



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: March 6, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Dan Vachon

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

Activity Period: February 24, 2014 through March 1, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 3/1/14: 42,032.11 Tons
- In Situ Solidification/Stabilization (ISS) through 3/1/14: 133,653.26 Cubic Yards

NRT

- Due to inclement weather, there was no site work performed on 2/27/14.
- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Area A with 12% reagent addition.
- Issued truck tracking forms and documented 67 loads (1,240.51 tons) of debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (7 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued pre-excavation and demolition of subsurface historical structures in Removal Action Area A.
- Continued full-scale ISS construction in Removal Action Area A with 12% reagent addition. 5,239.40 cubic yards of ISS was completed.
- Received 20 loads of ground granulated blast furnace slag (GGBFS) and 7 loads of Portland cement for full-scale ISS construction.
- Water management within Removal Action Areas.

- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Friday (2/28). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of March 3, 2014 through March 8, 2014

- Perform perimeter Air Monitoring.
- Continue full-scale ISS construction in Removal Action Area A with the Manitowoc 4000w.
- Continue full-scale ISS construction in Removal Action Area A with the Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue demolition and excavation of historical structures in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.



Andrew Millspaugh, EIT
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: GSI performing maintenance of the site tracking pad.

Direction: Northwest

Photo Date: 2/24/14

Photo Taken By: AMM



Photo 2: GSI loading debris for disposal at WMI's Countryside Landfill.

Direction: South

Photo Date: 2/25/14

Photo Taken By: AMM



Photo 3: GSI performing ISS construction in Removal Action Area A with the Delmag RH-28.

Direction: East

Photo Date: 2/28/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: February 24 – March 2, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of February 24 – March 2, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Josh Myers Ross Hartwick Erik Ehrengren Matt Bretl Emily Meyer
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCH MARK
	PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 2. AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 3. COORDINATE SYSTEM IS NAD83, 8. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: March 12, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Dan Vachon
Glenn Luke, PE

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

Activity Period: March 3, 2014 through March 8, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Todd Lewis, **Construction Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- Naren Prasad, **Project Manager**

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 3/8/14: 42,032.11 Tons
- In Situ Solidification/Stabilization (ISS) through 3/8/14: 140,811.78 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Area A with 12% reagent addition.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (10 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Prepared Construction Quality Assurance (CQA) samples from pilot-scale ISS columns (5 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP) Pilot columns completed with higher reagent additions of 14%, 15%, 18%, 20%, and 26% to address an area of high MGP impacts.
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued pre-excavation and demolition of subsurface historical structures in Removal Action Area A.
- Continued full-scale ISS construction in Removal Action Area A with 12% reagent addition. 7,158.51 cubic yards of ISS was completed.
- Completed ISS pilot columns at reagent additions of 14%, 15%, 18%, 20%, and 26%. Higher reagent additions tested to complete ISS in an area of high MGP impacts.

- Received 32 loads of ground granulated blast furnace slag (GGBFS) and 11 loads of Portland cement for full-scale ISS construction.
- Water management within Removal Action Areas.
- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Friday (3/7). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of March 3, 2014 through March 8, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Area A with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue pre-excavation activities in Removal Action Area A.
- Excavation of surface soil in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: GSI removing subsurface structures in Removal Action Area A.

Direction: East

Photo Date: 3/4/14

Photo Taken By: CJM



Photo 2: GSI performing maintenance on an ISS auger.

Direction: West

Photo Date: 3/7/14

Photo Taken By: AMM



Photo 3: Site overview of ISS construction in Removal Action Area A.

Direction: North

Photo Date: 3/7/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: March 3 - 9, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of March 3 – 9, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Josh Myers Ross Hartwick Heather Shipman Matt Bretl Emily Meyer
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
- THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 - AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 - COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: March 20, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Dan Vachon
Glenn Luke, PE

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

Activity Period: March 10, 2014 through March 15, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Todd Lewis, **Construction Manager**
- Glenn Luke, **Project manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 3/15/14: 44,111.83 Tons
- In Situ Solidification/Stabilization (ISS) through 3/15/14: 149,487.96 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Area A with 12% reagent addition.
- Issued truck tracking forms and documented 114 loads (2,079.72 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill).
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Operation of the onsite truck scale.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (11 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Wednesday (3/14).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued shallow soil excavation, pre-excavation, and demolition of subsurface historical structures in Removal Action Areas A and B.
- Continued full-scale ISS construction in Removal Action Area A with 12% reagent addition. 8,676.18 cubic yards of ISS was completed.
- Received 36 loads of ground granulated blast furnace slag (GGBFS) and 11 loads of Portland cement for full-scale ISS construction.
- Loaded 2,079.72 tons (114 loads) of soil and debris for direct disposal at Countryside Landfill.



- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Friday (3/14). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of March 17, 2014 through March 22, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue shallow soil excavation and removal of historical structures in Removal Action Areas A and B.
- Continue pre-excavation activities in Removal Action Areas A and B.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Glenn Luke".

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report



Field Photos:



Photo 1: Manitowoc 400W mixing ISS columns in Removal Action Area A.

Direction: East

Photo Date: 3/10/14

Photo Taken By: DJV



Photo 2: GSI excavating impacted soil in Removal Action Area A.

Direction: East

Photo Date: 3/11/14

Photo Taken By: AMM



Photo 3: WMI hauling soil and debris for direct disposal at Countryside Landfill

Direction: East

Photo Date: 3/12/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: March 10 - 16, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of March 10 – 16, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 6 PUF air samples including one duplicate and one field blank air sample were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Josh Myers Ross Hartwick Emily Meyer Erik Ehrengren
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 2. AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 3. COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: March 26, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Dan Vachon
Glenn Luke, PE

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

Activity Period: March 17, 2014 through March 22, 2014

Natural Resource Technology, Inc. Personnel on Site

- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Andrea Salus, **Field Engineer**
- Todd Lewis, **Construction Manager**
- Glenn Luke, **Project manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- Naren Prasad, **Project Manager**

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 3/22/14: 44,111.83 Tons
- In Situ Solidification/Stabilization (ISS) through 3/22/14: 157,000.88 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (11 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Friday (3/21).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 7,512.91 cubic yards of ISS was completed.
- Began grading ISS swell material to final design elevations in Removal Action Area A.
- Received 34 loads of ground granulated blast furnace slag (GGBFS) and 13 loads of Portland cement for full-scale ISS construction.
- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.

- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Friday (3/21). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of March 17, 2014 through March 22, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue pre-excavation activities in Removal Action Areas A and B.
- Continue grading ISS swell material in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: GSI performing ISS construction along the eastern site limit.

Direction: North

Photo Date: 3/17/14

Photo Taken By: DJV



Photo 2: GSI grading ISS swell material in Removal Action Area A.

Direction: West

Photo Date: 3/20/14

Photo Taken By: DJV



Photo 3: GSI applying odor suppressant foam in Removal Action Area A.

Direction: Southeast

Photo Date: 3/21/14

Photo Taken By: DJV



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: March 17 - 23, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of March 17 – 23, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Emily Meyer Heather Shipman
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 2. AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 3. COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: April 2, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Glenn Luke, PE

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

Activity Period: March 24, 2014 through March 29, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Todd Lewis, **Construction Manager**
- Glenn Luke, **Project Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 3/29/14: 44,111.83 Tons
- In Situ Solidification/Stabilization (ISS) through 3/29/14: 162,038.84 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (7 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (3/27).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 5,037.96 cubic yards of ISS was completed.
- Began grading ISS swell material to final design elevations in Removal Action Area A.
- Received 21 loads of ground granulated blast furnace slag (GGBFS) and 7 loads of Portland cement for full-scale ISS construction.
- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.

- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (3/27). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of March 31, 2014 through April 5, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue pre-excavation activities in Removal Action Areas A and B.
- Continue grading ISS swell material in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: GSI performing pre-excavation in Removal Action Area B.

