analysis not requested or criterion not available

B = Detected in associated method blank at a concentration above the routine reporting limit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

RSL-RES Regional Screening Levels - Residential

RSL-IND Regional Screening Levels - Industrial

TACO-IC-ING Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Ingestion Pathway

TACO-IC-INH Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Inhalation Pathway

TACO-MGW Tiered Approach to Corrective Action Objectives -Migration to Groundwater Pathway

TACO-R-ING Tiered Approach to Corrective Action Objectives - Residential - Ingestion Pathway

TACO-R-INH Tiered Approach to Corrective Action Objectives - Residential - Inhalation Pathway

[a] Exceeds RSL-IND screening criterion

[b] Exceeds RSL-RES screening criterion

[c] Exceeds TACO-IC-ING screening criterion

[d] Exceeds TACO-IC-MGW screening criterion

[e] Exceeds TACO-R-ING screening criterion

Table 4-3
Soil Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Unit	Screening Criteria							FCHS-S03 FCHS-S03-061412 6/14/2012	FCHS-S03 FCHS-S03-061412-TCLP 6/14/2012
			RSL-RES	RSL-IND	TACO-IC-ING	TACO-IC-INH	TACO-MGW	TACO-R-ING	TACO-R-INH	Result	Result
1311/6010B	Lead, TCLP	mg/L	-	-	-		0.0075			-	**0.644 B [d]**
SW-846 6010B	Arsenic	mg/kg	0.39	1.6	-	1200	-	13	750	**6.4 [ab]**	-
	Barium	mg/kg	15000	190000	140000	910000	-	5500	690000	580	-
	Cadmium	mg/kg	70	800	2000	2800	-	78	1800	15	-
	Chromium	mg/kg	-	-	6100	420	-	230	270	79	-
	Lead	mg/kg	400	800	800	-	-	400	-	**830 [abce]**	-
	Selenium	mg/kg	390	5100	10000	-	-	390	-	1.4 U	-
	Silver	mg/kg	390	5100	10000	-	-	390	-	0.8	-
SW-846 7471A	Mercury	mg/kg	10	43	610	16	-	23	10	0.17	-

Notes:

"-" = Analysis not requested or criterion not available

B = Detected in associated method blank at a concentration above the routine reporting limit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

RSL-RES Regional Screening Levels - Residential

RSL-IND Regional Screening Levels - Industrial

TACO-IC-ING Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Ingestion Pathway

TACO-IC-INH Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Inhalation Pathway

TACO-MGW Tiered Approach to Corrective Action Objectives -Migration to Groundwater Pathway

TACO-R-ING Tiered Approach to Corrective Action Objectives - Residential - Ingestion Pathway

TACO-R-INH Tiered Approach to Corrective Action Objectives - Residential - Inhalation Pathway

[a] Exceeds RSL-IND screening criterion

[b] Exceeds RSL-RES screening criterion

[c] Exceeds TACO-IC-ING screening criterion

[d] Exceeds TACO-IC-MGW screening criterion

[e] Exceeds TACO-R-ING screening criterion

Table 4-3
Soil Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Unit	Screening Criteria							FCHS-S04 FCHS-S04-061412 6/14/2012	FCHS-S04 FCHS-S04-061412-TCLP 6/14/2012
			RSL-RES	RSL-IND	TACO-IC-ING	TACO-IC-INH	TACO-MGW	TACO-R-ING	TACO-R-INH	Result	Result
1311/6010B	Lead, TCLP	mg/L	-	-	-		0.0075			-	**0.179 B [ab]**
SW-846 6010B	Arsenic	mg/kg	0.39	1.6	-	1200	-	13	750	**6.8 [ab]**	-
	Barium	mg/kg	15000	190000	140000	910000	-	5500	690000	130	-
	Cadmium	mg/kg	70	800	2000	2800	-	78	1800	1.2	-
	Chromium	mg/kg	-	-	6100	420	-	230	270	10	-
	Lead	mg/kg	400	800	800	-	-	400	-	370	-
	Selenium	mg/kg	390	5100	10000	-	-	390	-	1.4 U	-
	Silver	mg/kg	390	5100	10000	-	-	390	-	0.48 U	-
SW-846 7471A	Mercury	mg/kg	10	43	610	16	-	23	10	0.4	-

Notes:

"-" = Analysis not requested or criterion not available

B = Detected in associated method blank at a concentration above the routine reporting limit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

RSL-RES Regional Screening Levels - Residential

RSL-IND Regional Screening Levels - Industrial

TACO-IC-ING Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Ingestion Pathway

TACO-IC-INH Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Inhalation Pathway

TACO-MGW Tiered Approach to Corrective Action Objectives -Migration to Groundwater Pathway

TACO-R-ING Tiered Approach to Corrective Action Objectives - Residential - Ingestion Pathway

TACO-R-INH Tiered Approach to Corrective Action Objectives - Residential - Inhalation Pathway

[a] Exceeds RSL-IND screening criterion

[b] Exceeds RSL-RES screening criterion

[c] Exceeds TACO-IC-ING screening criterion

[d] Exceeds TACO-IC-MGW screening criterion

[e] Exceeds TACO-R-ING screening criterion

Table 4-3
Soil Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Unit	Screening Criteria							FCHS-S05 FCHS-S05-061412 6/14/2012 Result	FCHS-S05 FCHS-S05-061412-TCLP 6/14/2012 Result
			RSL-RES	RSL-IND	TACO-IC-ING	TACO-IC-INH	TACO-MGW	TACO-R-ING	TACO-R-INH		
1311/6010B	Lead, TCLP	mg/L	-	-	-		0.0075			-	0.1 UB
SW-846 6010B	Arsenic	mg/kg	0.39	1.6	-	1200	-	13	750	**7.1** [ab]	-
	Barium	mg/kg	15000	190000	140000	910000	-	5500	690000	100	-
	Cadmium	mg/kg	70	800	2000	2800	-	78	1800	0.78	-
	Chromium	mg/kg	-	-	6100	420	-	230	270	15	-
	Lead	mg/kg	400	800	800	-	-	400	-	60	-
	Selenium	mg/kg	390	5100	10000	-	-	390	-	1.5 U	-
	Silver	mg/kg	390	5100	10000	-	-	390	-	0.49 U	-
SW-846 7471A	Mercury	mg/kg	10	43	610	16	-	23	10	0.11	-

Notes:

"-" = Analysis not requested or criterion not available

B = Detected in associated method blank at a concentration above the routine reporting limit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

RSL-RES Regional Screening Levels - Residential

RSL-IND Regional Screening Levels - Industrial

TACO-IC-ING Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Ingestion Pathway

TACO-IC-INH Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Inhalation Pathway

TACO-MGW Tiered Approach to Corrective Action Objectives -Migration to Groundwater Pathway

TACO-R-ING Tiered Approach to Corrective Action Objectives - Residential - Ingestion Pathway

TACO-R-INH Tiered Approach to Corrective Action Objectives - Residential - Inhalation Pathway

[a] Exceeds RSL-IND screening criterion

[b] Exceeds RSL-RES screening criterion

[c] Exceeds TACO-IC-ING screening criterion

[d] Exceeds TACO-IC-MGW screening criterion

[e] Exceeds TACO-R-ING screening criterion

Table 4-3
Soil Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Unit	Screening Criteria							FCHS-S05 FCHS-S05D-061412 6/14/2012 Result	FCHS-S05 FCHS-S05D-061412-TCLP 6/14/2012 Result
			RSL-RES	RSL-IND	TACO-IC-ING	TACO-IC-INH	TACO-MGW	TACO-R-ING	TACO-R-INH		
1311/6010B	Lead, TCLP	mg/L	-	-	-		0.0075			-	0.1 UB
SW-846 6010B	Arsenic	mg/kg	0.39	1.6	-	1200	-	13	750	7 [ab]	-
	Barium	mg/kg	15000	190000	140000	910000	-	5500	690000	140	-
	Cadmium	mg/kg	70	800	2000	2800	-	78	1800	0.54	-
	Chromium	mg/kg	-	-	6100	420	-	230	270	13	-
	Lead	mg/kg	400	800	800	-	-	400	-	63	-
	Selenium	mg/kg	390	5100	10000	-	-	390	-	1.5 U	-
	Silver	mg/kg	390	5100	10000	-	-	390	-	0.5 U	-
SW-846 7471A	Mercury	mg/kg	10	43	610	16	-	23	10	0.074	-

Notes:

"-" = Analysis not requested or criterion not available

B = Detected in associated method blank at a concentration above the routine reporting limit

ID = Identification

mg/kg = Milligram per kilogram

mg/L = Milligram per liter

RSL-RES Regional Screening Levels - Residential

RSL-IND Regional Screening Levels - Industrial

TACO-IC-ING Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Ingestion Pathway

TACO-IC-INH Tiered Approach to Corrective Action Objectives - Industrial/Commerical - Inhalation Pathway

TACO-MGW Tiered Approach to Corrective Action Objectives -Migration to Groundwater Pathway

TACO-R-ING Tiered Approach to Corrective Action Objectives - Residential - Ingestion Pathway

TACO-R-INH Tiered Approach to Corrective Action Objectives - Residential - Inhalation Pathway

[a] Exceeds RSL-IND screening criterion

[b] Exceeds RSL-RES screening criterion

[c] Exceeds TACO-IC-ING screening criterion

[d] Exceeds TACO-IC-MGW screening criterion

[e] Exceeds TACO-R-ING screening criterion

Table 4-4
Asbestos Analytical Results Summary Table
Forest City High School Site
Forest City, Mason County, Illinois

Analytical Method	Chemical Name	Field Sample ID	Result	Unit
EPA-600	Asbestos	FCHS-A01-061412	ND	%
		FCHS-A02-061412	ND	%
		FCHS-A03-061412	ND	%
		FCHS-A04-061412	Chrysotile 1-5	%
		FCHS-A04D-061412	ND	%
		FCHS-A05-061412	ND	%
		FCHS-A06-061412	ND	%
		FCHS-B01-061412	Chrysotile 10-15	%

Notes:
ID = Identification
ND = Not detected

APPENDIX A
PHOTOGRAPHIC DOCUMENTATION

Site: Forest City High School Site
Photograph No.: 1 **Date**: 6/14/12
Direction: Northeast **Photographer**: Jeff Bryniarski
Subject: School Building #2 with broken front windows

Site: Forest City High School Site
Photograph No.: 2 **Date**: 6/14/12
Direction: North **Photographer**: Jeff Bryniarski
Subject: Quonset-Shaped Building next to School Building #1

Site: Forest City High School Site
Photograph No.: 3 **Date**: 6/14/12
Direction: South **Photographer**: Jeff Bryniarski
Subject: School Building #2 hallway with debris and broken ceiling

Site: Forest City High School Site
Photograph No.: 4 **Date**: 6/14/12
Direction: Northeast **Photographer**: Jeff Bryniarski
Subject: School Building #2 classroom with debris and small containers

Site: Forest City High School Site
Photograph No.: 5 **Date**: 6/14/12
Direction: South **Photographer**: Brennan Pierce
Subject: Sampling of 4,000-gallon UST using disposable polyethylene bailer

Site: Forest City High School Site
Photograph No.: 6 **Date**: 6/14/12
Direction: North **Photographer**: Brennan Pierce
Subject: OSC Mendoza collecting background soil sample from off-site village park

Site: Forest City High School Site
Photograph No.: 7 **Date**: 6/14/12
Direction: South **Photographer**: Jeff Bryniarski
Subject: School Building #1 collapsed roof and broken window

Site: Forest City High School Site
Photograph No.: 8 **Date**: 6/14/12
Direction: Overhead **Photographer**: Jeff Bryniarski
Subject: Tile removed from floor and staged inside School Building #1

APPENDIX B
LABORATORY ANALYTICAL REPORTS

Revised
7/11/2012

July 11, 2012

Weston Solutions, Inc.
750 East Bunker Court, Suite 500
Vernon Hills, IL 60061-1450

Work Order No.: 12F0768

Re: Forest City SA

Dear Tonya Balla:

Microbac Laboratories, Inc. - Chicagoland Division received 18 sample(s) on 6/15/2012 3:28:00PM for the analyses presented in the following report as Work Order 12F0768.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Jeff Loewe, Division Manager at jeff.loewe@microbac.com. You may also contact Sean Hyde, Chief Operating Officer at sean.hyde@microbac.com or James Nokes, President at james.nokes@microbac.com.

Sincerely,

Kevin Falvey
Account Manager

Revised
7/11/2012

WORK ORDER SAMPLE SUMMARY

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Project: Forest City SA
Lab Order: 12F0768

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
12F0768-01	FCHS-WLO1-061412		06/14/2012 13:10	6/15/2012 3:28:00PM
12F0768-02	FCHS-WLO1-061412-AQ		06/14/2012 13:10	6/15/2012 3:28:00PM
12F0768-03	FCHS-WLO1D-061412		06/14/2012 13:10	6/15/2012 3:28:00PM
12F0768-04	FCHS-WLO1D-061412-AQ		06/14/2012 13:10	6/15/2012 3:28:00PM
12F0768-05	FCHS-WL02-061412		06/14/2012 15:05	6/15/2012 3:28:00PM
12F0768-06	FCHS-WL03-061412		06/14/2012 15:15	6/15/2012 3:28:00PM
12F0768-07	FCHS-S01-061412		06/14/2012 14:50	6/15/2012 3:28:00PM
12F0768-08	FCHS-S01-061412-TCLP		06/14/2012 14:50	6/15/2012 3:28:00PM
12F0768-09	FCHS-S02-061412		06/14/2012 14:55	6/15/2012 3:28:00PM
12F0768-10	FCHS-S02-061412-TCLP		06/14/2012 14:55	6/15/2012 3:28:00PM
12F0768-11	FCHS-S03-061412		06/14/2012 15:27	6/15/2012 3:28:00PM
12F0768-12	FCHS-S03-061412-TCLP		06/14/2012 15:27	6/15/2012 3:28:00PM
12F0768-13	FCHS-S04-061412		06/14/2012 15:37	6/15/2012 3:28:00PM
12F0768-14	FCHS-S04-061412-TCLP		06/14/2012 15:37	6/15/2012 3:28:00PM
12F0768-15	FCHS-S05-061412		06/14/2012 15:45	6/15/2012 3:28:00PM
12F0768-16	FCHS-S05-061412-TCLP		06/14/2012 15:45	6/15/2012 3:28:00PM
12F0768-17	FCHS-S05D-061412		06/14/2012 15:45	6/15/2012 3:28:00PM
12F0768-18	FCHS-S05D-061412-TCLP		06/14/2012 15:45	6/15/2012 3:28:00PM

Revised
7/11/2012

CASE NARRATIVE

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Project: Forest City SA
Lab Order: 12F0768

Report was Revised on 7/11/12 to include Density on sample WL 03.

Samples were received on 6/15/2012. Liquid samples identified as WL01 and WL01D had a distinct phase seperation (Oil and Water). Each sample has now been analyzed in 2 fractions- Oil Phase and Water Phase.

Solid samples SO1 thru SO5 were logged into the Microbac LIMS as 2 fractions to accomodate the requested analysis: Total RCRA Metals and TCLP RCRA Metals.
.

The FCHS-WLO1-061412 and FCHS-WLO1D-061412 samples required dilution due to the dark color and strong odor of the PCB extact. Reporting limits have been adjusted to reflect the dilution level.

The Laboratory Control Spike Duplicate associated with the FCHS-WLO1-061412 and FCHS-WLO1D-061412 samples failed the precision criteria for Bromomethane. The accuracy criteria were met by both the LCS and LCSD.

SI - VOA surrogate failure in the FCHS-WLO1-061412 and FCHS-WLO1D-061412 samples is due to interference from a fuel-like analyte.

B - the Method Blank associated with the FCHS-S01-061412-TCLP sample contained Lead at a level above the reporting limit. This is considered insignificant, as the concentration in the sample was more than ten-times that measured in the blank.

B - the Method Blank associated with the FCHS-WL03-061412 sample contained Lead at a level above the reporting limit. This is considered insignificant, as the concentration in the sample was more than ten-times that measured in the blank.

The Matrix Spike Duplicate performed on the FCHS-WL03-061412 sample failed the precision criteria for Silver. A Post Digestion Spike was performed and the acceptance criteria met, indicating accurate measurement at the instrument. This data is indicative of matrix interference at the preparation level.

FCHS-WLO1-061412, FCHS-WLO1-061412-AQ, FCHS-WLO1D-061412--Benzoic acid was not reported for these samples due to a failure in the initial calibration. Benzoic acid was not found in the library searches.

