

SITE MANAGEMENT PLAN

CALUMET AND HECLA
MINERAL BUILDING
TORCH LAKE TWP., MICHIGAN

Prepared for:



Honeywell Specialty Materials, LLC.

and

Silver Shore Enterprise, Inc.

Prepared by:



Wood Environment & Infrastructure Solutions
Novi, Michigan

September 2018

Project 3293181784

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LIST OF ACRONYMS

C&H:	Calumet and Hecla
HASP:	Health and Safety Plan
Honeywell:	Honeywell Specialty Materials, LLC.
SHSO:	Site Health and Safety Officer
Silver Shore	Silver Shore Enterprise, Inc
Site:	Calumet & Hecla Mineral Building Site
SMP:	Site Management Plan
UOP:	Universal Oil Products
USEPA:	United States Environmental Protection Agency
Wood:	Wood Environment and Infrastructure Solutions, Inc.

1.0 INTRODUCTION

This Site Management Plan (SMP) was prepared by Wood Environment & Infrastructure Solutions (Wood) on behalf of Honeywell, and Silver Shore Enterprise Inc. (Silver Shore). The SMP details 2018 site activities planned for the Calumet and Hecla (C&H) Mineral Building site (site) located at 52986 Highway M-26 in Torch Lake Township, Houghton County, Michigan (Figure 1-1). Honeywell and Silver Shore have been identified by U.S. Environmental Protection Agency (USEPA) as potentially responsible parties for the site. Planned site activities addressed in this workplan were agreed upon between Honeywell, Silver Shore and USEPA following a site visit conducted on May 30, 2018. The specific division of responsibilities for the planned site activities are addressed in a Remediation Agreement between Silver Shore and Honeywell. To assure that the SMP continues to serve its purpose, it will be updated as necessary to reflect new information or significant changes in the management plan.

2.0 SITE DESCRIPTION AND HISTORY

A brief site description and history are presented below.

2.1 Site Description

The site, owned by Silver Shores occupies approximately 9.3 acres located at 52986 Highway M-26 in Torch Lake Township, Houghton County, Michigan. The property lies on the shoreline of Torch Lake. The site was part of C&H smelter complex. Currently, two structures are located on the site: a four-story tall structure known as the Mineral Building and a 30 by 40 foot single story building. Numerous debris piles (Figure 2-1) have come to be located on the property, primarily between 1986 and 2010 as summarized in Table 1 of the Removal Assessment Report prepared by Tetra Tech in January of 2018.

The surrounding property use is a mix of commercial and residential property. To the northeast is a former coal dock. To the southeast, the site borders Torch Lake. To the southwest is a chemical manufacturing facility operated by Koppers Performance Chemical. To the northwest, across Highway M-26 there is a mix of residential and commercial properties. A chain link fence runs along the southwest and northwest site boundaries.

2.2 Site History

The four-story tall Mineral Building was built in 1929, as part the C&H smelter facility and served for storage of feed material for the furnaces. It had 10 main compartments capable of storing 15,000 tons of material. Originally, the feed material consisted of mined copper. From about 1943, the Mineral Building also received copper reclaimed from scrap materials. Processed scrap material included insulated cables, scrap ammunition, automobiles, refrigerators and vacuum cleaner motors, radiators, transformers, and generators. The scrap material was transported by ship and rail to the smelter and unloaded at the coal dock. By 1948, the shipments of scrap material became so great that C&H installed a new bailing machine to assist in compressing and transporting the material.

The Mineral Building was also used for storage of by-product, e.g. copper oxide from ammonia leaching, copper oxychloride sulphate, fly ash, etc. The Mineral Building was in operation until 1968 when the smelting operations ceased, shortly after C&H and Universal Oil Products (UOP) merged. The smelter was demolished in the late 1970s. In 1982 UOP donated 75 acres (including the Mineral Building site) to the Michigan

Technological University. The stacks were demolished between 1993 and 1997 by Keweenaw Development Corporation.

3.0 PLANNED 2018 SITE ACTIVITIES

The Removal Assessment Report (Tetra Tech, 2018), 2018 on behalf of USEPA, indicated that approximately 2.9 acres of the site surface is covered with 35 waste piles and stack debris. Based on the Removal Assessment Report, six waste piles totaling an estimated 3,851 tons were characterized and 13 waste piles totaling an estimated 2,868 tons were identified as non-regulated material. The remaining 16 waste piles totaling an estimated 1,526 tons have not been sampled and characterized. In addition to the waste piles, an estimated 2,810 cubic yards of mining era stack debris is present on the site. Asbestos containing material and elevated concentrations of lead and PCBs were identified within various debris piles.