Direction: North

Photo Date: 3/27/14

Photo Taken By: DJV



Photo 2: GSI performing ISS construction with the Delmag RH-28 in Removal Action Area A.

Direction: South

Photo Date: 3/27/14

Photo Taken By: DJV



Photo 3: GSI grading ISS swell material to final design elevations in Removal Action Area A.

Direction: East

Photo Date: 3/27/14

Photo Taken By: DJV



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: March 24 - 30, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of March 24 – 30, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively. Only one PUF air sample will be analyzed due to power failures at three of the PUF stations.
BMcD Field Personnel	Ross Hartwick Josh Meyers Erik Ehrengren
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 2. AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 3. COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: April 9, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Glenn Luke, PE

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

Activity Period: March 31, 2014 through April 5, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Todd Lewis, **Construction Manager**
- Glenn Luke, **Project Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- Canadian National Railway

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 4/5/14: 44,111.83 Tons
- In Situ Solidification/Stabilization (ISS) through 4/5/14: 168,385.87 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (8 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (4/3).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 6,347.03 cubic yards of ISS was completed.
- Continued grading ISS swell material to final design elevations in Removal Action Area A.
- Received 24 loads of ground granulated blast furnace slag (GGBFS) and 7 loads of Portland cement for full-scale ISS construction.
- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.

- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (4/3). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of April 7, 2014 through April 12, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue pre-excavation activities in Removal Action Areas A and B.
- Continue grading ISS swell material to design grades in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: Removal of an ISS pilot test column in Removal Action Area A, column to be reconstructed.

Direction: Southeast

Photo Date: 3/31/14

Photo Taken By: AMM



Photo 2: ISS swell grading in Removal Action Area A.

Direction: East

Photo Date: 4/1/14

Photo Taken By: DJV



Photo 3: ISS construction in Removal Action Area A with the Delmag RH-28.

Direction: Southeast

Photo Date: 4/4/14

Photo Taken By: DJV



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: March 31 – April 6, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of March 31 – April 6, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Josh Meyers Jason Wuerch
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 2. AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 3. COORDINATE SYSTEM IS NAD83, 8. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: April 16, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Glenn Luke, PE

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

Activity Period: April 7, 2014 through April 12, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Chris Musson, **Field Engineer**
- Andrea Salus, **Field Engineer**
- Glenn Luke, **Project Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- Naren Prasad, **Project Manager**

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**
- McClure Engineering Associates, **Registered Land Surveyor**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 4/12/14: 44,111.83 Tons
- In Situ Solidification/Stabilization (ISS) through 4/12/14: 177,724.62 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Management and oversight of GSI during ISS swell grading in Removal Action Area A.
- Management and oversight of McClure during documentation survey of Removal Action Area A ISS swell grades.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (11 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Wednesday (4/9).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 9,313.14 cubic yards of ISS was completed.
- Continued grading ISS swell material to final design elevations in Removal Action Area A.
- Received 41 loads of ground granulated blast furnace slag (GGBFS) and 12 loads of Portland cement for full-scale ISS construction.
- Water management within Removal Action Areas.

- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Wednesday (4/9). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

McClure Engineering Associates

- Completed a documentation survey of the graded ISS swell surface in the northern portion of Removal Action Area A.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of April 7, 2014 through April 12, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue pre-excavation activities in Removal Action Areas A and B.
- Continue grading ISS swell material to design grades in Removal Action Area A.
- Begin backfilling the north portion of Removal Action Area A.



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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Glenn Luke".

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report





ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**
Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**
Date: April 23, 2014
Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Glenn Luke, PE
Submitted To: Integrys Business Support, LLC
Naren M. Prasad, PE
Activity Period: April 14, 2014 through April 19, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 4/19/14: 44,111.83 Tons
- In Situ Solidification/Stabilization (ISS) through 4/19/14: 185,514.73 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Management and oversight of GSI during ISS swell grading in Removal Action Area A.
- Management and oversight of GSI during placement and grading of general fill in Removal Action Area A.
- Documented receipt of 212 loads (5,290.57 tons) of general fill in Removal Action Area A.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (10 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plant (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Wednesday (4/16).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 7,790.11 cubic yards of ISS was completed.
- Received and placed 212 loads (5,290.57 tons) of general fill in Removal Action Area A.
- Received 32 loads of ground granulated blast furnace slag (GGBFS) and 13 loads of Portland cement for full-scale ISS construction.
- Water management within Removal Action Areas.

- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Wednesday (4/16). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of April 21, 2014 through April 26, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Continue pre-excavation activities in Removal Action Areas A and B.
- Continue importing and placing general fill in the north portion of Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,

NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: GSI placing general fill in the completed north section of Removal Action Area A.

Direction: North

Photo Date: 4/15/14

Photo Taken By: AMM



Photo 2: Site overview of ISS construction in Removal Action Areas A and B.

Direction: South

Photo Date: 4/16/14

Photo Taken By: AMM



Photo 3: Street sweeping on Pershing Road.

Direction: Southwest

Photo Date: 4/8/14

Photo Taken By: DJV



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: April 14 – 20, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of April 14 – 20, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 6 PUF air samples including one duplicate and one field blank air sample were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Josh Meyers Jason Wuerch
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
- THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 - AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 - COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**
Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**
Date: June 11, 2014
Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Glenn Luke, PE
Submitted To: Integrys Business Support, LLC
Naren M. Prasad, PE
Activity Period: June 2, 2014 through June 7, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Bob Woodruff, **Field Engineer**
- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**

USEPA Personnel on Site

- Fernando Monterey, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 6/7/14: 54,632.40 Tons
- In Situ Solidification/Stabilization (ISS) through 6/7/14: 242,025.34 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 30 loads (545.55 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill).
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (11 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (6/5).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Responded to local odor complaints by implementing additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, mobilization and setup of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 9,082.85 cubic yards of ISS was completed.
- Received 38 loads of ground granulated blast furnace slag (GGBFS) and 15 loads of Portland cement for full-scale ISS construction.
- Loaded 545.55 tons (30 loads) of soil and debris for direct disposal at Countryside Landfill.

- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Implemented additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, and sequencing of work to minimize material handling in response to local odor complaints.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (6/5). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of June 9, 2014 through June 14, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Continue ISS construction in the area of the Former Waukegan Tar Pit on NSG property.
- Receive and evaluate ISS CQA data.
- Load surface soil and debris for disposal at WMI's Countryside Landfill.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: Site overview of covered stockpiles and ISS grout batch plant.

Direction: West

Photo Date: 6/5/14

Photo Taken By: AMM



Photo 2: ISS construction along the southern limit of Removal Action Area B.

Direction: Southeast

Photo Date: 6/5/14

Photo Taken By: AMM



Photo 3: Remixing of seven ISS columns in Removal Action Area A that were removed due to not meeting project performance goals.

Direction: South

Photo Date: 6/5/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: June 2 - 8, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of June 2 – 8, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Josh Myers Jason Wuerch Emily Meyer
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
- THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 - AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 - COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**
Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**
Date: June 18, 2014
Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, EIT
Glenn Luke, PE
Submitted To: Integrys Business Support, LLC
Naren M. Prasad, PE
Activity Period: June 9, 2014 through June 14, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**
- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**
- Steve Wiskes, **Health & Safety Manager**

USEPA Personnel on Site

- Fernando Monterey, **OTIE**
- Brad Benning, **On-Scene Coordinator**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 6/14/14: 57,822.31 Tons
- In Situ Solidification/Stabilization (ISS) through 6/14/14: 252,457.46 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 168 loads (3,189.91 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill).
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (12 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (6/12).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Responded to local odor complaints by implementing additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 10,432.12 cubic yards of ISS was completed.
- Received 48 loads of ground granulated blast furnace slag (GGBFS) and 16 loads of Portland cement for full-scale ISS construction.
- Loaded 3,189.91 tons (168 loads) of soil and debris for direct disposal at Countryside Landfill.

- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Implemented additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, and sequencing of work to minimize material handling in response to local odor complaints.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (6/12). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None

Open/Outstanding Items

- None

Work planned for the week of June 16, 2014 through June 21, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Complete ISS construction in the area of the Former Waukegan Tar Pit on NSG property.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: Grading of ISS swell material to final design elevations in Removal Action Area A.

Direction: East

Photo Date: 6/12/14

Photo Taken By: DJV



Photo 2: Operating perimeter odor control misting system on west fence along Pershing Road.

Direction: South

Photo Date: 6/13/14

Photo Taken By: AMM



Photo 3: Application of odor suppressant foam to active areas of construction in Removal Action Area A.

Direction: South

Photo Date: 6/14/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: June 9 - 15, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of June 9 – 15, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Josh Myers Jason Wuerch
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week June 9 – 15, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Kevin Adler of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through June 5, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on June 3 and June 5, 2014.

All Real-time Perimeter Ambient Air Monitoring data and Analytical Results for the duration of the project through June 10, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Kevin Adler on June 11, 2014. A thumb drive containing the same data was shipped to Brad Benning of the US EPA on June 11, 2014 for Friday June 12, 2014 delivery.

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
- THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 - AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 - COORDINATE SYSTEM IS NAD83, U.S. STATE PLANE EAST, US FOOT.

Table 3
Sampling Average Concentrations through June 5, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.820	1.300	1.574	1.425	1.267	1.164	0.832
Ethylbenzene	2,800	280	28	0.991	1.348	2.061	2.190	1.850	1.401	1.005
Naphthalene	30	21	2.1	<u>4.404</u>	<u>6.882</u>	<u>11.008</u>	<u>9.601</u>	<u>7.288</u>	<u>5.913</u>	<u>3.617</u>
Toluene	5,000	5,000	5,000	1.714	2.195	2.209	1.734	1.658	1.906	1.693
Xylenes, Total	400	400	400	2.584	2.991	3.361	2.960	2.838	2.929	2.693
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

- 1) If all sample results are non-detect no average is calculated.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result underlined - value exceeds AAC for TCR 1E-6.
- 8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations</u> at TCR* 1E-4	<u>Acceptable Air Concentrations</u> at TCR* 1E-5	<u>Acceptable Air Concentrations</u> at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 2 6/3/2014		Station 3 6/3/2014		Station 6 6/3/2014		Station 7 6/3/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	8.4	1.300	5.7	1.575	<u>13</u>	1.164	1.0 U	0.812
Ethylbenzene	2,800	280	28	1.9	1.348	3.8	2.079	3.2	1.401	1.5 U	0.996
Naphthalene	30	21	2.1	38	<u>6.882</u>	53	<u>10.994</u>	50	<u>5.913</u>	<u>3.8</u>	<u>3.426</u>
Toluene	5,000	5,000	5,000	16	2.195	10	2.163	21	1.906	2.1	1.613
Xylenes, Total	400	400	400	15	2.991	11	3.375	20	2.929	4.4 U	2.641
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Chrysene	640	64	6.4	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 1 6/5/2014		Station 3 6/5/2014		Station 4 6/5/2014		Station 7 6/5/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	3.8	0.820	1.5	1.574	2.8	1.425	2.1	0.832
Ethylbenzene	2,800	280	28	2.2	0.991	1.6 U	2.061	2.9	2.190	1.6	1.005
Naphthalene	30	21	2.1	<u>27</u>	<u>4.404</u>	<u>12</u>	<u>11.008</u>	<u>19</u>	<u>9.601</u>	<u>16</u>	<u>3.617</u>
Toluene	5,000	5,000	5,000	11	1.714	5.5	2.209	7.1	1.734	6.9	1.693
Xylenes, Total	400	400	400	11	2.584	4.8 U	3.361	6.4	2.960	6.1	2.693
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: June 25, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, PE
Glenn Luke, PE

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

Activity Period: June 16, 2014 through June 21, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**
- Glenn Luke, **Project Manager**

USEPA Personnel on Site

- Fernando Monterey, **OTIE**
- Brad Benning, **On-Scene Coordinator**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**
- McClure Engineering Associates, **Registered Land Surveyor**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 6/21/14: 60,175.25 Tons
- In Situ Solidification/Stabilization (ISS) through 6/21/14: 261,320.08 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition.
- Management and oversight of GSI during full-scale ISS construction in the area of high impacts in Removal Action Area A with 12% reagent addition and 0.7% sodium silicate addition to accelerate and promote solidifying reactions.
- Management and oversight of McClure during documentation survey of Removal Action Area A ISS swell grades.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 114 loads (2,352.94 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill).
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (12 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (6/19).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Responded to local odor complaints by implementing additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Areas A and B with 12% reagent addition. 8,280.99 cubic yards of ISS was completed.
- Began full-scale ISS construction in the area of high impacts in Removal Action Areas A with 12% reagent addition and 0.7% sodium silicate. 1,506.09 cubic yards of ISS was completed.
- Received 43 loads of ground granulated blast furnace slag (GGBFS) and 14 loads of Portland cement for full-scale ISS construction.
- Loaded 2,352.94 tons (114 loads) of soil and debris for direct disposal at Countryside Landfill.
- Implemented fugitive emission controls during shallow soil excavation, subsurface structure demolition and removal, and offsite trucking. Emission controls include water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Implemented additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, and sequencing of work to minimize material handling in response to local odor complaints.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (6/19). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

McClure Engineering Associates

- Completed a documentation survey of the graded ISS swell surface in the northern portion of Removal Action Area A.

Changes to Scope of Work

- The 12% design reagent addition being utilized for full-scale ISS construction was supplemented with sodium silicate in the area of high impacts in Removal Action Area A. Sodium silicate was added at 0.7% addition to accelerate and promote solidifying reactions. ISS construction in this area includes the same Construction Quality Assurance (CQA) sampling and full scale construction performance goals.

Open/Outstanding Items

- None



Work planned for the week of June 23, 2014 through June 28, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Areas A and B with the Manitowoc 4000w and Delmag RH-28.
- Complete ISS construction in the area of high impacts in Removal Action Area A.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Area A.
- Place and grade general fill in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Glenn Luke".

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report



Field Photos:



Photo 1: Application of vapor suppression spray to ISS swell material in Removal Action Area A.

Direction: Northeast

Photo Date: 6/19/14

Photo Taken By: AMM



Photo 2: Loading soil for disposal at WMI's Countryside Landfill in Grayslake, IL.

Direction: South

Photo Date: 6/19/14

Photo Taken By: AMM



Photo 3: Documentation survey of ISS swell surface in Removal Action Area A.

Direction: Northeast

Photo Date: 6/20/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: June 16 - 22, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of June 16 – 22, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Josh Myers Jason Wuerch Emily Meyer Heather Shipman
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week June 16 – 22, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Kevin Adler of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through June 12, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on June 10 and June 12, 2014. The summa sample was not analyzed for AMS-1 because the flow meter was clogged and did not pull in a representative sample for the 24-hour period. The PUF sample at AMS-1 was also not analyzed because the power shut down overnight.

All Real-time Perimeter Ambient Air Monitoring data for the prior week June 9-16, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Kevin Adler on June 18, 2014.

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



SOURCE NOTES:

- THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME 12070PERSHING.DWG, DATED 06/27/2012.
- AERIAL PHOTOGRAPHY TAKEN FROM Bing Maps 2012.
- COORDINATE SYSTEM IS NAD83, ILL. STATE PLANE EAST, US FOOT.