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-01
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Polychlorinated Biphenyls		Method: **SW-846 8082** Prep Method: **SW846 3580A**				Analyst: **ep** Prep Date/Time: **06/20/2012 08:50**	
Aroclor 1016	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1221	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1232	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1242	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1248	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1254	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1260	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1262	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Aroclor 1268	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Total PCB's	A	***ND***	10000		µg/Kg	10	06/20/2012 16:09
Surr: Decachlorobiphenyl	S	0.00	52.6-143		%REC	10	06/20/2012 16:09
Surr: Tetrachloro-m-xylene	S	100.00	51.3-135		%REC	10	06/20/2012 16:09
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3580A**				Analyst: **CR** Prep Date/Time: **06/28/2012 09:22**	
1,2,4-Trichlorobenzene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
1,2-Dichlorobenzene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
1,2-Diphenyl-hydrazine	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
1,3-Dichlorobenzene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
1,4-Dichlorobenzene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,2´-oxybis(1-chloropropane)	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,4,5-Trichlorophenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,4,6-Trichlorophenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,4-Dichlorophenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,4-Dimethylphenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,4-Dinitrophenol	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
2,4-Dinitrotoluene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,6-Dichlorophenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2,6-Dinitrotoluene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2-Chloronaphthalene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2-Chlorophenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2-Methylnaphthalene	A	***4100***	1000		mg/Kg	10	06/28/2012 20:50
2-Methylphenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
2-Nitroaniline	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
2-Nitrophenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
3,3´-Dichlorobenzidine	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
3/4-Methylphenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
3-Nitroaniline	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
4,6-Dinitro-2-methylphenol	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
4-Bromophenyl phenyl ether	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
4-Chloro-3-methylphenol	A	***ND***	2000		mg/Kg	10	06/28/2012 20:50
4-Chloroaniline	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-01
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8270C**					Analyst: **CR**
Semivolatile Organic Compounds		Prep Method: **SW846 3580A**					Prep Date/Time: **06/28/2012 09:22**
4-Chlorophenyl phenyl ether	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
4-Nitroaniline	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
4-Nitrophenol	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
Acenaphthene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Acenaphthylene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Acetophenone	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Aniline	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Anthracene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Benzidine	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50
Benzo[a]anthracene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Benzo[a]pyrene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Benzo[b]fluoranthene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Benzo[g,h,i]perylene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Benzo[k]fluoranthene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Benzyl alcohol	A	***ND***	2000		mg/Kg	10	06/28/2012 20:50
Bis(2-chloroethoxy)methane	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Bis(2-chloroethyl)ether	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Bis(2-ethylhexyl)phthalate	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Butyl benzyl phthalate	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Carbazole	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Chrysene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Dibenz[a,h]anthracene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Dibenzofuran	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Diethyl phthalate	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Dimethyl phthalate	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Di-n-butyl phthalate	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Di-n-octyl phthalate	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Fluoranthene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Fluorene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Hexachlorobenzene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Hexachlorobutadiene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Hexachlorocyclopentadiene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Hexachloroethane	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Indeno[1,2,3cd]pyrene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Isophorone	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Naphthalene	A	***1300***	1000		mg/Kg	10	06/28/2012 20:50
Nitrobenzene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
N-Nitrosodimethylamine	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
N-Nitrosodi-n-propylamine	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
N-Nitrosodiphenylamine	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Pentachlorophenol	A	***ND***	5000		mg/Kg	10	06/28/2012 20:50

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-01
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3580A**				Analyst: **CR** Prep Date/Time: **06/28/2012 09:22**	
Phenanthrene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Phenol	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Pyrene	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Pyridine	A	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Total Cresol	M	***ND***	1000		mg/Kg	10	06/28/2012 20:50
Surr: 2,4,6-Tribromophenol	S	93.10	25-177		%REC	10	06/28/2012 20:50
Surr: 2-Fluorobiphenyl	S	98.70	41-197		%REC	10	06/28/2012 20:50
Surr: 2-Fluorophenol	S	109.00	40-132		%REC	10	06/28/2012 20:50
Surr: Nitrobenzene-d5	S	107.00	40-198		%REC	10	06/28/2012 20:50
Surr: Phenol-d5	S	103.00	46-138		%REC	10	06/28/2012 20:50
Surr: Terphenyl-d14	S	92.80	51-168		%REC	10	06/28/2012 20:50
Volatile Organic Compounds		Method: **SW-846 8260B** Prep Method: **SW-846 5030B**				Analyst: **jln** Prep Date/Time: **06/21/2012 09:02**	
1,1,1,2-Tetrachloroethane	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
1,1,1-Trichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
1,1,2,2-Tetrachloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
1,1,2-Trichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
1,1-Dichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
1,1-Dichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
1,2-Dichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
1,2-Dichloropropane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
2-Butanone	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
2-Hexanone	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
4-Methyl-2-Pentanone	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Acetone	A	***ND***	2500		µg/Kg	50	06/21/2012 21:32
Acrolein	A	***ND***	5000		µg/Kg	50	06/21/2012 21:32
Acrylonitrile	A	***ND***	5000		µg/Kg	50	06/21/2012 21:32
Benzene	A	***16000***	2500		µg/Kg	500	06/22/2012 12:52
Bromodichloromethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Bromoform	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Bromomethane	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Carbon Disulfide	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Carbon tetrachloride	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Chlorobenzene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Chloroethane	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Chloroform	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Chloromethane	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
cis-1,2-Dichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
cis-1,3-Dichloropropene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Dibromochloromethane	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Ethylbenzene	A	***120000***	25000		µg/Kg	5000	06/22/2012 14:25

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Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-01
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Volatile Organic Compounds		Method: **SW-846 8260B** Prep Method: **SW-846 5030B**				Analyst: **jln** Prep Date/Time: **06/22/2012 08:03**	
m,p-Xylene	A	***530000***	25000		µg/Kg	5000	06/22/2012 14:25
Methylene chloride	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Methyl-t-Butyl Ether	A	***380***	250		µg/Kg	50	06/21/2012 21:32
o-Xylene	A	***250000***	25000		µg/Kg	5000	06/22/2012 14:25
Styrene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Tetrachloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Toluene	A	***190000***	25000		µg/Kg	5000	06/22/2012 14:25
trans-1,2-Dichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
trans-1,3-Dichloropropene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Trichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 21:32
Trichlorofluoromethane	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Vinyl Acetate	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Vinyl chloride	A	***ND***	500		µg/Kg	50	06/21/2012 21:32
Total 1,2-Dichloroethene	M	***ND***	500		µg/Kg	50	06/21/2012 21:32
Total Xylenes	M	***780000***	25000		µg/Kg	5000	06/22/2012 14:25
Surr: 1,2-Dichloroethane-d4	S	96.20	74.5-132		%REC	1	06/21/2012 21:32
Surr: 4-Bromofluorobenzene	S	189.00	80-120	IS	%REC	1	06/21/2012 21:32
Surr: Dibromofluoromethane	S	89.80	80-120		%REC	1	06/21/2012 21:32
Surr: Toluene-d8	S	90.30	80-120		%REC	1	06/21/2012 21:32
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***ND***	0.50		mg/Kg	1	06/21/2012 10:07
Barium	A	***ND***	0.20		mg/Kg	1	06/21/2012 10:07
Cadmium	A	***ND***	0.20		mg/Kg	1	06/21/2012 10:07
Chromium	A	***ND***	0.20		mg/Kg	1	06/21/2012 10:07
Lead	A	***ND***	0.37		mg/Kg	1	06/21/2012 10:07
Selenium	A	***ND***	1.5		mg/Kg	1	06/21/2012 10:07
Silver	A	***ND***	0.50		mg/Kg	1	06/21/2012 10:07
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/26/2012 12:11**	
Mercury	A	***ND***	0.25		mg/Kg	1	06/26/2012 14:44
Density		Method: **ASTM D5057 MOD**				Analyst: **goehl** Prep Date/Time: **06/21/2012 15:04**	
Bulk Density	A	***0.86***	0.00000010		g/ml	1	06/21/2012 15:06
Ignitability (Closed Cup)		Method: **SW-846 1010**				Analyst: **TMG** Prep Date/Time: **06/21/2012 14:36**	
Ignitability	A	***> 170***	30		°F	1	06/21/2012 14:36
pH		Method: **SW-846 9045C**				Analyst: **JH** Prep Date/Time: **06/20/2012 14:30**	

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-01
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 9045C**					Analyst: **JH**
pH							Prep Date/Time: **06/20/2012 14:30**
pH	A	***4.95***	2.00		pH Units	1	06/20/2012 15:03

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412-AQ
Sample Description:
Matrix: Aqueous

Work Order/ID: 12F0768-02
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8270C**					Analyst: **CR**
Semivolatile Organic Compounds		Prep Method: **SW846 3510**					Prep Date/Time: **06/21/2012 09:08**
1,2,4-Trichlorobenzene	A	***ND***	270		µg/L	10	06/28/2012 17:31
1,2-Dichlorobenzene	A	***ND***	270		µg/L	10	06/28/2012 17:31
1,2-Diphenyl-hydrazine	A	***ND***	270		µg/L	10	06/28/2012 17:31
1,3-Dichlorobenzene	A	***ND***	270		µg/L	10	06/28/2012 17:31
1,4-Dichlorobenzene	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,2´-oxybis(1-chloropropane)	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,4,5-Trichlorophenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,4,6-Trichlorophenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,4-Dichlorophenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,4-Dimethylphenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,4-Dinitrophenol	A	***ND***	1400		µg/L	10	06/28/2012 17:31
2,4-Dinitrotoluene	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,6-Dichlorophenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2,6-Dinitrotoluene	A	***ND***	270		µg/L	10	06/28/2012 17:31
2-Chloronaphthalene	A	***ND***	270		µg/L	10	06/28/2012 17:31
2-Chlorophenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2-Methylnaphthalene	A	***2100***	270		µg/L	10	06/28/2012 17:31
2-Methylphenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
2-Nitroaniline	A	***ND***	1400		µg/L	10	06/28/2012 17:31
2-Nitrophenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
3,3´-Dichlorobenzidine	A	***ND***	1400		µg/L	10	06/28/2012 17:31
3/4-Methylphenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
3-Nitroaniline	A	***ND***	1400		µg/L	10	06/28/2012 17:31
4,6-Dinitro-2-methylphenol	A	***ND***	1400		µg/L	10	06/28/2012 17:31
4-Bromophenyl phenyl ether	A	***ND***	270		µg/L	10	06/28/2012 17:31
4-Chloro-3-methylphenol	A	***ND***	540		µg/L	10	06/28/2012 17:31
4-Chloroaniline	A	***ND***	270		µg/L	10	06/28/2012 17:31
4-Chlorophenyl phenyl ether	A	***ND***	270		µg/L	10	06/28/2012 17:31
4-Nitroaniline	A	***ND***	1400		µg/L	10	06/28/2012 17:31
4-Nitrophenol	A	***ND***	1400		µg/L	10	06/28/2012 17:31
Acenaphthene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Acenaphthylene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Acetophenone	A	***ND***	270		µg/L	10	06/28/2012 17:31
Aniline	A	***ND***	270		µg/L	10	06/28/2012 17:31
Anthracene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Benzidine	A	***ND***	1400		µg/L	10	06/28/2012 17:31
Benzo[a]anthracene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Benzo[a]pyrene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Benzo[b]fluoranthene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Benzo[g,h,i]perylene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Benzo[k]fluoranthene	A	***ND***	270		µg/L	10	06/28/2012 17:31

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Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412-AQ
Sample Description:
Matrix: Aqueous

Work Order/ID: 12F0768-02
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8270C**					Analyst: **CR**
Semivolatile Organic Compounds		Prep Method: **SW846 3510**					Prep Date/Time: **06/21/2012 09:08**
Benzyl alcohol	A	***ND***	540		µg/L	10	06/28/2012 17:31
Bis(2-chloroethoxy)methane	A	***ND***	270		µg/L	10	06/28/2012 17:31
Bis(2-chloroethyl)ether	A	***ND***	270		µg/L	10	06/28/2012 17:31
Bis(2-ethylhexyl)phthalate	A	***ND***	270		µg/L	10	06/28/2012 17:31
Butyl benzyl phthalate	A	***ND***	270		µg/L	10	06/28/2012 17:31
Carbazole	A	***ND***	270		µg/L	10	06/28/2012 17:31
Chrysene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Dibenz[a,h]anthracene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Dibenzofuran	A	***ND***	270		µg/L	10	06/28/2012 17:31
Diethyl phthalate	A	***ND***	270		µg/L	10	06/28/2012 17:31
Dimethyl phthalate	A	***ND***	270		µg/L	10	06/28/2012 17:31
Di-n-butyl phthalate	A	***ND***	270		µg/L	10	06/28/2012 17:31
Di-n-octyl phthalate	A	***ND***	270		µg/L	10	06/28/2012 17:31
Fluoranthene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Fluorene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Hexachlorobenzene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Hexachlorobutadiene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Hexachlorocyclopentadiene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Hexachloroethane	A	***ND***	270		µg/L	10	06/28/2012 17:31
Indeno[1,2,3cd]pyrene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Isophorone	A	***ND***	270		µg/L	10	06/28/2012 17:31
Naphthalene	A	***710***	270		µg/L	10	06/28/2012 17:31
Nitrobenzene	A	***ND***	270		µg/L	10	06/28/2012 17:31
N-Nitrosodimethylamine	A	***ND***	270		µg/L	10	06/28/2012 17:31
N-Nitrosodi-n-propylamine	A	***ND***	270		µg/L	10	06/28/2012 17:31
N-Nitrosodiphenylamine	A	***ND***	270		µg/L	10	06/28/2012 17:31
Pentachlorophenol	A	***ND***	1400		µg/L	10	06/28/2012 17:31
Phenanthrene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Phenol	A	***ND***	270		µg/L	10	06/28/2012 17:31
Pyrene	A	***ND***	270		µg/L	10	06/28/2012 17:31
Pyridine	A	***ND***	270		µg/L	10	06/28/2012 17:31
Total Cresol	M	***ND***	270		µg/L	10	06/28/2012 17:31
Surr: 2,4,6-Tribromophenol	S	37.50	47.8-138	S	%REC	10	06/28/2012 17:31
Surr: 2-Fluorobiphenyl	S	26.50	10-110		%REC	10	06/28/2012 17:31
Surr: 2-Fluorophenol	S	24.10	10-110		%REC	10	06/28/2012 17:31
Surr: Nitrobenzene-d5	S	23.30	10-110		%REC	10	06/28/2012 17:31
Surr: Phenol-d5	S	25.80	10-60.8		%REC	10	06/28/2012 17:31
Surr: Terphenyl-d14	S	47.60	16.8-110		%REC	10	06/28/2012 17:31
		Method: **SW-846 6010B**					Analyst: **SA**
Total Metals by ICP		Prep Method: **SW846 3005A**					Prep Date/Time: **06/21/2012 09:30**
Arsenic	A	***0.063***	0.010		mg/L	1	06/22/2012 13:01

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1-061412-AQ
Sample Description:
Matrix: Aqueous

Work Order/ID: 12F0768-02
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 6010B**					Analyst: **SA**
Total Metals by ICP		Prep Method: **SW846 3005A**					Prep Date/Time: **06/21/2012 09:30**
Barium	A	***0.32***	0.0020		mg/L	1	06/22/2012 13:01
Cadmium	A	***0.0051***	0.0020		mg/L	1	06/22/2012 13:01
Chromium	A	***0.043***	0.0030		mg/L	1	06/22/2012 13:01
Lead	A	***0.52***	0.0075		mg/L	1	06/25/2012 11:19
Selenium	A	***ND***	0.030		mg/L	1	06/22/2012 13:01
Silver	A	***0.014***	0.010		mg/L	1	06/22/2012 13:01
		Method: **SW-846 7470A**					Analyst: **SA**
Total Mercury by CVAA		Prep Method: **SW-846 7470**					Prep Date/Time: **06/22/2012 10:15**
Mercury	A	***0.00026***	0.00020		mg/L	1	06/22/2012 14:07

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7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1D-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-03
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8082**					Analyst: **ep**
Polychlorinated Biphenyls		Prep Method: **SW846 3580A**					Prep Date/Time: **06/20/2012 08:50**
Aroclor 1016	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1221	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1232	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1242	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1248	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1254	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1260	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1262	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Aroclor 1268	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Total PCB's	A	***ND***	10000		µg/Kg	10	06/20/2012 16:33
Surr: Decachlorobiphenyl	S	0.00	52.6-143		%REC	10	06/20/2012 16:33
Surr: Tetrachloro-m-xylene	S	100.00	51.3-135		%REC	10	06/20/2012 16:33
		Method: **SW-846 8270C**					Analyst: **CR**
Semivolatile Organic Compounds		Prep Method: **SW846 3580A**					Prep Date/Time: **06/28/2012 09:22**
1,2,4-Trichlorobenzene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
1,2-Dichlorobenzene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
1,2-Diphenyl-hydrazine	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
1,3-Dichlorobenzene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
1,4-Dichlorobenzene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,2´-oxybis(1-chloropropane)	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,4,5-Trichlorophenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,4,6-Trichlorophenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,4-Dichlorophenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,4-Dimethylphenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,4-Dinitrophenol	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
2,4-Dinitrotoluene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,6-Dichlorophenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2,6-Dinitrotoluene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2-Chloronaphthalene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2-Chlorophenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2-Methylnaphthalene	A	***4100***	1000		mg/Kg	10	06/28/2012 21:51
2-Methylphenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
2-Nitroaniline	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
2-Nitrophenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
3,3´-Dichlorobenzidine	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
3/4-Methylphenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
3-Nitroaniline	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
4,6-Dinitro-2-methylphenol	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
4-Bromophenyl phenyl ether	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
4-Chloro-3-methylphenol	A	***ND***	200		mg/Kg	1	06/28/2012 21:30
4-Chloroaniline	A	***ND***	100		mg/Kg	1	06/28/2012 21:30

Revised
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Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1D-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-03
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8270C**				Analyst: **CR**	
Semivolatile Organic Compounds		Prep Method: **SW846 3580A**				Prep Date/Time: **06/28/2012 09:22**	
4-Chlorophenyl phenyl ether	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
4-Nitroaniline	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
4-Nitrophenol	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
Acenaphthene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Acenaphthylene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Acetophenone	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Aniline	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Anthracene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Benzidine	A	***ND***	500		mg/Kg	1	06/28/2012 21:30
Benzo[a]anthracene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Benzo[a]pyrene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Benzo[b]fluoranthene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Benzo[g,h,i]perylene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Benzo[k]fluoranthene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Benzyl alcohol	A	***ND***	200		mg/Kg	1	06/28/2012 21:30
Bis(2-chloroethoxy)methane	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Bis(2-chloroethyl)ether	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Bis(2-ethylhexyl)phthalate	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Butyl benzyl phthalate	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Carbazole	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Chrysene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Dibenz[a,h]anthracene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Dibenzofuran	A	***160***	100		mg/Kg	1	06/28/2012 21:30
Diethyl phthalate	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Dimethyl phthalate	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Di-n-butyl phthalate	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Di-n-octyl phthalate	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Fluoranthene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Fluorene	A	***340***	100		mg/Kg	1	06/28/2012 21:30
Hexachlorobenzene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Hexachlorobutadiene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Hexachlorocyclopentadiene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Hexachloroethane	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Indeno[1,2,3cd]pyrene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Isophorone	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Naphthalene	A	***1300***	1000		mg/Kg	10	06/28/2012 21:51
Nitrobenzene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
N-Nitrosodimethylamine	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
N-Nitrosodi-n-propylamine	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
N-Nitrosodiphenylamine	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Pentachlorophenol	A	***ND***	500		mg/Kg	1	06/28/2012 21:30

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1D-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-03
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds		Method: **SW-846 8270C** Prep Method: **SW846 3580A**				Analyst: **CR** Prep Date/Time: **06/28/2012 09:22**	
Phenanthrene	A	***710***	100		mg/Kg	1	06/28/2012 21:30
Phenol	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Pyrene	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Pyridine	A	***ND***	100		mg/Kg	1	06/28/2012 21:30
Total Cresol	M	***ND***	100		mg/Kg	1	06/28/2012 21:30
Surr: 2,4,6-Tribromophenol	S	117.00	25-177		%REC	1	06/28/2012 21:30
Surr: 2-Fluorobiphenyl	S	89.00	41-197		%REC	1	06/28/2012 21:30
Surr: 2-Fluorophenol	S	100.00	40-132		%REC	1	06/28/2012 21:30
Surr: Nitrobenzene-d5	S	115.00	40-198		%REC	1	06/28/2012 21:30
Surr: Phenol-d5	S	100.00	46-138		%REC	1	06/28/2012 21:30
Surr: Terphenyl-d14	S	98.70	51-168		%REC	1	06/28/2012 21:30
Volatile Organic Compounds		Method: **SW-846 8260B** Prep Method: **SW-846 5030B**				Analyst: **jln** Prep Date/Time: **06/21/2012 09:02**	
1,1,1,2-Tetrachloroethane	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
1,1,1-Trichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
1,1,2,2-Tetrachloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
1,1,2-Trichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
1,1-Dichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
1,1-Dichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
1,2-Dichloroethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
1,2-Dichloropropane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
2-Butanone	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
2-Hexanone	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
4-Methyl-2-Pentanone	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Acetone	A	***ND***	2500		µg/Kg	50	06/21/2012 22:35
Acrolein	A	***ND***	4900		µg/Kg	50	06/21/2012 22:35
Acrylonitrile	A	***ND***	4900		µg/Kg	50	06/21/2012 22:35
Benzene	A	***15000***	2500		µg/Kg	500	06/22/2012 13:23
Bromodichloromethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Bromoform	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Bromomethane	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Carbon Disulfide	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Carbon tetrachloride	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Chlorobenzene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Chloroethane	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Chloroform	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Chloromethane	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
cis-1,2-Dichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
cis-1,3-Dichloropropene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Dibromochloromethane	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Ethylbenzene	A	***110000***	25000		µg/Kg	5000	06/22/2012 14:56

