

**FINAL LETTER REPORT
FOR
THE QUINCY SMELTER SITE
RIPLEY, FRANKLIN TWP., HOUGHTON COUNTY, MICHIGAN**

NPL STATUS: LISTED

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Emergency Response Branch
9311 Groh Road
Grosse Ile, Michigan 48138

Prepared by:

WESTON SOLUTIONS, INC.
20 North Wacker, Suite 1210
Chicago, Illinois 60606

Date Prepared	August 27, 2008
TDD Number	S05-0001-0804-007
Document Control Number	422-1A-ACLX
Site Specific ID Number	B57M
Contract Number	EP-S5-06-04
WESTON START Project Manager	Sarah Meyer
Telephone Number	(312) 424-3303
U.S. EPA On-Scene Coordinator	Brian Kelly

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August 27, 2008

Prepared by:  Date: 8/27/08
Jennifer Nutini, WESTON START Site Lead

Reviewed by:  Date: 8/27/08
Sarah Meyer, WESTON START Project Manager

Approved by:  Date: 8/27/08
Pamela Bayles, WESTON START Program Manager



Weston Solutions, Inc.
20 North Wacker Drive, Suite 1210
Chicago, IL 60606
(312) 424-3300 fax: (312) 424-3330
www.westonsolutions.com

The Trusted Integrator for Sustainable Solutions

August 27, 2008

Mr. Brian Kelly
On-Scene Coordinator
Emergency Response Branch
United States Environmental Protection Agency
9311 Groh Road
Grosse Ile, Michigan 48138

Re: **Removal Summary Report for the Quincy Smelter Site
Ripley, Franklin Twp., Houghton County, Michigan
WO# 20405.012.001.0422.00
TDD: S05-0001-0804-007
DCN: 422-1A-ACLX
Site ID: B57M**

Dear Mr. Kelly:

In December of 2004, the United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc., (WESTON®) Superfund Technical Assessment and Response Team (START) to conduct an asbestos abatement assessment at the Quincy Smelter Site (Site) located in Ripley, Franklin Township, Houghton County, Michigan. The Site is located on the Torch Lake National Priorities List (NPL) Site. The purpose of the assessment was to conduct a building-by-building survey of friable asbestos and evaluate the stability of site buildings, considering the likely abatement procedures. The assessment was conducted under Technical Direction Document (TDD) S05-0406-002. A complete summary of the Site's background, assessment results, and recommendations for building stabilization and removal action are available in the *Asbestos Abatement Assessment Report* (WESTON, 2005).

In April 2008, U.S. EPA tasked WESTON START to conduct oversight of a time-critical removal action (TCRA) at the Site. The work was conducted under TDD S05-0001-0804-007. The following is a discussion of the specific activities performed by U.S. EPA for this TCRA.



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SITE BACKGROUND

Site Location

The Site is located at 48991 Maple Street, Ripley, Franklin Township, Houghton County, Michigan (**Figure 1**). The geographical coordinates of the Site are 47.126599 degrees (°) north and 88.554129° west. The Site consists of 28 buildings and was historically operated as a copper smelting facility from the late 19th century until approximately 1969. Currently the Site is owned by Franklin Township, Michigan. The National Park Service (NPS) has designated the Site as a historical landmark within the Keweenaw National Historic Park. Figure 2 depicts the buildings.

The Site's topography is relatively flat with the exception of the southern boundary, the Portage Canal banks, which slope steeply southward. Residential areas are located north of the Site. Commercial and industrial properties are located to the east and west.

Site History

The information discussed below was obtained from the following reports:

- ACTION MEMORANDUM – Request for a Time Critical Removal Action at the Quincy Smelter Area of the Torch Lake Superfund Site, Franklin Township, Houghton County, Michigan (Site ID B57M) (U.S. EPA, March 2008)
- HEALTH CONSULTATION, Review of Activity-Based Sampling on the Hancock/Ripley Trail (U.S. Department of Health and Human Services, November 2006)
- Quincy Smelter Asbestos Abatement Assessment (WESTON, January 2005)

Following the June 2004 decision to perform a removal action protective of human health, welfare, and the environment, U.S. EPA conducted the removal action to remove drums, tanks, vats, and small containers of hazardous substances. In addition, suspect ACM was visually identified inside most buildings and in several locations in the Site's yard.

