



Prepared for:  
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Monroeville, PA

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October 2024

# Remedial Action Report Conrail Right-of-Way (AOC 1) Soil Final, Revision 1

Non-Residential Chromate Chemical Production Waste  
NJDEP Program Interest Number G000008728

**Conrail Right-of-Way  
Block 27401 Lot 45  
Jersey City, New Jersey**

## **Regulatory Forms**

Case Inventory Document (CID)

Cover/Certification Form

Receptor Evaluation Form

Public Notification Form

Full Laboratory Data Deliverables Form

Case Name: Conrail Right-of-Way (AOC 1)  
 PI #: G000008728  
 Activity #:                     

**IMPORTANT:** 1) The CID must be **FINALIZED** prior to upload. After the CID has been populated, click the **Validate for Upload** button and follow the instructions.  
 2) You **MUST SAVE** after finalizing, and before upload. Click the **Enable for Editing** button after uploading to edit again.

Case Inventory Document Version 1.5.1 02/04/21

AOC ID	AOC Type	AOC Description	Confirmed Contamination	Exclude AOC from Billing	AOC Status Achieved	Status Achieved Date	Incident Communication Center #s Managed in Case	NJDEP ID	Contaminated Media	Contaminants of Concern	Additional Contaminants of Concern	Additional Contaminants of Concern	Applicable Remediation Standard	Exposure Route	Additional Exposure Route	RA Type	Additional RA Type	Was an Order of Magnitude Evaluation Conducted?	Activity
Conrail Right-of-Way - AOC 1	Other areas of concern - Other discharge area	Chromate Chemical Processing Waste (CCPW) impacts to Soil	Yes		RA	10/17/2024			Soil	Metals			AOC Specific ARS and Remediation Standards	Ingestion/Dermal	Inhalation	Excavation		Yes	<p>This Area of Concern (AOC) covers the Conrail Right-of-Way (ROW) (AOC 1), within a portion of Block 27401, Lot 45. Remedial Investigation (RI) activities were completed at Site 107 (adjacent to Conrail ROW (AOC 1)) to horizontally and vertically delineate Chromate Chemical Production Waste (CCPW), a potential source of hexavalent chromium (Cr+6) and CCPW metals (antimony, chromium, nickel, thallium, vanadium). RI activities within Conrail ROW (AOC 1) and adjacent Site 107 were conducted between January 2011 and November 2012. Based on the RI results, it was determined that CCPW-impacted materials extended from Site 107 onto Conrail ROW (AOC 1).</p> <p>Results of the RI indicated the presence of Cr+6 at concentrations greater than the Chromium Soil Cleanup Criteria (CrSCC) and vanadium at concentrations greater than the Residential Direct Contact Soil Remediation Standards (RDSCRS) within Conrail ROW (AOC 1). In addition, CCPW (in the form of chromite ore processing residue [COPR] nodules), which is a potential source of Cr+6 and CCPW metals, was observed in select soil borings along the Conrail ROW (AOC 1) property boundary.</p> <p>The 2013 RAWP for Site 107 (RAWP) was submitted in September 2013 to address CCPW-related impacts in soil on Site 107 and Conrail ROW (AOC 1), and approved by the NJDEP on February 21, 2017.</p> <p>A request for an Alternative Remediation Standard (ARS) for Soil - Vanadium was submitted to NJDEP by Arcadis, on behalf of PPG in 2018. The ARS of 390 milligrams per kilogram (mg/kg) for vanadium was approved by NJDEP on November 7, 2018. A request for an ARS for Impact to Groundwater - Nickel was submitted to NJDEP by Arcadis, on behalf of PPG, on March 4, 2019. The Site-Specific Impact to Groundwater Soil Remediation Standard (SSIGWSRS) of 855 mg/kg for nickel was approved by NJDEP on April 25, 2019.</p> <p>The initial remedial excavation within AOC 1 was associated with the Site 107 remedial action, which began in June 2018 and was completed in September 2019. Due to structural concerns relating to the Conrail railroad tracks, CCPW-related impacts within a 15-foot offset of the track centerline were not removed during this mobilization. Following the completion of Supplemental Pre-Design Investigation (PDI) activities in September 2022, PPG conducted a supplemental remedial excavation between July and October 2023 to remove the remaining CCPW-related impacts. Restoration was completed in November 2023.</p> <p>The Remedial Action Report, Conrail Right-of-Way (AOC 1) Soil, Final, Revision 1 submittal (issued in September 2024) documents that the remedial objectives for the Conrail ROW (AOC 1) have been achieved as follows:</p> <ul style="list-style-type: none"> <li>Excavation of soil containing Cr+6 met the requirements specified in the NJDEP Memorandum entitled Chromium Moratorium, February 8, 2007.</li> <li>For soil with one vanadium (V) result concentration exceeding the ARS, compliance averaging was used to attain compliance with this criterion.</li> <li>CCPW metals other than V (i.e., antimony, total chromium, nickel, thallium) are not present at concentrations greater than the applicable remediation criteria. (Note there are antimony remediation standard exceedances, which are attributed to the presence of historic fill and are not PPG's responsibility.)</li> </ul> <p>The soil RA of AOC 1 is effective in protecting public health and safety and the environment, and no further action is required for this AOC.</p>