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1D-061412
Sample Description:
Matrix: Oil

Work Order/ID: 12F0768-03
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Volatile Organic Compounds		Method: **SW-846 8260B** Prep Method: **SW-846 5030B**				Analyst: **jln** Prep Date/Time: **06/22/2012 08:03**	
m,p-Xylene	A	***520000***	25000		µg/Kg	5000	06/22/2012 14:56
Methylene chloride	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Methyl-t-Butyl Ether	A	***400***	250		µg/Kg	50	06/21/2012 22:35
o-Xylene	A	***260000***	25000		µg/Kg	5000	06/22/2012 14:56
Styrene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Tetrachloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Toluene	A	***180000***	25000		µg/Kg	5000	06/22/2012 14:56
trans-1,2-Dichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
trans-1,3-Dichloropropene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Trichloroethene	A	***ND***	250		µg/Kg	50	06/21/2012 22:35
Trichlorofluoromethane	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Vinyl Acetate	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Vinyl chloride	A	***ND***	490		µg/Kg	50	06/21/2012 22:35
Total 1,2-Dichloroethene	M	***ND***	490		µg/Kg	50	06/21/2012 22:35
Total Xylenes	M	***780000***	25000		µg/Kg	5000	06/22/2012 14:56
Surr: 1,2-Dichloroethane-d4	S	89.80	74.5-132		%REC	1	06/21/2012 22:35
Surr: 4-Bromofluorobenzene	S	187.00	80-120	IS	%REC	1	06/21/2012 22:35
Surr: Dibromofluoromethane	S	88.20	80-120		%REC	1	06/21/2012 22:35
Surr: Toluene-d8	S	95.80	80-120		%REC	1	06/21/2012 22:35
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***ND***	0.49		mg/Kg	1	06/21/2012 10:13
Barium	A	***ND***	0.20		mg/Kg	1	06/21/2012 10:13
Cadmium	A	***ND***	0.20		mg/Kg	1	06/21/2012 10:13
Chromium	A	***ND***	0.20		mg/Kg	1	06/21/2012 10:13
Lead	A	***ND***	0.37		mg/Kg	1	06/21/2012 10:13
Selenium	A	***ND***	1.5		mg/Kg	1	06/21/2012 10:13
Silver	A	***ND***	0.49		mg/Kg	1	06/21/2012 10:13
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/21/2012 11:50**	
Mercury	A	***ND***	0.041		mg/Kg	1	06/22/2012 15:11
Ignitability (Closed Cup)		Method: **SW-846 1010**				Analyst: **TMG** Prep Date/Time: **06/21/2012 15:24**	
Ignitability	A	***> 170***	30		°F	1	06/21/2012 15:24
pH		Method: **SW-846 9045C**				Analyst: **JH** Prep Date/Time: **06/20/2012 14:30**	
pH	A	***4.95***	2.00		pH Units	1	06/20/2012 15:03

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WLO1D-061412-AQ
Sample Description:
Matrix: Aqueous

Work Order/ID: 12F0768-04
Sampled: 06/14/2012 13:10
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **SW-846 8082**					Analyst: **ep**
Polychlorinated Biphenyls		Prep Method: **SW846 3510B**					Prep Date/Time: **06/20/2012 11:40**
Aroclor 1016	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1221	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1232	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1242	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1248	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1254	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1260	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1262	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Aroclor 1268	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Total PCB's	A	***ND***	0.98		µg/L	1	06/20/2012 16:48
Surr: Decachlorobiphenyl	S	40.00	26-116		%REC	1	06/20/2012 16:48
Surr: Tetrachloro-m-xylene	S	170.00	40-130	S	%REC	1	06/20/2012 16:48
		Method: **SW-846 1010**					Analyst: **TMG**
Ignitability (Closed Cup)							Prep Date/Time: **06/21/2012 16:01**
Ignitability	A	***> 170***	30		°F	1	06/21/2012 16:01
		Method: **SW-846 9045C**					Analyst: **JH**
pH							Prep Date/Time: **06/22/2012 13:45**
pH	A	***5.81***	2.00		pH Units	1	06/22/2012 14:32

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WL02-061412
Sample Description:
Matrix: Aqueous

Work Order/ID: 12F0768-05
Sampled: 06/14/2012 15:05
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3005A**				Analyst: **SA** Prep Date/Time: **06/21/2012 09:30**	
Arsenic	A	***0.41***	0.10		mg/L	1	06/22/2012 13:18
Barium	A	***22***	0.020		mg/L	1	06/22/2012 13:18
Cadmium	A	***0.61***	0.020		mg/L	1	06/22/2012 13:18
Chromium	A	***0.39***	0.030		mg/L	1	06/22/2012 13:18
Lead	A	***24000***	7.5		mg/L	100	06/25/2012 11:25
Selenium	A	***ND***	0.30		mg/L	1	06/22/2012 13:18
Silver	A	***0.96***	0.10		mg/L	1	06/22/2012 13:18
Total Mercury by CVAA		Method: **SW-846 7470A** Prep Method: **SW-846 7470**				Analyst: **SA** Prep Date/Time: **06/22/2012 10:15**	
Mercury	A	***0.0031***	0.0010		mg/L	1	06/22/2012 14:08
Ignitability (Closed Cup)		Method: **SW-846 1010**				Analyst: **TMG** Prep Date/Time: **06/21/2012 16:44**	
Ignitability	A	***71***	30		°F	1	06/21/2012 16:44
pH		Method: **SM 4500-H+ B-2000**				Analyst: **EP** Prep Date/Time: **06/21/2012 13:26**	
pH	A	***9.17***	2.00	H	pH Units	1	06/21/2012 13:28

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-WL03-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-06
Sampled: 06/14/2012 15:15
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/21/2012 07:51**	
Arsenic	A	***2.5***	0.47		mg/Kg	1	06/22/2012 15:06
Barium	A	***270***	0.19		mg/Kg	1	06/22/2012 15:06
Cadmium	A	***26***	0.19		mg/Kg	1	06/22/2012 15:06
Chromium	A	***1.5***	0.19		mg/Kg	1	06/22/2012 15:06
Lead	A	***140000***	35	B	mg/Kg	100	06/25/2012 11:14
Selenium	A	***ND***	1.4		mg/Kg	1	06/22/2012 15:06
Silver	A	***2.8***	0.44		mg/Kg	1	06/28/2012 22:03
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***ND***	0.035		mg/Kg	1	06/22/2012 14:45
Density		Method: **ASTM D5057**				Analyst: **goehl** Prep Date/Time: **07/11/2012 16:46**	
Bulk Density	A	***1.9***	0.10		g/ml	1	07/11/2012 16:47
Ignitability (Open Cup)		Method: **ASTM D92-90 Modified**				Analyst: **JML** Prep Date/Time: **06/25/2012 13:28**	
Ignitability	A	***> 180***	30		°F	1	06/25/2012 13:28
pH		Method: **SW-846 9045C**				Analyst: **JH** Prep Date/Time: **06/20/2012 14:30**	
pH	A	***9.27***	2.00		pH Units	1	06/20/2012 15:03

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S01-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-07
Sampled: 06/14/2012 14:50
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***3.7***	0.44		mg/Kg	1	06/21/2012 10:18
Barium	A	***360***	0.18		mg/Kg	1	06/21/2012 10:18
Cadmium	A	***3.1***	0.18		mg/Kg	1	06/22/2012 13:40
Chromium	A	***12***	0.18		mg/Kg	1	06/21/2012 10:18
Lead	A	***2500***	0.33		mg/Kg	1	06/21/2012 10:18
Selenium	A	***ND***	1.3		mg/Kg	1	06/21/2012 10:18
Silver	A	***ND***	0.44		mg/Kg	1	06/21/2012 10:18
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***0.058***	0.039		mg/Kg	1	06/22/2012 14:46

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S01-061412-TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-08
Sampled: 06/14/2012 14:50
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **/SW846 3005A**					Prep Date/Time: **06/22/2012 09:25**
Lead	A	***4.00***	0.00750	B	mg/L	1	06/22/2012 17:13

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S02-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-09
Sampled: 06/14/2012 14:55
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***9.0***	0.44		mg/Kg	1	06/21/2012 10:40
Barium	A	***150***	0.18		mg/Kg	1	06/21/2012 10:40
Cadmium	A	***0.41***	0.18		mg/Kg	1	06/22/2012 13:46
Chromium	A	***8.1***	0.18		mg/Kg	1	06/21/2012 10:40
Lead	A	***1100***	0.33		mg/Kg	1	06/21/2012 10:40
Selenium	A	***ND***	1.3		mg/Kg	1	06/21/2012 10:40
Silver	A	***ND***	0.44		mg/Kg	1	06/21/2012 10:40
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***0.16***	0.041		mg/Kg	1	06/22/2012 14:47

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S02-061412-TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-10
Sampled: 06/14/2012 14:55
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **/SW846 3005A**					Prep Date/Time: **06/27/2012 09:53**
Lead	A	***4.95***	0.00750		mg/L	1	06/27/2012 17:43

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S03-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-11
Sampled: 06/14/2012 15:27
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***6.4***	0.48		mg/Kg	1	06/21/2012 10:45
Barium	A	***580***	0.19		mg/Kg	1	06/21/2012 10:45
Cadmium	A	***15***	0.19		mg/Kg	1	06/22/2012 13:51
Chromium	A	***79***	0.19		mg/Kg	1	06/21/2012 10:45
Lead	A	***830***	0.36		mg/Kg	1	06/21/2012 10:45
Selenium	A	***ND***	1.4		mg/Kg	1	06/21/2012 10:45
Silver	A	***0.80***	0.48		mg/Kg	1	06/21/2012 10:45
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***0.17***	0.042		mg/Kg	1	06/22/2012 14:48

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S03-061412-TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-12
Sampled: 06/14/2012 15:27
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **/SW846 3005A**					Prep Date/Time: **06/22/2012 09:25**
Lead	A	***0.644***	0.100	B	mg/L	1	06/22/2012 16:17

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S04-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-13
Sampled: 06/14/2012 15:37
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***6.8***	0.48		mg/Kg	1	06/21/2012 10:51
Barium	A	***130***	0.19		mg/Kg	1	06/21/2012 10:51
Cadmium	A	***1.2***	0.19		mg/Kg	1	06/22/2012 13:57
Chromium	A	***10***	0.19		mg/Kg	1	06/21/2012 10:51
Lead	A	***370***	0.36		mg/Kg	1	06/21/2012 10:51
Selenium	A	***ND***	1.4		mg/Kg	1	06/21/2012 10:51
Silver	A	***ND***	0.48		mg/Kg	1	06/21/2012 10:51
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***0.40***	0.042		mg/Kg	1	06/22/2012 14:49

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S04-061412-TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-14
Sampled: 06/14/2012 15:37
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **/SW846 3005A**					Prep Date/Time: **06/22/2012 09:25**
Lead	A	***0.179***	0.100	B	mg/L	1	06/22/2012 17:19

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S05-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-15
Sampled: 06/14/2012 15:45
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***7.1***	0.49		mg/Kg	1	06/21/2012 10:56
Barium	A	***100***	0.19		mg/Kg	1	06/21/2012 10:56
Cadmium	A	***0.78***	0.19		mg/Kg	1	06/22/2012 14:02
Chromium	A	***15***	0.19		mg/Kg	1	06/21/2012 10:56
Lead	A	***60***	0.36		mg/Kg	1	06/21/2012 10:56
Selenium	A	***ND***	1.5		mg/Kg	1	06/21/2012 10:56
Silver	A	***ND***	0.49		mg/Kg	1	06/21/2012 10:56
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***0.11***	0.038		mg/Kg	1	06/22/2012 14:53

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S05-061412-TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-16
Sampled: 06/14/2012 15:45
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **/SW846 3005A**					Prep Date/Time: **06/22/2012 09:25**
Lead	A	***0.0577***	0.100	B	mg/L	1	06/22/2012 17:24

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S05D-061412
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-17
Sampled: 06/14/2012 15:45
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
Total Metals by ICP		Method: **SW-846 6010B** Prep Method: **SW846 3050B**				Analyst: **SA** Prep Date/Time: **06/20/2012 08:05**	
Arsenic	A	***7.0***	0.50		mg/Kg	1	06/21/2012 11:02
Barium	A	***140***	0.20		mg/Kg	1	06/21/2012 11:02
Cadmium	A	***0.54***	0.20		mg/Kg	1	06/22/2012 14:10
Chromium	A	***13***	0.20		mg/Kg	1	06/21/2012 11:02
Lead	A	***63***	0.37		mg/Kg	1	06/21/2012 11:02
Selenium	A	***ND***	1.5		mg/Kg	1	06/21/2012 11:02
Silver	A	***ND***	0.50		mg/Kg	1	06/21/2012 11:02
Total Mercury by CVAA		Method: **SW-846 7471A** Prep Method: **SW-846 7471**				Analyst: **SA** Prep Date/Time: **06/22/2012 11:43**	
Mercury	A	***0.074***	0.035		mg/Kg	1	06/22/2012 14:54

Revised
7/11/2012

Analytical Results

Date: *Wednesday, July 11, 2012*

Client: Weston Solutions, Inc.
Client Project: Forest City SA
Client Sample ID: FCHS-S05D-061412-TCLP
Sample Description:
Matrix: Solid

Work Order/ID: 12F0768-18
Sampled: 06/14/2012 15:45
Received: 06/15/2012 15:28

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: **1311/6010B**					Analyst: **SA**
TCLP Metals by ICP		Prep Method: **/SW846 3005A**					Prep Date/Time: **06/22/2012 09:25**
Lead	A	***0.0291***	0.100	B	mg/L	1	06/22/2012 17:41

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA	=	Not Analyzed
mg/L	=	Milligrams per Liter (ppm)
mg/Kg	=	Milligrams per Kilogram (ppm)
U	=	Undetected
J	=	Analyte concentration detected between RL and MDL (Metals / Organics)
B	=	Detected in the associated method Blank at a concentration above the routine PQL/RL
D	=	Dilution performed on sample
ND	=	Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
E	=	Value above quantitation range
H	=	Analyte was prepared and/or analyzed outside of the analytical method holding time
I	=	Matrix Interference
R	=	RPD outside accepted recovery limits
S	=	Spike recovery outside recovery limits
Surr	=	Surrogate
DF	=	Dilution Factor
RL	=	Reporting Limit
MDL	=	Method Detection Limit
NR	=	Not Recovered

ANALYTE TYPES: (AT)

A,B	=	Target Analyte
I	=	Internal Standard
M	=	Summation Analyte
S	=	Surrogate
T	=	Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Standard			

CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

The American Association for Laboratory Accreditation [A2LA] for Biological Testing, ISO/IEC 17025 (Certificate# 3045.01)
The American Association for Laboratory Accreditation [A2LA] for Environmental Department of Defense Testing, ISO/IEC 17025 (Certificate# 3045.02)
Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #200064)
Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)
Indiana DEM approved support laboratory for solid waste and wastewater analyses
Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)
Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)
Kansas Department of Health and Environment for the analysis of drinking water, wastewater, and solid hazardous waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Certificate No. E-10397)
Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)
North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)
Pennsylvania Department of Environmental Protection (Registration No.: 68-04863)
Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)

Revised
7/11/2012

COOLER INSPECTION

Date: Wednesday, July 11, 2012

Client Name: Weston Solutions, Inc.

Date/Time Received: 06/15/2012 15:28

Work Order Number: 12F0768

Received by: Dave Bryant

Checklist completed by: 6/19/2012 7:51:00PM | Dave Bryant

Reviewed by: 6/20/2012 | KGF

Carrier Name: Microbac

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 6.00°C

After-Hour Arrival?	Yes	☐	No	☑		
Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample containers?	Yes	☐	No	☐	Not Present	☑
COC present?	Yes	☑	No	☐		
COC included sufficient client identification?	Yes	☑	No	☐		
COC included sufficient sample collector information?	Yes	☑	No	☐		
COC included a sample description?	Yes	☑	No	☐		
COC agrees with sample labels?	Yes	☑	No	☐		
COC identified the appropriate matrix?	Yes	☑	No	☐		
COC included date of collection?	Yes	☑	No	☐		
COC included time of collection?	Yes	☑	No	☐		
COC identified the appropriate number of containers?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
If the samples are preserved, are the preservatives identified?	Yes	☑	No	☐		

If No, adjusted by? _____

COC included the requested analyses?	Yes	☑	No	☐		
COC signed when relinquished and received?	Yes	☑	No	☐		
Samples received on ice?	Yes	☑	No	☐		
Samples properly preserved?	Yes	☑	No	☐		
Voa vials for aqueous samples have zero headspace?	Yes	☑	No	☐	No VOA vials submitted	☐

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Revised
7/11/2012

Sample ID	Client Sample ID	Comments
12F0768-01	FCHS-WLO1-061412	Oil Layer
12F0768-02	FCHS-WLO1-061412-AQ	Aqueous Layer
12F0768-03	FCHS-WLO1D-061412	Oil Layer
12F0768-04	FCHS-WLO1D-061412-AQ	Aqueous Layer
12F0768-05	FCHS-WL02-061412	
12F0768-06	FCHS-WL03-061412	
12F0768-07	FCHS-S01-061412	
12F0768-08	FCHS-S01-061412-TCLP	
12F0768-09	FCHS-S02-061412	
12F0768-10	FCHS-S02-061412-TCLP	
12F0768-11	FCHS-S03-061412	
12F0768-12	FCHS-S03-061412-TCLP	
12F0768-13	FCHS-S04-061412	
12F0768-14	FCHS-S04-061412-TCLP	
12F0768-15	FCHS-S05-061412	
12F0768-16	FCHS-S05-061412-TCLP	
12F0768-17	FCHS-S05D-061412	
12F0768-18	FCHS-S05D-061412-TCLP	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GC Semivolatiles - Quality Control

Batch: B029154 **Prep:** SW846 3580A

Polychlorinated Biphenyls

Sample ID: Blank (B029154-BLK1) **Method:** SW-846 8082 **Prepped:** 06/20/2012 08:50
Source: **Analyzed:** 06/20/2012 10:38

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016	ND	1000	µg/Kg							
Aroclor 1221	ND	1000	µg/Kg							
Aroclor 1232	ND	1000	µg/Kg							
Aroclor 1242	ND	1000	µg/Kg							
Aroclor 1248	ND	1000	µg/Kg							
Aroclor 1254	ND	1000	µg/Kg							
Aroclor 1260	ND	1000	µg/Kg							
Aroclor 1262	ND	1000	µg/Kg							
Aroclor 1268	ND	1000	µg/Kg							
Total PCB's	ND	1000	µg/Kg							
Surrogate: Decachlorobiphenyl	*210*		µg/Kg	*200.0*		*105*	*52.6-143*			
Surrogate: Tetrachloro-m-xylene	*180*		µg/Kg	*200.0*		*90.0*	*51.3-135*			

Sample ID: LCS (B029154-BS1) **Method:** SW-846 8082 **Prepped:** 06/20/2012 08:50
Source: **Analyzed:** 06/20/2012 11:01

