



ENVIRONMENTAL CONSULTANTS

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Report: **Weekly Progress Report**

Project: **Former Two Rivers MGP Site
Removal Action Construction
Two Rivers, Wisconsin**

Date: September 30, 2014

Prepared By: Natural Resource Technology, Inc.
Mark D. Walter, PE
Kenneth R. Mika, PE

Submitted To: Integrys Business Support, LLC
Naren M. Prasad, PE
Stacy A. Brault

Activity Period: September 15 through September 21, 2014

Natural Resource Technology, Inc. Personnel on Site

- Mark Walter, **Field Engineer**
- Andrea Salus, **Field Engineer**
- Dan Vachon, **Field Technician**
- Kenneth Mika, **Project Manager**
- Todd Lewis, **Construction Manager**
- Alex Sookhai, **Data Management**
- Andrew Cawrse, **Asbestos Sampling**

Integrys/Wisconsin Public Service Corporation Personnel on Site

- Brian Bartoszek

Geo-Solutions, Inc. Personnel on Site

- Keith Adamson
- Aaron Handel
- Eric Shannon
- Jason Greggs
- Rob Kautchick
- Dylan Ice
- Bob Lager
- Randall Tilly
- John Scott

U.S. EPA Personnel on Site

- Brad Benning, **U.S. EPA**
- Christopher Redfearn, **OTIE**

Subcontractors on Site

- Backus Electric & Automation, LLC, **Electrical Contractor**

Others

- Mark Waggoner, **U.S. Oil**
- Brandon Koss, **Schroeder Environmental Cleaning Services, Inc.**
- Jerry Peot, **Wisconsin Public Service**

Visitors

- Tom Wentland, **U.S. EPA**

This report summarizes field activities performed by NRT, GSI, and GSI's subcontractors, on behalf of IBS at the former Two Rivers MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 9/21/14: 0 Tons
- In-Situ Solidification/Stabilization (ISS) through 9/21/14: 648.3 Cubic Yards

Site Perimeter Air Monitoring:

- Real-time site perimeter air monitoring for TVOCs and PM₁₀ was conducted 24 hours per day, all seven days of the week. The locations of the perimeter air monitoring stations are shown on Figure 1.
- A total of 28 SUMMA canister samples were collected, including five samples at each of the five air monitoring station locations, two duplicate samples, and one field blank sample. SUMMA canister samples were analyzed for BTEX compounds and naphthalene. A summary of the analytical results is presented in Table 1.
- A total of 28 PUF samples were collected, including five samples at each of the five air monitoring station locations, two duplicate samples, and one field blank sample. PUF samples were analyzed for PAH compounds. A summary of the analytical results is presented in Table 1.

NRT

- Participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Managed Backus Electric & Automation LLC's installation of the electrical connection to the ISS CQA lab.
- Met with representatives from U.S. Oil and IBS on site to discuss the removal of the U.S. Oil pipeline.
- Met with representatives from WPS to discuss the location of the abandoned gas lines running through the site.
- Oversaw the excavation of test pits by GSI to expose abandoned gas lines.
- Collected and shipped samples of abandoned gas line pipe wrap materials for laboratory analysis for asbestos.

- Oversaw GSI's mobilization efforts throughout the week.
- Oversaw GSI's installation of a turbidity barrier in the West Twin River.
- Oversaw GSI's weekly erosion control inspection on Thursday (9/18).
- Oversaw GSI's demolition and removal of historic structures located at or below grade.
- Oversaw GSI's excavation of peat material in the northeastern portion of the Excavation Area.
- Collected and shipped samples from the eastern sidewall of the Excavation Area limits for laboratory analysis of BTEX compounds (USEPA 8260), PAH compounds (USEPA 8270), cyanide (USEPA 9012), and cadmium (USEPA 6010).
- Shipped 12 ISS CQA samples from ISS Pilot Test Columns for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.).
- Received and reviewed ISS CQA sample test results for UCS and hydraulic conductivity. Results are compared to ISS performance goals established in the Removal Action Work Plan (RAWP) Addendum 1 Construction Quality Assurance Project Plan (CQAPP).
- Performed perimeter air monitoring and sampling.
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.

Geo-Solutions Inc.