**New Jersey Department of Environmental Protection**  
 Site Remediation and Waste Management Program

**COVER/CERTIFICATION FORM**

(Submit with Remedial Phase Report, Receptor Evaluation, and CEA Forms)

Date Stamp  
(For Department use only)

**SECTION A. SITE INFORMATION**

Site Name: Conrail Right-of-Way (AOC 1)

AKAs: \_\_\_\_\_

Street Address: Conrail Right-of-Way

Municipality: Jersey City (Township, Borough or City)

County: Hudson Zip Code: 07305

Program Interest (PI) Number(s): G000008728

Case Tracking Number(s) for this submission: \_\_\_\_\_

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2: 07/19/1990

State Plane Coordinates for a central location at the site: Easting: 606613 Northing: 677380

List current Municipal Block and Lot Numbers of the Site:

Block # <u>27401</u>	Lot #(s) <u>45</u>	Block # _____	Lot #(s) _____
Block # _____	Lot #(s) _____	Block # _____	Lot #(s) _____
Block # _____	Lot #(s) _____	Block # _____	Lot #(s) _____
Block # _____	Lot #(s) _____	Block # _____	Lot #(s) _____

**SECTION B. SUBMISSION STATUS**

1. Indicate how the Electronic Data Deliverable (EDD) for this submission is being provided to the NJDEP:

- Via Email at [srpedd@dep.nj.gov](mailto:srpedd@dep.nj.gov) (attach NJDEP confirmation email); or
- CD (attach to this submission)
- Not Applicable – No EDD

2. Complete the following Submission and Permit Status Table:

Remedial Phase Documents	N/A	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission	Date of Previous NJDEP Approval	Date of Document Withdrawal
Preliminary Assessment Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Site Investigation Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Remedial Investigation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	03/29/2013		09/16/2019	
Remedial Action Work Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10/14/2016		02/21/2017	
Remedial Action Report	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Response Action Outcome	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
<b>Other Submissions</b>							
Alternative Soil Remediation Standard and/or Screening level Application Form	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	08/20/2018		11/07/2018	
Case Inventory Document		<input checked="" type="checkbox"/>					
Classification Exception Area / Well Restriction Area (CEA/WRA)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Discharge to Ground Water Permit by Rule Authorization Request	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	04/19/2018		05/09/2018	

SSIGWSRS for Nickel Application

X 10/09/2018

04/25/2019



IEC Engineered System Response Action Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Immediate Environmental Concern Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
LNAPL Interim Remedial Measure Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Public Notification	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Receptor Evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Technical Impracticability Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Vapor Concern Mitigation Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Permit Application – list:	<input checked="" type="checkbox"/>						
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Action Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Action Workplan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Investigation Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Radionuclide Remedial Investigation Workplan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

**SECTION C. SITE USE**

**Current Site Use:** (check all that apply)

- Industrial
- Residential
- Commercial
- School or child care
- Other: Railroad Right-of-Way
- Agricultural
- Park or recreational use
- Vacant
- Government

**Intended Future Site Use, if known:** (check all that apply)

- Industrial
- Residential
- Commercial
- School or child care
- Other: Railroad Right-of-Way
- Park or recreational use
- Vacant
- Government
- Future site use unknown

**SECTION D. CASE TYPE:** (check all that apply)

- Administrative Consent Order (ACO)
- Brownfield Development Area (BDA)
- Child Care Facility
- Chrome Site (Chromate chemical production waste)
- Coal Gas
- Due Diligence with RAO
- Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ISRA
- Landfill (SRP subject only)
- Regulated Underground Storage Tank (UST)
- Remediation Agreement (RA)/Remediation Certification
- School Development Authority (SDA)
- School facility
- Spill Act Defense – Government Entity
- Spill Act Discharge
- UST Grant/Loan
- Other: \_\_\_\_\_