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016	4890	1000	µg/Kg	5000		97.9	72.7-123			
Aroclor 1260	4800	1000	µg/Kg	5000		96.0	80.3-123			
Surrogate: Decachlorobiphenyl	*220*		µg/Kg	*200.0*		*110*	*52.6-143*			
Surrogate: Tetrachloro-m-xylene	*190*		µg/Kg	*200.0*		*95.0*	*51.3-135*			

Sample ID: LCS Dup (B029154-BSD1) **Method:** SW-846 8082 **Prepped:** 06/20/2012 08:50
Source: **Analyzed:** 06/20/2012 11:25

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016	4780	1000	µg/Kg	5000		95.6	72.7-123	2.32	30	
Aroclor 1260	4800	1000	µg/Kg	5000		96.1	80.3-123	0.0833	30	
Surrogate: Decachlorobiphenyl	*220*		µg/Kg	*200.0*		*110*	*52.6-143*			
Surrogate: Tetrachloro-m-xylene	*190*		µg/Kg	*200.0*		*95.0*	*51.3-135*			

Batch: B029174 **Prep:** SW846 3510B

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GC Semivolatiles - Quality Control

Batch: B029174 **Prep:** SW846 3510B

Polychlorinated Biphenyls

Sample ID: Blank (B029174-BLK1) **Method:** SW-846 8082 **Prepped:** 06/20/2012 11:40
Source: **Analyzed:** 06/20/2012 14:24

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016	ND	0.50	µg/L							
Aroclor 1221	ND	0.50	µg/L							
Aroclor 1232	ND	0.50	µg/L							
Aroclor 1242	ND	0.50	µg/L							
Aroclor 1248	ND	0.50	µg/L							
Aroclor 1254	ND	0.50	µg/L							
Aroclor 1260	ND	0.50	µg/L							
Aroclor 1262	ND	0.50	µg/L							
Aroclor 1268	ND	0.50	µg/L							
Total PCB's	ND	0.50	µg/L							
Surrogate: Decachlorobiphenyl	*0.22*		µg/L	*0.2000*		*110*	*26-116*			
Surrogate: Tetrachloro-m-xylene	*0.19*		µg/L	*0.2000*		*95.0*	*40-130*			

Sample ID: LCS (B029174-BS1) **Method:** SW-846 8082 **Prepped:** 06/20/2012 11:40
Source: **Analyzed:** 06/20/2012 14:48

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016	5.05	0.50	µg/L	5.000		101	62-110			
Aroclor 1260	4.50	0.50	µg/L	5.000		90.1	63-110			
Surrogate: Decachlorobiphenyl	*0.22*		µg/L	*0.2000*		*110*	*26-116*			
Surrogate: Tetrachloro-m-xylene	*0.20*		µg/L	*0.2000*		*100*	*40-130*			

Sample ID: LCS Dup (B029174-BSD1) **Method:** SW-846 8082 **Prepped:** 06/20/2012 11:40
Source: **Analyzed:** 06/20/2012 15:12

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016	5.04	0.50	µg/L	5.000		101	62-110	0.357	30	
Aroclor 1260	4.58	0.50	µg/L	5.000		91.6	63-110	1.72	30	
Surrogate: Decachlorobiphenyl	*0.22*		µg/L	*0.2000*		*110*	*26-116*			
Surrogate: Tetrachloro-m-xylene	*0.21*		µg/L	*0.2000*		*105*	*40-130*			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029212 **Prep:** SW846 3510

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029212 **Prep:** SW846 3510

Semivolatile Organic Compounds

Sample ID: Blank (B029212-BLK1) **Method:** SW-846 8270C **Prepped:** 06/21/2012 09:08
Source: **Analyzed:** 06/28/2012 14:49

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	ND	10	µg/L							
1,2-Dichlorobenzene	ND	10	µg/L							
1,2-Diphenyl-hydrazine	ND	10	µg/L							
1,3-Dichlorobenzene	ND	10	µg/L							
1,4-Dichlorobenzene	ND	10	µg/L							
2,2´-oxybis(1-chloropropane)	ND	10	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	50	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dichlorophenol	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
2-Methylnaphthalene	ND	10	µg/L							
2-Methylphenol	ND	10	µg/L							
2-Nitroaniline	ND	50	µg/L							
2-Nitrophenol	ND	10	µg/L							
3,3´-Dichlorobenzidine	ND	50	µg/L							
3/4-Methylphenol	ND	10	µg/L							
3-Nitroaniline	ND	50	µg/L							
4,6-Dinitro-2-methylphenol	ND	50	µg/L							
4-Bromophenyl phenyl ether	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	20	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chlorophenyl phenyl ether	ND	10	µg/L							
4-Nitroaniline	ND	50	µg/L							
4-Nitrophenol	ND	50	µg/L							
Acenaphthene	ND	10	µg/L							
Acenaphthylene	ND	10	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	10	µg/L							
Anthracene	ND	10	µg/L							
Benzidine	ND	50	µg/L							
Benzo[a]anthracene	ND	10	µg/L							
Benzo[a]pyrene	ND	10	µg/L							
Benzo[b]fluoranthene	ND	10	µg/L							

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029212 **Prep:** SW846 3510

Sample ID: Blank (B029212-BLK1) **Method:** SW-846 8270C **Prepped:** 06/21/2012 09:08
Source: **Analyzed:** 06/28/2012 14:49

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Benzo[g,h,i]perylene	ND	10	µg/L							
Benzo[k]fluoranthene	ND	10	µg/L							
Benzyl alcohol	ND	20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-ethylhexyl)phthalate	ND	10	µg/L							
Butyl benzyl phthalate	ND	10	µg/L							
Carbazole	ND	10	µg/L							
Chrysene	ND	10	µg/L							
Dibenz[a,h]anthracene	ND	10	µg/L							
Dibenzofuran	ND	10	µg/L							
Diethyl phthalate	ND	10	µg/L							
Dimethyl phthalate	ND	10	µg/L							
Di-n-butyl phthalate	ND	10	µg/L							
Di-n-octyl phthalate	ND	10	µg/L							
Fluoranthene	ND	10	µg/L							
Fluorene	ND	10	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno[1,2,3cd]pyrene	ND	10	µg/L							
Isophorone	ND	10	µg/L							
Naphthalene	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
N-Nitrosodiphenylamine	ND	10	µg/L							
Pentachlorophenol	ND	50	µg/L							
Phenanthrene	ND	10	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	10	µg/L							
Pyridine	ND	10	µg/L							
Total Cresol	ND	10	µg/L							
Surrogate: 2,4,6-Tribromophenol	*120*		µg/L	*150.0*		*80.4*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*42*		µg/L	*100.0*		*42.5*	*10-110*			
Surrogate: 2-Fluorophenol	*68*		µg/L	*150.0*		*45.6*	*10-110*			
Surrogate: Nitrobenzene-d5	*49*		µg/L	*100.0*		*49.2*	*10-110*			
Surrogate: Phenol-d5	*57*		µg/L	*150.0*		*38.0*	*10-60.8*			
Surrogate: Terphenyl-d14	*72*		µg/L	*100.0*		*72.5*	*16.8-110*			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029212 **Prep:** SW846 3510

Sample ID: LCS (B029212-BS1) **Method:** SW-846 8270C **Prepped:** 06/21/2012 09:08
Source: **Analyzed:** 06/28/2012 15:09

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	39.1	10	µg/L	100.0		39.1	26.9-110			
1,2-Diphenyl-hydrazine	61.9	10	µg/L	100.0		61.9	50-150			
1,4-Dichlorobenzene	35.2	10	µg/L	100.0		35.2	21-110			
2,4,5-Trichlorophenol	50.9	10	µg/L	100.0		50.9	40-140			
2,4-Dinitrotoluene	55.1	10	µg/L	100.0		55.1	54.7-110			
2-Chlorophenol	51.9	10	µg/L	100.0		51.9	36.9-110			
2-Nitroaniline	54.9	50	µg/L	100.0		54.9	40-140			
3/4-Methylphenol	51.2	10	µg/L	100.0		51.2	40-140			
4-Chloro-3-methylphenol	59.5	20	µg/L	100.0		59.5	22-147			
4-Chloroaniline	55.6	10	µg/L	100.0		55.6	40-140			
4-Nitroaniline	54.3	50	µg/L	100.0		54.3	40-140			
4-Nitrophenol	33.3	50	µg/L	100.0		33.3	11.7-58.3			
Acenaphthene	50.2	10	µg/L	100.0		50.2	47.2-110			
Benzyl alcohol	50.3	20	µg/L	100.0		50.3	40-140			
Dibenzofuran	51.9	10	µg/L	100.0		51.9	40-140			
N-Nitrosodimethylamine	35.4	10	µg/L	100.0		35.4	30-150			
N-Nitrosodi-n-propylamine	56.1	10	µg/L	100.0		56.1	37.7-110			
Pentachlorophenol	55.7	50	µg/L	100.0		55.7	31.1-110			
Phenol	25.0	10	µg/L	100.0		25.0	16.8-41.9			
Pyrene	71.7	10	µg/L	100.0		71.7	53-110			
Surrogate: 2,4,6-Tribromophenol	*150*		µg/L	*150.0*		*97.9*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*46*		µg/L	*100.0*		*46.2*	*10-110*			
Surrogate: 2-Fluorophenol	*67*		µg/L	*150.0*		*44.8*	*10-110*			
Surrogate: Nitrobenzene-d5	*53*		µg/L	*100.0*		*53.1*	*10-110*			
Surrogate: Phenol-d5	*54*		µg/L	*150.0*		*35.9*	*10-60.8*			
Surrogate: Terphenyl-d14	*72*		µg/L	*100.0*		*71.9*	*16.8-110*			

Sample ID: LCS Dup (B029212-BSD1) **Method:** SW-846 8270C **Prepped:** 06/21/2012 09:08
Source: **Analyzed:** 06/28/2012 15:29

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	39.8	10	µg/L	100.0		39.8	26.9-110	1.67	30	
1,2-Diphenyl-hydrazine	71.0	10	µg/L	100.0		71.0	50-150	13.7	30	
1,4-Dichlorobenzene	35.0	10	µg/L	100.0		35.0	21-110	0.370	30	
2,4,5-Trichlorophenol	57.0	10	µg/L	100.0		57.0	40-140	11.3	30	
2,4-Dinitrotoluene	59.4	10	µg/L	100.0		59.4	54.7-110	7.50	30	
2-Chlorophenol	54.7	10	µg/L	100.0		54.7	36.9-110	5.18	30	
2-Nitroaniline	62.8	50	µg/L	100.0		62.8	40-140	13.5	30	
3/4-Methylphenol	55.0	10	µg/L	100.0		55.0	40-140	7.33	30	
4-Chloro-3-methylphenol	65.6	20	µg/L	100.0		65.6	22-147	9.78	30	
4-Chloroaniline	59.7	10	µg/L	100.0		59.7	40-140	7.13	30	
4-Nitroaniline	56.2	50	µg/L	100.0		56.2	40-140	3.44	30	
4-Nitrophenol	32.0	50	µg/L	100.0		32.0	11.7-58.3	3.86	30	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029212 **Prep:** SW846 3510

Sample ID: LCS Dup (B029212-BSD1) **Method:** SW-846 8270C **Prepped:** 06/21/2012 09:08
Source: **Analyzed:** 06/28/2012 15:29

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Acenaphthene	53.1	10	µg/L	100.0		53.1	47.2-110	5.58	30	
Benzyl alcohol	56.9	20	µg/L	100.0		56.9	40-140	12.3	30	
Dibenzofuran	57.5	10	µg/L	100.0		57.5	40-140	10.1	30	
N-Nitrosodimethylamine	37.4	10	µg/L	100.0		37.4	30-150	5.60	30	
N-Nitrosodi-n-propylamine	60.7	10	µg/L	100.0		60.7	37.7-110	7.95	30	
Pentachlorophenol	55.6	50	µg/L	100.0		55.6	31.1-110	0.0539	30	
Phenol	26.4	10	µg/L	100.0		26.4	16.8-41.9	5.34	30	
Pyrene	78.8	10	µg/L	100.0		78.8	53-110	9.46	30	
Surrogate: 2,4,6-Tribromophenol	*150*		µg/L	*150.0*		*103*	*47.8-138*			
Surrogate: 2-Fluorobiphenyl	*49*		µg/L	*100.0*		*48.6*	*10-110*			
Surrogate: 2-Fluorophenol	*72*		µg/L	*150.0*		*47.7*	*10-110*			
Surrogate: Nitrobenzene-d5	*57*		µg/L	*100.0*		*56.7*	*10-110*			
Surrogate: Phenol-d5	*57*		µg/L	*150.0*		*38.1*	*10-60.8*			
Surrogate: Terphenyl-d14	*77*		µg/L	*100.0*		*77.0*	*16.8-110*			

Batch: B029496 **Prep:** SW846 3580A

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029496 **Prep:** SW846 3580A

Semivolatile Organic Compounds

Sample ID: Blank (B029496-BLK1) **Method:** SW-846 8270C **Prepped:** 06/28/2012 09:22
Source: **Analyzed:** 06/28/2012 16:10

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	ND	10	mg/Kg							
1,2-Dichlorobenzene	ND	10	mg/Kg							
1,2-Diphenyl-hydrazine	ND	10	mg/Kg							
1,3-Dichlorobenzene	ND	10	mg/Kg							
1,4-Dichlorobenzene	ND	10	mg/Kg							
2,2´-oxybis(1-chloropropane)	ND	10	mg/Kg							
2,4,5-Trichlorophenol	ND	10	mg/Kg							
2,4,6-Trichlorophenol	ND	10	mg/Kg							
2,4-Dichlorophenol	ND	10	mg/Kg							
2,4-Dimethylphenol	ND	10	mg/Kg							
2,4-Dinitrophenol	ND	50	mg/Kg							
2,4-Dinitrotoluene	ND	10	mg/Kg							
2,6-Dichlorophenol	ND	10	mg/Kg							
2,6-Dinitrotoluene	ND	10	mg/Kg							
2-Chloronaphthalene	ND	10	mg/Kg							
2-Chlorophenol	ND	10	mg/Kg							
2-Methylnaphthalene	ND	10	mg/Kg							
2-Methylphenol	ND	10	mg/Kg							
2-Nitroaniline	ND	50	mg/Kg							
2-Nitrophenol	ND	10	mg/Kg							
3,3´-Dichlorobenzidine	ND	50	mg/Kg							
3/4-Methylphenol	ND	10	mg/Kg							
3-Nitroaniline	ND	50	mg/Kg							
4,6-Dinitro-2-methylphenol	ND	50	mg/Kg							
4-Bromophenyl phenyl ether	ND	10	mg/Kg							
4-Chloro-3-methylphenol	ND	20	mg/Kg							
4-Chloroaniline	ND	10	mg/Kg							
4-Chlorophenyl phenyl ether	ND	10	mg/Kg							
4-Nitroaniline	ND	50	mg/Kg							
4-Nitrophenol	ND	50	mg/Kg							
Acenaphthene	ND	10	mg/Kg							
Acenaphthylene	ND	10	mg/Kg							
Acetophenone	ND	10	mg/Kg							
Aniline	ND	10	mg/Kg							
Anthracene	ND	10	mg/Kg							
Benzidine	ND	50	mg/Kg							
Benzo[a]anthracene	ND	10	mg/Kg							
Benzo[a]pyrene	ND	10	mg/Kg							
Benzo[b]fluoranthene	ND	10	mg/Kg							

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029496 **Prep:** SW846 3580A

Sample ID: Blank (B029496-BLK1) **Method:** SW-846 8270C **Prepped:** 06/28/2012 09:22
Source: **Analyzed:** 06/28/2012 16:10

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Benzo[g,h,i]perylene	ND	10	mg/Kg							
Benzo[k]fluoranthene	ND	10	mg/Kg							
Benzyl alcohol	ND	20	mg/Kg							
Bis(2-chloroethoxy)methane	ND	10	mg/Kg							
Bis(2-chloroethyl)ether	ND	10	mg/Kg							
Bis(2-ethylhexyl)phthalate	ND	10	mg/Kg							
Butyl benzyl phthalate	ND	10	mg/Kg							
Carbazole	ND	10	mg/Kg							
Chrysene	ND	10	mg/Kg							
Dibenz[a,h]anthracene	ND	10	mg/Kg							
Dibenzofuran	ND	10	mg/Kg							
Diethyl phthalate	ND	10	mg/Kg							
Dimethyl phthalate	ND	10	mg/Kg							
Di-n-butyl phthalate	ND	10	mg/Kg							
Di-n-octyl phthalate	ND	10	mg/Kg							
Fluoranthene	ND	10	mg/Kg							
Fluorene	ND	10	mg/Kg							
Hexachlorobenzene	ND	10	mg/Kg							
Hexachlorobutadiene	ND	10	mg/Kg							
Hexachlorocyclopentadiene	ND	10	mg/Kg							
Hexachloroethane	ND	10	mg/Kg							
Indeno[1,2,3cd]pyrene	ND	10	mg/Kg							
Isophorone	ND	10	mg/Kg							
Naphthalene	ND	10	mg/Kg							
Nitrobenzene	ND	10	mg/Kg							
N-Nitrosodimethylamine	ND	10	mg/Kg							
N-Nitrosodi-n-propylamine	ND	10	mg/Kg							
N-Nitrosodiphenylamine	ND	10	mg/Kg							
Pentachlorophenol	ND	50	mg/Kg							
Phenanthrene	ND	10	mg/Kg							
Phenol	ND	10	mg/Kg							
Pyrene	ND	10	mg/Kg							
Pyridine	ND	10	mg/Kg							
Total Cresol	ND	10	mg/Kg							
Surrogate: 2,4,6-Tribromophenol	*120*		ug/mL	*150.0*		*82.0*	*25-177*			
Surrogate: 2-Fluorobiphenyl	*100*		ug/mL	*100.0*		*99.5*	*41-197*			
Surrogate: 2-Fluorophenol	*140*		ug/mL	*150.0*		*90.1*	*40-132*			
Surrogate: Nitrobenzene-d5	*120*		ug/mL	*100.0*		*116*	*40-198*			
Surrogate: Phenol-d5	*140*		ug/mL	*150.0*		*92.1*	*46-138*			
Surrogate: Terphenyl-d14	*130*		ug/mL	*100.0*		*125*	*51-168*			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029496 **Prep:** SW846 3580A

Sample ID: LCS (B029496-BS1) **Method:** SW-846 8270C **Prepped:** 06/28/2012 09:22
Source: **Analyzed:** 06/28/2012 16:30