- Continued mobilization of equipment in preparation of ISS construction activities.
- Began constructing housing for the ISS batch plant.
- Installed a turbidity barrier in the West Twin River.
- Continued moving large sandbags (super sacks) towards the West Twin River.
- Performed weekly erosion control inspection on Thursday (9/18).
- Continued demolition and removal of historic structures located at or below grade.
- Began removal of peat material in the northeastern portion of the Excavation Area.
- Excavated test pits to locate abandoned gas lines running through the site and to provide access for pipe wrap sampling for asbestos analysis.
- Implemented fugitive emission controls including spraying Rusmar odor control foam on material stockpiles and disturbed areas, covering of inactive stockpiles, installation and operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.
- Conducted periodic worker health and safety air monitoring in the work (exclusion) zone.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of September 22 through September 28, 2014

- Continue demolition and removal of historic structures located at or below grade.
- Install asphalt pad for decontamination and water treatment.
- Abandon monitoring wells.
- Continue to excavate peat material in the Excavation Area.



- Perform soil confirmation sampling at the limits of the Excavation Area.
- Begin off-site transportation and disposal of concrete debris.
- Begin off-site transportation and disposal of peat material.
- Begin excavation of peat material in the ISS Area.
- Begin full-scale ISS (pending 14-day UCS and hydraulic conductivity results).
- Perform perimeter air monitoring and sampling.
- Continue implementation of fugitive emission controls.

A Weekly Progress Report will be issued throughout the duration of field activities for this Time Critical Removal Action. A written report summarizing the results of the Removal Action will be provided following completion of all field activities.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in cursive script, reading 'Kenneth R. Mika'.

Kenneth R. Mika, PE
Environmental Engineer

Attachments:

Field Photos

Figure 1: Air Monitoring Station Locations

Table 1: Weekly Air Data Summary

[P:\1500\1569\Construction\Field Reports\Weekly Reports\1569 NRT Two Rivers MGP Weekly Report 09-15-14 To 09-21-14.Docx]



Field Photos:



Photo 1: Application of odor suppressing Rusmar foam.

Direction: Facing southwest

Photo Date: 9/15/2014

Photo Taken By: DJV



Photo 2: Demolition and removal of historic structures.

Direction: Facing south

Photo Date: 9/16/2014

Photo Taken By: MDW



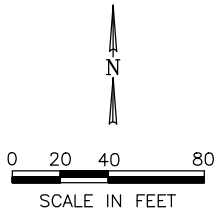
Photo 3: Site view from the West Twin River.

Direction: Facing east

Photo Date: 9/17/2014




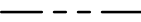
Photo Taken By: MDW

Sep 24, 2014 8:34am PLOTTED BY: rhopkins SAVED BY: rhopkins
I:\ACADdata\Projects\15\1569 2riv\1569-147-B01.dwg Layout1
VPES: I:\GIS\Projects\15\1569 CAD\1569 Manitowoc Co_Imagery_2010_v2.tif;
VPES:



SOURCE NOTES:

1. COORDINATE REFERENCE SYSTEM IS NAD 1983
MANITOWOC COUNTY COORDINATE SYSTEM, FEET;
VERTICAL DATUM IS NAVD 1988 (US SURVEY FEET).
2. AERIAL PHOTOGRAPHY COURTESY ESRI.

	ISS AREA
	EXCAVATION AREA
	AIR MONITORING STATION LOCATION
	APPROXIMATE WPSC PROPERTY BOUNDARY



AIR MONITORING STATION LOCATIONS

FORMER TWO RIVERS MANUFACTURED GAS PLANT
WISCONSIN PUBLIC SERVICE CORPORATION
TWO RIVERS, WISCONSIN

DRAWN BY:	RLH	DATE:	09/24/14
CHECKED BY:	MDW	DATE:	09/24/14
APPROVED BY:	KRM	DATE:	09/24/14
DRAWING NO:		15691-147-B01	
REFERENCE:		.	

PROJECT NO.

1569.1/14.7

FIGURE NO.