In June 2004, U.S. EPA commissioned an asbestos survey to document the presence of friable asbestos inside and outside most of the Site's buildings and along the Hancock-Ripley Trail (HRT). In July 2004, following the asbestos survey, U.S. EPA erected a perimeter fence around the Site, including a portion of the HRT, to prevent the public from direct contact with friable asbestos. In August 2004, U.S. EPA also conducted activity-based asbestos sampling along the HRT and concluded that there was no activity-based exposure to asbestos on the HRT. In



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December 2004, a building-by-building asbestos removal assessment and structural stability survey was performed to determine the structural integrity of the buildings and assess the means and cost of removing bulk asbestos. During July 2005, U.S. EPA moved the perimeter fence off the HRT following removal of asbestos from two buildings located outside the fence.

In April 2008, U.S. EPA approved an Action Memorandum requesting a Comprehensive Environmental Response, Compensation, and Liability Act TCRA at the Site to mitigate imminent and substantial endangerment to public health, welfare, and the environment due to the actual or threatened release of hazardous substances (specifically asbestos) at or from the Site. U.S. EPA had determined that the presence of friable asbestos on site, in combination with buildings in advanced states of deterioration, posed the potential for public exposure.

Historical Considerations

Because the Site is a historical landmark, the U.S. EPA Regional Administrator sent a letter to the NPS Regional Director asking NPS assistance in meeting the requirements of the Programmatic Agreement on Protection of Historic Properties during Emergency Response under the NCP. The State Historical Preservation Office was also provided the opportunity to comment.

ORGANIZATION OF THE RESPONSE

The organization of the response is summarized in **Table 1 (Attachment B)**.

SUMMARY OF THE TIME-CRITICAL REMOVAL ACTION

U.S. EPA conducted a TCRA of ACM at the Site from June 9, 2008, through June 13, 2008. During planning for the removal, a structural analysis of the Site found that ACM abatement could not be done safely within the 200-foot fall radius of the Reverberatory Furnace Building (RFB) smoke stack (stack) and the condition of the stack was such that safe repair of the stack was no longer possible (*Smoke Stack Condition Study*, U.P. Engineers & Architects, Inc., May 2008). Based on this conclusion, the stack's height was reduced to near the roof level of the RFB prior to abatement.

U.S. EPA selected Environmental Quality Management, Inc., (EQM) as the Emergency and Rapid Response Service (ERRS) contractor for the Site. ERRS Response Manager Mr. Chris Long, with the assistance of several subcontractors, performed the TCRA as described below. Ms. Sarah Meyer and Ms. Jennifer Nutini of WESTON START were on site to provide written and photographic documentation of the TCRA and to assist On-Scene Coordinator (OSC) Mr.



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Brian Kelly. WESTON, ERRS, and Upper Peninsula Engineers and Architects (UPEA), a subcontractor to ERRS, prepared the following planning documents prior to initiating the TCRA

Table 2 – SUMMARY OF REMOVAL PLANNING DOCUMENTS		
Document	Author	Date
Health and Safety Plan	WESTON	May 2008
Work Plan – CERCLA Abandoned Asbestos Removal at Quincy Smelter Site	EQM	April 2008
Health and Safety Plan	EQM	April 2008
Smoke Stack Condition Study	UPEA	May 2008

Notes:

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

EQM – Environmental Quality Management, Inc.

WESTON – Weston Solutions, Inc.