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	78.1	10	mg/Kg	100.0		78.1	44-145			
1,2-Diphenyl-hydrazine	95.0	10	mg/Kg	100.0		95.0	50-150			
1,4-Dichlorobenzene	75.2	10	mg/Kg	100.0		75.2	20-124			
2,4-Dinitrotoluene	71.8	10	mg/Kg	100.0		71.8	39-139			
2-Chlorophenol	91.0	10	mg/Kg	100.0		91.0	23-134			
3/4-Methylphenol	96.4	10	mg/Kg	100.0		96.4	50-150			
4-Chloro-3-methylphenol	85.7	20	mg/Kg	100.0		85.7	22-147			
4-Chloroaniline	79.4	10	mg/Kg	100.0		79.4	50-150			
4-Nitrophenol	91.6	50	mg/Kg	100.0		91.6	10-132			
Acenaphthene	77.0	10	mg/Kg	100.0		77.0	47-145			
Benzyl alcohol	85.2	20	mg/Kg	100.0		85.2	50-150			
N-Nitrosodimethylamine	81.5	10	mg/Kg	100.0		81.5	30-150			
N-Nitrosodi-n-propylamine	85.1	10	mg/Kg	100.0		85.1	38.1-150			
Pentachlorophenol	70.3	50	mg/Kg	100.0		70.3	14-176			
Phenol	90.7	10	mg/Kg	100.0		90.7	10-112			
Pyrene	93.4	10	mg/Kg	100.0		93.4	52-115			
Surrogate: 2,4,6-Tribromophenol	*160*		ug/mL	*150.0*		*104*	*25-177*			
Surrogate: 2-Fluorobiphenyl	*120*		ug/mL	*100.0*		*117*	*41-197*			
Surrogate: 2-Fluorophenol	*150*		ug/mL	*150.0*		*97.1*	*40-132*			
Surrogate: Nitrobenzene-d5	*130*		ug/mL	*100.0*		*135*	*40-198*			
Surrogate: Phenol-d5	*140*		ug/mL	*150.0*		*94.3*	*46-138*			
Surrogate: Terphenyl-d14	*160*		ug/mL	*100.0*		*155*	*51-168*			

Sample ID: LCS Dup (B029496-BSD1) **Method:** SW-846 8270C **Prepped:** 06/28/2012 09:22
Source: **Analyzed:** 06/28/2012 16:50

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	79.5	10	mg/Kg	100.0		79.5	44-145	1.69	30	
1,2-Diphenyl-hydrazine	98.6	10	mg/Kg	100.0		98.6	50-150	3.69	30	
1,4-Dichlorobenzene	80.0	10	mg/Kg	100.0		80.0	20-124	6.17	30	
2,4-Dinitrotoluene	75.0	10	mg/Kg	100.0		75.0	39-139	4.26	30	
2-Chlorophenol	95.6	10	mg/Kg	100.0		95.6	23-134	4.90	30	
3/4-Methylphenol	103	10	mg/Kg	100.0		103	50-150	6.50	30	
4-Chloro-3-methylphenol	87.9	20	mg/Kg	100.0		87.9	22-147	2.53	30	
4-Chloroaniline	83.0	10	mg/Kg	100.0		83.0	50-150	4.38	30	
4-Nitrophenol	94.2	50	mg/Kg	100.0		94.2	10-132	2.79	30	
Acenaphthene	78.8	10	mg/Kg	100.0		78.8	47-145	2.25	30	
Benzyl alcohol	93.0	20	mg/Kg	100.0		93.0	50-150	8.80	30	
N-Nitrosodimethylamine	88.6	10	mg/Kg	100.0		88.6	30-150	8.33	30	
N-Nitrosodi-n-propylamine	91.9	10	mg/Kg	100.0		91.9	38.1-150	7.71	30	
Pentachlorophenol	73.6	50	mg/Kg	100.0		73.6	14-176	4.52	30	
Phenol	97.1	10	mg/Kg	100.0		97.1	10-112	6.83	30	
Pyrene	93.9	10	mg/Kg	100.0		93.9	52-115	0.502	30	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Semivolatiles - Quality Control

Batch: B029496 **Prep:** SW846 3580A

Sample ID: LCS Dup (B029496-BSD1) **Method:** SW-846 8270C **Prepped:** 06/28/2012 09:22
Source: **Analyzed:** 06/28/2012 16:50

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Surrogate: 2,4,6-Tribromophenol	*140*		ug/mL	*150.0*		*95.2*	*25-177*			
Surrogate: 2-Fluorobiphenyl	*110*		ug/mL	*100.0*		*109*	*41-197*			
Surrogate: 2-Fluorophenol	*140*		ug/mL	*150.0*		*91.5*	*40-132*			
Surrogate: Nitrobenzene-d5	*130*		ug/mL	*100.0*		*126*	*40-198*			
Surrogate: Phenol-d5	*140*		ug/mL	*150.0*		*90.4*	*46-138*			
Surrogate: Terphenyl-d14	*140*		ug/mL	*100.0*		*142*	*51-168*			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029275 **Prep:** SW-846 5030B

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029275 **Prep:** SW-846 5030B

Volatile Organic Compounds

Sample ID: Blank (B029275-BLK1) **Method:** SW-846 8260B **Prepped:** 06/21/2012 09:02
Source: **Analyzed:** 06/21/2012 12:02

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	ND	10	µg/Kg							
1,1,1-Trichloroethane	ND	5.0	µg/Kg							
1,1,2,2-Tetrachloroethane	ND	5.0	µg/Kg							
1,1,2-Trichloroethane	ND	5.0	µg/Kg							
1,1-Dichloroethane	ND	5.0	µg/Kg							
1,1-Dichloroethene	ND	5.0	µg/Kg							
1,2-Dichloroethane	ND	5.0	µg/Kg							
1,2-Dichloropropane	ND	5.0	µg/Kg							
2-Butanone	ND	10	µg/Kg							
2-Hexanone	ND	5.0	µg/Kg							
4-Methyl-2-Pentanone	ND	5.0	µg/Kg							
Acetone	ND	50	µg/Kg							
Acrolein	ND	100	µg/Kg							
Acrylonitrile	ND	100	µg/Kg							
Benzene	ND	5.0	µg/Kg							
Bromodichloromethane	ND	5.0	µg/Kg							
Bromoform	ND	5.0	µg/Kg							
Bromomethane	ND	10	µg/Kg							
Carbon Disulfide	ND	10	µg/Kg							
Carbon tetrachloride	ND	5.0	µg/Kg							
Chlorobenzene	ND	5.0	µg/Kg							
Chloroethane	ND	10	µg/Kg							
Chloroform	ND	5.0	µg/Kg							
Chloromethane	ND	10	µg/Kg							
cis-1,2-Dichloroethene	ND	5.0	µg/Kg							
cis-1,3-Dichloropropene	ND	5.0	µg/Kg							
Dibromochloromethane	ND	5.0	µg/Kg							
Ethylbenzene	ND	5.0	µg/Kg							
m,p-Xylene	ND	5.0	µg/Kg							
Methylene chloride	ND	10	µg/Kg							
Methyl-t-Butyl Ether	ND	5.0	µg/Kg							
o-Xylene	ND	5.0	µg/Kg							
Styrene	ND	5.0	µg/Kg							
Tetrachloroethene	ND	5.0	µg/Kg							
Toluene	ND	5.0	µg/Kg							
trans-1,2-Dichloroethene	ND	5.0	µg/Kg							
trans-1,3-Dichloropropene	ND	5.0	µg/Kg							
Trichloroethene	ND	5.0	µg/Kg							
Trichlorofluoromethane	ND	10	µg/Kg							

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029275 **Prep:** SW-846 5030B

Sample ID: Blank (B029275-BLK1) **Method:** SW-846 8260B **Prepped:** 06/21/2012 09:02
Source: **Analyzed:** 06/21/2012 12:02

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Vinyl Acetate	ND	10	µg/Kg							
Vinyl chloride	ND	10	µg/Kg							
Total 1,2-Dichloroethene	ND	10	µg/Kg							
Total Xylenes	ND	5.0	µg/Kg							
Surrogate: 1,2-Dichloroethane-d4	*46*		µg/L	*50.00*		*92.9*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*42*		µg/L	*50.00*		*84.9*	*80-120*			
Surrogate: Dibromofluoromethane	*45*		µg/L	*50.00*		*90.6*	*80-120*			
Surrogate: Toluene-d8	*49*		µg/L	*50.00*		*98.3*	*80-120*			

Sample ID: LCS (B029275-BS1) **Method:** SW-846 8260B **Prepped:** 06/21/2012 09:02
Source: **Analyzed:** 06/21/2012 14:01

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	19.5		µg/L	20.00		97.3	75-123			
1,1,1-Trichloroethane	17.6		µg/L	20.00		87.9	65.5-136			
1,1,2,2-Tetrachloroethane	17.2		µg/L	20.00		86.2	65.2-116			
1,1,2-Trichloroethane	17.1		µg/L	20.00		85.4	70.6-116			
1,1-Dichloroethane	17.3		µg/L	20.00		86.4	68.9-123			
1,1-Dichloroethene	13.7		µg/L	20.00		68.7	47.5-121			
1,2-Dichloroethane	16.2		µg/L	20.00		80.8	67-134			
1,2-Dichloropropane	17.4		µg/L	20.00		87.2	68.9-120			
2-Butanone	11.5		µg/L	20.00		57.3	50.4-113			
2-Hexanone	14.5		µg/L	20.00		72.4	48.3-117			
4-Methyl-2-Pentanone	15.3		µg/L	20.00		76.6	53.8-128			
Acetone	12.5		µg/L	20.00		62.4	52-135			
Acrolein	12.4		µg/L	20.00		62.0	44.6-196			
Acrylonitrile	14.0		µg/L	20.00		69.9	60.4-156			
Benzene	16.4		µg/L	20.00		81.8	68.8-120			
Bromodichloromethane	18.1		µg/L	20.00		90.4	73.4-127			
Bromoform	16.3		µg/L	20.00		81.4	65.2-138			
Bromomethane	9.13		µg/L	20.00		45.6	10-200			
Carbon Disulfide	20.9		µg/L	20.00		104	58-181			
Carbon tetrachloride	17.1		µg/L	20.00		85.6	63.7-142			
Chlorobenzene	18.6		µg/L	20.00		93.0	76.3-117			
Chloroethane	15.6		µg/L	20.00		77.8	45.2-157			
Chloroform	17.4		µg/L	20.00		87.1	75.9-124			
Chloromethane	16.8		µg/L	20.00		84.2	17.4-136			
cis-1,2-Dichloroethene	16.2		µg/L	20.00		81.0	77.8-128			
cis-1,3-Dichloropropene	19.6		µg/L	20.00		98.2	71.6-117			
Dibromochloromethane	18.2		µg/L	20.00		91.0	59.3-133			
Ethylbenzene	19.3		µg/L	20.00		96.4	74.7-116			
m,p-Xylene	37.7		µg/L	40.00		94.2	76.3-116			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029275 **Prep:** SW-846 5030B

Sample ID: LCS (B029275-BS1) **Method:** SW-846 8260B **Prepped:** 06/21/2012 09:02
Source: **Analyzed:** 06/21/2012 14:01

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Methylene chloride	15.1		µg/L	20.00		75.3	62-133			
Methyl-t-Butyl Ether	15.2		µg/L	20.00		76.1	69.4-130			
o-Xylene	18.4		µg/L	20.00		91.8	74.6-115			
Styrene	18.0		µg/L	20.00		90.2	71.1-111			
Tetrachloroethene	18.4		µg/L	20.00		91.8	72.8-123			
Toluene	18.8		µg/L	20.00		93.9	75.2-115			
trans-1,2-Dichloroethene	15.4		µg/L	20.00		76.8	62.9-123			
trans-1,3-Dichloropropene	18.8		µg/L	20.00		93.8	75.3-125			
Trichloroethene	16.6		µg/L	20.00		82.8	72.8-121			
Trichlorofluoromethane	16.4		µg/L	20.00		82.2	49.4-164			
Vinyl Acetate	26.7		µg/L	20.00		133	52.5-154			
Vinyl chloride	14.7		µg/L	20.00		73.4	44.7-139			
Total Xylenes	56.0		µg/L	60.00		93.4	75-115			
Surrogate: 1,2-Dichloroethane-d4	*47*		µg/L	*50.00*		*93.2*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*44*		µg/L	*50.00*		*87.6*	*80-120*			
Surrogate: Dibromofluoromethane	*45*		µg/L	*50.00*		*90.9*	*80-120*			
Surrogate: Toluene-d8	*50*		µg/L	*50.00*		*99.6*	*80-120*			

Sample ID: LCS Dup (B029275-BSD1) **Method:** SW-846 8260B **Prepped:** 06/21/2012 09:02
Source: **Analyzed:** 06/21/2012 14:32

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	19.4		µg/L	20.00		96.9	75-123	0.412	30	
1,1,1-Trichloroethane	17.6		µg/L	20.00		87.8	65.5-136	0.0569	30	
1,1,2,2-Tetrachloroethane	17.9		µg/L	20.00		89.6	65.2-116	3.98	30	
1,1,2-Trichloroethane	17.9		µg/L	20.00		89.7	70.6-116	4.91	30	
1,1-Dichloroethane	17.2		µg/L	20.00		85.8	68.9-123	0.696	30	
1,1-Dichloroethene	13.3		µg/L	20.00		66.3	47.5-121	3.56	30	
1,2-Dichloroethane	16.8		µg/L	20.00		84.0	67-134	3.95	30	
1,2-Dichloropropane	17.4		µg/L	20.00		86.8	68.9-120	0.517	30	
2-Butanone	11.6		µg/L	20.00		57.9	50.4-113	1.04	30	
2-Hexanone	15.1		µg/L	20.00		75.4	48.3-117	4.06	30	
4-Methyl-2-Pentanone	16.3		µg/L	20.00		81.4	53.8-128	6.20	30	
Acetone	13.2		µg/L	20.00		66.0	52-135	5.68	30	
Acrolein	13.0		µg/L	20.00		65.2	44.6-196	5.04	30	
Acrylonitrile	15.0		µg/L	20.00		74.9	60.4-156	6.91	30	
Benzene	16.5		µg/L	20.00		82.3	68.8-120	0.671	30	
Bromodichloromethane	17.6		µg/L	20.00		88.2	73.4-127	2.52	30	
Bromoform	17.2		µg/L	20.00		85.8	65.2-138	5.32	30	
Bromomethane	15.6		µg/L	20.00		78.0	10-200	52.3	30	R
Carbon Disulfide	20.5		µg/L	20.00		103	58-181	1.59	30	
Carbon tetrachloride	17.2		µg/L	20.00		85.8	63.7-142	0.233	30	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029275 **Prep:** SW-846 5030B

Sample ID: LCS Dup (B029275-BSD1) **Method:** SW-846 8260B **Prepped:** 06/21/2012 09:02
Source: **Analyzed:** 06/21/2012 14:32

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Chlorobenzene	18.3		µg/L	20.00		91.6	76.3-117	1.46	30	
Chloroethane	16.1		µg/L	20.00		80.4	45.2-157	3.28	30	
Chloroform	17.5		µg/L	20.00		87.4	75.9-124	0.344	30	
Chloromethane	16.9		µg/L	20.00		84.6	17.4-136	0.415	30	
cis-1,2-Dichloroethene	15.8		µg/L	20.00		79.0	77.8-128	2.50	30	
cis-1,3-Dichloropropene	20.2		µg/L	20.00		101	71.6-117	3.01	30	
Dibromochloromethane	18.6		µg/L	20.00		93.0	59.3-133	2.17	30	
Ethylbenzene	18.1		µg/L	20.00		90.5	74.7-116	6.31	30	
m,p-Xylene	35.8		µg/L	40.00		89.6	76.3-116	4.95	30	
Methylene chloride	15.1		µg/L	20.00		75.5	62-133	0.265	30	
Methyl-t-Butyl Ether	15.5		µg/L	20.00		77.4	69.4-130	1.76	30	
o-Xylene	17.6		µg/L	20.00		87.8	74.6-115	4.45	30	
Styrene	17.5		µg/L	20.00		87.7	71.1-111	2.87	30	
Tetrachloroethene	17.5		µg/L	20.00		87.6	72.8-123	4.68	30	
Toluene	18.7		µg/L	20.00		93.4	75.2-115	0.480	30	
trans-1,2-Dichloroethene	14.9		µg/L	20.00		74.6	62.9-123	2.97	30	
trans-1,3-Dichloropropene	20.0		µg/L	20.00		99.8	75.3-125	6.10	30	
Trichloroethene	16.4		µg/L	20.00		81.9	72.8-121	1.03	30	
Trichlorofluoromethane	16.9		µg/L	20.00		84.5	49.4-164	2.76	30	
Vinyl Acetate	27.3		µg/L	20.00		136	52.5-154	2.19	30	
Vinyl chloride	15.4		µg/L	20.00		77.2	44.7-139	5.05	30	
Total Xylenes	53.4		µg/L	60.00		89.0	75-115	4.79	30	
Surrogate: 1,2-Dichloroethane-d4	*47*		µg/L	*50.00*		*93.2*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*44*		µg/L	*50.00*		*87.8*	*80-120*			
Surrogate: Dibromofluoromethane	*46*		µg/L	*50.00*		*91.7*	*80-120*			
Surrogate: Toluene-d8	*49*		µg/L	*50.00*		*98.5*	*80-120*			

Batch: B029306 **Prep:** SW-846 5030B

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029306 **Prep:** SW-846 5030B

Volatile Organic Compounds

Sample ID: Blank (B029306-BLK1) **Method:** SW-846 8260B **Prepped:** 06/22/2012 08:03
Source: **Analyzed:** 06/22/2012 10:58

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	ND	10	µg/Kg							
1,1,1-Trichloroethane	ND	5.0	µg/Kg							
1,1,2,2-Tetrachloroethane	ND	5.0	µg/Kg							
1,1,2-Trichloroethane	ND	5.0	µg/Kg							
1,1-Dichloroethane	ND	5.0	µg/Kg							
1,1-Dichloroethene	ND	5.0	µg/Kg							
1,2-Dichloroethane	ND	5.0	µg/Kg							
1,2-Dichloropropane	ND	5.0	µg/Kg							
2-Butanone	ND	10	µg/Kg							
2-Hexanone	ND	5.0	µg/Kg							
4-Methyl-2-Pentanone	ND	5.0	µg/Kg							
Acetone	ND	50	µg/Kg							
Acrolein	ND	100	µg/Kg							
Acrylonitrile	ND	100	µg/Kg							
Benzene	ND	5.0	µg/Kg							
Bromodichloromethane	ND	5.0	µg/Kg							
Bromoform	ND	5.0	µg/Kg							
Bromomethane	ND	10	µg/Kg							
Carbon Disulfide	ND	10	µg/Kg							
Carbon tetrachloride	ND	5.0	µg/Kg							
Chlorobenzene	ND	5.0	µg/Kg							
Chloroethane	ND	10	µg/Kg							
Chloroform	ND	5.0	µg/Kg							
Chloromethane	ND	10	µg/Kg							
cis-1,2-Dichloroethene	ND	5.0	µg/Kg							
cis-1,3-Dichloropropene	ND	5.0	µg/Kg							
Dibromochloromethane	ND	5.0	µg/Kg							
Ethylbenzene	ND	5.0	µg/Kg							
m,p-Xylene	ND	5.0	µg/Kg							
Methylene chloride	ND	10	µg/Kg							
Methyl-t-Butyl Ether	ND	5.0	µg/Kg							
o-Xylene	ND	5.0	µg/Kg							
Styrene	ND	5.0	µg/Kg							
Tetrachloroethene	ND	5.0	µg/Kg							
Toluene	ND	5.0	µg/Kg							
trans-1,2-Dichloroethene	ND	5.0	µg/Kg							
trans-1,3-Dichloropropene	ND	5.0	µg/Kg							
Trichloroethene	ND	5.0	µg/Kg							
Trichlorofluoromethane	ND	10	µg/Kg							

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029306 **Prep:** SW-846 5030B

