WESTON SOLUTIONS, INC.
205 CAMPUS DRIVE
EDISON, NEW JERSEY 08837
732-417-5800 • FAX: 732-417-5801

Memorandum

To: Steve Ferreira, USEPA Region 2
Mark D. Fisher, LSRP, The ELM Group

From: Jason Schindler, Weston Solutions, Inc.

Date: May 18, 2020

Re: Quality Assurance Project Plan Addendum
Crown Relocations Hot Spot Excavation Plan
Hatco Remediation Project / Woodbridge Pond Remediation Area
Woodbridge, New Jersey

This memorandum and attachments serve as an addendum to the Quality Assurance Project Plan (QAPP) for the Hatco remediation project, most recently revised May 22, 2017. This addendum is intended to support the excavation of an area of off-site contamination at Hatco Area of Concern (AOC) 23 designated as "Crown Relocations Hot Spot". The property, owned by Crown Relocations (Crown), is located at 200 Mac Lane, Woodbridge, New Jersey on Block 71, Lot 6 of Woodbridge Township Tax Maps. The property is located adjacent to the Hatco Site and Woodbridge Pond. **Figure 1** shows the Site Location. **Figure 2** shows the AOCs associated with the Hatco remediation project.

The Woodbridge Pond remediation project, completed in 2019, addressed removal of contaminated sediments at Hatco AOC 24, as described in Hatco Remedial Action Workplan Addendum 4 (RAWPA 4). During the remediation of Woodbridge Pond, it became apparent that impacted material crossed onto the Crown lot located north of AOC 24. Access permission was obtained from Crown on July 2, 2019 to complete sampling on the Crown lot. Delineation sample results identified one isolated area of polychlorinated biphenyls (PCB)-impacted sediment on the Crown lot.

The Alternate Remediation Standards are specified in the approved RAWPA 4, which are 22 mg/kg (milligrams per kilogram) (dry weight basis) for bis(2-ethylhexyl)phthalate (BEHP), and 1 mg/kg (dry weight basis) for PCBs in sediment. The sediment samples collected in July 2019 to delineate the extent of contamination on the Crown lot exhibited total PCB concentrations above the remediation criterion of 1 mg/kg. There were no BEHP exceedances. Based on the resulting data one discrete area requires excavation, approximately 230 square feet by one foot deep. **Figure 3** presents the Delineation Sample Results.

The sample locations and the horizontal and vertical extent of the area of contamination to be removed are depicted on **Figure 4**. The impacted sediment is located in an area mapped as wetlands. Small trees and vegetation will be removed in order to access the planned excavation area. Sediment will be excavated using mechanical equipment, and the excavation will be

DRAFT

backfilled with clean fill and seeded using the same materials as approved for the Woodbridge Pond remediation permit. **Figure 5** depicts the access plan.

Table 1 identifies the delineation samples that exceed the criteria, and the approximate dimensions and volume of the areas to be removed. Post-excavation sediment samples are summarized on **Table 2**. Dedicated, disposable sampling trowels will be used to collect samples and to place the sample material directly into laboratory-prepared sample containers. Sample collection and analysis will be performed in accordance with the protocols described in the QAPP revised May 22, 2017. Sample quantities, frequencies, analytical parameters and field quality control samples are summarized on **Table 3**.