UPEA – Upper Peninsula Engineers and Architects

The following table summarizes the major activities performed as part of the TCRA at the Site:

Table 3 – SUMMARY OF 2008 U.S. EPA TCRA		
Action	Timeline	Contractor Performing Work
Stack Height Removal	June 9, 2008 – June 13, 2008	EQM/Julio
Asbestos Removal	June 9, 2008 – June 13, 2008	EQM/QASI
Air Monitoring	June 9, 2008 – June 13, 2008	ETC
Health and Safety and Removal Oversight	June 9, 2008 – June 13, 2008	WESTON

Notes:

EQM – Environmental Quality Management, Inc.

ETC – Environmental Testing and Consulting, Inc.

Julio – Julio Contracting Company

QASI – Qualified Abatement Services, Inc.

TCRA – Time-critical Removal Action

U.S. EPA – United States Environmental Protection Agency

WESTON – Weston Solutions, Inc.

Stack Height Removal

From June 9, 2008, through June 13, 2008, U.S. EPA completed height removal for the stack. Height removal consisted of placing four guy wires around the stack and leaning the stack down in a manner that minimized damage to surrounding structures. Following removal of approximately 70 feet of height, a steel cap was placed on the remaining portion of the stack to provide additional stability. Approximately 15 feet of stack height remains above the building roofline. Julio Contracting Company, under subcontract to ERRS, removed stack debris (bricks, corrugated sheet metal) and placed the debris outside the fenced area of the Site per the request of the NPS. Minimal repairs were made to the RFB to return it to its condition prior to stack-height removal.



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Asbestos Removal

From June 9, 2008, through June 13, 2008, U.S. EPA completed asbestos removal at 12 buildings (Buildings 2, 3, 5, 7, 11, 14, 15, 16, 17, 18, 19, and 20) to prevent emissions of airborne asbestos fibers from the Site. The ERRS asbestos abatement subcontractor, Qualified Abatement Services, Inc. (QASI), employed a glove-bag technique for the majority of ACM removal. In places where glove-bagging was not feasible, or to prevent damage to historical fabric or structures, a framing technique was used for ACM removal. This technique consisted of constructing a frame with polyvinyl chloride pipe and wrapping the frame with plastic and glove-bags before proceeding with ACM removal.

All waste was sealed in double-layered plastic wrapping or bags and affixed with appropriate labeling to indicate asbestos waste. Two-hundred-and-sixty-four containers (28.5 cubic yards) of ACM waste was removed from the Site and transported to Delta Solid Waste Management Authority in Escanaba, Michigan, via box truck on June 13, 2008 for disposal at the landfill. A photographic log of asbestos abatement and stack-height removal activities is provided in **Attachment A**.

Air Monitoring and Health and Safety Oversight

ERRS, WESTON START, and the ERRS subcontractors performed work in accordance with their respective HASPs and subsequent amendments. A third-party industrial hygienist, Environmental Testing and Consulting, Inc. (ETC), performed air monitoring in accordance with 29 CFR 1910.1001 for the abatement workers during the TCRA. Five kinds of air samples were collected during the TCRA:

- Personal sampling was performed on abatement workers to demonstrate contractor compliance with 40 CFR 1926.56.
- Excursion, or short-term, samples were collected to represent the maximum possible concentration of asbestos fibers in an area during abatement.
- Contiguous samples were collected to represent outdoor asbestos fiber concentrations outside of work areas.
- Work area samples were collected at fixed locations within the work zone to represent ambient concentrations during abatement.
- Post-abatement clearance samples were collected to represent the highest fiber concentration within the work area following abatement.



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A copy of the report provided to QASI and ERRS by ETC is included in **Attachment D** of this document. A complete listing of the results of all samples taken and schematics depicting the types and locations of samples taken in each building can be found within **Attachment D**. All air sampling results indicated acceptable concentrations of asbestos fibers in air during work shifts.

In accordance with the Asbestos Abatement Contractor Licensing Act (Michigan Public Act 135, of 1986, as amended), post-abatement clearance samples were collected in each building prior to re-entry for abatement verification inspections. The sampling period for these post-abatement clearance samples spanned active abatement to post-abatement timeframes. The results from these samples are expected to represent the highest possible fiber concentrations that may exist inside the building after abatement has been completed. Results from all clearance samples indicated asbestos concentrations in air of 0.05 fibers per cubic centimeter (f/cc) or less, which is below the maximum recommended level for post-abatement clearance sampling. The results of clearance sampling in each building are summarized in **Table 4 (Attachment B)**.