Table 3
Sampling Average Concentrations through June 12, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.817	1.300	1.567	1.396	1.267	1.164	0.870
Ethylbenzene	2,800	280	28	0.988	1.348	2.091	2.142	1.850	1.401	1.063
Naphthalene	30	21	2.1	<u>4.377</u>	<u>6.882</u>	<u>11.314</u>	<u>9.418</u>	<u>7.288</u>	<u>5.913</u>	<u>4.818</u>
Toluene	5,000	5,000	5,000	1.713	2.195	2.196	1.698	1.658	1.906	1.740
Xylenes, Total	400	400	400	2.582	2.991	3.362	2.927	2.838	2.929	2.824
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

- 1) If all sample results are non-detect no average is calculated.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result underlined - value exceeds AAC for TCR 1E-6.
- 8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location and Sample Start Date/Concentration					
				Station 3 6/10/2014		Station 4 6/10/2014		Station 7 6/10/2014	
				Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)									
Benzene	80	80	9.0	0.78 U	1.558	0.77 U	1.409	3.7	0.875
Ethylbenzene	2,800	280	28	1.1 U	2.040	1.0 U	2.163	5.2	1.068
Naphthalene	30	21	2.1	1.3 U	<u>10.866</u>	1.3 U	<u>9.461</u>	88	4.876
Toluene	5,000	5,000	5,000	0.92 U	2.185	0.91 U	1.714	5.9	1.756
Xylenes, Total	400	400	400	3.2 U	3.337	3.1 U	2.938	12	2.832
PAHs (ug/m3)									
Benzo(a)anthracene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	0.015 U	NC	0.015 U	NC	0.015 U	NC
Chrysene	640	64	6.4	0.015 U	NC	0.015 U	NC	0.015 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	0.015 U	NC	0.015 U	NC	0.015 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 1 6/12/2014		Station 3 6/12/2014		Station 4 6/12/2014		Station 7 6/12/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.2 U	0.817	2.2	1.567	1.1 U	1.396	1.1 U	0.870
Ethylbenzene	2,800	280	28	1.6 U	0.988	5.8	2.091	1.5 U	2.142	1.5 U	1.063
Naphthalene	30	21	2.1	<u>2.5</u>	<u>4.377</u>	44	<u>11.314</u>	<u>6.7</u>	<u>9.418</u>	1.8 U	<u>4.818</u>
Toluene	5,000	5,000	5,000	1.6	1.713	3.0	2.196	1.3 U	1.698	1.3 U	1.740
Xylenes, Total	400	400	400	4.9 U	2.582	5.2	3.362	4.5 U	2.927	4.6 U	2.824
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: July 3, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, PE
Mark Walter, PE
Glenn Luke, PE

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

Activity Period: June 23, 2014 through June 28, 2014

Natural Resource Technology, Inc. Personnel on Site

- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**
- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**
- Steve Wiskes, **Health & Safety Officer**

USEPA Personnel on Site

- Fernando Monterey, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None



This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 6/28/14: 63,307.92 Tons
- In Situ Solidification/Stabilization (ISS) through 6/28/14: 270,785.83 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Area B with 12% reagent addition.
- Management and oversight of GSI during full-scale ISS construction in the area of high impacts in Removal Action Area A with 12% reagent addition and 0.7% sodium silicate addition to accelerate and promote solidifying reactions.
- Management and oversight of GSI during placement of general fill in Removal Action Area A.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 155 loads (3,132.67 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill).
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (10 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (6/26).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Implemented fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.





Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Area B with 12% reagent addition. 8,157.90 cubic yards of ISS was completed.
- Continued full-scale ISS construction in the area of high impacts in Removal Action Area A with 12% reagent addition and 0.7% sodium silicate. 1,416.34 cubic yards of ISS was completed.
- Received 40 loads of ground granulated blast furnace slag (GGBFS) and 14 loads of Portland cement for full-scale ISS construction.
- Loaded 3,132.67 tons (155 loads) of soil and debris for direct disposal at Countryside Landfill.
- Imported and placed 3,087.19 tons (127 loads) of general fill in Removal Action Area A.
- Implemented fugitive emission controls including water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Implemented additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, and sequencing of work to minimize material handling in response to local odor complaints.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (6/26). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- The 12% design reagent addition being utilized for full-scale ISS construction was supplemented with sodium silicate in the area of high impacts in Removal Action Area A. Sodium silicate was added at 0.7% addition to accelerate and promote solidifying reactions. ISS construction in this area includes the same Construction Quality Assurance (CQA) sampling and full scale construction performance goals.

Open/Outstanding Items

- None



Work planned for the week of June 30, 2014 through July 5, 2014

- Perform perimeter Air Monitoring.
- Full-scale ISS construction in Removal Action Area B with the Manitowoc 4000w and Delmag RH-28.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Area A.
- Place and grade general fill in Removal Action Area A.
- There will be no site work on Friday July 4th or Saturday 5th for the July 4th holiday.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: Grading of backfill in Removal Action Area A.

Direction: Northeast

Photo Date: 6/23/14

Photo Taken By: AMM



Photo 2: Application of odor suppressant foam in Removal Action Area A.

Direction: Southeast

Photo Date: 6/25/14

Photo Taken By: MDW



Photo 3: Loading soil for disposal at WMI's Countryside Landfill in Grayslake, IL.

Direction: South

Photo Date: 6/26/14

Photo Taken By: AMM



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: June 23 - 29, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of June 23 – 29, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Josh Myers Jason Wuerch
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week June 23 – 29, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through June 19, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on June 17 and June 19, 2014.

All Real-time Perimeter Ambient Air Monitoring data for the prior week June 16-22, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario on July 2, 2014.

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCH MARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



SOURCE NOTES:

1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME 12070PERSHING.DWG, DATED 06/27/2012.
2. AERIAL PHOTOGRAPHY TAKEN FROM Bing Maps 2012.
3. COORDINATE SYSTEM IS NAD83, N STATE PLANE EAST, US FOOT.

Table 3
Sampling Average Concentrations through June 19, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.870	1.285	1.567	1.391	1.302	1.164	0.865
Ethylbenzene	2,800	280	28	1.039	1.335	2.091	2.146	1.967	1.401	1.059
Naphthalene	30	21	2.1	<u>4.975</u>	<u>7.075</u>	<u>11.314</u>	<u>9.778</u>	<u>8.684</u>	<u>5.913</u>	<u>4.994</u>
Toluene	5,000	5,000	5,000	1.812	2.174	2.196	1.687	1.690	1.906	1.738
Xylenes, Total	400	400	400	2.711	2.976	3.362	2.905	2.937	2.929	2.817
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

- 1) If all sample results are non-detect no average is calculated.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result underlined - value exceeds AAC for TCR 1E-6.
- 8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 2 6/17/2014		Station 4 6/17/2014		Station 5 6/17/2014		Station 7 6/17/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.2 U	1.292	1.9	1.403	5.0	1.311	1.1 U	0.865
Ethylbenzene	2,800	280	28	1.6 U	1.341	3.8	2.167	13	1.981	1.5 U	1.059
Naphthalene	30	21	2.1	<u>16</u>	<u>6.985</u>	42	<u>9.912</u>	130	<u>8.731</u>	<u>17</u>	<u>4.994</u>
Toluene	5,000	5,000	5,000	1.8	2.190	2.0	1.702	5.4	1.702	1.6	1.738
Xylenes, Total	400	400	400	4.7 U	2.984	4.3 U	2.915	12	2.945	4.6 U	2.817
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Chrysene	640	64	6.4	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	0.015 U	NC	0.015 U	NC	0.015 U	NC	0.015 U	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 1 6/19/2014		Station 2 6/19/2014		Station 4 6/19/2014		Station 5 6/19/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	4.7	0.870	1.2 U	1.285	1.1 U	1.391	1.1 U	1.302
Ethylbenzene	2,800	280	28	4.7	1.039	1.6 U	1.335	1.5 U	2.146	1.5 U	1.967
Naphthalene	30	21	2.1	48	<u>4.975</u>	<u>15</u>	<u>7.075</u>	1.8 U	<u>9.778</u>	<u>4.7</u>	<u>8.684</u>
Toluene	5,000	5,000	5,000	9.0	1.812	1.4 U	2.174	1.3 U	1.687	1.3 U	1.690
Xylenes, Total	400	400	400	12	2.711	4.7 U	2.976	4.5 U	2.905	4.5 U	2.937
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**
Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**
Date: July 9, 2014
Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, PE
Mark Walter, PE
Glenn Luke, PE
Submitted To: Integrys Business Support, LLC
Naren M. Prasad, PE
Activity Period: June 30, 2014 through July 5, 2014