1

Table 1 - Analytical Air Summary

Weekly Progress Report
Former Two Rivers MGP Site
Two Rivers, WI

Sample Location	Sample Date	Sample Type	Benzo(a)anthracene (ug/m3)	Benzo(a)pyrene (ug/m3)	Benzo(b)fluoranthene (ug/m3)	Benzo(k)fluoranthene (ug/m3)	Chrysene (ug/m3)	Dibenz(a,h)anthracene (ug/m3)	Indeno(1,2,3-cd)pyrene (ug/m3)
Site-Specific Air SL (1E-04)			160	16	160	160	1600	15	160
Site-Specific Air SL (1E-05)			16	1.6	16	16	160	1.5	16
Site-Specific Air SL (1E-06)			1.6	0.16	1.6	1.6	16	0.15	1.6
FAM01	9/15/2014	PUF	< 0.0019	< 0.0024	< 0.0013	< 0.0029	< 0.0027	< 0.002	< 0.0016
FAM02	9/15/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0025	< 0.0018	< 0.0015
FAM03	9/15/2014	PUF	< 0.0017	< 0.0021	< 0.0011	< 0.0026	< 0.0024	< 0.0018	< 0.0014
FAM04	9/15/2014	PUF	< 0.0018	< 0.0023	< 0.0012	< 0.0028	< 0.0025	< 0.0019	< 0.0015
FAM05	9/15/2014	PUF	< 0.0019	< 0.0023	< 0.0013	< 0.0029	< 0.0026	< 0.0019	< 0.0016
FAM01	9/16/2014	PUF	< 0.0019	< 0.0023	< 0.0012	< 0.0028	< 0.0025	< 0.0019	< 0.0015
FAM02	9/16/2014	PUF	< 0.0017	< 0.0022	< 0.0012	< 0.0026	< 0.0024	< 0.0018	< 0.0014
FAM03	9/16/2014	PUF	< 0.0017	< 0.0021	< 0.0011	< 0.0026	< 0.0023	< 0.0017	< 0.0014
FAM04	9/16/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0024	< 0.0018	< 0.0015
FAM05	9/16/2014	PUF	< 0.0018	< 0.0023	< 0.0012	< 0.0027	< 0.0025	< 0.0018	< 0.0015
FAM01	9/17/2014	PUF	< 0.0019	< 0.0023	< 0.0012	< 0.0028	< 0.0026	< 0.0019	< 0.0015
FAM02	9/17/2014	PUF	< 0.0017	< 0.0022	< 0.0012	< 0.0027	< 0.0024	< 0.0018	< 0.0015
FAM03	9/17/2014	PUF	< 0.0017	< 0.0021	< 0.0011	< 0.0026	< 0.0023	< 0.0017	< 0.0014
FAM04	9/17/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0024	< 0.0018	< 0.0015
FAM05	9/17/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0025	< 0.0018	< 0.0015
FAM01	9/18/2014	PUF	< 0.0019	< 0.0023	< 0.0012	< 0.0028	< 0.0025	< 0.0019	< 0.0015
FAM02	9/18/2014	PUF	< 0.0017	< 0.0022	< 0.0012	< 0.0026	< 0.0024	< 0.0018	< 0.0014
FAM03	9/18/2014	PUF	< 0.0017	< 0.0021	< 0.0011	< 0.0026	< 0.0023	< 0.0017	< 0.0014
FAM04	9/18/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0024	< 0.0018	< 0.0015
FAM05	9/18/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0025	< 0.0018	< 0.0015
FAM01	9/19/2014	PUF	< 0.0019	< 0.0023	< 0.0012	< 0.0028	< 0.0026	< 0.0019	< 0.0016
FAM02	9/19/2014	PUF	< 0.0017	< 0.0022	< 0.0012	< 0.0026	< 0.0024	< 0.0018	< 0.0014
FAM03	9/19/2014	PUF	< 0.0017	< 0.0021	< 0.0011	< 0.0026	< 0.0023	< 0.0017	< 0.0014
FAM04	9/19/2014	PUF	< 0.0018	< 0.0022	< 0.0012	< 0.0027	< 0.0025	< 0.0018	< 0.0015