**Federal Case** (check all that apply)

- RCRA GPRA 2020
- CERCLA/NPL
- USDOD
- USDOE

1. Is the party conducting remediation a government entity? .....  Yes  No  
 If "Yes," check one:  Federal  State  Municipal  County

**SECTION E. PUBLIC FUNDS**

Did the remediation utilize public funds? .....  Yes  No

If "Yes," check applicable:

- UST Grant
- HDSRF Grant
- Spill Fund
- UST Loan
- HDSRF Loan
- Schools Development Authority
- Brownfield Reimbursement Program
- Landfill Reimbursement Program
- Environmental Infrastructure Trust

**SECTION F. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**

LSRP ID Number: \_\_\_\_\_  
First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_  
Phone Numbers: \_\_\_\_\_ Ext.: \_\_\_\_\_ Fax: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Municipality: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Email Address: \_\_\_\_\_

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

- (1) *I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3) concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.*
- (2) *I certify:*
- *That I have read this submission and all attachments to this submission;*
  - *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
  - *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
  - *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
  - *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*
- (3) *I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.*
- (4) *I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.*
- (5) *I certify that I understand and acknowledge that:*
- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
  - *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than \$5,000 nor more than \$75,000 per day of violation, or by imprisonment, or both.*
- (6) *I certify that I have read this certification prior to signing, certifying, and making this submission.*

LSRP Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
LSRP Name: \_\_\_\_\_  
Company Name: \_\_\_\_\_

**SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**

Full Legal Name of the Person Responsible for Conducting the Remediation: PPG Industries, Inc.

Representative First Name: Brianne Representative Last Name: Hastings

Title: Environmental Remediation Project Manager - Environment, Health and Safety

Phone Number: (412) 613-2743 Ext.: \_\_\_\_\_ FAX: \_\_\_\_\_

Mailing Address: 440 College Park Drive

Municipality: Monroeville State: Pennsylvania Zip code: 15146

Email Address: bhastings@ppg.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature:  Date: 10/15/2024

Name/Title: Brianne J. Hastings / Environmental Remediation Project Manager

**For CEA Submissions:**

Check this box if the person above is also the property owner of the site or their representative. If this person is not the site property owner, please ensure the site property owner's name and address is in the first line of the table in Section E.2 of the Classification Exception Area / Well Restriction Area (CEA/WRA) Fact Sheet Form.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
Site Remediation Program  
NJ Department of Environmental Protection  
401-05H  
PO Box 420  
Trenton, NJ 08625-0420



**New Jersey Department of Environmental Protection**  
 Site Remediation and Waste Management Program

**RECEPTOR EVALUATION (RE) FORM**

Date Stamp  
 (For Department use only)

**SECTION A. SITE**

Site Name: Conrail Right-of-Way (AOC 1)  
 Program Interest (PI) Number(s): G000008728  
 Communication Center Number(s) and/or ISRA number(s) for this submission: (as many as will fit in the space provided)

**This form must be attached to the Cover/Certification Form  
 if not submitted through a Remedial Phase Online Service**

**Indicate the type of submission:**

- Initial RE Submission
- Updated RE Submission
  - Indicate the reason for submission of an updated RE form
  - Submission of an Immediate Environmental Concern (IEC) source control report;
  - Submission of a Remedial Investigation Report;
  - Submission of a Remedial Action Report;
- Check if included in updated RE
  - The known concentration or extent of contamination in any medium has increased;
  - A new AOC has been identified;
  - A new receptor is identified;
  - A new exposure pathway has been identified.

**SECTION B. ON SITE AND SURROUNDING PROPERTY USE**

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site property boundary (check all that apply):

	On-site	Off-site
None of the following .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Residences or residential property .....	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public or Private Schools Grades K-12 .....	<input type="checkbox"/>	<input type="checkbox"/>
Child care centers .....	<input type="checkbox"/>	<input type="checkbox"/>
Public parks, playgrounds or other recreation areas .....	<input type="checkbox"/>	<input type="checkbox"/>
Other sensitive population use(s) Explain _____	<input type="checkbox"/>	<input type="checkbox"/>

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site.