Natural Resource Technology, Inc. Personnel on Site

- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**
- Todd Lewis, **Construction Manager**

USEPA Personnel on Site

- Andy Plier, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**
- McClure Engineering Associates, **Registered Land Surveyor**
- Krause Electric, **Electrical Subcontractor**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- None

This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 7/5/14: 63,307.92 Tons
- In Situ Solidification/Stabilization (ISS) through 7/5/14: 275,729.18 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Management and oversight of GSI during full-scale ISS construction in Removal Action Area B with 12% reagent addition.
- Management and oversight of GSI during placement of general fill in Removal Action Area A.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Prepared Construction Quality Assurance (CQA) samples from full-scale ISS (6 samples) for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084) laboratory testing by Timely Engineering Soil Tests (T.E.S.T.). Test results to be compared to ISS performance goals established in the Removal Action Work Plan (RAWP).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of ISS column locations and elevations, pertinent site features, Removal Action Areas, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Tuesday (7/01).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Implemented fugitive emission controls including Rusmar odor control foam, covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Continued full-scale ISS construction in Removal Action Area B with 12% reagent addition. 4,943.35 cubic yards of ISS was completed.
- Received 21 loads of ground granulated blast furnace slag (GGBFS) and 7 loads of Portland cement for full-scale ISS construction.
- Imported and placed 4,224.85 tons (171 loads) of general fill in Removal Action Area A.
- Implemented fugitive emission controls including water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Implemented additional fugitive emission controls including additional Rusmar odor control foam, additional covering of inactive stockpiles, and sequencing of work to minimize material handling in preparation of the extended site shut down over the holiday weekend.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (6/26). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

McClure Engineering Associates

- Completed a documentation survey of the graded ISS swell surface in a completed portion of Removal Action Area A.
- Completed a topographic survey of the expanded Removal Action Area on Parcel 4 to document pre-construction conditions.

Changes to Scope of Work

- None.

Open/Outstanding Items

- None.

Work planned for the week of July 7, 2014 through July 12, 2014

- Perform perimeter Air Monitoring.
- Complete full-scale ISS construction in Removal Action Area B with the Manitowoc 4000w.
- Site preparation of Parcel 4 for ISS construction.
- Full-scale ISS construction on Parcel 4 with the Delmag RH-28 and the Manitowoc 4000w.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Area A.
- Place and grade general fill in Removal Action Area A.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.



Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report

Field Photos:



Photo 1: ISS construction in Removal Action Area B with the Manitowoc 4000w and Delmag RH-28.

Direction: Southeast

Photo Date: 7/2/14

Photo Taken By: DJV



Photo 2: Placement of general fill in Removal Action Area A.

Direction: Northeast

Photo Date: 7/3/14

Photo Taken By: DJV



Photo 3: Tarping and foaming of ISS swell stockpiles and graded ISS swell material.

Direction: South

Photo Date: 7/3/14

Photo Taken By: DJV



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: June 30 – July 6, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of June 30 – July 6, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 8 SUMMA canister air samples and 4 PUF air samples were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMCD Field Personnel	Ross Hartwick Jason Wuerch Erik Ehrengren
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week June 30 – July 6, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through June 26, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on June 24 and June 26, 2014. We did not analyze the summa sample collected at AMS-6 on June 24, 2014 because the summa did not collect a representative sample and the final summa pressure was zero upon sample collection.

All Real-time Perimeter Ambient Air Monitoring data for the prior week June 23-29, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario on July 2, 2014.

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCHMARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



- SOURCE NOTES:**
1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME: 12070PERSH.DWG, DATED 06/27/2012.
 2. AERIAL PHOTOGRAPHY TAKEN FROM BING MAPS 2012.
 3. COORDINATE SYSTEM IS NAD83, 8. STATE PLANE EAST, US FOOT.

Table 3
Sampling Average Concentrations through June 26, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.887	1.316	1.556	1.378	1.302	1.164	0.927
Ethylbenzene	2,800	280	28	1.102	1.348	2.086	2.125	1.967	1.401	1.160
Naphthalene	30	21	2.1	<u>5.853</u>	<u>7.541</u>	<u>11.474</u>	<u>9.647</u>	<u>8.684</u>	<u>5.913</u>	<u>7.065</u>
Toluene	5,000	5,000	5,000	1.831	2.224	2.182	1.671	1.690	1.906	1.889
Xylenes, Total	400	400	400	2.768	3.042	3.329	2.895	2.937	2.929	3.108
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

- 1) If all sample results are non-detect no average is calculated.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result underlined - value exceeds AAC for TCR 1E-6.
- 8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 2 6/24/2014		Station 3 6/24/2014		Station 6 6/24/2014		Station 7 6/24/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	4.1	1.316	1.8	1.570	NA	1.164	1.9	0.880
Ethylbenzene	2,800	280	28	2.5	1.348	3.1	2.105	NA	1.401	2.8	1.084
Naphthalene	30	21	2.1	49	<u>7.541</u>	34	<u>11.616</u>	NA	<u>5.913</u>	37	<u>5.451</u>
Toluene	5,000	5,000	5,000	6.7	2.224	2.7	2.203	NA	1.906	3.2	1.759
Xylenes, Total	400	400	400	8.9	3.042	4.3 U	3.346	NA	2.929	5.3	2.852
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Chrysene	640	64	6.4	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	0.016 U	NC	0.016 U	NC	0.015 U	NC	0.015 U	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) NA - Not analyzed.
- 9) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 10) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 1 6/26/2014		Station 3 6/26/2014		Station 4 6/26/2014		Station 7 6/26/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	2.1	0.887	1.0 U	1.556	1.1 U	1.378	4.2	0.927
Ethylbenzene	2,800	280	28	5.7	1.102	1.4 U	2.086	1.5 U	2.125	6.5	1.160
Naphthalene	30	21	2.1	70	<u>5.853</u>	1.7 U	<u>11.474</u>	1.8 U	<u>9.647</u>	120	<u>7.065</u>
Toluene	5,000	5,000	5,000	3.2	1.831	1.2 U	2.182	1.3 U	1.671	11	1.889
Xylenes, Total	400	400	400	6.9	2.768	4.1 U	3.329	4.4 U	2.895	21	3.108
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: August 27, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, PE
Glenn Luke, PE

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

Activity Period: August 18, 2014 through August 23, 2014

Natural Resource Technology, Inc. Personnel on Site

- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**
- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**

USEPA Personnel on Site

- Brad Benning, **On-Scene Coordinator**
- Christopher Redfearn, **OTIE**

Integrys/North Shore Gas Personnel on Site

- None

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**

Visitors

- Dave Weber, **Waste Management, Inc.**



This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 8/23/14: 87,031.15 Tons
- In Situ Solidification/Stabilization (ISS) through 7/26/14: 299,589.62 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 96 loads (1,884.52 tons) of concrete and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill) and 95 loads (1,827.49 tons) of soil and debris for disposal at Waste Management's Laraway Landfill in Joliet, IL (Laraway Landfill).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Documented receipt of 226 loads (5,438.63 tons) of general fill in Removal Action Area A, Removal Action Area B, the area of the Former Waukegan Tar Pit, and Parcel 4.
- Construction survey verification of pertinent site features, ISS swell grade elevations, general fill elevations, historical foundations, etc.
- Accompanied James Anderson Co. during a weekly erosion control inspection on Monday (8/18).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Implemented fugitive emission controls including Rusmar odor control foam, covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Completed demobilizing of the Delmag RH-28
- Continued demobilizing ISS equipment including the ISS batch plant.
- Continued removing portions of structures (Coke Bins and Boiler Room) that extend beyond the Removal Action Area A limits.
- Loaded 1,884.52 tons (96 loads) of concrete and debris for direct disposal at Countryside Landfill and 1,827.49 tons (95 loads) of soil and debris at Laraway Landfill.