Sample Location	Sample Date	Sample Type	Benzene (ug/m3)	Ethylbenzene (ug/m3)	Naphthalene (ug/m3)	Toluene (ug/m3)	Xylene (total) (ug/m3)
Site-Specific Air SL (1E-04)			110	7100	42	7000	560
Site-Specific Air SL (1E-05)			110	710	42	7000	560
Site-Specific Air SL (1E-06)			23	71	5.2	7000	560
FAM01	9/15/2014	SUMMA	0.34	0.16	< 1	0.6	0.55
FAM02	9/15/2014	SUMMA	0.82	0.6	< 1	1.2	1.28
FAM03	9/15/2014	SUMMA	2.23	3.2	1.2	2	4.26
FAM04	9/15/2014	SUMMA	< 0.06	< 0.06	< 1	< 0.06	< 0.14
FAM05	9/15/2014	SUMMA	0.24	0.16	< 1	0.4	< 0.14
FAM01	9/16/2014	SUMMA	1.44	1.11	< 1.1	2.1	2.14
FAM02	9/16/2014	SUMMA	3.27	4.9	6.4	4.2	6.68
FAM03	9/16/2014	SUMMA	5.57	6.68	4.9	7	9.35
FAM04	9/16/2014	SUMMA	0.24	< 0.06	< 1.1	0.15	< 0.15
FAM05	9/16/2014	SUMMA	0.98	1.16	< 1.1	1.5	1.56
FAM01	9/17/2014	SUMMA	0.68	0.75	< 1.1	1	1.15
FAM02	9/17/2014	SUMMA	0.45	0.39	< 1.1	0.9	0.79
FAM03	9/17/2014	SUMMA	0.68	0.53	< 1.1	1	1.06
FAM04	9/17/2014	SUMMA	3.25	0.19	< 1.1	1.99	0.57
FAM05	9/17/2014	SUMMA	0.24	0.18	< 1.1	0.5	< 0.15
Field Blank	9/17/2014	SUMMA	< 0.06	< 0.06	< 1.07	< 0.07	< 0.15
FAM01	9/18/2014	SUMMA	0.66	0.43	0.2	1.2	1.12
FAM02	9/18/2014	SUMMA	0.69	0.49	< 0.2	1.2	0.71
FAM03	9/18/2014	SUMMA	2.46	2.19	4.4	3.3	4.37
FAM04	9/18/2014	SUMMA	1.41	1.38	1.8	2.44	2.95
FAM05	9/18/2014	SUMMA	0.56	0.49	< 0.2	1	0.89
FAM01	9/19/2014	SUMMA	0.42	< 0.09	< 0.2	0.8	0.71
FAM02	9/19/2014	SUMMA	0.65	0.33	< 0.2	1.1	0.75
FAM03	9/19/2014	SUMMA	0.32	< 0.09	< 0.2	0.7	< 0.18



Table 1 - Analytical Air Summary

Weekly Progress Report
Former Two Rivers MGP Site
Two Rivers, WI

Sample Location	Sample Date	Sample Type	Benzo(a)anthracene (ug/m3)	Benzo(a)pyrene (ug/m3)	Benzo(b)fluoranthene (ug/m3)	Benzo(k)fluoranthene (ug/m3)	Chrysene (ug/m3)	Dibenz(a,h)anthracene (ug/m3)	Indeno(1,2,3-cd)pyrene (ug/m3)
Site-Specific Air SL (1E-04)			160	16	160	160	1600	15	160
Site-Specific Air SL (1E-05)			16	1.6	16	16	160	1.5	16
Site-Specific Air SL (1E-06)			1.6	0.16	1.6	1.6	16	0.15	1.6
FAM05	9/19/2014	PUF	< 0.0018	< 0.0023	< 0.0012	< 0.0028	< 0.0025	< 0.0018	< 0.0015
Average 9/9/14 - 9/19/14			0.0018	0.0022	0.0012	0.0027	0.0025	0.0018	0.0015

Sample Location	Sample Date	Sample Type	Benzene (ug/m3)	Ethylbenzene (ug/m3)	Naphthalene (ug/m3)	Toluene (ug/m3)	Xylene (total) (ug/m3)
Site-Specific Air SL (1E-04)			110	7100	42	7000	560
Site-Specific Air SL (1E-05)			110	710	42	7000	560
Site-Specific Air SL (1E-06)			23	71	5.2	7000	560
FAM04	9/19/2014	SUMMA	0.32	0.09	< 0.2	0.84	< 0.18
FAM05	9/19/2014	SUMMA	0.36	0.11	< 0.2	0.6	< 0.18
Average 9/9/14 - 9/19/14			0.92	0.83	1.2	1.34	1.43

- Notes:
- 1) Site-Specific Air Sample Levels (SL) were developed by Exponent and were provided in the *Site-Specific Perimeter Air Monitoring Acceptable Air Concentrations Technical Memorandum* June 4, 2014. SLs are based on acceptable air concentrations for target cancer risks.
 - 2) Sample date listed is the start date of the 24-hour sampling period.
 - 3) Parameter level was below the method detection limit.
 - 4) Averages do not include field blanks and duplicates.
 - 5) Results below the method detection limit are average with the method detection limit level.
 - 6) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.