2. Current site uses (check all that apply):

- |                                               |                                       |                                                                         |
|-----------------------------------------------|---------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Industrial           | <input type="checkbox"/> Residential  | <input type="checkbox"/> Commercial                                     |
| <input type="checkbox"/> School or child care | <input type="checkbox"/> Government   | <input type="checkbox"/> Park or recreational use                       |
| <input type="checkbox"/> Vacant               | <input type="checkbox"/> Agricultural | <input checked="" type="checkbox"/> Other: <u>Railroad Right-of-Way</u> |

3. Planned future on-site uses and off-site uses within 200 feet of the site boundary (check all that apply):

<u>On-Site</u>		<u>Off-Site</u>		<u>On-Site</u>		<u>Off-Site</u>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Industrial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Commercial
<input type="checkbox"/>	<input type="checkbox"/>	School or child care	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Park or recreational use
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Vacant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other: <u>Danforth Ave Transit Village</u>

Provide a map depicting the location of the proposed changes in land use.

Redevelopment Plan  
 (See Note 1 Below)

**SECTION C. DESCRIPTION OF CONTAMINATION**

1. Identify if any of the following exist at the site:

**Yes No**

Free product [N.J.A.C. 7:26E-1.8] identified is  LNAPL\* or  DNAPL\*\*.

Date identified: \_\_\_\_\_

Residual product [N.J.A.C. 7:26E-1.8]

Other primary source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos). See form instructions for additional information.

Explain: \_\_\_\_\_

\* LNAPL – measured thickness of .01 feet or more

\*\*DNAPL – See *Ground Water Technical Guidance and USEPA Assessment and Delineation of DNAPL Source Zones at Hazardous Waste Sites* (attached as Appendix A of the NJDEP GW Guidance) available at: [http://www.nj.gov/dep/srp/guidance/#pa\\_si\\_ri\\_gw](http://www.nj.gov/dep/srp/guidance/#pa_si_ri_gw). Also, see US EPA DNAPL Overview available at: [http://clu.in.org/contaminantfocus/default.focus/sec/Dense\\_Nonaqueous\\_Phase\\_Liquids\\_\(DNAPLS\)/cat/Overview](http://clu.in.org/contaminantfocus/default.focus/sec/Dense_Nonaqueous_Phase_Liquids_(DNAPLS)/cat/Overview)

2. Soil Migration Pathway

Has soil contamination been delineated to the applicable Direct Contact Soil

Remediation Standard pursuant to N.J.A.C. 7:26E-4.2? .....  Yes  No

Are all soils either below the applicable Direct Contact Criteria or under an institutional control (i.e. deed notice)? .....

Yes  No

3. If this evaluation is submitted with a technical document that includes contaminant summary information, proceed to Section D. Otherwise, attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

**SECTION D. GROUND WATER USE**

1. Have all potentially contaminated areas of concern been evaluated to determine if there is a potential that ground water is contaminated pursuant to N.J.A.C. 7:26E-3.5? .....  Yes  No

If “No,” proceed to Section E.

2. Is a ground water investigation required? .....  Yes  No

If “No,” proceed to Section E.

3. Has a groundwater investigation been conducted? .....  Yes  No

If “Yes”:

Has the laboratory data package been received? .....  Yes  No

If the laboratory data package has not been received, provide the expected due date for data: \_\_\_\_\_ and proceed to Section E.

If “No”:

Proceed to Section E.

4. Is ground water contaminated above the Ground Water Remediation Standards [N.J.A.C.7:9C]? .....  Yes  No

If “Yes”: Provide the date that the laboratory data package was available and confirmed contamination was identified above the Ground Water Remediation Standards. Date: \_\_\_\_\_

If “No”: Proceed to Section E.

5. Has ground water contamination been delineated to the applicable Remediation Standard pursuant to N.J.A.C 7:26E-4.3? .....  Yes  No

6. What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)

- Class I-A  Class II-A
- Class I-PL Pinelands Protection Area  Class III-A
- Class I-PL Pinelands Preservation Area  Class III-B