On May 30, 2018, Honeywell, Silver Shore, Wood, USEPA, and the Michigan Department of Environmental Quality met at the site to discuss the scope of work necessary to address potential exposure risks. The following 2018 site activities were identified with the specific activities to be undertaken by Honeywell or Silver Shore according to a Remediation Agreement to be entered into between Honeywell and Silver Shore:

- Install a fence around the site to secure the site
- Pick-up surficial asbestos and properly disposed it off site
- Complete a Sampling and Analysis Plan to collect samples to characterize the waste piles

4.0 COMMUNICATIONS PLAN

Prior to undertaking site activities, the site owner and adjoining property owners will be notified. Contact information for the USEPA representative, Honeywell representative, Silver Shore, and the Wood Project Manager, will be provided to each stakeholder. In addition, a general notification of clean-up activities will be provided to the local newspaper. Communication with these key stakeholders will be made prior to each mobilization when significant operations will occur. A brief description of the activities, types of equipment to be used, and estimated duration of the task will be communicated. If requested, public meetings will be held to communicate the site plans with the residents and answer any questions they may have. All public communication will be conducted with involvement and representation by the USEPA. Contact numbers for key personnel are listed below.

Name		Telephone Numbers
USEPA On-Scene Coordinator:	Brian Kelly	Office: 734-692-7684 Cell: 734-740-9019
Honeywell Remediation Manager:	Chuck Geadelmann	Office: 763-954-5418 Cell: 612-419-1513
Honeywell Design and Construction Manager:	Chris French	Office: 973-455-4131 Cell: 973-216-7506
Silver Shore Enterprise, Inc.:	William Siler	Office: 906-482-8518
USEPA START Project Manager:	Jeff Binkley	Cell: 906-281-3404
Wood Project Manager:	Laura Stirban	Office: 248-313-3704 Cell: 810-623-4323
Wood Construction Manager:	Michael McGowan	Office: 248-313-3665 Cell: 248-877-3852
Wood Site Manager/ Site Health and Safety Officer:	Kurt Cunningham	Office: 248-313-3685 Cell: 517-404-3582

5.0 ACCESS

The site is currently owned by Silver Shore. Silver Shore will grant access to the site to the USEPA, and their employees, agents, contractors, consultants, and other authorized representatives for purposes of implementing and overseeing the work. Wood on behalf of Honeywell will obtain site access to complete those planned activities to be undertaken by Honeywell.

The work to be conducted on the site does not currently include any offsite activities. However, should access to additional private or public properties be required, access to public property will be obtained by requesting right-of-way permits through Torch Lake Township. Access to the Coal Dock property has not been obtained and if needed, will be coordinated with MDEQ.

The USEPA will be informed of access-related issues, should they arise.

6.0 SITE SECURITY

Access to the site is somewhat controlled by the property owner with chain link fencing along the roadway (northwest side of site). The southwest side of the site is also fenced. However, the site can be accessed by trespassers along the northeast and southeast boundaries. To prevent trespassers from entering the site, a chain link fence will be installed along the northeast and southeast site boundaries (Figure 6-1). Monthly fence inspections will occur to verify the site is secure.

6.1 Routes of Entry

One point of entry has been currently established for the site. Entry point will be the driveway from M-26 along the northwest side of the site.

During site work conducted by Honeywell, regular security inspections will be conducted by the Field Team Leader/Site Health and Safety Officer to verify that there are no unauthorized points of entry.