General industry standards indicate that there is no known safe level of asbestos exposure for humans. However, National Institute of Occupation Safety and Health Method 7400 sets forth a standard of 0.1 f/cc for clearance sampling for worker and general protection. Clearance sampling results indicated airborne concentrations of asbestos fibers to be well below this standard, as demonstrated in **Table 4 (Attachment B)**.

DISPOSAL SUMMARY

Two-hundred-and-sixty-four containers (28.5 cubic yards) of ACM waste were removed from the Site and transported to Delta Solid Waste Management Authority in Escanaba, Michigan, via box truck on June 13, 2008.

EFFECTIVENESS OF REMOVAL ACTIVITIES

Actions Taken by State and Local Forces

U.S. EPA coordinated site activity with Franklin Township, the Michigan Department of Environmental Quality (MDEQ), and the NPS. The State Historical Preservation Office was also provided the opportunity to comment on removal plans prior to the TCRA.



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Actions Taken by Federal Agencies and Special Teams

U.S. EPA organized and led the TCRA at the Quincy Smelter Site. The U.S. EPA START contractor, WESTON, provided technical support for U.S. EPA while at the Site. The technical support included:

- Preparation and review of planning documents
- General and health and safety oversight
- Written and photographic documentation of all site activities
- WESTON START-related cost tracking

ERRS, with assistance from several subcontractors, provided planning documents, personnel, equipment, and air monitoring for the TCRA. Subcontractor support was provided by UPEA, Julio, QASI, and ETC.

DIFFICULTIES ENCOUNTERED

No difficulties were encountered during performance of this TCRA.

CONCLUSIONS

From June 9, 2008, through June 13, 2008, U.S. EPA conducted a TCRA at the Quincy Smelter Site that effectively:

- Reduced or eliminated the threat of asbestos emissions to air due to conditions at the Site; and
- Allows for safe entry into buildings with respect to airborne asbestos fibers.

OUTSTANDING ISSUES

The following are outstanding issues related to the Site:

- Due to areas of structural failure in Buildings 6 and 17 and the damage that would be caused by accessing these areas, two areas of asbestos pipe insulation were left in place. As these areas do not pose an imminent threat of release, U.S. EPA notified Franklin Township and NPS that these areas should be addressed during redevelopment.
- The poor structural condition of on-site buildings and potential failure of buildings is an extreme safety hazard that should be addressed prior to site redevelopment or public access.



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- Franklin Township's office building, which was found to have friable tar paper overlapped by non-friable siding, was not included in the TCRA.

Should you have any questions regarding the above summary, please contact either of the undersigned at (906) 482-3018 or (312)-424-3303 (respectively).

Very truly yours,

WESTON SOLUTIONS, INC.

A handwritten signature in dark ink, appearing to read "Jennifer Nutini".

Jennifer Nutini
WESTON START Site Lead

A handwritten signature in dark ink, appearing to read "Sarah Meyer".