7. Has a well search been completed? .....  Yes  No  
 Date of most recent or updated well search: \_\_\_\_\_
8. Is a completed Well Search Spreadsheet or historical well search table attached and has an electronic copy of the spreadsheet been submitted to [srpgis\\_wrs@dep.nj.gov](mailto:srpgis_wrs@dep.nj.gov). .....  Yes  No  
**Note: Redacted wells must be excluded from all non-confidential documents including maps, tables, etc. (see RE Instructions).**  
 If "No," explain: \_\_\_\_\_
9. Are any potable or irrigation wells located within 1/2 mile of the currently known extent of contamination? .....  Yes  No  
 If "Yes,":
- A door to door survey is required in accordance with [N.J.A.C.7:26E-1.14(a)ii]. Attach results of the door to door survey.
  - Identify if any of the following conditions exist based on the well search and door to door survey [N.J.A.C.7:26E-1.14(a)]:
- | <u>Yes</u>               | <u>No</u>                |                                                                                                                     |
|--------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Potable wells located within 500 feet from the downgradient edge of the currently known extent of contamination.    |
| <input type="checkbox"/> | <input type="checkbox"/> | Potable wells located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination. |
| <input type="checkbox"/> | <input type="checkbox"/> | Ground water contamination from the discharge is located within a Tier 1 wellhead protection area (WHPA).           |
10. Has sampling been conducted of  potable well(s) and /or  non-potable use well(s)? .....  Yes  No  
 If "No," provide justification then proceed to Question 12.  
 \_\_\_\_\_
11. Has contamination been identified in potable well(s), **not attributed to background conditions**, above the Class II Ground Water Remediation Standards or State Safe Drinking Water levels, N.J.A.C 7:1E, whichever is applicable? .....  Yes  No  
 If "Yes":
- Provide the date laboratory data package was received: \_\_\_\_\_
  - Follow the **IEC** Guidance Document at <http://www.nj.gov/dep/srp/guidance/IEC/index.html> for required actions and answer the following:
  - Has an engineered system response action been completed on all impacted receptors? .....  Yes  No  
 Provide a brief narrative description:
- Date completed: \_\_\_\_\_ NJDEP Case Manager: \_\_\_\_\_
12. Has contamination been identified in non-potable well(s), **not attributed to background conditions**, above the Class II Ground Water Remediation Standards? .....  Yes  No  
 If "Yes," provide the date laboratory data package was received: \_\_\_\_\_
13. Has the ground water use evaluation been completed pursuant to N.J.A.C. 7:26E-1.14? .....  Yes  No

**SECTION E. VAPOR INTRUSION (VI) Refer to Note 2 Below**

1. Indicate if any of the following conditions exist that trigger a Vapor Intrusion investigation. For each condition checked "Yes", provide the date the condition was first identified (e.g. date laboratory data package was available). (see NJDEP Vapor Intrusion Technical Guidance)

<u>Yes</u>	<u>No</u>	<u>Date Condition First Identified</u>
<input type="checkbox"/>	<input type="checkbox"/>	Ground water contamination in excess of the NJDEP Vapor Intrusion Ground Water Screening Levels (VIGWSL) and within 30 feet of a building for Petroleum Hydrocarbon Compounds (PHC) or 100 feet for non-PHC compounds .. _____
<input type="checkbox"/>	<input type="checkbox"/>	Free product within 30 feet of a building for PHC or 100 feet for non-PHC compounds ..... _____
<input type="checkbox"/>	<input type="checkbox"/>	Soil gas contamination detected at concentrations that exceed the Soil Gas Screening Levels (SGSL) ..... _____
<input type="checkbox"/>	<input type="checkbox"/>	Indoor air contamination that exceeds the Indoor Air Screening Levels..... _____
<input type="checkbox"/>	<input type="checkbox"/>	Wet basement or sump containing free product or ground water containing detectable concentration of volatile organic contaminants ..... _____
<input type="checkbox"/>	<input type="checkbox"/>	Methane generating conditions causing oxygen deficient or explosion concern ..... _____
<input type="checkbox"/>	<input type="checkbox"/>	Other human or safety concern from the VI pathway (i.e. elemental mercury, unsaturated soil contamination), <i>explain below:</i> ..... _____

**If you checked "No" to all boxes in Question 1., proceed to Section F, "Ecological Receptors", otherwise complete the rest of this section.**

2. Has ground water contamination been delineated to the applicable Vapor Intrusion Ground Water Screening Levels pursuant to N.J.A.C 7:26E-4.3? .....  Yes  No

3. Was a site-specific screening level, modeling or other alternative approach employed for the VI pathway? .....  Yes  No

4. Identify and locate, on a scaled map, any buildings/sensitive populations that exist within the following distances from ground water contaminant concentrations above the Vapor Intrusion Ground Water Screening Levels or other specific triggers noted in Question 1 above.:

<u>Yes</u>	<u>No</u>	
<input type="checkbox"/>	<input type="checkbox"/>	30 feet of petroleum free product or dissolved petroleum hydrocarbon contamination in ground water
<input type="checkbox"/>	<input type="checkbox"/>	100 feet of any non-petroleum free product (e.g. chlorinated hydrocarbons) or any non-petroleum dissolved volatile organic ground water contamination
<input type="checkbox"/>	<input type="checkbox"/>	Other specific triggers
<input type="checkbox"/>	<input type="checkbox"/>	No buildings exist within the specified distances or other specific triggers

5. Is the vapor intrusion pathway a concern at or adjacent to the site? (if "No," attach justification) .....  Yes  No

6. Has soil gas sampling of the building(s) been conducted? .....  Yes  No

If "Yes," has the laboratory data package been received? .....  Yes  No

If the data package was received, did constituents exceed the Soil Gas Screening Levels? .....  Yes  No

If "No," attach technical justification consistent with the NJDEP Vapor Intrusion Technical Guidance.