6.2 Site Access

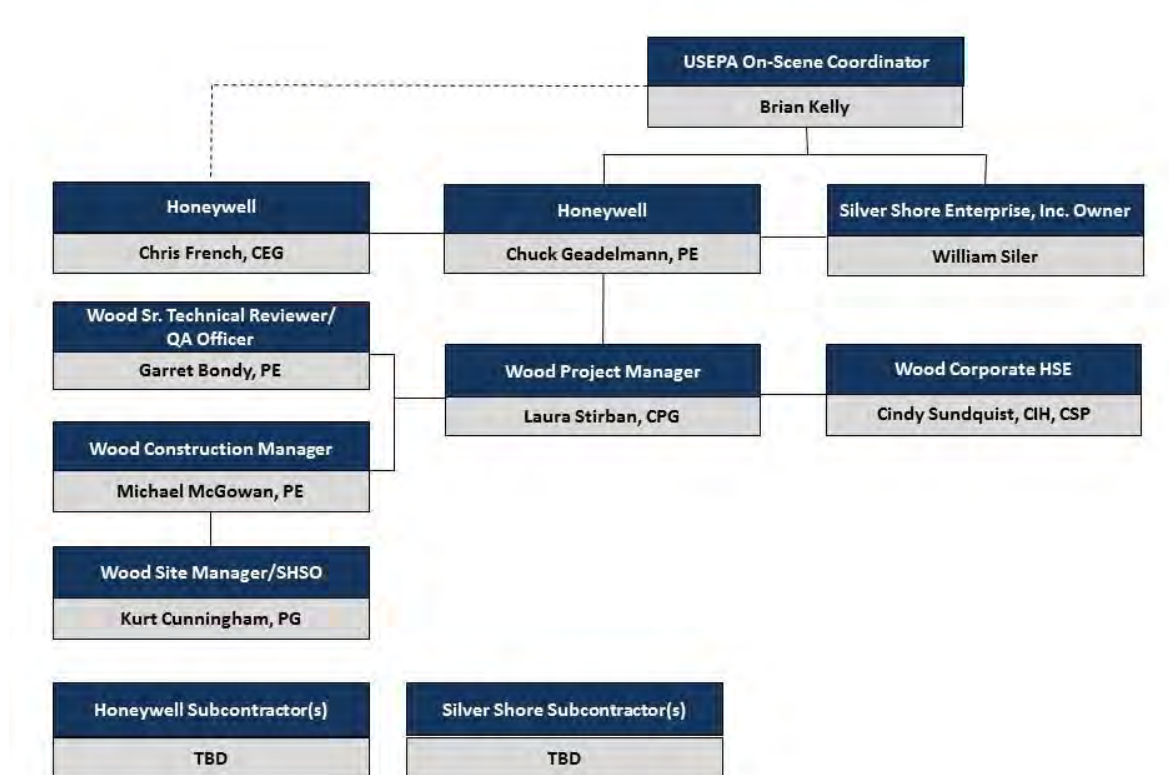
The access entry point will be kept closed unless used by onsite workers, and will be secured with locks at the end of the day. Only authorized personnel will be allowed to enter. While site activities are in progress, entrance to the site will be documented with sign-in and sign-out sheets.

6.3 Field Offices

During different work activities, a temporary trailer may be delivered to the site, staged in the support zone, and established as a headquarters for the field work activities. Depending on the needs of the field work, the office may contain computer(s) and printer(s). Additional space for the USEPA (and their subcontractors), Silver Shore, and Honeywell personnel and contractors will be provided, if practicable. A designated location will be established to stage subcontractor heavy equipment and supplies.

7.0 PROJECT ORGANIZATION

The Honeywell project team will report directly to the USEPA and will have primary responsibility in preparing and executing project plans and reports. Honeywell and Silver Shore will retain subcontractors to complete the site activities, as needed. The overall project organization is presented below:



7.1 Project Team

The primary project team members and key personnel working on the project are presented below, along with a summary of their roles and responsibilities.

USEPA OSC

The USEPA is the lead regulatory agency for the site. The USEPA will be responsible for concurrence of the project plans and environmental actions conducted at the site. Mr. Brian Kelly will serve as the USEPA OSC. All reports, notices, or other

submissions to the USEPA (following Honeywell review and approval) for this project are to be submitted to Mr. Kelly. Mr. Kelly's contact information is:

Mr. Brian Kelly
USEPA Region 5 Emergency Response Branch
Detroit Field Office
kelly.brian@epa.gov
734-692-7684 (cell)

Honeywell Remediation Manager

Honeywell is responsible, either directly or through their contractor(s), for communications with regulatory agencies, project strategy, and direction consistent with regulatory requirements and Honeywell policies. Mr. Chuck Geadelmann is Honeywell's Remediation Manager for this project. Mr. Geadelmann's contact information is:

Mr. Chuck Geadelmann
Honeywell Remediation Manager
1985 Douglas Drive North
Golden Valley, Minnesota 55422
Chuck.Geadelmann@Honeywell.com
763-954-5418 (office)
612-419-1513 (cell)

Honeywell Design and Construction Manager

Mr. Chris French is Honeywell's Design and Construction Manager for this project. Mr. French's contact information is:

Mr. Chris French
Honeywell Construction Manager
115 Tabor Road
Morris Plains, NJ 07950
Chris.French@honeywell.com
973-455-4131 (office)
973-216-7506 (cell)