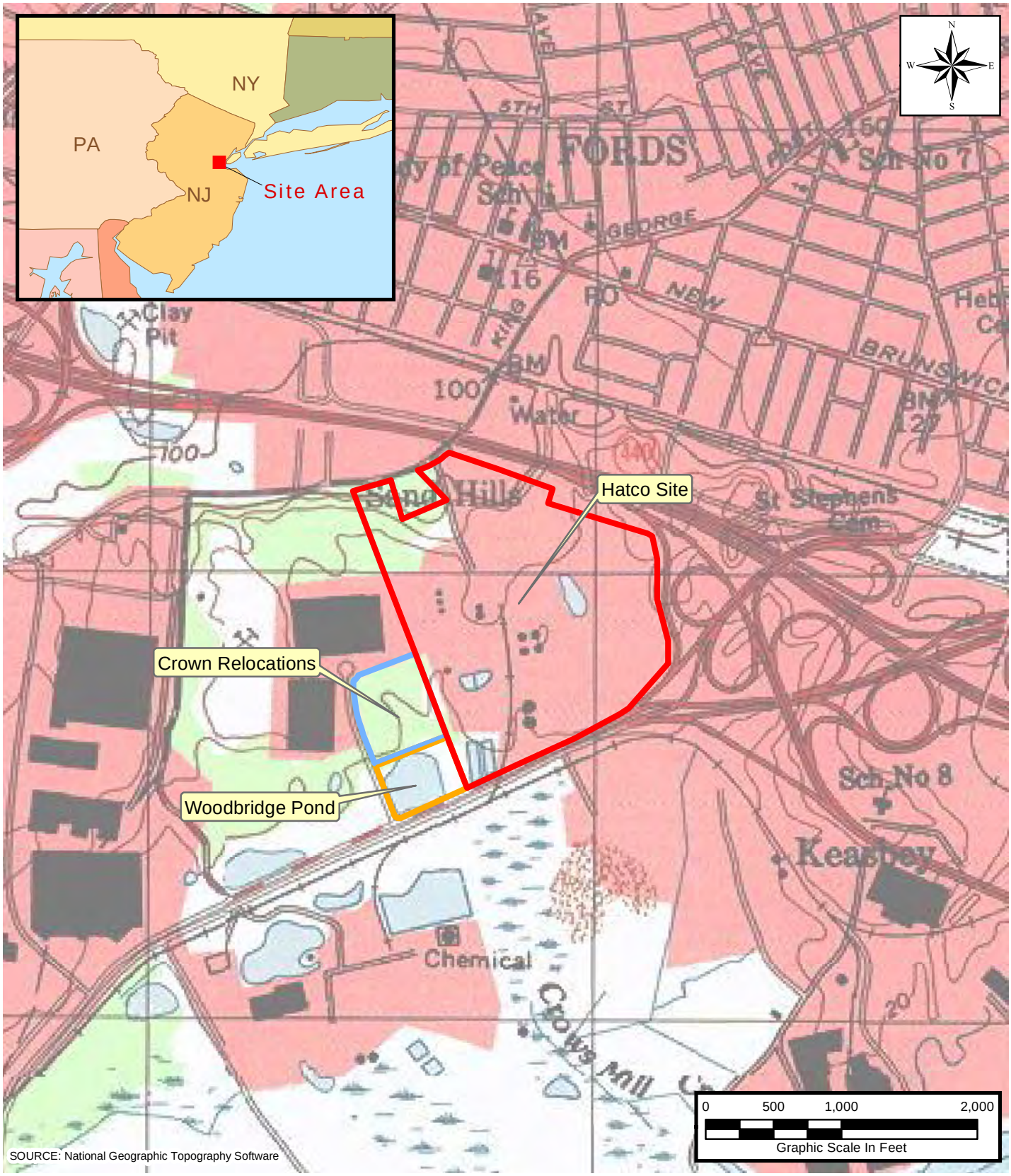
Waste generated by this project will consist of excavated contaminated sediments, root balls, personal protective equipment and spent decontamination materials. Solid waste will be disposed offsite at a licensed approved disposal facility consistent with the requirements specified in the approved RAWPA 4. Liquid waste, if any, will be managed with liquid waste from the ongoing Hatco site remediation project.

ATTACHMENTS:

Figure 1. Site Location Map
Figure 2. Hatco Areas of Concern
Figure 3. Woodbridge Pond Northern Sediment Delineation Samples
Figure 4: Crown Relocations Hot Spot Proposed Excavation
Figure 5: Crown Relocations Hot Spot Access
Table 1. Excavation Plan
Table 2. Post-Excavation Sampling Summary
Table 3. Quality Control Sampling Summary

FIGURE 1:

Site Location Map



SOURCE: National Geographic Topography Software

LEGEND:

- Hatco Property
- Woodbridge Pond
- Crown Relocations

TITLE:

Hatco Site Location Map

PROJECT: Crown Relocations Hot Spot Remediation

CLIENT NAME: Hatco Corporation

WESTON SOLUTIONS

DATE: May 2020

FIGURE #: 1

P:\Hatco\GIS\MXD\2019_05_Woodbridge_Pond_PostEx\24582_Site_Loc_Crown.mxd

FIGURE 2:

Hatco Areas of Concern

WESTON SOLUTIONS

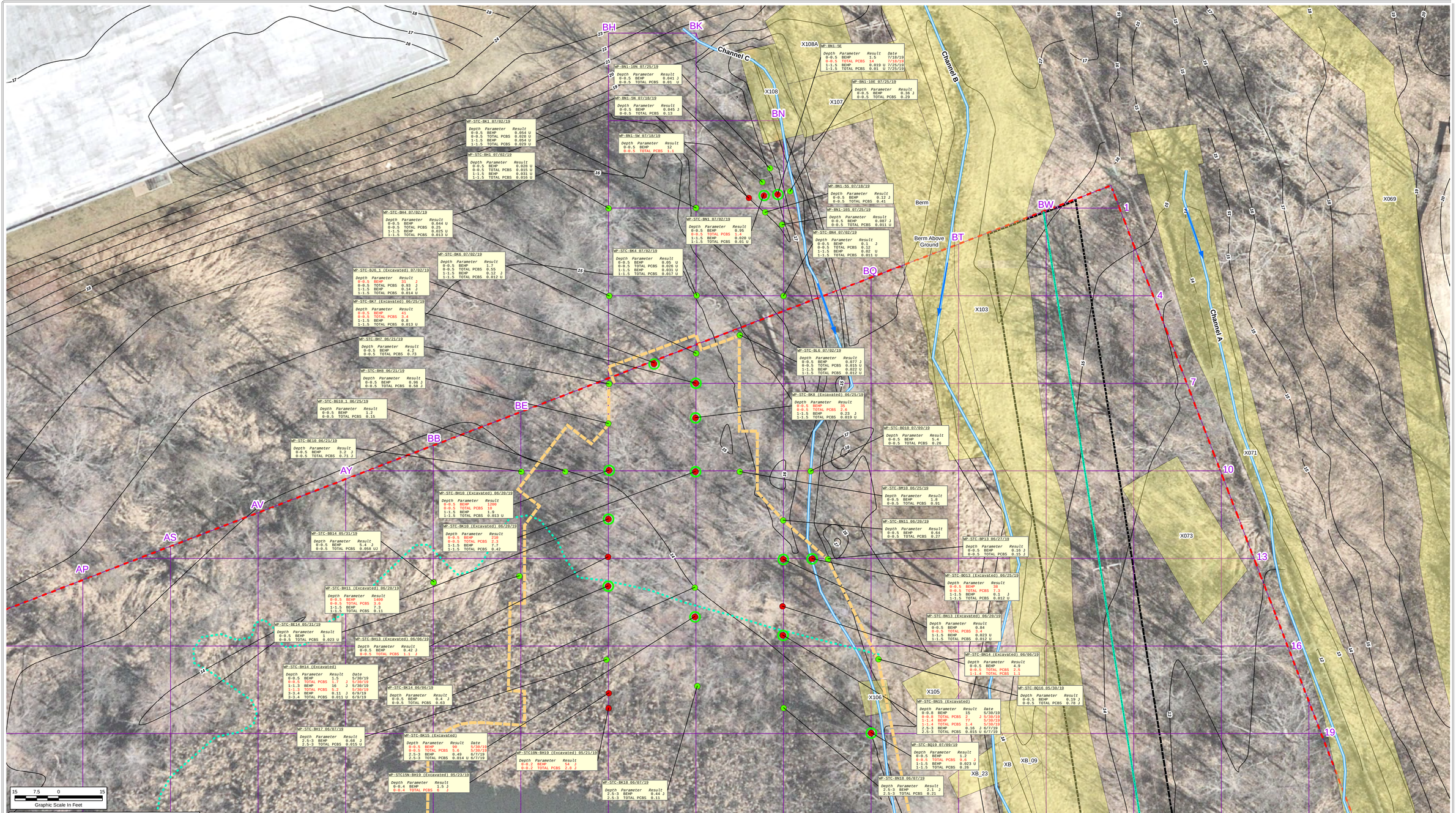
Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: February 2020	PROJECT MANAGER: J. Schindler	CLIENT NAME: Hatco Corporation	DRAWING TITLE: HATCO SITE MAP AND AREAS OF CONCERN
DRAWING: 25206_Areas_of_Concern_Aerial.mxd PATH: P:\Hatco\GIS\MXD\2017_02_SEL_RAPR\	CHECKED BY: C. Devorak		
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.	PROJECT NAME: Hatco Remediation	
WORK ORDER No. 13067.001.004.8003	DRAWN/MODIFIED BY: J. Gardner DATE CREATED: 2/19/2020		FIGURE: 2 / SCALE: 1" =80' / DATE: 2/19/2020

FIGURE 3:

Woodbridge Pond Northern Sediment Delineation Samples



Legend

- Delineation Sample Location with Exceedance(s)
- Delineation Sample Location with no Exceedance(s)
- Vertically Delineated
- Approximate Horizontal Extent of Excavation
- Approximate Northern Limit of State Open Water
- Approximate Water Main Location
- Approximate Channel Locations
- Excavated Area
- Parcel Boundary
- Sampling Grid (30' x 30')
- Easement
- Contours (ft)

NOTES:
1. U - not detected; value shown is method detection limit.
2. J - estimated concentration.

