



Field & Technical Services

200 Third Avenue ♦ Carnegie, PA 15106 ♦ Phone: 412-429-2694 ♦ Fax: 412-279-4512

May 6, 2020

Mr. John Sager
Wisconsin Department of Natural Resources
1701 North Fourth Street
Superior, WI 54880
Telephone #715-392-7822

**RE: Former Koppers Inc. Facility, Superior Wisconsin
WDNR DNR BRRTs No: 0216000484
WDNR Facility ID: 816009810**

Subject: 2019 On-Property Corrective Measures Monitoring & Maintenance Report

Dear Mr. Sager:

Field and Technical Services LLC (FTS), on behalf of Beazer East, Inc. (Beazer), and in accordance with the Operation and Maintenance Plan, On-Property Corrective Measures (O&M Plan; Arcadis, revised September 2011), is submitting this On-Property Corrective Measures Annual Monitoring & Maintenance Report for 2019, for the Former Koppers Inc. Facility in Superior, Wisconsin (the Site). This report documents the monitoring and maintenance activities conducted during 2019 for the completed on-property corrective measures (i.e., surface covers and Outfall 001 drainage ditch liner system; Figure 1).

The 2019 monitoring activities included the following:

- Monitoring the two collection sumps beneath the restored Outfall 001 drainage ditch for the presence of dense, non-aqueous phase liquid (DNAPL; performed on October 16, 2019); and
- Visually inspecting the surface covers and Outfall 001 drainage ditch liner system (performed on October 16, 2019).

Table 1 summarizes the DNAPL collection sump monitoring results. As indicated in Table 1, DNAPL has not been detected in either of the collection sumps to date.

The October 16, 2019 inspection observations and photographs are presented in a Site Inspection Form in Attachment 1. As noted in Attachment 1, areas of the engineered surface covers were noted and requiring repairs in Area B. No issues were observed in Areas A, F1, F2, G, H, or S or at Outfall 001 drainage ditch during the October 2019 inspection.

May 6, 2020

Areas where surface cover issues were noted during the October 2019 inspection will be addressed in 2020.

If you have questions regarding this submittal or require additional information, please call me at (412) 429-2694 or Jane Patarcity of Beazer at (412) 208-8813.

Sincerely,

Field and Technical Services

Angela M Gatchie

Angela Gatchie
Project Manager

Attachments

cc: Jane Patarcity, Beazer
Linda Paul, Koppers
David Bessingpas, Arcadis
Terry Peterson, TRP

TABLE



Table 1
Summary of Outfall 001 Drainage Ditch Sump DNAPL Monitoring/Removal Data ¹
Former Koppers Inc. Facility - Superior, WI

Date	Depth to Water (ft)	Depth to DNAPL (ft)	Depth to Sump Bottom (ft)	DNAPL Thickness (ft)	DNAPL Volume Removed (gal)	Notes/Comments
East Sump						
1/31/11	11.65	--	20.76	--	--	No DNAPL detected with interface probe or visible on PVC
2/25/11	10.01	--	20.78	--	--	No DNAPL detected with interface probe or visible on PVC; silt on PVC
3/28/11	Not measured - ice present at 11.60 feet below top of riser pipe				--	
4/12/11	12.55	--	20.82	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
5/19/11	12.80	--	20.78	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
6/30/11	12.96	--	20.79	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
9/9/11	13.11	--	20.79	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
10/21/11	13.20	--	20.85	--	--	No DNAPL detected with interface probe or visible on PVC
6/26/12	13.03	--	21.85 ²	--	--	No DNAPL detected with interface probe or visible on PVC
9/25/12	13.47	--	20.83	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
5/1/13	Not measured - ice present at 13.25 feet below top of riser pipe					
8/21/13	13.40	--	20.83	--	--	No DNAPL detected with interface probe or visible on PVC
6/26/14	13.49	--	20.84	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
7/16/15	13.10	--	20.90	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
12/06/16	12.46	--	20.82	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
10/05/17	11.95	--	20.20	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
10/03/18	13.11	--	20.76	--	--	No DNAPL detected with interface probe or visible on PVC; silt on probe tip
10/16/19	12.20	--	20.76	--	--	No DNAPL detected with interface probe or visible on PVC;
West Sump						
1/31/11	10.20	--	20.90	--	--	No DNAPL detected with interface probe or visible on PVC
2/25/11	Not measured - ice present at 10.05 feet below top of riser pipe				--	
3/28/11	Not measured - ice present at 9.50 feet below top of riser pipe				--	
4/12/11	Not measured - ice present at 10.00 feet below top of riser pipe				--	
5/19/11	10.62	--	20.89	--	--	No DNAPL detected with interface probe or visible on PVC
6/30/11	10.75	--	21.54 ²	--	--	No DNAPL detected with interface probe or visible on PVC
9/9/11	11.05	--	21.54 ²	--	--	No DNAPL detected with interface probe or visible on PVC
10/21/11	11.07	--	20.93	--	--	No DNAPL detected with interface probe or visible on PVC
6/26/12	10.84	--	20.90	--	--	No DNAPL detected with interface probe or visible on PVC
9/25/12	11.54	--	20.92	--	--	No DNAPL detected with interface probe or visible on PVC
5/1/13	10.23	--	20.91	--	--	No DNAPL detected with interface probe or visible on PVC
8/21/13	11.59	--	20.85	--	--	No DNAPL detected with interface probe or visible on PVC
6/26/14	11.07	--	20.92	--	--	No DNAPL detected with interface probe or visible on PVC
7/16/15	11.21	--	20.94	--	--	No DNAPL detected with interface probe or visible on PVC
12/06/16	11.22	--	20.88	--	--	No DNAPL detected with interface probe or visible on PVC
10/05/17	10.48	--	20.00	--	--	No DNAPL detected with interface probe or visible on PVC
10/03/18	11.89	--	21.62	--	--	No DNAPL detected with interface probe or visible on PVC
10/16/19	11.10	--	20.95	--	--	No DNAPL detected with interface probe or visible on PVC