Silver Shore

Silver Shore is the property owner and is responsible, either directly or through their contractor(s), for communications with regulatory agencies, project strategy, and direction consistent with regulatory requirements. Silver Shore will be responsible for all site activities to be conducted by Silver Shore including preparation of deliverables, procurement of subcontractors, and general project coordination. The primary contact for Silver Shore will be Mr. William Siler. Mr. Siler's contact information is:

Mr. William Siler
Silver Shore Enterprise, Inc
PO Box 460
South Range, MI 49963
psiler@silercontracting.com
906-482-8518

Wood Project Manager

Honeywell has retained Wood to implement site activities to be conducted by Honeywell, including preparation of deliverables, procurement of subcontractors, and general project coordination. Ms. Laura Stirban will serve as Project Manager for the Wood project team. Ms. Stirban's contact information is:

Ms. Laura Stirban
Wood Project Manager
46850 Magellan Drive, Suite 190
Novi, Michigan 48377
Laura.Stirban@amecfw.com
248-313-3704 (office)
810-623-4323 (cell)

Wood Construction Manager

Mr. Michael McGowan will serve as Construction Manager for the Wood project team. Mr. McGowan's contact information is:

Mr. Michael McGowan
Wood Construction Manager
46850 Magellan Drive, Suite 190
Novi, Michigan 48377
michael.j.mcgowan@amecfw.com
248-313-3665 (office)
248-877-3852 (cell)

Wood Site Manager/Site Health and Safety Officer

The Site Manager will report to the Wood Project Manager, and will be responsible for coordination and implementation of all onsite activities to be conducted by Honeywell. Working closely with Wood's Project and Construction Manager, the Site Manager will coordinate and supervise all field personnel, data collection, and field quality assurance/quality control measures.

The Site Manager will also be the Site Health and Safety Officer (SHSO). The SHSO will be responsible for matters related to health and safety, including implementation of the Health and Safety Plan (HASP), conducting Site safety meetings, providing site-specific training to personnel, investigation of health and safety-related incidents at the site, should incidents arise, and updating and modifying the HASP as necessary. Mr. Kurt Cunningham will serve as the Site Manager/SHSO. Mr. Cunningham's contact information is:

Mr. Kurt Cunningham
Wood Site Manager/SHSO
46850 Magellan Drive, Suite 190
Novi, Michigan 48377
kurt.cunningham@amecfw.com
248-313-3685 (office)
517-404-3582 (cell)

8.0 REFERENCES

Michigan Tech Research Institute, 2014, “Building Narratives, Maps, and Documentation, Torch Lake Industrial Front”

Tetra Tech, Inc., 2018, “Removal Assessment Report for C&H Mineral Building – RS Site 52986 Highway M-26, Hubbell, Houghton County, Michigan”, January 29, 2018

William P. Tidwell, “Copper Procurement and Stockpiling, 1941-1945: A Synthesis of Activities of Metals Reserve Company (A Subsidiary of Reconstruction Finance Corporation),” unpublished draft history, in Record Group 234 Records of the Reconstruction Finance Corporation, Entry 26, Administrative Histories of the Reconstruction Finance Corporation’s Wartime Programs, Box 4, held at the National Archives, College Park, Maryland. [Official Histories/ 1948 Tidwell MRC Copper Program History Excerpts]”