Sample ID: Blank (B029306-BLK1) **Method:** SW-846 8260B **Prepped:** 06/22/2012 08:03
Source: **Analyzed:** 06/22/2012 10:58

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Vinyl Acetate	ND	10	µg/Kg							
Vinyl chloride	ND	10	µg/Kg							
Total 1,2-Dichloroethene	ND	10	µg/Kg							
Total Xylenes	ND	5.0	µg/Kg							
Surrogate: 1,2-Dichloroethane-d4	*43*		µg/L	*50.00*		*86.6*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*44*		µg/L	*50.00*		*87.0*	*80-120*			
Surrogate: Dibromofluoromethane	*44*		µg/L	*50.00*		*88.5*	*80-120*			
Surrogate: Toluene-d8	*48*		µg/L	*50.00*		*96.5*	*80-120*			

Sample ID: LCS (B029306-BS1) **Method:** SW-846 8260B **Prepped:** 06/22/2012 08:03
Source: **Analyzed:** 06/22/2012 11:29

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	17.8		µg/L	20.00		89.1	75-123			
1,1,1-Trichloroethane	16.0		µg/L	20.00		80.0	65.5-136			
1,1,2,2-Tetrachloroethane	15.9		µg/L	20.00		79.7	65.2-116			
1,1,2-Trichloroethane	16.7		µg/L	20.00		83.4	70.6-116			
1,1-Dichloroethane	16.0		µg/L	20.00		80.1	68.9-123			
1,1-Dichloroethene	13.6		µg/L	20.00		68.2	47.5-121			
1,2-Dichloroethane	15.0		µg/L	20.00		75.0	67-134			
1,2-Dichloropropane	16.7		µg/L	20.00		83.6	68.9-120			
2-Butanone	11.5		µg/L	20.00		57.5	50.4-113			
2-Hexanone	13.5		µg/L	20.00		67.7	48.3-117			
4-Methyl-2-Pentanone	14.7		µg/L	20.00		73.7	53.8-128			
Acetone	12.1		µg/L	20.00		60.6	52-135			
Acrolein	12.3		µg/L	20.00		61.7	44.6-196			
Acrylonitrile	13.4		µg/L	20.00		66.8	60.4-156			
Benzene	15.8		µg/L	20.00		78.8	68.8-120			
Bromodichloromethane	16.6		µg/L	20.00		83.2	73.4-127			
Bromoform	15.6		µg/L	20.00		78.0	65.2-138			
Bromomethane	10.8		µg/L	20.00		53.8	10-200			
Carbon Disulfide	18.9		µg/L	20.00		94.4	58-181			
Carbon tetrachloride	15.7		µg/L	20.00		78.6	63.7-142			
Chlorobenzene	17.8		µg/L	20.00		88.9	76.3-117			
Chloroethane	15.2		µg/L	20.00		75.8	45.2-157			
Chloroform	16.4		µg/L	20.00		82.1	75.9-124			
Chloromethane	15.7		µg/L	20.00		78.6	17.4-136			
cis-1,2-Dichloroethene	15.7		µg/L	20.00		78.6	77.8-128			
cis-1,3-Dichloropropene	18.4		µg/L	20.00		92.2	71.6-117			
Dibromochloromethane	17.3		µg/L	20.00		86.3	59.3-133			
Ethylbenzene	17.1		µg/L	20.00		85.6	74.7-116			
m,p-Xylene	34.0		µg/L	40.00		85.1	76.3-116			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029306 **Prep:** SW-846 5030B

Sample ID: LCS (B029306-BS1) **Method:** SW-846 8260B **Prepped:** 06/22/2012 08:03
Source: **Analyzed:** 06/22/2012 11:29

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Methylene chloride	15.6		µg/L	20.00		77.9	62-133			
Methyl-t-Butyl Ether	15.0		µg/L	20.00		74.8	69.4-130			
o-Xylene	17.0		µg/L	20.00		84.9	74.6-115			
Styrene	15.6		µg/L	20.00		78.0	71.1-111			
Tetrachloroethene	16.6		µg/L	20.00		83.0	72.8-123			
Toluene	18.0		µg/L	20.00		90.0	75.2-115			
trans-1,2-Dichloroethene	14.3		µg/L	20.00		71.7	62.9-123			
trans-1,3-Dichloropropene	17.5		µg/L	20.00		87.6	75.3-125			
Trichloroethene	15.4		µg/L	20.00		77.2	72.8-121			
Trichlorofluoromethane	15.5		µg/L	20.00		77.4	49.4-164			
Vinyl Acetate	24.3		µg/L	20.00		122	52.5-154			
Vinyl chloride	14.1		µg/L	20.00		70.6	44.7-139			
Total Xylenes	51.0		µg/L	60.00		85.0	75-115			
Surrogate: 1,2-Dichloroethane-d4	*44*		µg/L	*50.00*		*87.3*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*44*		µg/L	*50.00*		*87.9*	*80-120*			
Surrogate: Dibromofluoromethane	*44*		µg/L	*50.00*		*87.9*	*80-120*			
Surrogate: Toluene-d8	*49*		µg/L	*50.00*		*97.3*	*80-120*			

Sample ID: LCS Dup (B029306-BSD1) **Method:** SW-846 8260B **Prepped:** 06/22/2012 08:03
Source: **Analyzed:** 06/22/2012 12:00

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	19.1		µg/L	20.00		95.4	75-123	6.88	30	
1,1,1-Trichloroethane	16.7		µg/L	20.00		83.6	65.5-136	4.28	30	
1,1,2,2-Tetrachloroethane	16.6		µg/L	20.00		83.1	65.2-116	4.18	30	
1,1,2-Trichloroethane	17.2		µg/L	20.00		86.0	70.6-116	3.01	30	
1,1-Dichloroethane	16.4		µg/L	20.00		81.8	68.9-123	2.16	30	
1,1-Dichloroethene	14.1		µg/L	20.00		70.6	47.5-121	3.39	30	
1,2-Dichloroethane	15.7		µg/L	20.00		78.4	67-134	4.50	30	
1,2-Dichloropropane	17.2		µg/L	20.00		86.2	68.9-120	3.06	30	
2-Butanone	11.3		µg/L	20.00		56.6	50.4-113	1.67	30	
2-Hexanone	13.8		µg/L	20.00		69.1	48.3-117	2.05	30	
4-Methyl-2-Pentanone	15.1		µg/L	20.00		75.4	53.8-128	2.28	30	
Acetone	12.3		µg/L	20.00		61.6	52-135	1.80	30	
Acrolein	12.7		µg/L	20.00		63.4	44.6-196	2.72	30	
Acrylonitrile	13.6		µg/L	20.00		67.9	60.4-156	1.56	30	
Benzene	16.3		µg/L	20.00		81.7	68.8-120	3.68	30	
Bromodichloromethane	17.2		µg/L	20.00		85.8	73.4-127	3.02	30	
Bromoform	16.5		µg/L	20.00		82.4	65.2-138	5.43	30	
Bromomethane	14.8		µg/L	20.00		74.2	10-200	31.9	30	R
Carbon Disulfide	19.1		µg/L	20.00		95.7	58-181	1.37	30	
Carbon tetrachloride	16.5		µg/L	20.00		82.5	63.7-142	4.91	30	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

GCMS Volatiles - Quality Control

Batch: B029306 **Prep:** SW-846 5030B

Sample ID: LCS Dup (B029306-BSD1) **Method:** SW-846 8260B **Prepped:** 06/22/2012 08:03
Source: **Analyzed:** 06/22/2012 12:00

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Chlorobenzene	18.1		µg/L	20.00		90.3	76.3-117	1.56	30	
Chloroethane	14.5		µg/L	20.00		72.7	45.2-157	4.11	30	
Chloroform	17.0		µg/L	20.00		85.0	75.9-124	3.47	30	
Chloromethane	14.7		µg/L	20.00		73.6	17.4-136	6.57	30	
cis-1,2-Dichloroethene	15.9		µg/L	20.00		79.4	77.8-128	1.01	30	
cis-1,3-Dichloropropene	19.7		µg/L	20.00		98.4	71.6-117	6.61	30	
Dibromochloromethane	18.1		µg/L	20.00		90.6	59.3-133	4.92	30	
Ethylbenzene	17.5		µg/L	20.00		87.5	74.7-116	2.20	30	
m,p-Xylene	34.2		µg/L	40.00		85.4	76.3-116	0.352	30	
Methylene chloride	16.1		µg/L	20.00		80.5	62-133	3.28	30	
Methyl-t-Butyl Ether	15.1		µg/L	20.00		75.4	69.4-130	0.799	30	
o-Xylene	17.1		µg/L	20.00		85.7	74.6-115	0.938	30	
Styrene	16.4		µg/L	20.00		82.1	71.1-111	5.12	30	
Tetrachloroethene	17.3		µg/L	20.00		86.4	72.8-123	4.13	30	
Toluene	18.0		µg/L	20.00		89.9	75.2-115	0.167	30	
trans-1,2-Dichloroethene	14.7		µg/L	20.00		73.6	62.9-123	2.62	30	
trans-1,3-Dichloropropene	18.3		µg/L	20.00		91.6	75.3-125	4.52	30	
Trichloroethene	16.1		µg/L	20.00		80.6	72.8-121	4.31	30	
Trichlorofluoromethane	15.0		µg/L	20.00		75.2	49.4-164	2.95	30	
Vinyl Acetate	24.6		µg/L	20.00		123	52.5-154	1.23	30	
Vinyl chloride	14.1		µg/L	20.00		70.5	44.7-139	0.0709	30	
Total Xylenes	51.3		µg/L	60.00		85.5	75-115	0.547	30	
Surrogate: 1,2-Dichloroethane-d4	*44*		µg/L	*50.00*		*87.7*	*74.5-132*			
Surrogate: 4-Bromofluorobenzene	*44*		µg/L	*50.00*		*87.6*	*80-120*			
Surrogate: Dibromofluoromethane	*45*		µg/L	*50.00*		*89.6*	*80-120*			
Surrogate: Toluene-d8	*48*		µg/L	*50.00*		*96.7*	*80-120*			

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

Metals - Quality Control

Batch: B029149 **Prep:** SW846 3050B

Total Metals by ICP

Sample ID: Blank (B029149-BLK1) **Method:** SW-846 6010B **Prepped:** 06/20/2012 08:05
Source: **Analyzed:** 06/21/2012 09:29

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.50	mg/Kg							
Barium	ND	0.20	mg/Kg							
Cadmium	ND	0.20	mg/Kg							
Chromium	ND	0.20	mg/Kg							
Lead	ND	0.38	mg/Kg							
Selenium	ND	1.5	mg/Kg							
Silver	ND	0.50	mg/Kg							

Sample ID: LCS (B029149-BS1) **Method:** SW-846 6010B **Prepped:** 06/20/2012 08:05
Source: **Analyzed:** 06/21/2012 09:35

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	129	0.95	mg/Kg	135.0		95.6	65.1-118			
Barium	510	0.38	mg/Kg	503.0		101	68.3-118			
Cadmium	179	0.38	mg/Kg	183.0		98.0	64.9-112			
Chromium	272	0.38	mg/Kg	261.0		104	65.8-124			
Lead	146	0.71	mg/Kg	149.0		97.8	62.9-110			
Selenium	148	2.9	mg/Kg	160.0		92.3	54.9-110			
Silver	76.4	0.95	mg/Kg	77.70		98.3	56.8-113			

Sample ID: Matrix Spike (B029149-MS1) **Method:** SW-846 6010B **Prepped:** 06/20/2012 08:05
Source: 12F0748-08 **Analyzed:** 06/21/2012 09:56

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	91.9	0.45	mg/Kg	89.29	1.87	101	75-125			
Barium	169	0.18	mg/Kg	98.21	71.7	99.1	75-125			
Cadmium	9.74	0.18	mg/Kg	8.929	0.0811	108	75-125			
Chromium	102	0.18	mg/Kg	89.29	4.21	110	75-125			
Lead	94.6	0.33	mg/Kg	89.29	4.99	100	75-125			
Selenium	85.8	1.3	mg/Kg	89.29	0.761	95.2	75-125			
Silver	9.29	0.45	mg/Kg	8.929	0.707	96.1	75-125			

Sample ID: Matrix Spike Dup (B029149-MSD1) **Method:** SW-846 6010B **Prepped:** 06/20/2012 08:05
Source: 12F0748-08 **Analyzed:** 06/21/2012 10:02

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	91.6	0.44	mg/Kg	88.50	1.87	101	75-125	0.356	20	
Barium	171	0.18	mg/Kg	97.35	71.7	102	75-125	1.07	20	
Cadmium	9.79	0.18	mg/Kg	8.850	0.0811	110	75-125	0.522	20	
Chromium	102	0.18	mg/Kg	88.50	4.21	111	75-125	0.285	20	
Lead	95.7	0.33	mg/Kg	88.50	4.99	102	75-125	1.17	20	
Selenium	85.2	1.3	mg/Kg	88.50	0.761	95.4	75-125	0.733	20	
Silver	9.60	0.44	mg/Kg	8.850	0.707	100	75-125	3.30	20	

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Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA
Batch: B029219 **Prep:** SW846 3050B

Metals - Quality Control

Total Metals by ICP

Sample ID: Blank (B029219-BLK1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 07:51
Source: **Analyzed:** 06/22/2012 14:21

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.50	mg/Kg							
Barium	ND	0.20	mg/Kg							
Cadmium	ND	0.20	mg/Kg							
Chromium	ND	0.20	mg/Kg							
Lead	3.2	0.38	mg/Kg							
Selenium	ND	1.5	mg/Kg							
Silver	ND	0.50	mg/Kg							

Sample ID: LCS (B029219-BS1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 07:51
Source: **Analyzed:** 06/22/2012 14:26

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	116	0.96	mg/Kg	135.0		86.0	65.1-118			
Barium	480	0.38	mg/Kg	503.0		95.5	68.3-118			
Cadmium	169	0.38	mg/Kg	183.0		92.1	64.9-112			
Chromium	252	0.38	mg/Kg	261.0		96.6	65.8-124			
Lead	149	0.72	mg/Kg	149.0		99.8	62.9-110			
Selenium	129	2.9	mg/Kg	160.0		80.9	54.9-110			

Sample ID: Matrix Spike (B029219-MS1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 07:51
Source: 12F0762-01 **Analyzed:** 06/22/2012 14:38

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	135	0.50	mg/Kg	100.0	32.1	103	75-125			
Barium	24.0	0.20	mg/Kg	110.0	2.36	19.7	75-125			S
Cadmium	14.6	0.20	mg/Kg	10.00	4.61	99.5	75-125			
Chromium	180	0.20	mg/Kg	100.0	82.1	97.7	75-125			
Lead	125000	0.38	mg/Kg	100.0	121000	NR	75-125			ES
Selenium	108	1.5	mg/Kg	100.0	39.5	68.9	75-125			S
Silver	12.7	0.50	mg/Kg	10.00	17.3	NR	75-125			S

Sample ID: Matrix Spike Dup (B029219-MSD1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 07:51
Source: 12F0762-01 **Analyzed:** 06/22/2012 14:54

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	130	0.49	mg/Kg	97.09	32.1	101	75-125	3.85	20	
Barium	19.0	0.19	mg/Kg	106.8	2.36	15.6	75-125	23.2	20	RS
Cadmium	14.1	0.19	mg/Kg	9.709	4.61	97.3	75-125	3.47	20	
Chromium	179	0.19	mg/Kg	97.09	82.1	100	75-125	0.348	20	
Lead	119000	0.36	mg/Kg	97.09	121000	NR	75-125	4.98	20	ES
Selenium	96.7	1.5	mg/Kg	97.09	39.5	58.9	75-125	11.4	20	S
Silver	12.3	0.49	mg/Kg	9.709	17.3	NR	75-125	3.55	20	S

Batch: B029223 **Prep:** SW846 3005A

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7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

Metals - Quality Control

Batch: B029223 **Prep:** SW846 3005A

Total Metals by ICP

Sample ID: Blank (B029223-BLK1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 09:30
Source: **Analyzed:** 06/22/2012 12:40

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.010	mg/L							
Barium	ND	0.0020	mg/L							
Cadmium	ND	0.0020	mg/L							
Chromium	ND	0.0030	mg/L							
Lead	ND	0.0075	mg/L							
Selenium	ND	0.030	mg/L							
Silver	ND	0.010	mg/L							

Sample ID: LCS (B029223-BS1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 09:30
Source: **Analyzed:** 06/22/2012 12:45

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.12	0.010	mg/L	2.000		106	80-120			
Barium	2.30	0.0020	mg/L	2.200		105	80-120			
Cadmium	0.226	0.0020	mg/L	0.2000		113	80-120			
Chromium	2.22	0.0030	mg/L	2.000		111	80-120			
Lead	2.13	0.0075	mg/L	2.000		107	80-120			
Selenium	2.19	0.030	mg/L	2.000		110	80-120			
Silver	0.198	0.010	mg/L	0.2000		99.2	80-120			

Sample ID: Matrix Spike (B029223-MS1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 09:30
Source: 12F0768-02 **Analyzed:** 06/22/2012 13:07

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.05	0.010	mg/L	2.000	0.0632	99.2	75-125			
Barium	2.49	0.0020	mg/L	2.200	0.322	98.5	75-125			
Cadmium	0.215	0.0020	mg/L	0.2000	0.00510	105	75-125			
Chromium	2.19	0.0030	mg/L	2.000	0.0426	107	75-125			
Lead	2.45	0.0075	mg/L	2.000	0.490	98.2	75-125			
Selenium	1.92	0.030	mg/L	2.000	ND	96.0	75-125			
Silver	0.194	0.010	mg/L	0.2000	0.0142	90.1	75-125			

Sample ID: Matrix Spike Dup (B029223-MSD1) **Method:** SW-846 6010B **Prepped:** 06/21/2012 09:30
Source: 12F0768-02 **Analyzed:** 06/22/2012 13:12

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.06	0.010	mg/L	2.000	0.0632	99.7	75-125	0.438	20	
Barium	2.41	0.0020	mg/L	2.200	0.322	95.0	75-125	3.18	20	
Cadmium	0.216	0.0020	mg/L	0.2000	0.00510	105	75-125	0.604	20	
Chromium	2.20	0.0030	mg/L	2.000	0.0426	108	75-125	0.274	20	
Lead	2.46	0.0075	mg/L	2.000	0.490	98.3	75-125	0.0815	20	
Selenium	1.92	0.030	mg/L	2.000	ND	96.0	75-125	0.0521	20	
Silver	0.190	0.010	mg/L	0.2000	0.0142	87.8	75-125	2.39	20	

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7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc. **Metals - Quality Control**
Work Order: 12F0768
Project: Forest City SA
Batch: B029227 **Prep:** SW-846 7471

Total Mercury by CVAA

Sample ID: Blank (B029227-BLK1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:03
Source: **Analyzed:** 06/22/2012 14:34

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.042	mg/Kg							

Sample ID: LCS (B029227-BS1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:03
Source: **Analyzed:** 06/22/2012 14:35

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	15.6	2.0	mg/Kg	16.20		96.1	41.9-122			

Sample ID: Matrix Spike (B029227-MS1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:03
Source: 12F0748-08 **Analyzed:** 06/22/2012 14:40

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.225	0.039	mg/Kg	0.07692	0.170	72.0	70-130			