SOURCES:
1. Aerial imagery - Nearmap (https://www.nearmap.com/us/en). Date: March 26, 2019.

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: May 2020	PROJECT MANAGER: J. Schindler	CLIENT NAME: Hatco Corporation	DRAWING TITLE: Woodbridge Pond Northern Sediment Delineation Samples
DRAWING: 25982_WP_North_Delin_Sampling_Crown.mxd PATH: P:\Hatco\GIS\MXD\2020_05_AOC23_Sampling\	CHECKED BY: C. Devorak		
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.	PROJECT NAME: Crown Relocations Hot Spot	
WORK ORDER No. 13067.001.003.8036	DRAWN/MODIFIED BY: H. Bravo-Ruiz DATE CREATED: 5/29/2020		FIGURE: 3 / SCALE: 1 in = 15 ft / DATE: 3/23/2020

FIGURE 4:

Crown Relocations Hot Spot Proposed Excavation

Legend

- Proposed Post-Excavation Bottom Sample Location
- Proposed Post-Excavation Sidewall Sample Location
- Soil Boring Location with Exceedance
- Soil Boring Location with No Exceedance
- Vertically Delineated
- Surface Water Flow Direction
- Current Extent of Channels B and C
- Proposed Excavation Boundary
- Parcel Boundary

NOTES:
1. All sample elevations are in feet (NAVD88).

SOURCES:
1. Nearmap Aerial Imagery. https://www.nearmap.com/us/en. Photo date June 21, 2018.
2. Parcels of Middlesex County. NJ Composite of Parcels Data with joined MOD-IV Attributes 2016, New Jersey State Plane NAD83. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). Publication Date: 20160525. https://njgin.state.nj.us/NJ_NJGINExplorer/