FIGURES



Legend

 Property Boundary

Base Map Source: ESRI USA Topo Maps map service

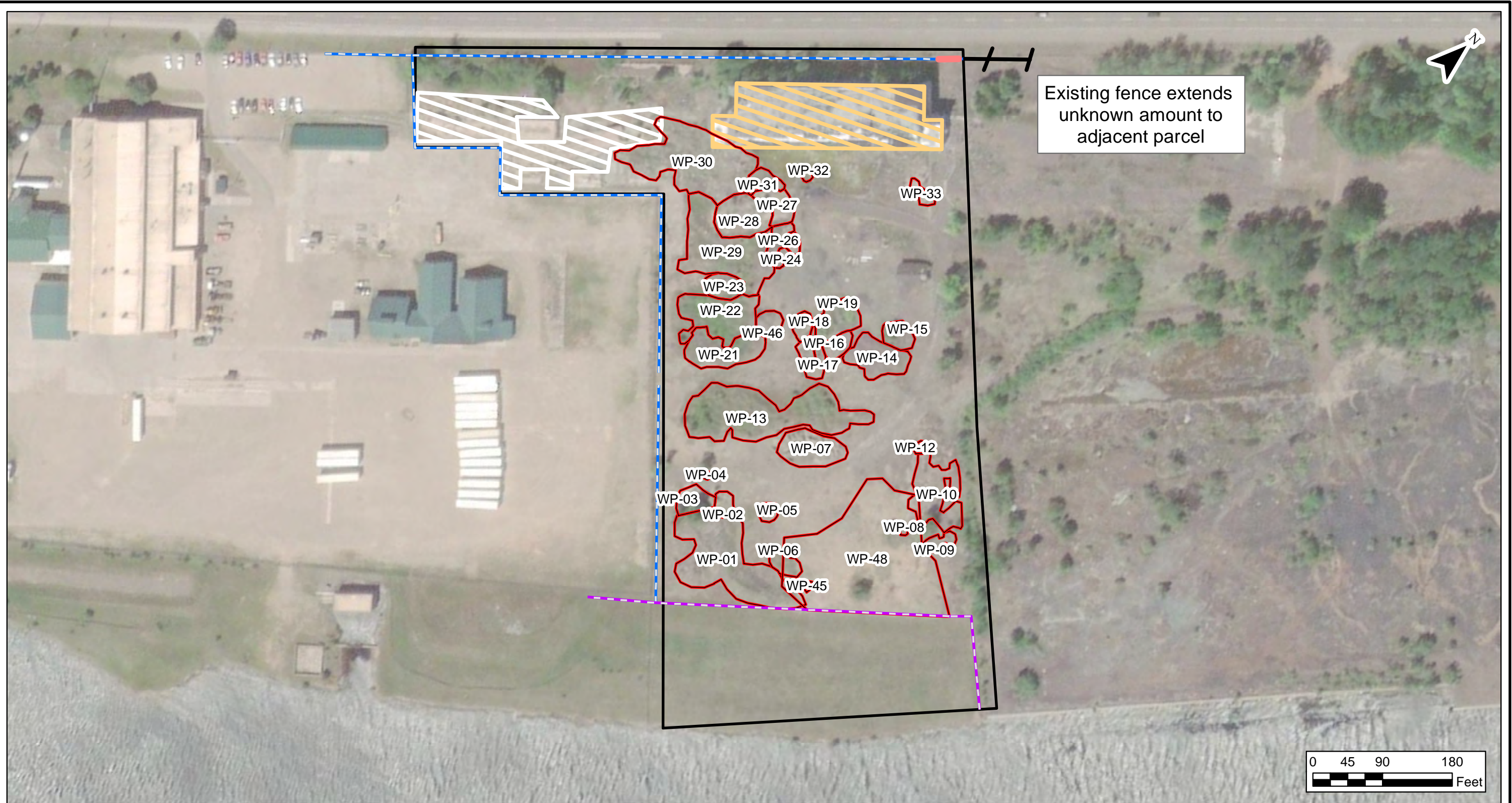
Honeywell Specialty Materials, LLC.
C & H Mineral Building Site

SITE LOCATION MAP

Prepared by:
DCM 7/1/2018
Checked by:
MJM 7/1/2018
Project Number:
3293181784

wood.

FIGURE
1-1



- Legend**
- Property Boundary
 - Cap Boundary
 - Existing Fence
 - Access Gate
 - Mineral Building
 - Stack Debris
 - Waste Pile Boundary