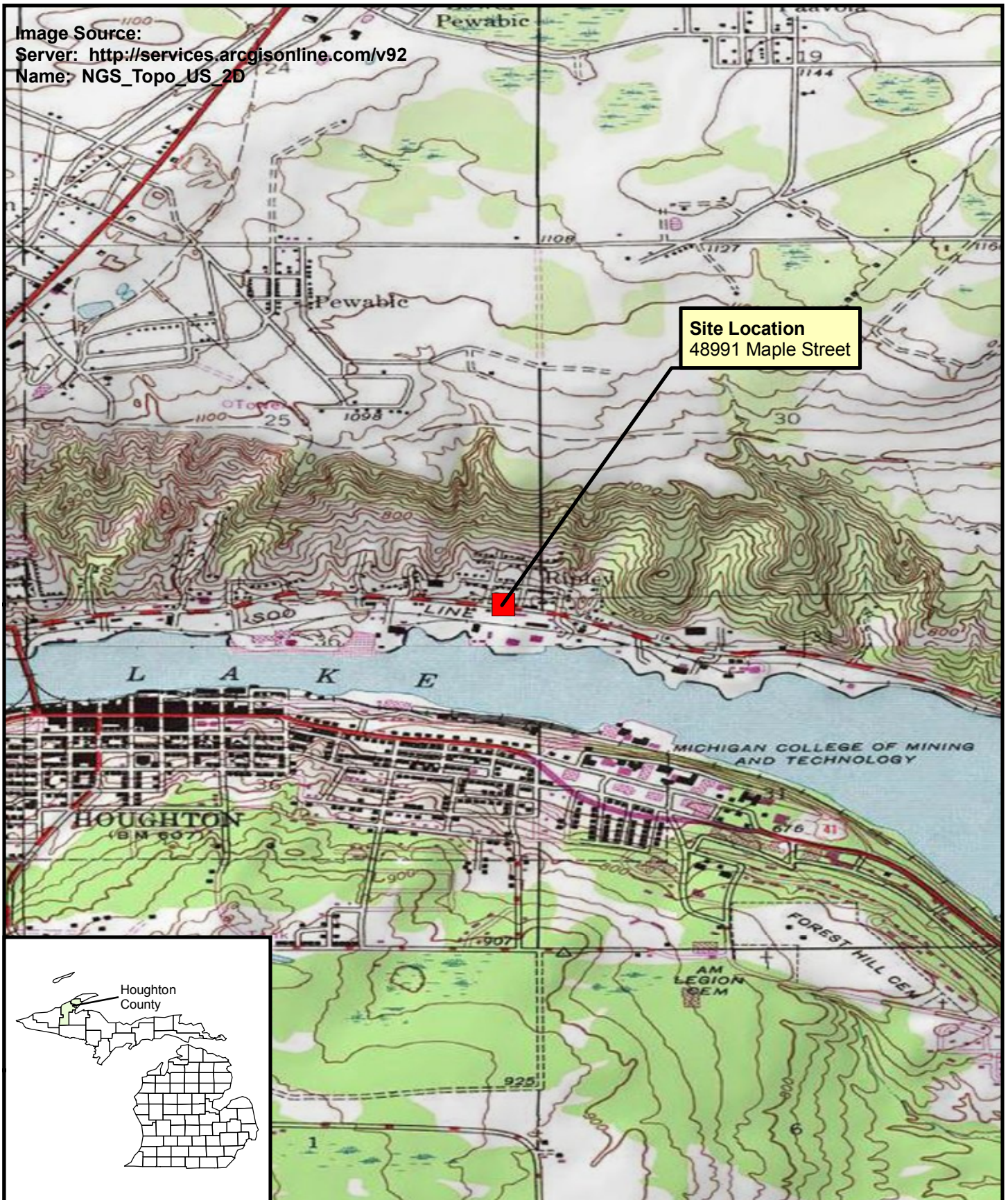
Sarah Meyer
WESTON START Project Manager

Attachment A – Figures
Attachment B – Tables
Attachment C – Photographic Log
Attachment D – ETC Analytical Report (Air Monitoring Results)

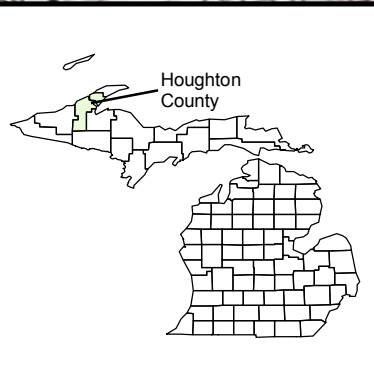
ATTACHMENT A

FIGURES


Image Source:
Server: <http://services.arcgisonline.com/v92>
Name: NGS_Topo_US_2D