Sample ID: Matrix Spike Dup (B029227-MSD1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:03
Source: 12F0748-08 **Analyzed:** 06/22/2012 14:43

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.224	0.039	mg/Kg	0.07692	0.170	70.0	70-130	0.685	20	

Batch: B029230 **Prep:** SW-846 7471

Total Mercury by CVAA

Sample ID: Blank (B029230-BLK1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:50
Source: **Analyzed:** 06/22/2012 15:02

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.042	mg/Kg							

Sample ID: LCS (B029230-BS1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:50
Source: **Analyzed:** 06/22/2012 15:03

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	15.5	2.0	mg/Kg	16.20		95.5	70-130			

Sample ID: Matrix Spike (B029230-MS1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:50
Source: 12F0716-01 **Analyzed:** 06/22/2012 15:06

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.0854	0.042	mg/Kg	0.08333	0.00867	92.1	70-130			

Sample ID: Matrix Spike Dup (B029230-MSD1) **Method:** SW-846 7471A **Prepped:** 06/21/2012 11:50
Source: 12F0716-01 **Analyzed:** 06/22/2012 15:07

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.0852	0.041	mg/Kg	0.08197	0.00867	93.4	70-130	0.200	20	

Batch: B029298 **Prep:** SW-846 7470

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

Metals - Quality Control

Batch: B029298 **Prep:** SW-846 7470

Total Mercury by CVAA

Sample ID:	Blank (B029298-BLK1)		**Method:**	SW-846 7470A		**Prepped:**	06/22/2012	10:15		
Source:						**Analyzed:**	06/22/2012	13:59		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.00020	mg/L							
Sample ID:	LCS (B029298-BS1)		**Method:**	SW-846 7470A		**Prepped:**	06/22/2012	10:15		
Source:						**Analyzed:**	06/22/2012	14:00		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.00199	0.00020	mg/L	0.002000		99.5	80-120			
Sample ID:	Matrix Spike (B029298-MS1)		**Method:**	SW-846 7470A		**Prepped:**	06/22/2012	10:15		
Source:	12F0898-08					**Analyzed:**	06/22/2012	14:17		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.00201	0.00020	mg/L	0.002000	0.0000390	98.5	75-125			
Sample ID:	Matrix Spike Dup (B029298-MSD1)		**Method:**	SW-846 7470A		**Prepped:**	06/22/2012	10:15		
Source:	12F0898-08					**Analyzed:**	06/22/2012	14:18		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.00202	0.00020	mg/L	0.002000	0.0000390	99.0	75-125	0.496	20	

Batch: B029378 **Prep:** SW846 3050B

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

Metals - Quality Control

Batch: B029378 **Prep:** SW846 3050B

Total Metals by ICP

Sample ID: Blank (B029378-BLK1) **Method:** SW-846 6010B **Prepped:** 06/26/2012 09:16
Source: **Analyzed:** 06/27/2012 19:51

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Silver	ND	0.50	mg/Kg							

Sample ID: LCS (B029378-BS1) **Method:** SW-846 6010B **Prepped:** 06/26/2012 09:16
Source: **Analyzed:** 06/27/2012 19:56

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Silver	87.4	1.0	mg/Kg	77.70		112	56.8-113			

Sample ID: Matrix Spike (B029378-MS1) **Method:** SW-846 6010B **Prepped:** 06/26/2012 09:16
Source: 12F0768-06RE2 **Analyzed:** 06/27/2012 20:20

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	78.8	0.45	mg/Kg	89.29	3.58	84.2	75-125			
Barium	412	0.18	mg/Kg	98.21	354	59.2	75-125			S
Cadmium	37.6	0.18	mg/Kg	8.929	32.5	57.0	75-125			S
Chromium	84.6	0.18	mg/Kg	89.29	5.06	89.1	75-125			
Lead	40200	0.33	mg/Kg	89.29	45700	NR	75-125			ES
Selenium	70.4	1.3	mg/Kg	89.29	ND	78.8	75-125			
Silver	16.9	0.45	mg/Kg	8.929	7.65	103	75-125			

Sample ID: Matrix Spike Dup (B029378-MSD1) **Method:** SW-846 6010B **Prepped:** 06/26/2012 09:16
Source: 12F0768-06RE2 **Analyzed:** 06/27/2012 20:26

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	87.7	0.45	mg/Kg	90.09	3.58	93.3	75-125	10.6	20	
Barium	490	0.18	mg/Kg	99.10	354	138	75-125	17.3	20	S
Cadmium	41.0	0.18	mg/Kg	9.009	32.5	94.1	75-125	8.63	20	
Chromium	93.1	0.18	mg/Kg	90.09	5.06	97.7	75-125	9.48	20	
Lead	45300	0.34	mg/Kg	90.09	45700	NR	75-125	11.9	20	ES
Selenium	78.0	1.4	mg/Kg	90.09	ND	86.6	75-125	10.2	20	
Silver	20.7	0.45	mg/Kg	9.009	7.65	145	75-125	20.4	20	RS

Sample ID: Post Spike (B029378-PS1) **Method:** SW-846 6010B **Prepped:** 06/26/2012 09:16
Source: 12F0768-06RE3 **Analyzed:** 06/28/2012 22:09

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Silver	0.240		mg/Kg	0.2000	0.0633	88.4	85-115			

Batch: B029390 **Prep:** SW-846 7471

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

Metals - Quality Control

Batch: B029390 **Prep:** SW-846 7471

Total Mercury by CVAA

Sample ID:	Blank (B029390-BLK1)		**Method:**	SW-846 7471A		**Prepped:**	06/26/2012 12:11			
Source:						**Analyzed:**	06/26/2012 14:36			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.042	mg/Kg							
Sample ID:	LCS (B029390-BS1)		**Method:**	SW-846 7471A		**Prepped:**	06/26/2012 12:11			
Source:						**Analyzed:**	06/26/2012 14:39			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	14.5	2.0	mg/Kg	16.20		89.7	70-130			
Sample ID:	Matrix Spike (B029390-MS1)		**Method:**	SW-846 7471A		**Prepped:**	06/26/2012 12:11			
Source:	12F0768-01					**Analyzed:**	06/26/2012 14:45			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.427	0.23	mg/Kg	0.4545	0.0410	85.0	70-130			
Sample ID:	Matrix Spike Dup (B029390-MSD1)		**Method:**	SW-846 7471A		**Prepped:**	06/26/2012 12:11			
Source:	12F0768-01					**Analyzed:**	06/26/2012 14:46			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.508	0.25	mg/Kg	0.5000	0.0410	93.3	70-130	17.2	20	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

TCLP Metals - Quality Control

Batch: B029284 **Prep:** /SW846 3005A

TCLP Metals by ICP

Sample ID: Blank (B029284-BLK1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: **Analyzed:** 06/22/2012 16:45

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.0100	mg/L							
Barium	ND	0.500	mg/L							
Cadmium	ND	0.00200	mg/L							
Chromium	ND	0.00300	mg/L							
Lead	0.0295	0.00750	mg/L							
Selenium	ND	0.0300	mg/L							
Silver	ND	0.0100	mg/L							

Sample ID: LCS (B029284-BS1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: **Analyzed:** 06/22/2012 16:51

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.11	0.0100	mg/L	2.000		106	80-120			
Barium	2.19	0.500	mg/L	2.200		99.7	80-120			
Cadmium	0.213	0.00200	mg/L	0.2000		106	80-120			
Chromium	2.05	0.00300	mg/L	2.000		102	80-120			
Lead	1.96	0.00750	mg/L	2.000		98.0	80-120			
Selenium	2.18	0.0300	mg/L	2.000		109	80-120			
Silver	0.220	0.0100	mg/L	0.2000		110	80-120			

Sample ID: Matrix Spike (B029284-MS1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: 12F0684-01 **Analyzed:** 06/22/2012 17:02

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.15	0.0100	mg/L	2.000	ND	108	50-200			
Barium	2.59	0.500	mg/L	2.200	0.432	98.1	50-200			
Cadmium	0.203	0.00200	mg/L	0.2000	0.00190	101	50-200			
Chromium	2.02	0.00300	mg/L	2.000	ND	101	50-200			
Lead	1.88	0.00750	mg/L	2.000	0.0323	92.5	50-200			
Selenium	2.17	0.0300	mg/L	2.000	0.0187	108	50-200			
Silver	0.219	0.0100	mg/L	0.2000	ND	109	50-200			

Sample ID: Matrix Spike Dup (B029284-MSD1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: 12F0684-01 **Analyzed:** 06/22/2012 17:07

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.17	0.0100	mg/L	2.000	ND	108	50-200	0.880	20	
Barium	2.64	0.500	mg/L	2.200	0.432	101	50-200	2.06	20	
Cadmium	0.207	0.00200	mg/L	0.2000	0.00190	103	50-200	1.90	20	
Chromium	2.04	0.00300	mg/L	2.000	ND	102	50-200	1.38	20	
Lead	1.92	0.00750	mg/L	2.000	0.0323	94.5	50-200	2.05	20	
Selenium	2.21	0.0300	mg/L	2.000	0.0187	109	50-200	1.64	20	
Silver	0.225	0.0100	mg/L	0.2000	ND	112	50-200	2.75	20	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA
Batch: B029285 **Prep:** /SW846 3005A

TCLP Metals - Quality Control

TCLP Metals by ICP

Sample ID: Blank (B029285-BLK1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: **Analyzed:** 06/22/2012 16:01

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.0100	mg/L							
Barium	ND	0.500	mg/L							
Cadmium	ND	0.00200	mg/L							
Chromium	ND	0.00300	mg/L							
Lead	0.0282	0.00750	mg/L							
Selenium	ND	0.0300	mg/L							
Silver	ND	0.0100	mg/L							

Sample ID: LCS (B029285-BS1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: **Analyzed:** 06/22/2012 16:06

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.08	0.0100	mg/L	2.000		104	80-120			
Barium	2.24	0.500	mg/L	2.200		102	80-120			
Cadmium	0.218	0.00200	mg/L	0.2000		109	80-120			
Chromium	2.09	0.00300	mg/L	2.000		104	80-120			
Lead	2.00	0.00750	mg/L	2.000		100	80-120			
Selenium	2.28	0.0300	mg/L	2.000		114	80-120			
Silver	0.225	0.0100	mg/L	0.2000		113	80-120			

Sample ID: Matrix Spike (B029285-MS1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: 12F0768-12 **Analyzed:** 06/22/2012 16:34

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.21	0.0100	mg/L	2.000	0.00410	110	50-200			
Barium	7.00	0.500	mg/L	2.200	4.90	95.4	50-200			
Cadmium	0.286	0.00200	mg/L	0.2000	0.0853	100	50-200			
Chromium	2.06	0.00300	mg/L	2.000	0.00140	103	50-200			
Lead	2.50	0.00750	mg/L	2.000	0.644	92.6	50-200			
Selenium	2.31	0.0300	mg/L	2.000	0.0129	115	50-200			
Silver	0.216	0.0100	mg/L	0.2000	ND	108	50-200			

Sample ID: Matrix Spike Dup (B029285-MSD1) **Method:** 1311/6010B **Prepped:** 06/22/2012 09:25
Source: 12F0768-12 **Analyzed:** 06/22/2012 16:39

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.30	0.0100	mg/L	2.000	0.00410	115	50-200	4.16	20	
Barium	7.19	0.500	mg/L	2.200	4.90	104	50-200	2.73	20	
Cadmium	0.296	0.00200	mg/L	0.2000	0.0853	106	50-200	3.71	20	
Chromium	2.13	0.00300	mg/L	2.000	0.00140	106	50-200	3.25	20	
Lead	2.56	0.00750	mg/L	2.000	0.644	95.6	50-200	2.38	20	
Selenium	2.40	0.0300	mg/L	2.000	0.0129	119	50-200	3.74	20	
Silver	0.240	0.0100	mg/L	0.2000	ND	120	50-200	10.1	20	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA
Batch: B029433 **Prep:** /SW846 3005A

TCLP Metals - Quality Control

TCLP Metals by ICP

Sample ID: Blank (B029433-BLK1) **Method:** 1311/6010B **Prepped:** 06/27/2012 09:03
Source: **Analyzed:** 06/27/2012 17:31

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.0100	mg/L							
Barium	ND	0.500	mg/L							
Cadmium	0.00370	0.00200	mg/L							
Chromium	ND	0.00300	mg/L							
Lead	ND	0.00750	mg/L							
Selenium	ND	0.0300	mg/L							
Silver	ND	0.0100	mg/L							

Sample ID: LCS (B029433-BS1) **Method:** 1311/6010B **Prepped:** 06/27/2012 09:03
Source: **Analyzed:** 06/27/2012 17:37

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.06	0.0100	mg/L	2.000		103	80-120			
Barium	2.15	0.500	mg/L	2.200		97.9	80-120			
Cadmium	0.209	0.00200	mg/L	0.2000		105	80-120			
Chromium	1.98	0.00300	mg/L	2.000		99.0	80-120			
Lead	1.87	0.00750	mg/L	2.000		93.4	80-120			
Selenium	2.11	0.0300	mg/L	2.000		105	80-120			
Silver	0.232	0.0100	mg/L	0.2000		116	80-120			

Sample ID: Matrix Spike (B029433-MS1) **Method:** 1311/6010B **Prepped:** 06/27/2012 09:03
Source: 12F0768-10 **Analyzed:** 06/27/2012 17:48

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.13	0.0100	mg/L	2.000	0.0239	105	50-200			
Barium	3.00	0.500	mg/L	2.200	0.896	95.8	50-200			
Cadmium	0.216	0.00200	mg/L	0.2000	0.0130	102	50-200			
Chromium	2.01	0.00300	mg/L	2.000	0.00300	100	50-200			
Lead	6.83	0.00750	mg/L	2.000	4.95	94.0	50-200			
Selenium	2.17	0.0300	mg/L	2.000	0.0218	107	50-200			
Silver	0.239	0.0100	mg/L	0.2000	ND	119	50-200			

Sample ID: Matrix Spike Dup (B029433-MSD1) **Method:** 1311/6010B **Prepped:** 06/27/2012 09:03
Source: 12F0768-10 **Analyzed:** 06/27/2012 17:54

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	2.09	0.0100	mg/L	2.000	0.0239	103	50-200	2.18	20	
Barium	2.96	0.500	mg/L	2.200	0.896	93.8	50-200	1.51	20	
Cadmium	0.212	0.00200	mg/L	0.2000	0.0130	99.3	50-200	2.20	20	
Chromium	1.96	0.00300	mg/L	2.000	0.00300	98.0	50-200	2.47	20	
Lead	6.69	0.00750	mg/L	2.000	4.95	86.9	50-200	2.10	20	
Selenium	2.12	0.0300	mg/L	2.000	0.0218	105	50-200	2.24	20	
Silver	0.225	0.0100	mg/L	0.2000	ND	112	50-200	6.00	20	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA

Wet Chemistry - Quality Control

Batch: B029182

pH

Sample ID: Duplicate (B029182-DUP1) **Method:** SW-846 9045C **Prepped:** 06/20/2012 14:30
Source: 12F0774-01 **Analyzed:** 06/20/2012 15:03

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
pH	10.64	2.00	pH Units		10.54			0.944	20	

Sample ID: Duplicate (B029182-DUP2) **Method:** SW-846 9045C **Prepped:** 06/20/2012 14:30
Source: 12F0497-02 **Analyzed:** 06/20/2012 15:03

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
pH	7.690	2.00	pH Units		7.670			0.260	20	

Batch: B029235

pH

Sample ID: Duplicate (B029235-DUP1) **Method:** SM 4500-H+ B-2000 **Prepped:** 06/21/2012 13:26
Source: 12F0605-02 **Analyzed:** 06/21/2012 13:28

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
pH	6.93	2.00	pH Units		6.90			0.434	20	

Batch: B029238

Density

Sample ID: LCS (B029238-BS1) **Method:** ASTM D5057 MOD **Prepped:** 06/21/2012 15:04
Source: **Analyzed:** 06/21/2012 15:06

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bulk Density	1.02	0.00000010	g/ml	1.000		102	93-107			

Sample ID: Duplicate (B029238-DUP1) **Method:** ASTM D5057 MOD **Prepped:** 06/21/2012 15:04
Source: 12F0768-01 **Analyzed:** 06/21/2012 15:06

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bulk Density	0.857	0.00000010	g/ml		0.856			0.174	20	

Batch: B029242

Ignitability (Closed Cup)

Sample ID: LCS (B029242-BS1) **Method:** SW-846 1010 **Prepped:** 06/21/2012 08:01
Source: **Analyzed:** 06/21/2012 08:01

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Ignitability	81.0	30	°F	81.00		100	97.5-102			

Sample ID: Duplicate (B029242-DUP1) **Method:** SW-846 1010 **Prepped:** 06/21/2012 12:59
Source: 12F0747-04 **Analyzed:** 06/21/2012 12:59

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Ignitability	<	30	°F		35.0			2.82	200	

Revised
7/11/2012

Analytical QC Summary

Client: Weston Solutions, Inc.
Work Order: 12F0768
Project: Forest City SA
Batch: B029303

Wet Chemistry - Quality Control

pH

Sample ID: Duplicate (B029303-DUP1) **Method:** SW-846 9045C **Prepped:** 06/22/2012 13:45
Source: 12F0865-01 **Analyzed:** 06/22/2012 14:32

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
pH	10.44	2.00	pH Units		10.49			0.478	20	

Batch: B030003

Density

Sample ID: LCS (B030003-BS1) **Method:** ASTM D5057 **Prepped:** 07/11/2012 16:38
Source: **Analyzed:** 07/11/2012 16:47

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bulk Density	1.00	0.10	g/ml	1.000		100	93-107			

Sample ID: Duplicate (B030003-DUP1) **Method:** ASTM D5057 **Prepped:** 07/11/2012 16:38
Source: 12F0768-06 **Analyzed:** 07/11/2012 16:47

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bulk Density	1.97	0.10	g/ml		1.94			1.48	20	

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Samples Submitted to:
- [X] 250 West 84th Drive, Merrillville, IN 46410, Tel: 219-769-8378, Fax: 219-769-1664
- [ ] 5713 West 85th Street, Indianapolis, IN 46278, Tel: 317-872-1375, Fax: 317-872-1379

Chain of Custody Record

Number 109180

Instructions on back

12F0768 Kevin Falvey Weston - Vernon Hills, IL Forest City SA

06/15/2012

Client Name: WESTON SOLUTIONS	Project: FOREST CITY SA	Turnaround Time: [X] Routine (7 working days); [ ] RUSH* (notify lab) ____ (needed by)	Report Type: [ ] Results Only; [X] Level II; [ ] Level III; [ ] Level III CLP-like; [ ] Level IV; [ ] Level IV CLP-like; [ ] EDD
Address: 20 N. WACKER DRIVE SUITE 1210	Location: FOREST CITY, IL		
City, State, Zip: CHICAGO, IL 60606	PO #:		
Contact: TONYA BALLA	Compliance Monitoring? [ ] Yes(1) [X] No		
Telephone #: 847-918-4094	(1)Agency/Program		
Sampled by (PRINT): BRYNIARSKI & PIELER	Sampler Signature:	Sampler Phone #: 708-284-2490	
Send Report via: [ ] Mail [ ] Telephone [ ] Fax (fax #)		[X] e-mail (address): T.BALLA@WESTONSOLUTIONS.COM	