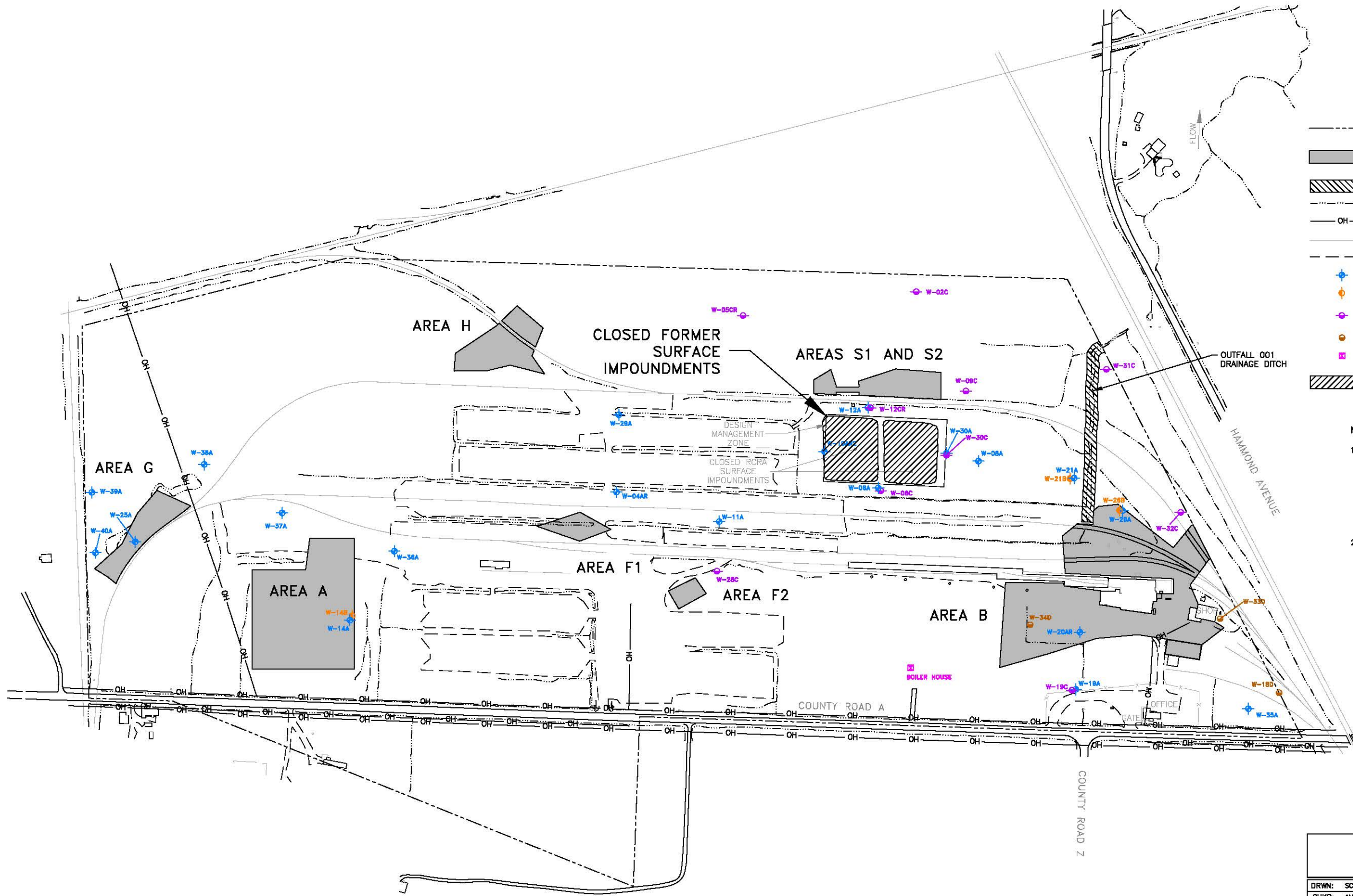
Notes:

1. Measurements obtained using an oil/water interface probe affixed to 3/4-inch PVC pipe.
2. Probe advanced into horizontal portion of pipe.