Site Location
48991 Maple Street



Legend

 Site Location

0 2,000
Feet



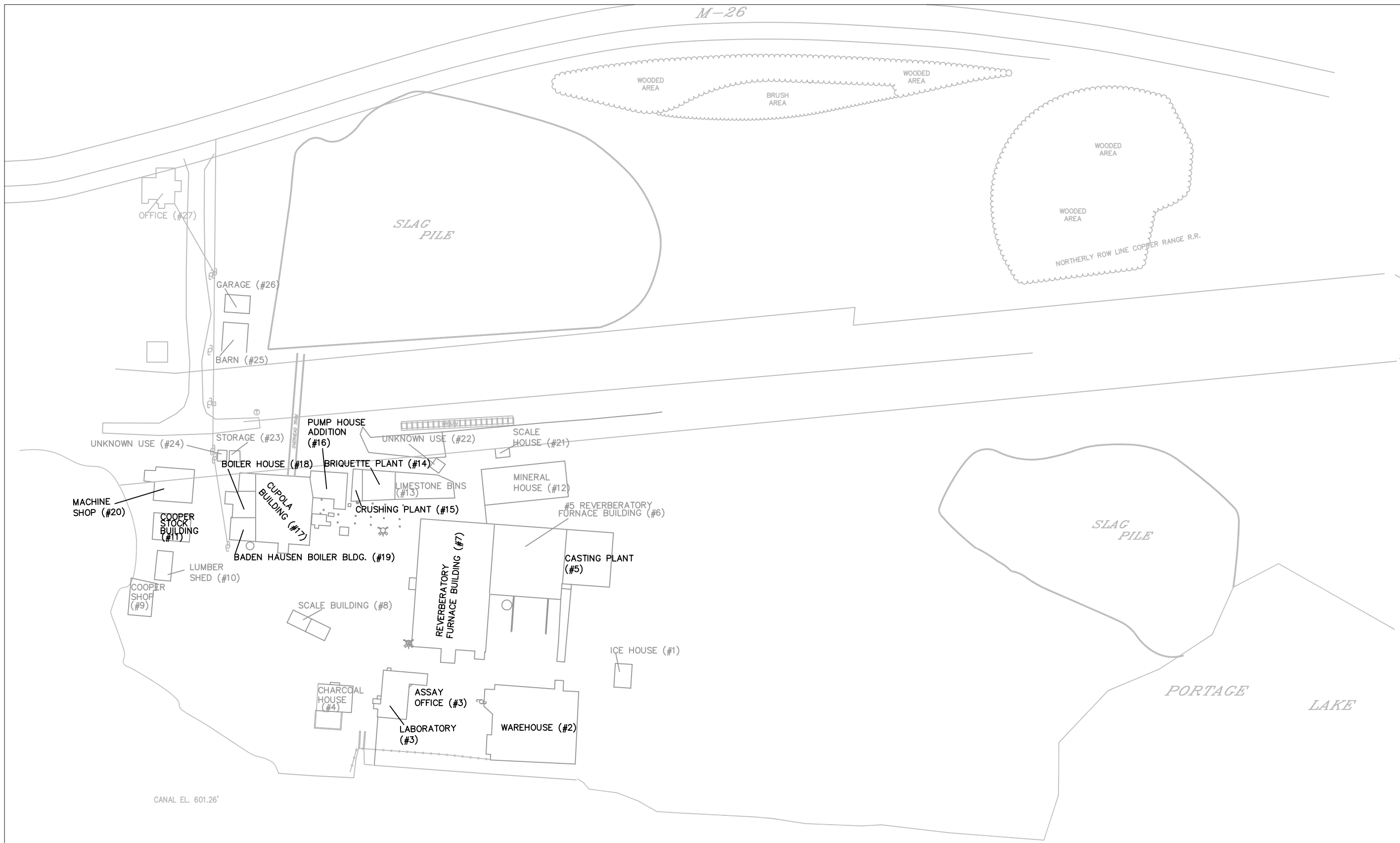
Prepared for:
USEPA REGION V

Contract No: EP-S5-06-04
TDD: S05-0001-0804-007
DCN: 422-1A-ACLX



Weston Solutions, Inc.
750 E. Bunker Ct. Suite 500
Vernon Hills, IL 60061

Figure 1
Site Location Map
Quincy Smelter Site
Houghton County, Michigan

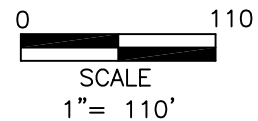


LEGEND

SCALE BUILDING (#8)