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** **Preservative Types:** (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analyses → Preservative Types **	VOC	SVOC	METALS	PH	FLASHPOINT	PCB	RCRA METALS	TCLP LEAD	For Lab Use Only
FCHS-WL01-061412	L	X			06/14/12	13:10	7	MULTIPLE	X	X	X	X	X	X			12F0768 01/02
FCHS-WL01D-061412	L	X			"	13:10	7	"	X	X	X	X	X	X			03/04
FCHS-WL02-061412	L	X			"	15:05	2	"			X	X	X				05
FCHS-WL03-061412	L	X			"	15:15	2	"			X	X	X				06
FCHS-S01-061412	S		X		"	14:50	2	NONE							X	X	07/08
FCHS-S02-061412	S	X			"	14:55	2	"							X	X	09/10
FCHS-S03-061412	S		X		"	15:27	2	"							X	X	11/12
FCHS-S04-061412	S		X		"	15:37	2	"							X	X	13/14
FCHS-S05-061412	S		X		"	15:45	2	"							X	X	15/16
FCHS-S05D-061412	S		X		"	15:45	2	"							X	X	17/18
NO ADDITIONAL																	

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive

Sample Disposition [ ] Dispose as appropriate [ ] Return [X] Archive

Comments

Sample temperature upon receipt in degrees C = 6° OF

	Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
1		6/15/12 12:20		6/15/12 1220
2				
3		6/15/12 1528		6/15/12 1528

rev. 11/04/04

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

NVLAP Lab Code 101202-0

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA-600/M4-82-020

Weston Solutions, Inc.
20 N Wacker Drive Suite 1210
Chicago, IL 606062901
Phone: (312) 424-3300
Fax: (312) 424-3330

Reference:
Location: Forest City, IL
Batch No.: 301704
Customer No.: 1324

Date Received: 06/15/2012
Date Analyzed: 06/22/2012
Date Reported: 06/22/2012
Turn Around Time: 5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
301704001	FCHS-A01-061412	ND	Cellulose 20-25% Other 75-80%
301704002	FCHS-A02-061412	ND	Cellulose 20-25% Other 75-80%
301704003	FCHS-A03-061412	ND	Cellulose 20-25% Other 75-80%
301704004	FCHS-A04-061412	Chrysotile 1-5%	Cellulose 15-20% Other 75-80%
301704005	FCHS-A04D-061412	ND	Cellulose 20-25% Other 75-80%
301704006	FCHS-A05-061412	ND	Cellulose 20-25% Other 75-80%
301704007	FCHS-A06-061412	ND	Cellulose 20-25% Other 75-80%
301704008	FCHS-B01-061412	Chrysotile 10-15%	Binder 85-90%

ND = Asbestos Not Detected (Not Present) NA = Not Analyzed NS = Not Submitted

Components of inhomogeneous samples are analyzed per our Standard Operating Procedure, or per customer request.

The use of the NVLAP logo does not imply endorsement by NVLAP or any agency of the US Government.

Analyzed by Name: Henry Robateau / Microscopist

Date: 06/22/2012

STAT Analysis Corporation:
2242 West Harrison St., Suite 200, Chicago, Illinois 60612
Tel. 312.733.0551; Fax: 312.733.2386; e-mail address: statinfo@statanalysis.com.

POINT COUNTING ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

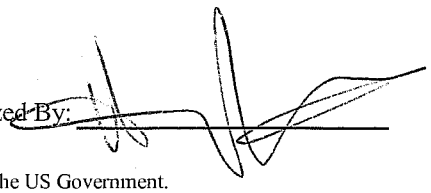
Method: USEPA INTERIM-600/M4-82-020

Weston Solutions
20 N. Wacker Drive Suite 1210
Chicago, IL 60606
Phone: (312) 424-3300
Fax: (312) 424-3330

Client #:
Client Ref: Forest City, IL
STAT Batch: 301704

Date Received: 6/15/2012
Date Analyzed: 6/22/2012
Date Reported: 6/22/2012

Lab. sample #	Client Sample #	Points on asbestos	Points on non-asbestos	Total points	% Asbestos
301704-001	FCHS-A01-061412	0	400	400	< 0.25
301704-002	FCHS-A02-061412	0	400	400	< 0.25
301704-003	FCHS-A03-061412	0	400	400	< 0.25
301704-004	FCHS-A04-061412	2	398	400	0.50
301704-005	FCHS-A04D-061412	0	400	400	< 0.25
301704-006	FCHS-A05-061412	0	400	400	< 0.25
301704-007	FCHS-A06-061412	0	400	400	< 0.25

Analyzed By:  Date: 6/22/2012

The use of the NVLAP logo does not imply endorsement by NVLAP or any agency of the US Government.

Microbac®

Samples Submitted to:
[ ] 250 West 84th Drive, Merrillville, IN 46410, Tel: 219-769-8378, Fax: 219-769-1664
[ ] 5713 West 85th Street, Indianapolis, IN 46278, Tel: 317-872-1375, Fax: 317-872-1379

Chain of Custody Record

Number 109181

Instructions on back

Client Name WESTON SOLUTIONS	Project FOREST CITY SA	Turnaround Time	Report Type
Address 20 N. WACKER DRIVE SUITE 1210	Location FOREST CITY, IL	[X] Routine (7 working days)	[ ] Results Only [X] Level II
City, State, Zip CHICAGO, IL 60606	PO #	[ ] RUSH* (notify lab)	[ ] Level III [ ] Level III CLP-like
Contact TONYA BALLA	Compliance Monitoring? [ ] Yes(1) [X] No	_____ (needed by)	[ ] Level IV [ ] Level IV CLP-like
Telephone # 847-918-4094	(1)Agency/Program		[ ] EDD

Sampled by (PRINT) BRANIARSKI & PIERCE Sampler Signature [signature] Sampler Phone # 708-284-2490

Send Report via [ ] Mail [ ] Telephone [ ] Fax (fax #) _____ [X] e-mail (address) T. BALLA@WESTONSOLUTIONS.COM

* **Matrix Types:** Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** **Preservative Types:** (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Client Sample ID	Matrix*	Grab	Composite	Filtered	Date Collected	Time Collected	No. of Containers	Requested Analyses → Preservative Types ** ↓	Asbestos (EPA 600/R-93/116)	Bulk Asbestos								For Lab Use Only
FCHS-A01-061412	S	X JS	X		06/14/12	14:02	1	NONE	X									
FCHS-A02-061412	S		X			14:10	1		X									
FCHS-A03-061412	S		X			14:15	1		X									
FCHS-A04-061412	S		X			14:20	1		X									
FCHS-A04D-061412	S		X			14:20	1		X									
FCHS-A05-061412	S		X			14:25	1		X									
FCHS-A06-061412	S		X			14:30	1		X									
FCHS-B01-061412	B		X		↓	14:15	1	↓		X								
NO ADDITIONAL																		

Possible Hazard Identification [ ] Hazardous [ ] Non-Hazardous [ ] Radioactive Sample Disposition [ ] Dispose as appropriate [ ] Return [X] Archive

Comments: 301704

Sample temperature upon receipt in degrees C = _____

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
[signature]	6/15/12 15:15		
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Relinquished By (signature)	Date/Time	Received for Lab By (signature)	Date/Time
		[signature]	6/15/12 1315

rev. 11/04/04

STAT ANALYSIS CORPORATION — PLM Analysis Logbook Henry

Temp: 24° c Logbook 135-0110

Stat Batch & Sample #	Date	Stereo Microscope % asb	asbestos optical properties	morphology of material: No. of layers	Color	Shape	Polarized microscopy of fibrous material: Shape	Ext. angle	Birefringence Qual.	Birefringence Quan.	Ref. indices	Color & Pleochromism	Sign of elongation	Analytical Results: % type of asbestos	Analytical Results: % non-asbestos
301704-W1	6/24/24			1 2 3 (Other)	BRN	soil		Inc			| | ⊢ γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. 2025 Binder 7* Filler Glass Other 75-50
W2				1 2 3 (Other)	BRN	soil		Inc			| | ⊢ γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. 2025 Binder ~~2025~~ Filler Glass Other ~~75-50~~
W3				1 2 3 (Other)	BRN	soil		Inc			| | ⊢ γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. 2025 Binder ~~2025~~ Filler Glass Other ~~75-50~~
W4				1 2 3 (Other)	BRN	soil	wavy	5°	low	0.003	| | 1.555 ⊢ 1.552 γ α		+ -	Chry. 1-5 Amos. Croco. Tremo. Antho	MMF Cell. Binder 95-5 Filler Glass Other
W5				1 2 3 (Other)	BRN	soil		Inc			| | ⊢ γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. 2025 Binder Filler Glass Other 75-50
W6				1 2 3 (Other)	BRN	soil		Inc			| | ⊢ γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. 2025 Binder Filler Glass Other 75-50

HR

HR

STAT ANALYSIS CORPORATION — PLM Analysis Logbook Henry

Temp: 24° c Logbook 135-0110

Stat Batch & Sample #	Date	Stereo Microscope % asb	asbestos optical properties	morphology of material: No. of layers	Color	Shape	Polarized microscopy of fibrous material: Shape	Ext. angle	Birefringence Qual.	Birefringence Quan.	Ref. indices	Color & Pleochromism	Sign of elongation	Analytical Results: % type of asbestos	Analytical Results: % non-asbestos
301704 WF	4/24/12			(1) 2 3 Other	BLK	Sol		Inc			γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. 20% Binder Filler Glass Other 75%
WS	↓			(1) 2 3 Other	BL	Rus	wavy	0°	low	0.007	1655 1551 γ α	N/A	+ -	Chry. 10-15 Amos. Croco. Tremo. Antho	MMF Cell. Binder 85% Filler Glass Other
				1 2 3 Other							γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. Binder Filler Glass Other
				1 2 3 Other							γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. Binder Filler Glass Other
				1 2 3 Other							γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. Binder Filler Glass Other
				1 2 3 Other							γ α		+ -	Chry. Amos. Croco. Tremo. Antho	MMF Cell. Binder Filler Glass Other

APPENDIX C
DATA VALIDATION REPORTS

FOREST CITY SA SITE
FOREST CITY, MASON COUNTY, ILLINOIS
DATA VALIDATION REPORT

Date: July 23, 2012
Laboratory: Microbac Laboratories Inc, Merrillville, Indiana
Laboratory Project #: 12F0768
Data Validation Performed By: Tonya Balla, Weston Solutions, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START)
Weston Work Order #: 20405.012.001.1845.00

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for waste (oil and aqueous), and soil samples for the Forest City Site that were analyzed for the following parameters and U.S. Environmental Protection Agency (U.S. EPA) methods:

- Volatile Organic Compounds (VOC) by SW-846 Method 8260B
- Semivolatile Organic Carbons (SVOC) by SW-846 Method 8270C
- Polychlorinated Biphenyls (PCB) by SW-846 Method 8082
- Metals by SW-846 Methods 6010B and 7471A/7470A
- TCLP Lead by SW-846 Methods 1311, 6010B
- pH by SW-846 Method 9045C
- Flashpoint (Ignitability) by SW-846 Method 1010
- Bulk Density by ASTM D6067

A level II data package was requested from Microbac. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated June 2008 and "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

VOCs by SW-846 METHOD 8260B

1. Samples

The following table summarizes the samples for which this data validation is being conducted. This was a two phase sample. VOCs were run on the oil portion of the sample. Not enough volume remained to run VOCs on the aqueous portion.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
FCHS-WL01-061412	12F0768-1	Oil	6/14/2012	6/21/2012
FCHS-WL01D-061412	12F0768-3	Oil	6/14/2012	6/21/2012

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection.

3. Blanks

Method blanks were analyzed with the VOC analyses and were free of target compound contamination above the reporting limit.

4. Surrogate Results

The surrogate recovery results were within the laboratory-established quality control (QC) limits.

5. Laboratory Control Sample (LCS) Results

The LCS and LCS duplicate (LCSD) recoveries and relative percent differences (RPD) were within laboratory QC limits except for the RPD for LCS Dup for bromomethane (52.3) for B029275-BSD1 and bromomethane (31.9) for B029306-BSD1. Bromomethane was not detected in the corresponding samples.

6. Field Duplicate Results

Sample FCHS-WL01 and WL01D were field duplicates. There was good correlation between the field duplicate and parent sample results.

7. Overall Assessment

The VOC data are acceptable for use as qualified based on the information received.

SVOCs BY SW-846 METHOD 8270C

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
FCHS-WL01-061412	12F0768-1	Oil	6/14/2012	6/28/2012	6/28/2012
FCHS-WL01-061412	12F0768-2	Aqueous	6/14/2012	6/28/2012	6/28/2012
FCHS-WL01D-061412	12F0768-3	Oil	6/14/2012	6/28/2012	6/28/2012

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

A method blank was analyzed with the SVOC analyses. The method blank was free of target compound contamination above the reporting limits.

4. Surrogate Results

The surrogate recoveries were within the laboratory-established QC limits.

5. LCS Results

The percent recoveries for the LCS results were within the laboratory-established QC limits.

6. Field Duplicate Results

FCHS-WL01 and WL01D (oil phase) were field duplicates. They showed good overall correlation.

7. Overall Assessment

The SVOC data are acceptable for use as qualified based on the information received.

PCBs BY U.S. EPA SW-846 METHOD 8082

1. Samples

The following table summarizes the samples for which this data validation was conducted.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
FCHS-WL01-061412	12F0768-1	Oil	6/14/2012	6/20/2012	6/20/2012
FCHS-WL01D-061412	12F0768-3	Oil	6/14/2012	6/20/2012	6/20/2012
FCHS-WL01D-061412	12F0768-4	Aqueous	6/14/2012	6/20/2012	6/20/2012

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

A method blank was analyzed with the PCB analyses (both solid and aqueous). The method blank was free of target compound contamination above the reporting limit.

4. Surrogates

The surrogate recoveries were within QC limits.

5. LCS Results

The LCS recoveries and RPDs were within the laboratory-established QC limits.

6. Overall Assessment

According to the laboratory narrative, samples FCHS-WL01-061412 and FCHS-WL01D-061412 samples required dilution due to the dark color and strong odor of the PCB extract. Reporting limits were adjusted to reflect the dilution level. The PCB data are acceptable for use based on the information received.

TOTAL METALS BY SW-846 METHODS 6010B AND 7471A

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
FCHS-WL01-0611412	12F0768-1	Oil	6/20/2012	6/21/2012 – 6/26/2012
FCHS-WL01-0611412	12F0768-2	Aqueous	6/21/2012	6/22/2012 – 6/25/2012
FCHS-WL01D-0611412	12F0768-3	Oil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-WL01D-0611412	12F0768-4	Aqueous	6/21/2012	6/22/2012 – 6/25/2012
FCHS-WL02-0611412	12F0768-5	Soil	6/21/2012	6/22/2012 – 6/25/2012
FCHS-WL03-0611412	12F0768-6	Soil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-S01-061412	12F0768-7	Soil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-S02-061412	12F0768-9	Soil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-S03-061412	12F0768-11	Soil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-S04-061412	12F0768-13	Soil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-S05-0614-15	12F0768-15	Soil	6/20/2012	6/21/2012 – 6/22/2012
FCHS-S05D-061412	12F0768-17	Soil	6/20/2012	6/21/2012 – 6/22/2012

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days from sample collection to analysis for mercury and 180 days from sample collection to analysis for all other metals.

3. Blank Results

Method blanks were analyzed with the metals analysis. The blanks were free of target analyte contamination above the reporting limits.

All metals blanks were free of target analyte contamination above the reporting limits.

4. LCS Results

The LCS and LCSD recoveries and RPDs were within the laboratory-established QC limits (for metals and mercury).

5. MS and MSD Results

Site specific MS and MSDs were reported for 12F0768-02 (aqueous). All recoveries and RPDs were within required control limits (75 to 125, 20%).

Site specific MS and MSDs were reported for 12F0768-06RE2. The following recoveries were outside control limits: ba (59.2, 138MSD), cd (57), pb (NR, NR), and ag (145MSD, 20.4RPD). Based on professional judgment, no qualifications are requried.

6. Field Duplicate Results

FCHS-WL01 and WL01D were field duplicates. In general, there was good correlation between the field duplicate and parent sample.

7. Overall Assessment

The metals data are acceptable for use as qualified based on the information received.

TCLP LEAD BY SW-846 METHODS 1311, 6010B

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
FCHS-S01-061412	12F0768-8	Soil	6/14/2012	6/22/2012
FCHS-S02-061412	12F0768-10	Soil	6/14/2012	6/22/2012
FCHS-S03-061412	12F0768-12	Soil	6/14/2012	6/22/2012
FCHS-S04-061412	12F0768-14	Soil	6/14/2012	6/22/2012
FCHS-S05-0614-15	12F0768-16	Soil	6/14/2012	6/22/2012
FCHS-S05D-061412	12F0768-18	Soil	6/14/2012	6/22/2012

2. Holding Times

The samples were analyzed within the required holding time limit of 180 days from sample collection to analysis for all other metals.

3. Blank Results

Method blanks were analyzed with the metals analysis. TCLP lead was detected (0.0295) in blank B029284-BLK1 and TCLP lead was detected (0.0282) in B029285-BLK1. TCLP cd was detected (0.00370) in B029433-BLK1.

4. LCS Results

The LCS and LCS duplicate recoveries and RPDs were within the laboratory-established QC limits for target analytes.

5. MS and MSD Results

Site-specific MS and MSD was analyzed. The percent recoveries and RPDs were within QC limits for 12F0768-12. The percent recoveries and RPDs were within QC limits for 12F0768-10.

6. Field Duplicate Results

FCHS-S05 and S05D are field duplicates. They showed excellent overall correlation.

7. Overall Assessment

The TCLP metals data are acceptable for use as qualified based on the information received.

GENERAL CHEMISTRY PARAMETERS (pH, Flashpoint,, Bulk Density)

1. Samples

The following table summarizes the samples for which this data validation is being conducted. All samples were analyzed for cyanide, pH and moisture. Only a select set of samples were analyzed for flashpoint and FOC.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
FCHS-WL01-0611412	12F0768-1	Oil	6/14/2012	6/20/2012 – 6/21/2012
FCHS-WL01-0611412	12F0768-2	Aqueous	6/14/2012	6/20/2012 – 6/21/2012
FCHS-WL01D-0611412	12F0768-3	Oil	6/14/2012	6/20/2012 – 6/21/2012
FCHS-WL01D-0611412	12F0768-4	Aqueous	6/14/2012	6/21/2012 – 6/22/2012
FCHS-WL02-0611412	12F0768-5	Aqueous	6/14/2012	6/21/2012
FCHS-WL03-0611412	12F0768-6	Aqueous	6/14/2012	6/20/2012 – 6/25/2012

2. Holding Times

The samples were analyzed within the required holding time limits.

3. LCS Results

An LCS was analyzed with the bulk density and ignitability analysis. The LCS recovery was within the laboratory-established QC limits.

4. Laboratory Duplicate Results

Laboratory duplicates were analyzed for pH, bulk density, and ignitability. The RPDs were within the laboratory-specific QC limit.
The general chemistry parameters are acceptable for use based on the information received.