7. Has indoor air sampling been conducted at the identified building(s)? .....  Yes  No

If "Yes," has the laboratory data package been received? .....  Yes  No

If the data package has been received, did constituents exceed the Indoor Air Screening Levels? ..  Yes  No

If "No," or awaiting indoor air laboratory data package, proceed to Question 12.

8. Has indoor air contamination been identified but not suspected to be from a discharge?  
(if "Yes," attach justification) .....  Yes  No
9. Were indoor air results above the NJDEP's Rapid Action Levels? .....  Yes  No
- If "Yes":
- Provide the date laboratory data package was received: \_\_\_\_\_
  - Follow the IEC Guidance Document at <http://www.nj.gov/dep/srp/guidance/index.html#iec> for required actions and answer the following:
  - Was the IEC engineering system response for control implemented for all impacted structures? .....  Yes  No
- Date implemented: \_\_\_\_\_ NJDEP Case Manager: \_\_\_\_\_
10. Were the results of indoor air sampling above the NJDEP's Indoor Air Screening Levels but at, or below, the Rapid Action Levels .....  Yes  No
- If "Yes," answer the following:
- Provide the date laboratory data package was received: \_\_\_\_\_
  - Has the Vapor Concern (VC) Response Action Form notifying the NJDEP of the exceedances been submitted? .....  Yes  No
  - Date: \_\_\_\_\_
  - Has a plan to mitigate and monitor the exposure been submitted? .....  Yes  No
  - Date: \_\_\_\_\_
  - Has the Mitigation Response Action Report been submitted? .....  Yes  No
  - Date: \_\_\_\_\_
11. Do one or more buildings have an Indeterminate VI Pathway status? .....  Yes  No
- If "Yes," attach a list of the building(s) with address(s) and block/lot(s)
12. Has the vapor intrusion investigation been completed? .....  Yes  No
- If "No", is the vapor intrusion investigation stepping out as part of the site investigation or remedial investigation. (If "No," attach justification) .....  Yes  No

## SECTION F. ECOLOGICAL RECEPTORS

1. Has an Ecological Evaluation (EE) been conducted? [N.J.A.C. 7:26E-1.16] .....  Yes  No  
Date conducted: 03/29/2013
2. Are any site-related contaminants above any Ecological Screening Criteria? .....  Yes  No
3. Are there any Environmentally Sensitive Natural Resources (ESNRs) on or adjacent to the site, or potentially impacted by site related contamination? [N.J.A.C. 7:26E-1.16] .....  Yes  No
4. Do any potential or complete migration pathways exist between Contaminant of Potential Ecological Concern (COPECs) and ESNRs, or did historic migration pathways exist? .....  Yes  No

**If You answered "No" to Questions 2, 3, or 4, above Stop Here (form is complete).**

5. If site-related free or residual product is/was present, does/did a potential or complete migration pathway exist to an ESNR? .....  Yes  No
6. Do the results of an EE trigger a remedial investigation of ecological receptors? [N.J.A.C. 7:26E-4.8] .....  Yes  No
- If "Yes", has a remedial investigation of ecological receptors been conducted? .....  Yes  No
- Date conducted: \_\_\_\_\_



7. Do available data indicate an impact (COPECs above Ecological Screening Criteria in ESNRs) to Ecological Receptor(s), Surface water, or Sediment? .....  Yes  No

If "Yes,"

a) Check all ESNRs or media that apply:

Surface water     Sediment     Soil     Wetlands

b) If this information is not submitted with an ecological evaluation that includes contaminant summary information, attach a brief summary of all currently available data and a description of all actions to be taken to mitigate exposure.