Building Name and Building Number
 Bold Text = Asbestos Abatement Performed
 Within Building



DCN: 422-1A-ACLX



BASE MAP SOURCE: UP Engineers and Architects boundary survey.

FILE PATH AND NAME: H:\PROJECTS\QuincySmelter\BseMap\SiteMap.dwg

Designed By: SOURCE

Drawn By: JMN

Checked By: SLM

Approved By: SLM



600 East Lakeshore Drive
 Suite 200
 Houghton, MI
 49931

Figure 2

SITE LAYOUT MAP
 Quincy Smelter Site
 Houghton County, Michigan

ATTACHMENT B

TABLES

Table 1 - Organization of Response
Quincy Smelter Site
June 2008

Agencies or Parties Involved	Contact	Description of Participation
U.S. EPA - Region V Division of Superfund Emergency Response Branch - SE-GI Large Lakes Research Station/ORD 9311 Groh Road Grosse Ile, Michigan 48138-1697 734-692-7684	Brian Kelly	Federal OSC responsible for overall project oversight and success.
Environmental Quality Management 1800 Carillon Boulevard Cincinnati, Ohio 45240 800-500-0575	Chris Long	Response manager responsible for direction of daily ERRS and subcontractor activity. Provided personnel and equipment necessary for removal and coordinated transportation and disposal of waste. Also tracked ERRS-related costs.
National Park Service 25970 Red Jacket Road PO Box 471 Calumet, Michigan 49913	Steve Delong	National Park Service project liaison.
Weston Solutions, Inc. 20 N. Wacker Drive, Suite 1210 Chicago, Illinois 60606 312-424-3300	Sarah Meyer	WESTON START Project Manager responsible for removal support, technical and equipment support, monthly reports, and WESTON START-related cost tracking.
Weston Solutions, Inc. 600 E. Lakeshore Drive, Suite 200 Houghton, Michigan 49931 906-482-3018	Jennifer Nutini	WESTON START Project Lead responsible for project oversight, written and photographic documentation, and WESTON START-related cost tracking.

ERRS - Emergency and Rapid Response Services

OSC - On-Scene Coordinator

START - Superfund Technical Assessment and Response Team

U.S. EPA - United States Environmental Protection Agency

WESTON - Weston Solutions, Inc.

Table 4 - Post-Abatement Clearance Sampling Results₁
Quincy Smelter Site
June 2008

ETC Sample Name	Building Number	Completion Date	Clearance Sampling Result (asbestos f/cc)	Comments
WP1	2 (first floor)	6/12/2008	<0.003	
WP3	2 (third floor)	6/13/2008	<0.004	
WP2	3	6/11/2008	0.006	
PA5	5 and 6 (south door entry between buildings)	6/13/2008	<0.004	Building 6 due to unstable building conditions and inaccessibility.
WP1	7	6/11/2008	<0.003	
WP1	11	6/10/2008	<0.003	
PA2	14 and 15	6/12/2008	<0.004	
WA4	14	6/10/2008	<0.003	
WP4	17* (east side)	6/12/2008	0.003	
WP1	17 (west side) and 18	6/13/2008	<0.003	
PA2	19	6/13/2008	<0.004	
PA4	20	6/13/2008	<0.004	

Notes:

< - less than

ACM - asbestos containing material

ETC - Environmental Testing and Consulting, Inc.

f/cc - fibers per cubic centimeter

NA - not applicable

*This sample is attributed to Buildings 17 and 16 in different sections of the ETC final report. These are interconnected buildings.