FIGURE



Q:\Projects\Beazer\Project\Superior\CADD\2016 Annual Inspection Report\Figure 1.dwg LAYOUT: 1. SAVED: 12/14/2016 7:49 AM ACADVER: 20.18 (LMS TECH) PAGES: 1. PLOTTED: 12/14/2016 7:50 AM BY: SHELLY COMIER



LEGEND:

- KOPPERS INC. FACILITY PROPERTY BOUNDARY
- LIMIT OF 1' SURFACE COVER
NO DISTURBANCE, LIMITED VEHICLE TRAFFIC TO GRAVEL AREAS ONLY
- LIMIT OF ENGINEERED LINER SYSTEM
NO DISTURBANCE, NO VEHICLE TRAFFIC
- WATER COURSE
- OVERHEAD POWER LINE (APPROXIMATE)
- RAILROAD LINES
- GRAVEL ACCESS ROAD
- A ZONE (SHALLOW CLAY) MONITORING WELL
- B ZONE (INTERMEDIATE CLAY) MONITORING WELL
- C ZONE (DISCONTINUOUS SAND LENS) MONITORING WELL
- D ZONE (BEDROCK) MONITORING WELL
- KOPPERS SUPPLY WELL (BEDROCK)
- FORMER RCRA IMPOUNDMENTS
NO DISTURBANCE, NO VEHICULAR ACCESS

NOTES:

1. BASE MAP OBTAINED FROM PHOTOGRAMMETRY PERFORMED BY LOCKWOOD MAPPING COMPANY OF ROCHESTER, NY (12/28/01). GENERAL TOPOGRAPHY OBTAINED FROM AERIAL PHOTOGRAPHY BASED SURVEY BY AXIS GEOSPATIAL COMPANIES OF EASTON, MARYLAND (8/17/08). AS-BUILT TOPOGRAPHY OF CORRECTIVE ACTION AREAS OBTAINED FROM GROUND SURVEY BY LHB, INC. OF DULUTH, MINNESOTA.
2. ALL LOCATIONS ARE APPROXIMATE.



BEAZER EAST, INC. PITTSBURGH, PENNSYLVANIA		 FTS	FIELD & TECHNICAL SERVICES, LLC 200 THIRD AVENUE CARNEGIE, PA 15106
DRWN: SCC	DATE: 12/14/16		
CHKD: AMG	DATE: 12/14/16		
APPD: DRF	DATE: 12/14/16		
SCALE: AS SHOWN			
ISSUE DATE:			
KOPPERS INC. PLANT SUPERIOR, WISCONSIN			
SITE PLAN		PROJECT NO: OM055609 DRAWING NUMBER FIGURE 1	

REFERENCE:
1. CAD FILES PROVIDED BY ARCADIS FOR A FIGURE ENTITLED SITE PLAN AND DENOTED AS FIGURE 1.

ATTACHMENT 1



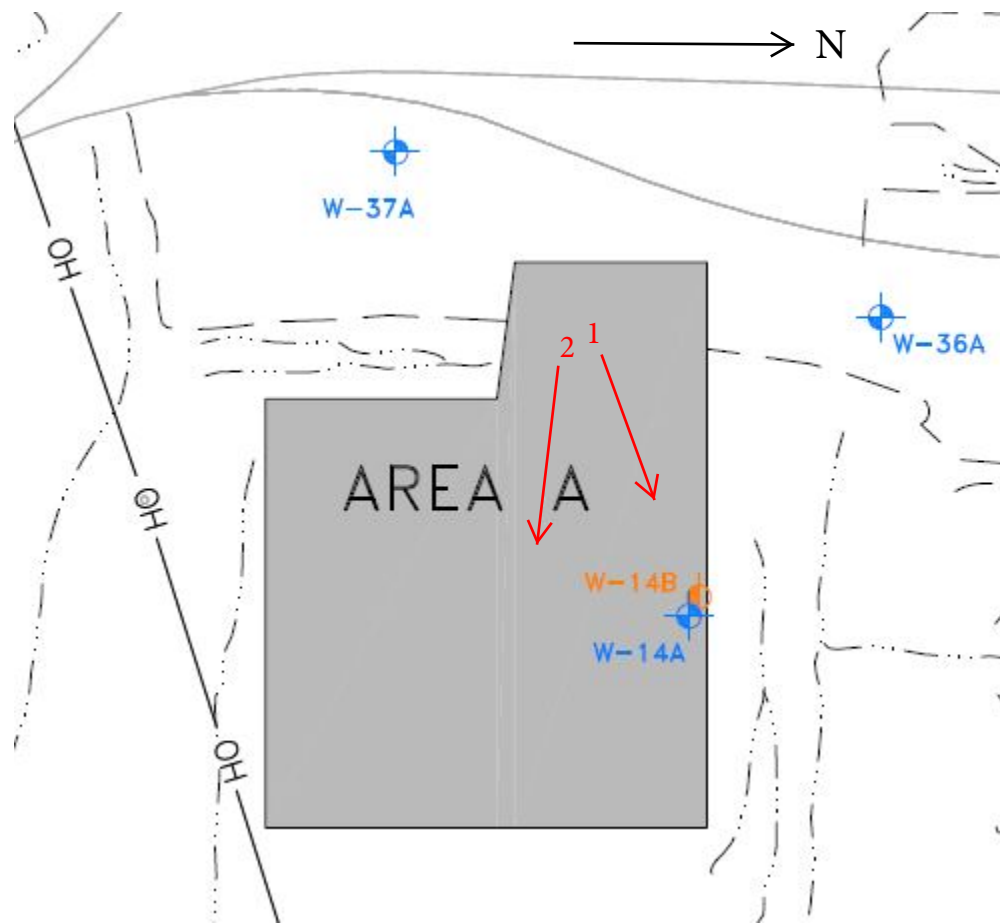
Site Inspection – 10/16/19

Former Koppers Inc. Facility – Superior, WI

By Field & Technical Services

Ben Trask/Jena Lexie
10/16/2019

Area A:



Photographs:

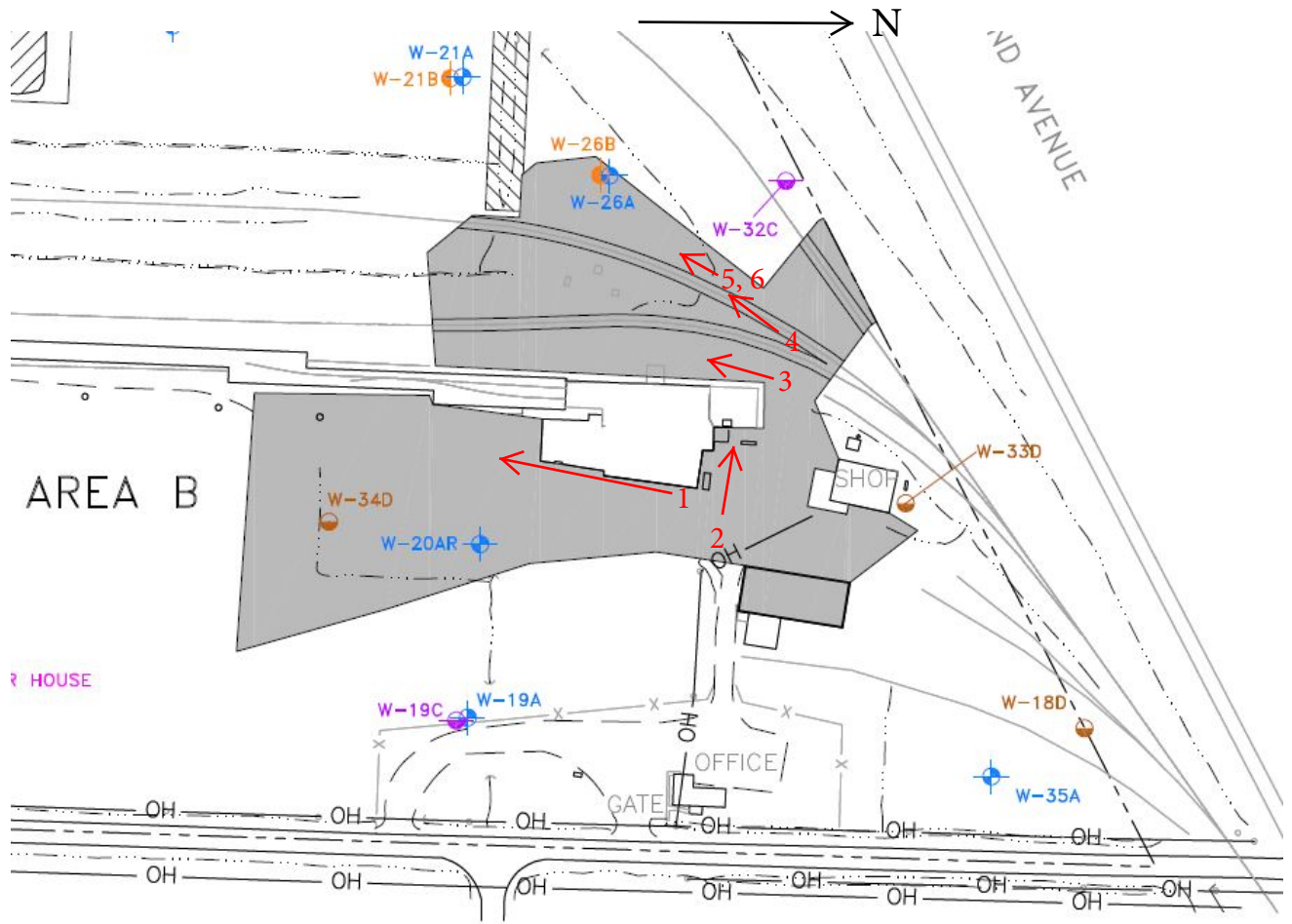
Area A Photo 1, looking Northeast from West side:



Area A Photo 2, looking East from West side:



Area B:



Area B Photo 1, looking South from North East central area:



Area B Photo 2, looking West from Eastern edge:



Area B Photo 3, looking South from North Central area:



Area B Photo 4, looking South from North West along (ruts in grass along gravel):



Area B Photo 5, Close up of ruts from photo 4:

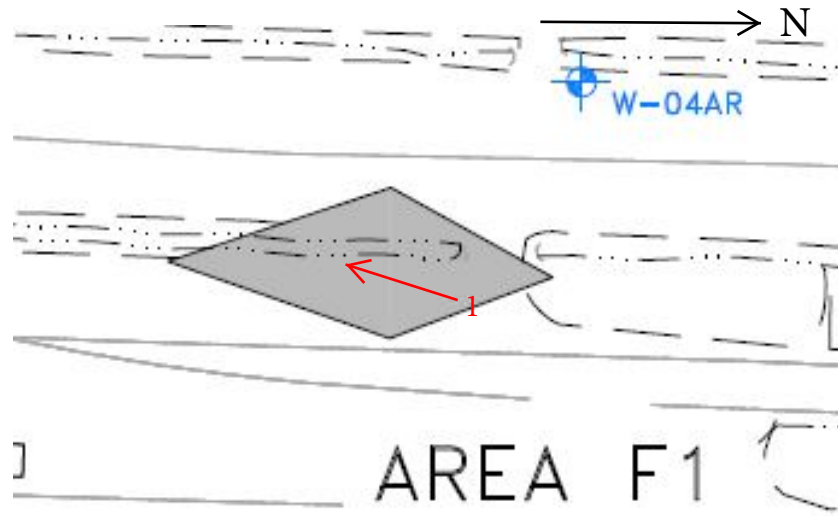


Area B Photo 6, Close up of ruts from photo 4:

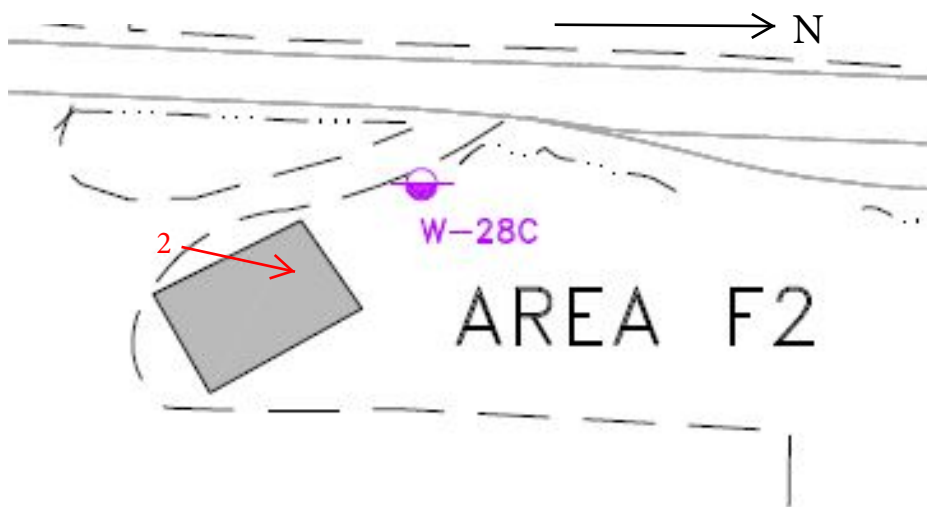
Area B p6



Area F1:



Area F2:



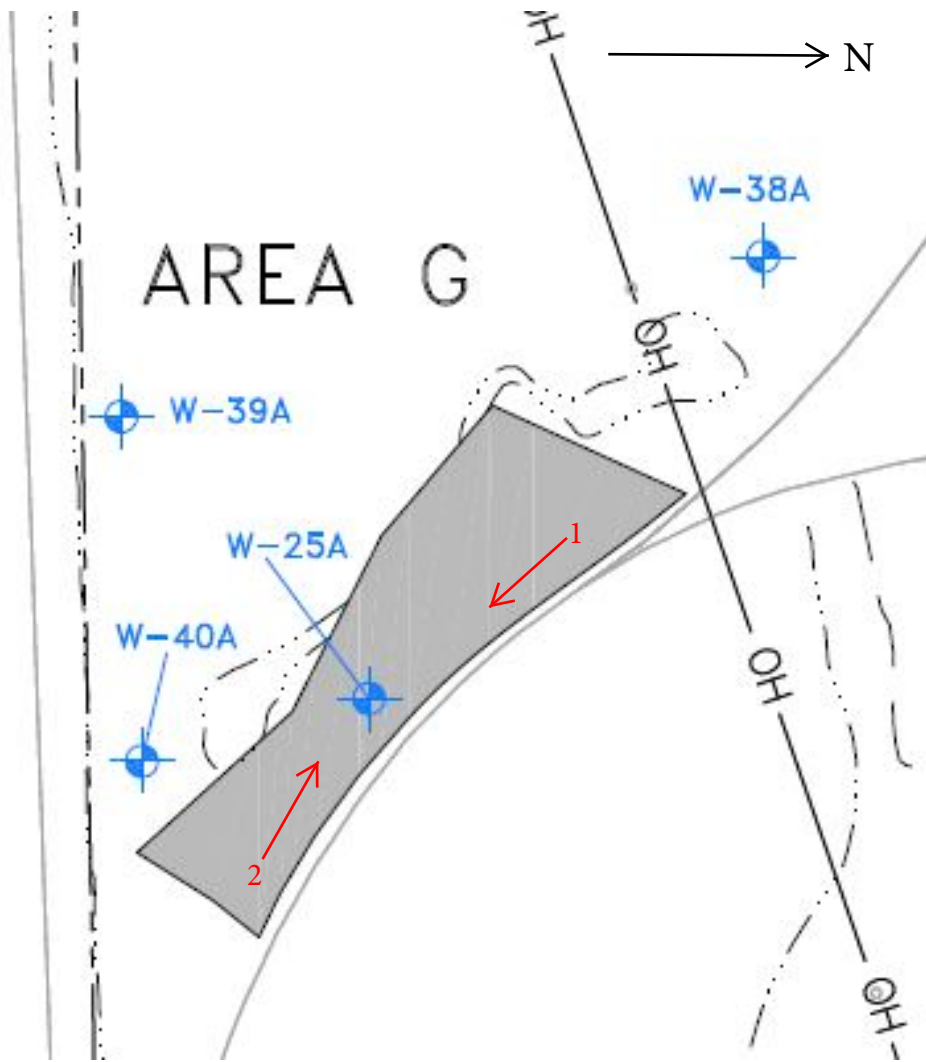
Area F1 Photo 1, looking South from North end:



Area F2 Photo 1, Looking Northeast from Southwest:



Area G:



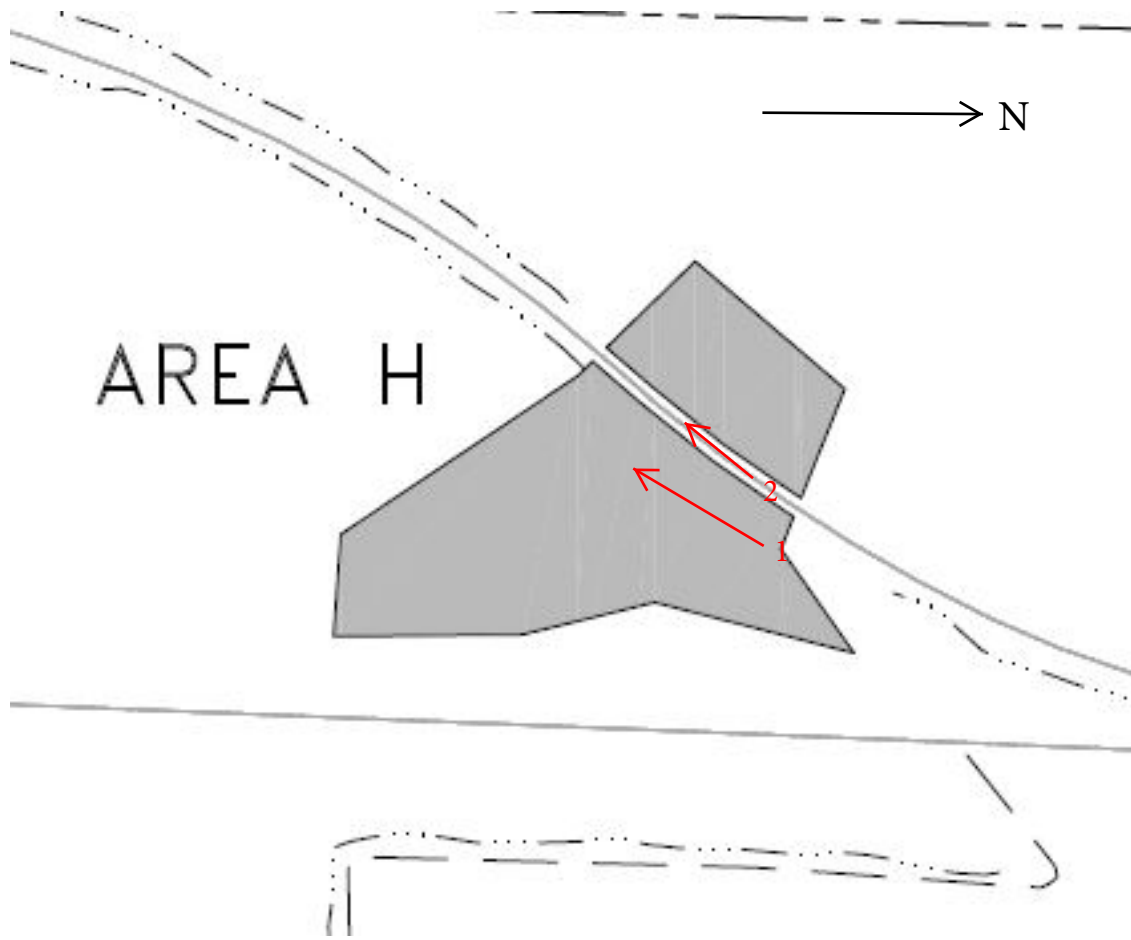
Area G Photo 1, looking Southeast from Northwest corner:



Area G Photo 2, looking Northwest from Southeast corner:



Area H:



Area H Photo 1, (East side of RR tracks) looking Southwest from Eastern side:

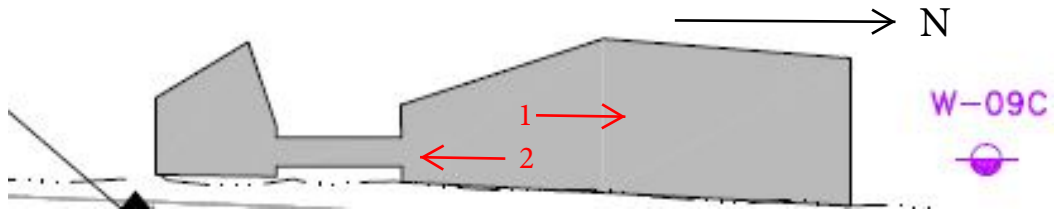


Area H Photo 2, (West side of RR tracks) looking Southwest from western side:



Area S1 and S2:

AREAS S1 AND S2



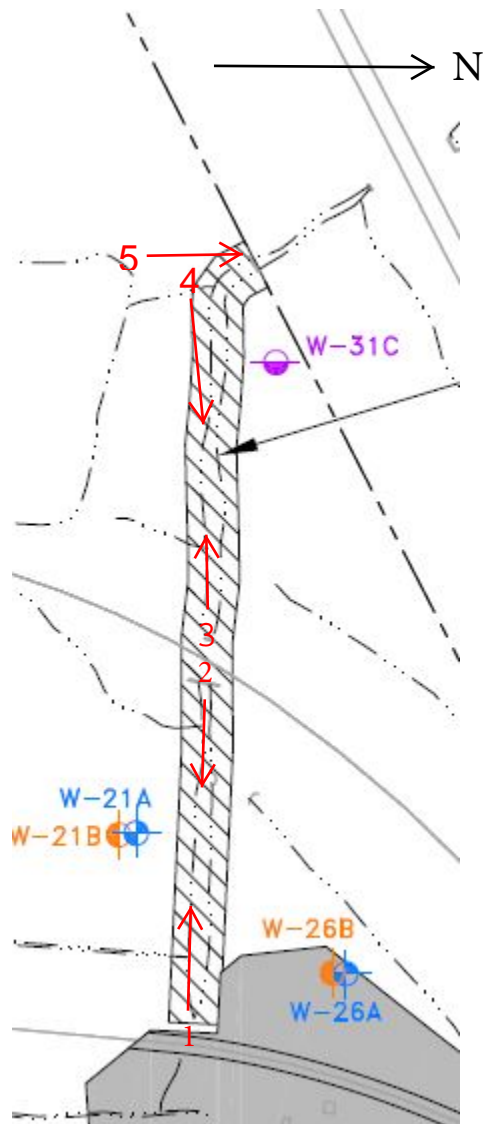
Area S Photo 1, looking North from center of area:



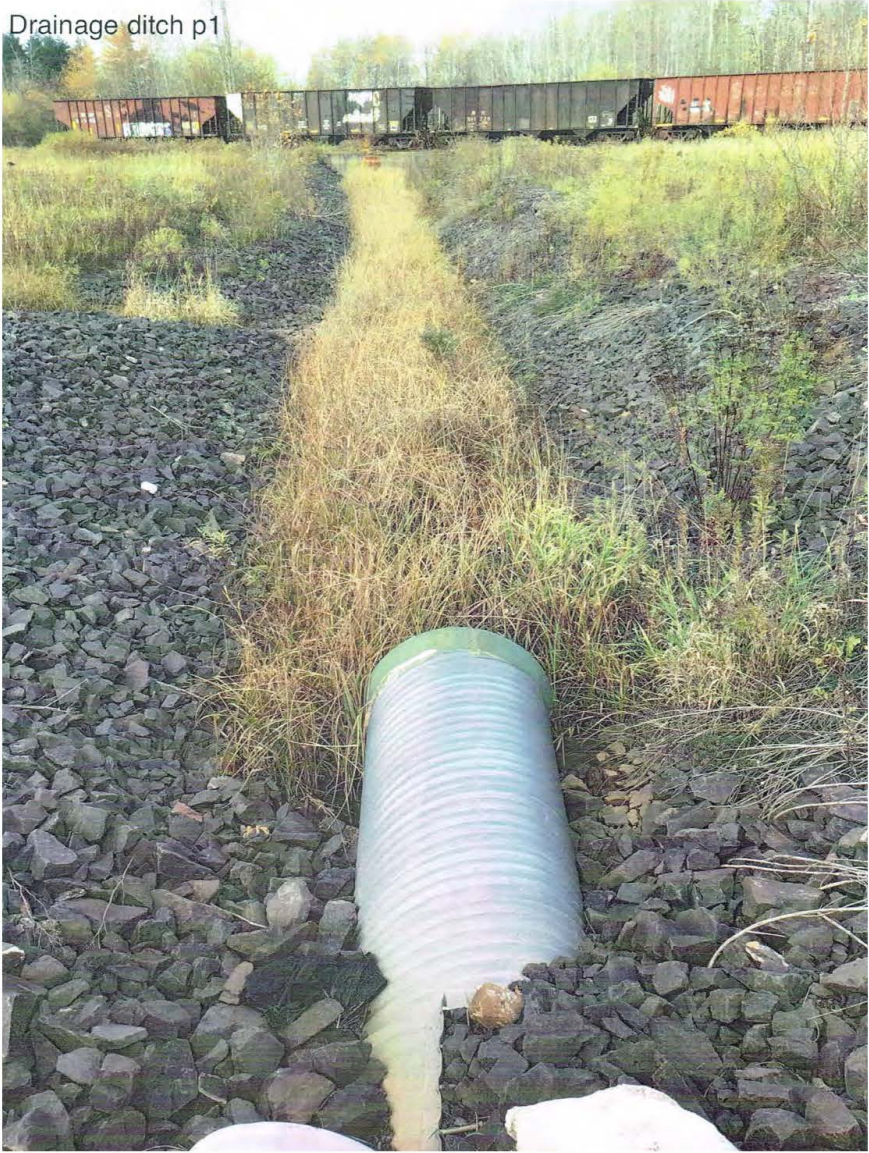
Area S Photo 2, looking South from center of area:



Outfall 001 and Drainage Ditch:



Outfall 001 Drainage Ditch Photo 1, looking West from Eastern edge:



Outfall 001 Drainage Ditch Photo 2, looking East from center area:

Drainage ditch p2



Outfall 001 Drainage Ditch Photo 3, looking West from center area:



Outfall 001 Drainage Ditch Photo 4, looking East from Western edge:



Outfall 001 Drainage Ditch Photo 5, looking North from Southern edge of ditch:



Post Construction Site Inspection Form
 Beazer East, Inc.
 Koppers Inc. Facility, Superior, Wisconsin

Inspection Date: 10/16/19

Weather Conditions: 40's Cloudy

Inspector Name and Organization: Ben Trusk Ben Trusk 10/16 FIS

Inspector Signature: Ben Trusk

Area A

(check one)	No	Yes	If yes, provide description and take photos
Excessive erosion	x		
Evidence of excessive settling or ponding	x		
Areas lacking well-established vegetation	x		

Action Items: N/A

Photographs: Photo: 1 : Looking NE from west side of area

Photo: 2 : Looking E from west side of area

Photo: _____ :

Photo: _____ :

Photo: _____ :

Area B

(check one)	No	Yes	If yes, provide description and take photos
Excessive erosion	x		
Evidence of excessive settling or ponding		x	<u>Cuts on western area, photos 5 & 6</u>
Areas lacking well-established vegetation	x		

Action Items: _____

Photographs: Photo: 1 : Looking south from North East central area

Photo: 2 : Looking west from Eastern Edge

Photo: 3 : Looking south from north central ^{St 10/11} section

Photo: 4 : South from North West

Photo: 5 & 6 : Close up of rats

Area F-1

(check one)	No	Yes	If yes, provide description and take photos
Excessive erosion	X		
Evidence of excessive settling or ponding	X		
Areas lacking well-established vegetation	X		

Action Items: NA

Photographs: Photo: 1; Looking South from Northern edge on East side of tracks
~~Photo: 2; Looking South from Northern edge on West side of tracks~~ 4.27.20
 Photo: _____;
 Photo: _____;
 Photo: _____;

Area F-2

(check one)	No	Yes	If yes, provide description and take photos
Excessive erosion	X		
Evidence of excessive settling or ponding	X		
Areas lacking well-established vegetation	X		

Action Items: NA

Photographs: Photo: 1; Looking North East from South West
 Photo: _____;
 Photo: _____;
 Photo: _____;
 Photo: _____;

Area G

<i>(check one)</i>	No	Yes	If yes, provide description and take photos
Excessive erosion	x		
Evidence of excessive settling or ponding	x		
Areas lacking well-established vegetation	x		

Action Items: NA

Photographs: Photo: 1 : Looking South East from North West
 Photo: 2 : Looking North West from South East
 Photo: _____ : _____
 Photo: _____ : _____
 Photo: _____ : _____

Area H

<i>(check one)</i>	No	Yes	If yes, provide description and take photos
Excessive erosion	x		
Evidence of excessive settling or ponding	x		
Areas lacking well-established vegetation	x		

Action Items: NA

Photographs: Photo: 1 : Looking Southwest from Eastern side
 Photo: 2 : Looking Southwest from Western side
 Photo: _____ : _____
 Photo: _____ : _____
 Photo: _____ : _____

Areas S-1 and S-2

(check one)	No	Yes	If yes, provide description and take photos
Excessive erosion	X		
Evidence of excessive settling or ponding	X		
Areas lacking well-established vegetation	X		

Action Items: NA

Photographs: Photo: 1 : Looking North from center of area
 Photo: 2 : Looking South from center of area
 Photo: _____ : _____
 Photo: _____ : _____
 Photo: _____ : _____

Outfall 001 Drainage Ditch

(check one)	No	Yes	If yes, provide description and take photos
Excessive erosion	X		
Evidence of excessive settling or ponding	X		
Areas lacking well-established vegetation	X		

Action Items: NA

Photographs: Photo: 1 : Looking West from Eastern edge
 Photo: 2 : Looking East from center of area
 Photo: 3 : Looking West from center of area
 Photo: 4 : Looking East from western edge
 Photo: 5 : Looking North from Eastern most ^{of 1413} southern edge
Southern edge of ditch