8. Have COPECs been fully delineated to the Ecological Screening Criteria [N.J.A.C. 7:26E-4.8(a)] in:

a) Migration pathways .....  Yes  No

b) ESNR .....  Yes  No

9. Has an Ecological Risk Assessment been conducted? .....  Yes  No

10. Provide the following information for any on-site and/or off-site surface water body, which is potentially impacted by the site related discharges:

Surface Water Body Name	Stream Classification	Antidegradation Designation	Trout Production	Trout Maintenance
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

11. Has a Program Interest (PI) or Permit number been issued for any regulated areas by the Division of Land Use Regulation? (e.g. wetlands, transition areas, flood hazard areas, coastal areas, tidelands, etc.) .....  Yes  No

If "Yes,":

Identify the type(s) of regulated areas: \_\_\_\_\_

Provide the Land Use Regulation Program (LURP) PI or Permit number(s) for the site:

\_\_\_\_\_

12. Are there any **pending** applications for LURP jurisdiction letters or approvals under review by the NJDEP for the remediation? .....  Yes  No

13. Are there any **valid** LURP jurisdiction letters or approvals issued for the remediation? .....  Yes  No

Completed forms should be sent to the municipal clerk, designate health department, and:

Bureau of Case Assignment & Initial Notice  
 Site Remediation Program  
 NJ Department of Environmental Protection  
 401-05H  
 PO Box 420  
 Trenton, NJ 08625-0420