₁ = Final clearance samples only listed on table.

ATTACHMENT C
PHOTOGRAPHIC LOG



Site: Quincy Smelter

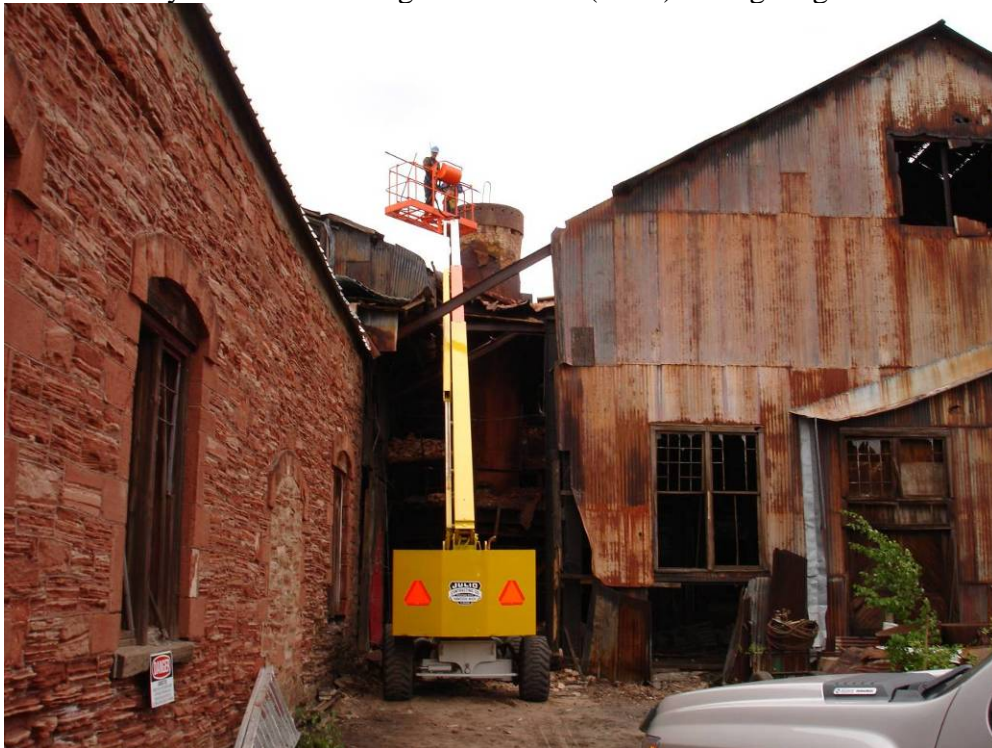
Photo Number: 1

Direction: North

Subject: Reverberatory Furnace Building smoke stack (stack) during height removal

Date: June 11, 2008

Photographer: Jennifer Nutini



Site: Quincy Smelter

Photo Number: 2

Direction: North

Subject: Crew re-placing the steel cap on the shortened stack

Date: June 11, 2008

Photographer: Jennifer Nutini



Site: Quincy Smelter

Photo Number: 3

Direction: South

Subject: Asbestos abatement work zones set up at Buildings 19 and 20

Date: June 10, 2008

Photographer: Jennifer Nutini



Site: Quincy Smelter

Photo Number: 4

Direction: West

Subject: An asbestos worker using a glove bag to remove heat shield outside of Building 3

Date: June 11, 2008

Photographer: Jennifer Nutini



Site: Quincy Smelter

Photo Number: 5

Direction: West

Subject: Asbestos worker using a glove bag to remove pipe wrap from the exterior of Building 7

Date: June 11, 2008

Photographer: Jennifer Nutini



Site: Quincy Smelter

Photo Number: 6

Direction: South

Subject: Asbestos worker using a glove bag to remove pipe wrap on the exterior of Building 19

Date: June 10, 2008

Photographer: Jennifer Nutini

ATTACHMENT D

ETC ANALYTICAL RESPORT (AIR MONITORING RESULTS)