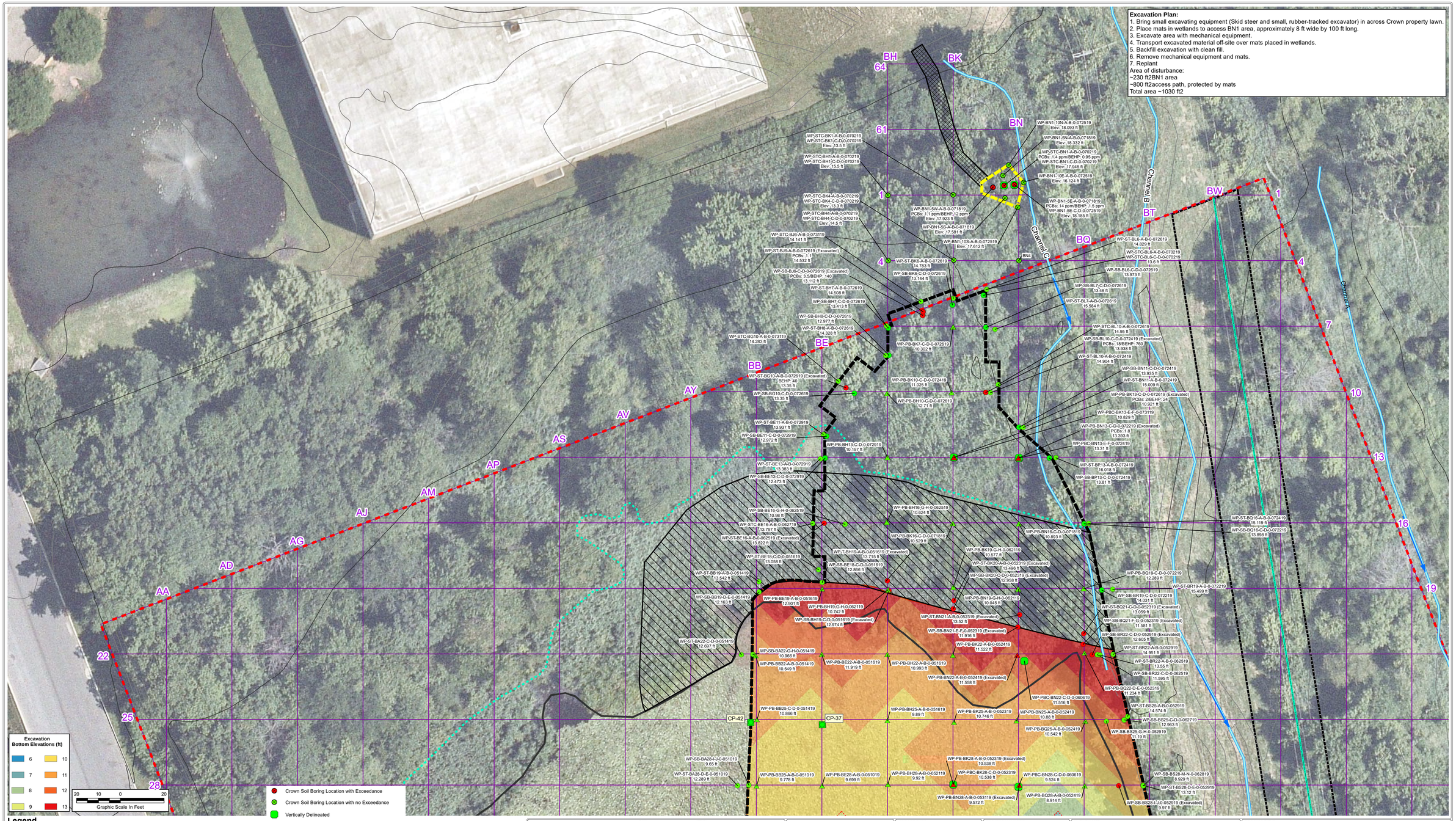
WESTON SOLUTIONS SM
Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: May 2020	PROJECT MANAGER: J. Schindler	CLIENT NAME: Hatco Corporation	DRAWING TITLE: HATCO - AOC23 (Crown Relocations Property) Proposed Excavation
DRAWING: 25835_Crown_Relocation_Hot_Spot.mxd PATH: P:\Hatco\GIS\MXD\2020_05_AOC23_Sampling\	CHECKED BY: C. Devorak		
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.	PROJECT NAME: Hatco Remediation	
WORK ORDER No. 13067.001.004.8003	DRAWN/MODIFIED BY: J. Heaton DATE CREATED: 5/18/2020		FIGURE: 4 / SCALE: 1 in = 5 ft / DATE: 5/18/2020

FIGURE 5:

Crown Relocations Hot Spot Access



Legend

- CP-64 — Previous Sample To Be Used For Verification At This Location
- Parcel Boundary
- Extent of Excavation
- Sediment Area with Greater Than 50 mg/kg PCBs
- Easement
- Proposed Sampling Grid (30' x 30')
- Current Extent of Channels B and C
- Surface Water Flow Direction
- Approximate Water Main Location
- Proposed Sidewall Verification Sample Location
- Proposed Bottom Verification Sample Location
- Approximate Water Valve Location
- Crown Soil Boring Location with Exceedance
- Crown Soil Boring Location with no Exceedance
- Vertically Delineated
- Post-Excavation Bottom Sample with No Exceedance
- Post-Excavation Bottom Sample with Exceedance
- Post-Excavation Sidewall Sample with No Exceedance
- Post-Excavation Sidewall Sample with Exceedance
- Approximate Horizontal Extent of Excavation
- State Open Water Line
- Proposed Excavation Boundary
- Excavation Access Path
- Wetland Enhancement Area

NOTES:
1. Utility locations identified are based upon aerial imagery interpretation.
2. All sample elevations are in feet (NAVD88).
3. All sample elevations within Woodbridge Pond were derived from bathymetric data collected by Aqua Survey, Inc. in 2014.
4. All sample elevations outside of Woodbridge Pond were derived from 2014 LiDAR data obtained from NJ Geographic Information Network.
5. As approved by US EPA on April 6, 2016 sample locations CP-37, CP-42, CP-43, CP-44, CP-45, CP-64, and CP-64 will be used in lieu of post-excavation samples.