- Imported 5,438.63 tons (226 loads) of general fill for placement in Removal Action Area A, Removal Action Area B, the area of the former Waukegan Tar Pit, and on Parcel 4.
- Implemented fugitive emission controls including water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Monday (8/18). The inspection was performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

Changes to Scope of Work

- None.

Open/Outstanding Items

- None.

Work planned for the week of August 25, 2014 through August 30, 2014

- Perform perimeter Air Monitoring.
- Continue demobilization of site equipment.
- Grade ISS swell material to final design elevations in Removal Action Areas A and B.
- Transport material for disposal at WMI's Countryside and Laraway Landfills.
- Import and place general fill in Removal Action Areas A and B.
- Demolition and removal of underground structures extending outside of Removal Action Area A.
- Perform documentation survey of ISS swell surface and general fill.

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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Glenn Luke".

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report



Field Photos:



Photo 1: Demolition and removal of subsurface structures outside of Removal Action Area A.

Direction: Northeast

Photo Date: 8/18/14

Photo Taken By: DJV



Photo 2: Grading ISS swell material in Removal Action Area B.

Direction: East

Photo Date: 8/18/14

Photo Taken By: DJV



Photo 3: Placement of general fill in Removal Action Area B.

Direction: South

Photo Date: 8/21/14

Photo Taken By: DJV



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: August 18 – 24, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of August 18-24, 2014 and includes:

Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 6 PUF air samples including one duplicate air sample and one filed blank air sample were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMcD Field Personnel	Ross Hartwick Jason Wuerch Heather Shipman Emily Meyer
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week August 18-24, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through August 14, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on August 12 and 14, 2014.

All Real-time Perimeter Ambient Air Monitoring data for the prior week August 11-17, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario on August 20, 2014.

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCH MARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



SOURCE NOTES:

1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME 1207PERSHING.DWG, DATED 06/27/2012.
2. AERIAL PHOTOGRAPHY TAKEN FROM BNG MAPS 2012.
3. COORDINATE SYSTEM IS NAD83, 8 STATE PLANE EAST, US FOOT.

Table 3
Sampling Average Concentrations through August 14, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.880	1.633	1.525	1.435	1.994	1.418	0.994
Ethylbenzene	2,800	280	28	1.126	1.449	2.054	2.243	3.543	1.846	1.319
Naphthalene	30	21	2.1	<u>6.515</u>	<u>9.713</u>	<u>11.295</u>	<u>11.164</u>	23.196	<u>10.984</u>	<u>8.247</u>
Toluene	5,000	5,000	5,000	1.789	2.640	2.125	1.738	2.313	2.264	1.908
Xylenes, Total	400	400	400	2.726	3.500	3.273	3.041	4.097	3.537	3.190
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	0.008	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	0.008	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

- 1) If all sample results are non-detect no average is calculated.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result underlined - value exceeds AAC for TCR 1E-6.
- 8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 1 8/12/2014		Station 2 8/12/2014		Station 4 8/12/2014		Station 5 8/12/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.1 U	0.863	1.1 U	1.633	1.1 U	1.447	3.0	1.995
Ethylbenzene	2,800	280	28	1.4 U	1.096	1.5 U	1.449	1.5 U	2.263	4.7	3.563
Naphthalene	30	21	2.1	1.7 U	<u>6.271</u>	1.8 U	<u>9.713</u>	1.8	<u>11.302</u>	36	<u>19.756</u>
Toluene	5,000	5,000	5,000	1.3 U	1.771	1.3 U	2.640	1.3 U	1.753	3.0	2.317
Xylenes, Total	400	400	400	4.3 U	2.733	4.6 U	3.500	4.5 U	3.053	4.5 U	4.117
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC
Chrysene	640	64	6.4	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	0.016 U	NC	0.015 U	NC	0.016 U	NC	0.016 U	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations</u> at TCR* 1E-4	<u>Acceptable Air Concentrations</u> at TCR* 1E-5	<u>Acceptable Air Concentrations</u> at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 1 8/14/2014		Station 4 8/14/2014		Station 5 8/14/2014		Station 7 8/14/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	2.3	0.880	1.0 U	1.435	1.9	1.994	3.6	0.994
Ethylbenzene	2,800	280	28	3.7	1.126	1.4 U	2.243	1.7	3.543	7.1	1.319
Naphthalene	30	21	2.1	<u>27</u>	<u>6.515</u>	1.7 U	<u>11.164</u>	350	23.196	<u>47</u>	<u>8.247</u>
Toluene	5,000	5,000	5,000	3.3	1.789	1.2 U	1.738	1.9	2.313	5.0	1.908
Xylenes, Total	400	400	400	4.4 U	2.726	4.2 U	3.041	4.4 U	4.097	6.8	3.190
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.



ENVIRONMENTAL CONSULTANTS

234 W. FLORIDA STREET, FIFTH FLOOR
MILWAUKEE, WISCONSIN 53204
(P) 414.837.3607
(F) 414.837.3608

Report: **Weekly Progress Report**

Project: **Former North Plant MGP Site
Removal Action Construction
Waukegan, Illinois**

Date: August 6, 2014

Prepared By: Natural Resource Technology, Inc.
Andrew Millspaugh, PE
Mark Walter, PE
Glenn Luke, PE

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

Activity Period: July 28, 2014 through August 2, 2014

Natural Resource Technology, Inc. Personnel on Site

- Glenn Luke, **Project Manager**
- Todd Lewis, **Construction Manager**
- Andrew Millspaugh, **Field Engineer**
- Dan Vachon, **Field Technician**
- Mark Walter, **Field Engineer**

USEPA Personnel on Site

- Brad Benning, **USEPA**

Integrys/North Shore Gas Personnel on Site

- Naren Prasad, **Project Manager**

Subcontractors on Site

- Geo-Solutions, Inc. (GSI), **Earthwork, In Situ Solidification/Stabilization**
- James Anderson Co., **Designated Erosion Control Inspector**
- McClure Engineering Associates, **Registered Land Surveyor**
- Stars Fence, **Fence Subcontractor**

Others

- Burns & McDonnell, **Perimeter Air Monitoring**
- Michael Kuhn, **Lake County Health Department**

Visitors

- None



This report summarizes field activities performed by NRT, in addition to NRT's subcontractors, on behalf of IBS at the former North Plant MGP Site Time Critical Removal Action:

Site Activities

Removal Action Totals:

- Direct Disposal (Soil and Debris) through 8/2/14: 73,702.13 Tons
- In Situ Solidification/Stabilization (ISS) through 7/26/14: 299,589.62 Cubic Yards

NRT

- Managed site security and construction activities with IBS, GSI, WMI, and Burns & McDonnell.
- Facilitated and participated in daily safety meetings to evaluate potential safety concerns for the day's planned construction activities.
- Management and oversight of GSI's construction efforts throughout the week.
- Coordination and scheduling of disposal trucks with WMI and GSI.
- Issued truck tracking forms and documented 80 loads (1,609.20 tons) of soil and debris for disposal at Waste Management's Countryside Landfill in Grayslake, IL (Countryside Landfill) and 10 loads (172.37 tons) of soil and debris for disposal at Waste Management's Laraway Landfill in Joliet, IL (Laraway Landfill).
- Received and reviewed ISS CQA sample test results for unconfined compressive strength (UCS) (ASTM D1633) and hydraulic conductivity (ASTM D5084). Laboratory testing is completed by Timely Engineering Soil Tests (T.E.S.T.). Test results are compiled and compared to the ISS performance goals established in the Removal Action Work Plan (RAWP).
- Construction survey verification of pertinent site features, ISS swell grade elevations, general fill elevations, historical foundations, etc.
- Management, scheduling, and coordination with McClure Engineering for ISS swell grade documentation survey on Friday (8/1).
- Accompanied James Anderson Co. during a weekly erosion control inspection on Thursday (7/31).
- Monitored site conditions for traffic flow, fugitive dust, odors, and general overall safety.
- Conducted periodic worker health and safety air monitoring in the work zone.
- Implemented fugitive emission controls including Rusmar odor control foam, covering of inactive stockpiles, operation of an odor control perimeter misting system, and sequencing of work to minimize material handling.