Source: Tetra Tech Removal
Assessment Report, January 2018

Base Map Source: ESRI Imagery
Basemap

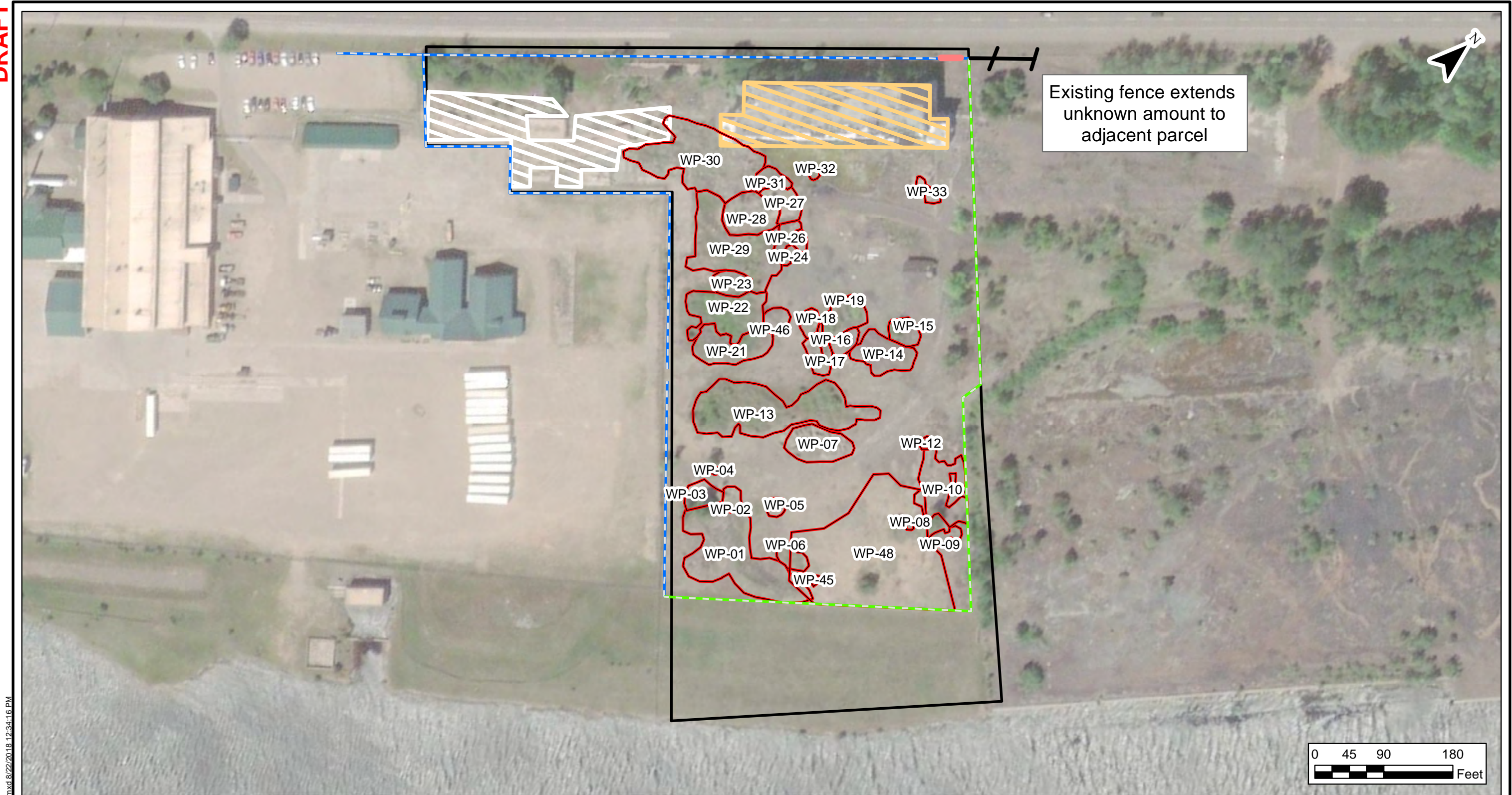
Honeywell Specialty Materials, LLC.
C & H Mineral Building Site

SITE FEATURES

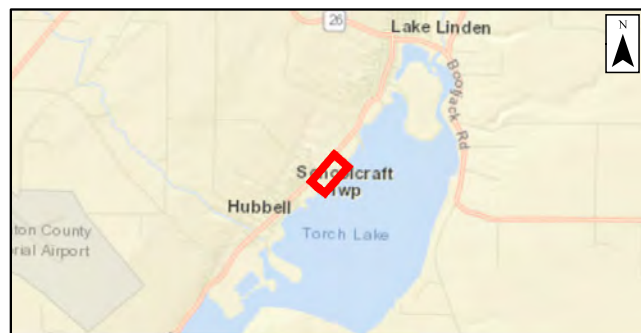
Prepared by:
DCM 8/22/2018
Checked by:
MJM 8/22/2018
Project Number:
3293181784



**FIGURE
2-1**



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- Legend**
- Property Boundary
 - Existing Fence
 - Proposed Fence
 - Access Gate
 - Mineral Building
 - Stack Debris
 - Waste Pile Boundary

Source: Tetra Tech Removal
Assessment Report, January 2018

Base Map Source: ESRI Imagery
Basemap

Honeywell Specialty Materials, LLC.
C & H Mineral Building Site

FENCE DETAIL

Prepared by:
DCM 8/22/2018
Checked by:
MJM 8/22/2018
Project Number:
3293181784



FIGURE
6-1

APPENDIX A