SOURCES:
1. State of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS), New Jersey 2012 - 2013 High Resolution Orthophotography, NAD83 NJ State Plane Feet, MrSID Tiles. March 2013. https://nigon.state.nj.us/NJ_NJGINExplorer/
2. State of New Jersey, Office of Information Technology Parcels Data with joined MOD-IV Attributes 2016, New Jersey State Plane NAD83. NJ Office of Information Technology (NJOIT), Office of Geographic Information Systems (OGIS). Publication Date: 20160720. https://nigon.state.nj.us/NJ_NJGINExplorer/

WESTON SOLUTIONS SM

Weston Solutions, Inc.
205 Campus Drive Edison, New Jersey 08837-3939
TEL: (732) 417-5800 Fax: (732) 417-5801
http://www.westonsolutions.com

N W E S

REPORT DATE: May 2020	PROJECT MANAGER: J. Schindler	CLIENT NAME: Hatco Corporation	DRAWING TITLE: Crown Relocations Hot Spot Access
DRAWING: 20003_Crown_Reloc_Hot_Spot_Access.mxd PATH: P:\Hatco\GIS\MXD\2020_05_AOC23_Sampling\	CHECKED BY: C. Devorak		
REVISION No. 0	CONTRACT No. DELIVERY ORDER NO.	PROJECT NAME: Crown Relocations Hot Spot	
WORK ORDER No. 13067.001.003.8036	DRAWN/MODIFIED BY: H. Bravo-Ruiz DATE CREATED: 5/29/2020		FIGURE: 5 · SCALE: 1 in = 20 ft · DATE: 5/29/2020

TABLE 1:

Excavation Plan

Table 1. Excavation Plan
Crown Relocations Hot Spot
Hatco Remediation Project
Fords, New Jersey

Delineation Sample Exceedances to be Removed	Sample Interval	Surveyed Elevation (ft msl)	Concentration Remaining (mg/kg)	Sediment Alternate Remediation Standard (mg/kg)
	(feet below grade)		PCB	PCB
WP-BN1-5W-A-B-0-071819	0.0-0.5	17.9	1.1	1
WP-BN1-5E-A-B-0-071819	0.0-0.5	18.2	14	1
WP-STC-BN1-A-B-0-070219	0.0-0.5	17.9	1.4	1

Notes:
mg/kg: Concentration in milligrams per kilogram dry weight basis
PCB: Total polychlorinated biphenyls

TABLE 2:

Post-Excavation Sampling Summary

Table 2. Post-Excavation Sampling Summary
Crown Relocations Hot Spot Excavation
Hatco Remediation Project
Fords, New Jersey

Post-Excavation Sample Location	Post-Excavation Sample Depth Interval (feet)	Post-Excavation Sample Identification	Parameter	X (NAD1983 - ft)	Y (NAD1983 - ft)
Bottom	1.0-1.5	WP-BN1-PE-C-D-0-[DATE]	PCB	542260	614193
Northeast Sidewall	0.0-0.5	WP-BN1-NE-A-B-0-[DATE]	PCB	542263	614198
Northwest Sidewall	0.0-0.5	WP-BN1-NW-A-B-0-[DATE]	PCB	542253	614198
Southeast Sidewall	0.0-0.5	WP-BN1-SE-A-B-0-[DATE]	PCB	542265	614189
Southwest Sidewall	0.0-0.5	WP-BN1-SW-A-B-0-[DATE]	PCB	542254	614186
West Sidewall	0.0-0.5	WP-BN1-We-A-B-0-[DATE]	PCB	542247	614192

Notes:

PCB	Total polychlorinated biphenyls
[DATE]	Six digits identifying the month (Mo), day (Da) and year (Yr) of sample collection MoDaYr

TABLE 3:

Quality Control Sampling Summary

Table 3. Quality Control Sampling Summary
Crown Relocations Hot Spot Excavation
Hatco Remediation Project
Fords, New Jersey

Matrix	Parameters	Field Samples	MS/MSD	Duplicates
Soil	PCB	6	1	1

Notes:

PCB: Total polychlorinated biphenyls by SW-846 Method 8082
No field blank samples are required because samples will be collected using dedicated, disposable sampling tools.

Laboratory-blind duplicate samples will be collected at a frequency of one per 20 field samples
MS/MSD: Matrix spike/matrix spike duplicate samples will be collected at a frequency of one per 20 field samples

L:\13067 Hatco\12.0 Preliminary Documents\2020-04 CROWN Relocation Hot Spot\Workplan\Tables\[2020-05-18 Crown Relo Hot Spot Excavation.xlsx]Table 3 QC Samples