Geo-Solutions Inc.

- Began demobilizing of ISS equipment including the Manitowoc 4000w, Delmag RH-28, and ISS batch plant.
- Loaded 1,609.20 tons (80 loads) of soil and debris for direct disposal at Countryside Landfill and 172.37 tons (10 loads) at Laraway Landfill.
- Imported 3,041.16 tons (124 loads) of general fill for placement on Parcel 4 and the area of the former Waukegan Tar Pit.





- Implemented fugitive emission controls including water for dust suppression, Rusmar foam for odor and VOC emissions, and stockpile covering with scrim reinforced plastic.
- Maintained and administered site exclusion zones, decontamination areas, and site health and safety procedures.
- Conducted worker health and safety air monitoring in the work (exclusion) zone.

James Anderson Company

- Completed a weekly erosion control inspection on Thursday (7/31). The inspections were performed in accordance with the Watershed Development Permit and the general National Pollutant Discharge Elimination System (NPDES) permit.

McClure Engineering Associates

- Completed documentation survey of completed ISS swell grades on Parcel 4 on Friday (8/1).

Changes to Scope of Work

- None.

Open/Outstanding Items

- None.

Work planned for the week of August 4, 2014 through August 9, 2014

- Perform perimeter Air Monitoring.
- Continue demobilization of site equipment.
- Receive and evaluate ISS CQA data.
- Grade ISS swell material to final design elevations in Removal Action Areas A and B, and on Parcel 4.
- Transport material for disposal at WMI's Countryside and Laraway Landfills.
- Import and place general fill in Removal Action Area A and Parcel 4.
- Begin removal of underground structures extending outside of Removal Action Area A.





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. A summary of the perimeter air monitoring activities, as detailed by the Air Monitoring Contractor, is included with this report as Attachment 1.

Please contact us if you have any questions.

Sincerely,
NATURAL RESOURCE TECHNOLOGY, INC.

A handwritten signature in black ink, appearing to read "Glenn Luke".

Glenn Luke, PE
Environmental Engineer

Attachment 1: Burns and McDonnell Weekly Air Monitoring Report



Field Photos:



Photo 1: Loading material for transportation and disposal.

Direction: Southeast

Photo Date: 7/31/14

Photo Taken By: MDW



Photo 2: Application of odor suppressing foam to ISS swell material stockpiles in Removal Action Area A.

Direction: South

Photo Date: 7/31/14

Photo Taken By: MDW



Photo 3: Placement of general fill on graded ISS swell material in Parcel 4.

Direction: North

Photo Date: 8/1/14

Photo Taken By: MDW



ATTACHMENT 1



1431 Opus Place, Suite 400
Downers Grove, Illinois 60515

**Record of Weekly Ambient Air Monitoring Activities
Former North Plant MGP Site**

Date Period: July 28 – August 3, 2014

Burns & McDonnell is performing ambient air monitoring and sampling along the site perimeter at the Former North Plant MGP Site in accordance with the *North Plant MGP Site – Removal Action Work Plan (RAWP)*. We are completing real time ambient air monitoring 24-hours a day, seven days a week at seven locations (AMS-1 through AMS-7) along the Site perimeter. We are collecting 24-hour perimeter air samples at upwind and downwind locations at the Air Monitoring Stations on a routine basis at frequencies and quantities outlined in the RAWP. Burns & McDonnell is also performing real-time handheld and observation monitoring as described in the RAWP. This weekly report describes air monitoring activities for the week of July 28 – August 3, 2014 and includes:

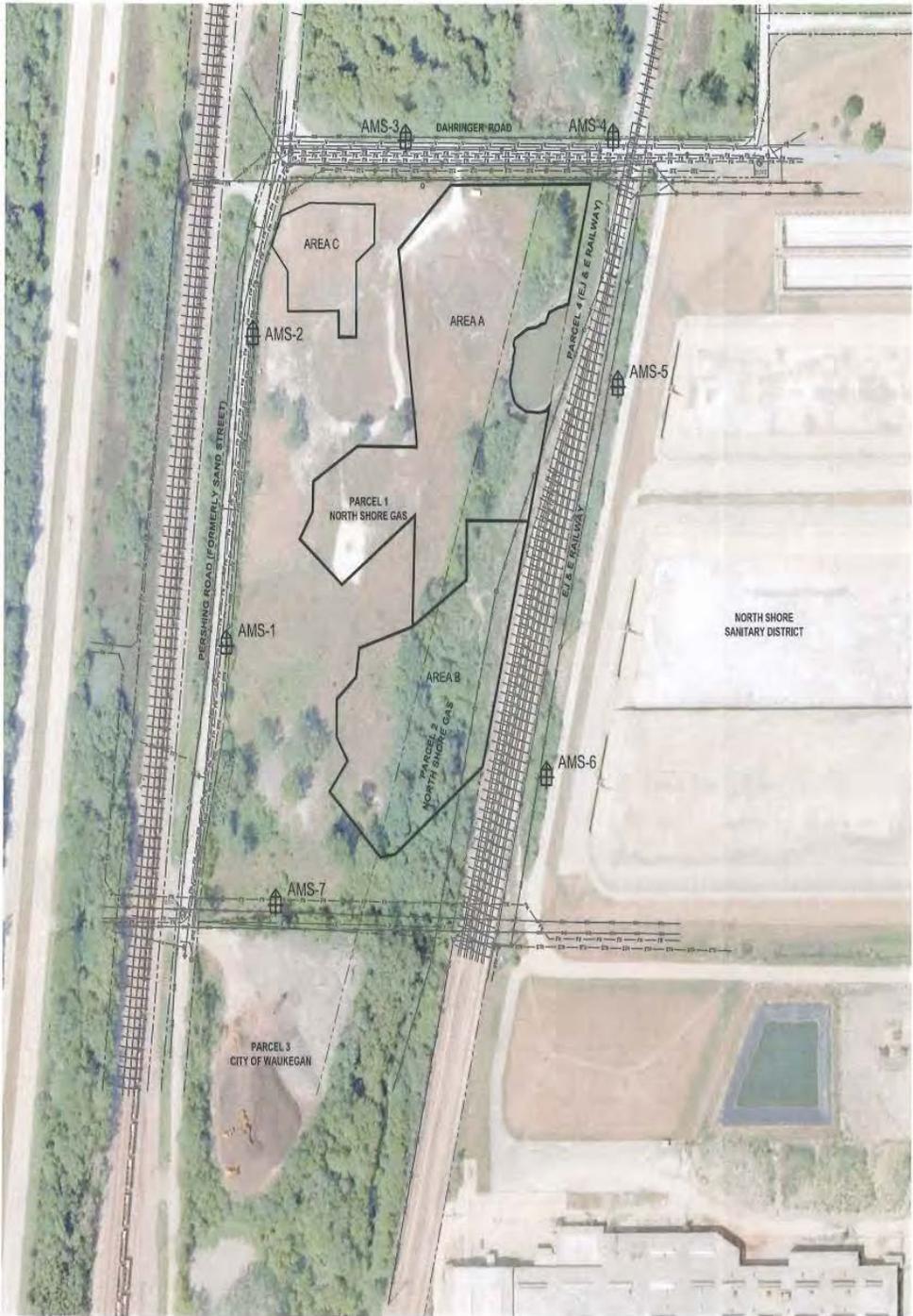
Tasks	Ambient Air Monitoring Activities
Sampling Activities Performed	A total of 9 SUMMA canister air samples including one duplicate air sample and 6 PUF air samples including one duplicate air sample and one filed blank air sample were collected and submitted to STAT Analysis for BTEX/Naphthalene and select PAH analyses, respectively.
BMCD Field Personnel	Ross Hartwick Jason Wuerch Erik Ehrengren
Equipment Deployed	AirLogics Air Monitoring Stations SUMMA canisters with 24-hour flow regulators PUF sampling systems Photo ionization detector (PID) TSI Dusttrak monitoring device

Perimeter Ambient Air Monitoring Results:

Real-time Perimeter Ambient Air Monitoring data for the week July 28 – August 3, 2014 will be uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario of the US Environmental Protection Agency (EPA). Real-time Perimeter Ambient Air Analytical Results are attached to this Weekly Report updated through July 24, 2014. The laboratory analytical reports will also be uploaded to the MFT site for the samples collected on July 22 and July 24, 2014.

All Real-time Perimeter Ambient Air Monitoring data for the prior week July 21 – 27, 2014 was uploaded to the Burns & McDonnell MFT site and emailed to Brad Benning and Ross del Rosario on July 30, 2014.

Figure 1: Site Map



	EXISTING FENCE
	PARCEL LINE
	RAILROAD TRACKS
	WATER MAIN
	SANITARY SEWER
	SANITARY FORCE MAIN
	STORM SEWER
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATIONS
	GAS LINE
	WETLAND (2012 DELINEATION)
	MANHOLE
	HYDRANT
	WATER VALVE
	UTILITY POLE
	REMOVAL AREA EXCAVATION LIMIT
	BENCH MARK
	AMS-1 PROPOSED AIR MONITORING STATION LOCATION



SOURCE NOTES:

1. THIS DRAWING WAS DEVELOPED FROM MCCLURE ENGINEERING & ASSOCIATES, INC. PLAT OF SURVEY, SHEET 1 OF 1, JOB NO. 02-13-12-070, DRAWING NAME 12070PERSHING.DWG, DATED 06/27/2012.
2. AERIAL PHOTOGRAPHY TAKEN FROM Bing Maps 2012.
3. COORDINATE SYSTEM IS NAD83, N. STATE PLANE EAST, US FOOT.

Table 3
Sampling Average Concentrations through July 24, 2014
Acceptable Air Concentration Screening
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	Acceptable Air Concentrations at TCR* 1E-4	Acceptable Air Concentrations at TCR* 1E-5	Acceptable Air Concentrations at TCR* 1E-6	Sample Location/Concentration						
				Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Benzene, Ethylbenzene, Toluene and Total Xylenes (BTEX) and Naphthalene (ug/m3)										
Benzene	80	80	9.0	0.879	1.343	1.530	1.484	1.676	1.312	0.912
Ethylbenzene	2,800	280	28	1.114	1.429	2.052	2.326	2.893	1.662	1.144
Naphthalene	30	21	2.1	<u>6.423</u>	<u>9.177</u>	<u>11.292</u>	<u>11.722</u>	<u>16.857</u>	<u>9.051</u>	<u>6.909</u>
Toluene	5,000	5,000	5,000	1.827	2.309	2.142	1.798	2.031	2.093	1.839
Xylenes, Total	400	400	400	2.758	3.234	3.301	3.084	3.670	3.245	3.075
Polynuclear Aromatic Hydrocarbons (PAHs) (ug/m3)										
Benzo(a)anthracene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(b)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(k)fluoranthene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC
Benzo(a)pyrene	6.4	0.64	0.064	NC	NC	NC	NC	NC	NC	NC
Chrysene	640	64	6.4	NC	NC	NC	NC	NC	NC	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NC	NC	NC	NC	NC	NC	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NC	NC	NC	NC	NC	NC	NC

Notes:

- 1) If all sample results are non-detect no average is calculated.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result underlined - value exceeds AAC for TCR 1E-6.
- 8) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations</u> at TCR* 1E-4	<u>Acceptable Air Concentrations</u> at TCR* 1E-5	<u>Acceptable Air Concentrations</u> at TCR* 1E-6	Sample Location and Sample Start Date/Concentration							
				Station 2 7/22/2014		Station 3 7/22/2014		Station 6 7/22/2014		Station 7 7/22/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.1 U	1.344	1.1 U	1.530	1.2 U	1.312	1.1 U	0.912
Ethylbenzene	2,800	280	28	1.5 U	1.424	1.5 U	2.052	1.6 U	1.662	1.6 U	1.144
Naphthalene	30	21	2.1	<u>2.8</u>	<u>9.116</u>	<u>7.8</u>	<u>11.292</u>	<u>11</u>	<u>9.051</u>	<u>7.9</u>	<u>6.909</u>
Toluene	5,000	5,000	5,000	1.3 U	2.316	1.3 U	2.142	1.4 U	2.093	1.3 U	1.839
Xylenes, Total	400	400	400	4.5 U	3.245	4.5 U	3.301	4.7 U	3.245	4.7 U	3.075
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Chrysene	640	64	6.4	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	0.016 U	NC	0.017 U	NC	0.016 U	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.

Table 4 (Continued)
24-Hour Ambient Air Data Results - Acceptable Air Concentration Screening and Cumulative Average
24-Hour Ambient Air Monitoring Data
North Plant

Compound/Analyte	<u>Acceptable Air Concentrations at TCR* 1E-4</u>	<u>Acceptable Air Concentrations at TCR* 1E-5</u>	<u>Acceptable Air Concentrations at TCR* 1E-6</u>	Sample Location and Sample Start Date/Concentration							
				Station 1 7/24/2014		Station 2 7/24/2014		Station 4 7/24/2014		Station 5 7/24/2014	
				Result	Avg	Result	Avg	Result	Avg	Result	Avg
BTEX and Naphthalene (ug/m3)											
Benzene	80	80	9.0	1.9	0.879	1.2	1.343	5.9	1.484	3.3	1.676
Ethylbenzene	2,800	280	28	3.7	1.114	1.9	1.429	9.4	2.326	6.4	2.893
Naphthalene	30	21	2.1	<u>36</u>	<u>6.423</u>	<u>15</u>	<u>9.177</u>	<u>60</u>	<u>11.722</u>	<u>45</u>	<u>16.857</u>
Toluene	5,000	5,000	5,000	2.5	1.827	1.6	2.309	5.7	1.798	4.1	2.031
Xylenes, Total	400	400	400	4.4	2.758	4.3 U	3.234	7.6	3.084	5.8	3.670
PAHs (ug/m3)											
Benzo(a)anthracene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(b)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(k)fluoranthene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC
Benzo(a)pyrene	6.4	0.64	0.064	NA	NC	NA	NC	NA	NC	NA	NC
Chrysene	640	64	6.4	NA	NC	NA	NC	NA	NC	NA	NC
Dibenzo(a,h)anthracene	5.8	0.58	0.058	NA	NC	NA	NC	NA	NC	NA	NC
Indeno(1,2,3-cd)pyrene	64	6.4	0.64	NA	NC	NA	NC	NA	NC	NA	NC

Notes:

- 1) Avg - Cumulative average concentration.
- 2) ug/m3 - micrograms per cubic meter adjusted to standard temperature and pressure.
- 3) * TCR - Target Cancer Risk
- 4) AAC - Acceptable air concentrations.
- 5) Result underlined - value exceeds AAC for TCR 1E-6.
- 6) Result bold - value exceeds AAC for TCR 1E-5.
- 7) Result shaded gray - value exceeds AAC for TCR 1E-4.
- 8) U - Compound/analyte not detected. The associated numerical value is the reporting limit.
- 9) NA - Not analyzed.
- 10) NC - All sample results are non-detect; no average is calculated.