## **Attachment 1- Property Search**

**Attachment 1**  
**Properties Within 200 Feet of the Project Area**  
**Conrail Right-of-Way (AOC 1)**

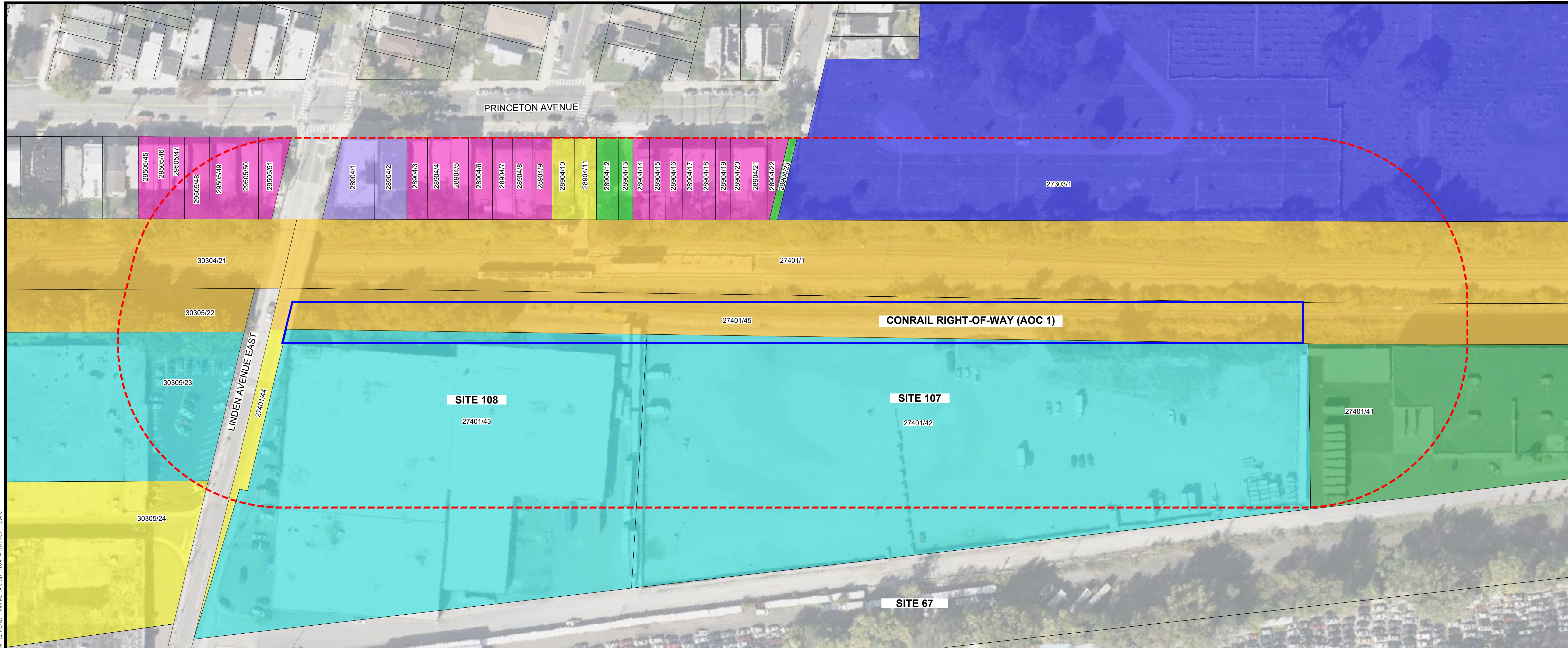


BLOCK	LOT	PROPERTY CLASS	PROPERTY LOCATION	PROPERTY CITY, STATE	OWNER	OWNER STREET ADDRESS	OWNER CITY, STATE	ZIP CODE
27303	1	15E - CEMETERY	326 GARFIELD AVE.	JERSEY CITY, NJ	BAY VIEW-NEW YORK BAY CEMETERY ASSO	321 GARFIELD AVE.	JERSEY CITY, NJ	07305
27401	1	5A - CLASS II RAILROAD	MORRIS CANAL	JERSEY CITY, NJ	CONSOLIDATED RAIL	P.O. BOX 8499	PHILADELPHIA, PA.	19101
27401	41	1 - VACANT LAND / 15F - OTHER EXEMPT	143 CHAPEL AVE	JERSEY CITY, NJ	HUDSON MAIN URBAN RENEWAL,LLC	105 SHEARWATER CT EAST	JERSEY CITY, NJ	07305
27401	42	4B - INDUSTRIAL	E.LINDEN AVE.	JERSEY CITY, NJ	ANCAM, LLC	143 CHAPEL AVE.	JERSEY CITY, NJ	07305
27401	43	4B - INDUSTRIAL	20 LINDEN AVE. EAST	JERSEY CITY, NJ	JERSEY CITY LOGISTICS, LLC.	199 LEE AVE., STE 722	BROOKLYN, NY	11211
27401	44	15C - EXEMPT PUBLIC	10 LINDEN AVE. EAST	JERSEY CITY, NJ	CITY OF JERSEY CITY	280 GROVE ST.	JERSEY CITY, NJ	07302
27401	45	5A - CLASS II RAILROAD	MORRIS CANAL	JERSEY CITY, NJ	CONSOLIDATED RAIL CORP.	P.O. BOX 8499	PHILADELPHIA, PA.	19101
28904	1	4C - APARTMENTS (SENSITIVE)	346 PRINCETON AVE.	JERSEY CITY, NJ	346 PRINCETON LLC% WHITESTONE MGMT	199 LEE AVE., SUITE 571	BROOKLYN, NY	11211
28904	2	4C - APARTMENTS (SENSITIVE)	350 PRINCETON AVE.	JERSEY CITY, NJ	350 PRINCETON AVE LLC	204 FULTON AVE STE 1R	JERSEY CITY, N.J.	07305
28904	3	2 - RESIDENTIAL (SENSITIVE)	352 PRINCETON AVE.	JERSEY CITY, NJ	WEBSTER, STEWART III & JENNA	352 PRINCETON AVE.	JERSEY CITY, NJ	07305
28904	4	2 - RESIDENTIAL (SENSITIVE)	354 PRINCETON AVE.	JERSEY CITY, NJ	FURDYNA, WANDA	255 BALDWIN AVENUE	JERSEY CITY, NJ	07306
28904	5	2 - RESIDENTIAL (SENSITIVE)	356 PRINCETON AVE.	JERSEY CITY, NJ	AWWAD, TAREK & KAMEL, MOHAMED	356 PRINCETON AVE.	JERSEY CITY, NJ	07305
28904	6	2 - RESIDENTIAL (SENSITIVE)	358 PRINCETON AVE	JERSEY CITY, NJ	NAIR, SUNIL	358 PRINCETON AVE.	JERSEY CITY, NJ	07305
28904	7	2 - RESIDENTIAL (SENSITIVE)	360 PRINCETON AVENUE	JERSEY CITY, NJ	BISUMBER, GEONAUTH & DEVIKA	360 PRINCETON AVE.	JERSEY CITY, N.J.	07305
28904	8	2 - RESIDENTIAL (SENSITIVE)	362 PRINCETON AVENUE	JERSEY CITY, NJ	DA CRUZ, JOHNA.	362 PRINCETON AVE	JERSEY CITY, N.J.	07305
28904	9	2 - RESIDENTIAL (SENSITIVE)	364 PRINCETON AVE.	JERSEY CITY, NJ	KURUVILLA, BOSE & BOSE, BIJI	364 PRINCETON AVE.	JERSEY CITY, NJ	07305
28904	10	15C - EXEMPT PUBLIC	366 PRINCETON AVE.	JERSEY CITY, NJ	NEW JERSEY TRANSIT	ONE PENN PLAZA EAST	NEWARK, NJ	07105
28904	11	15C - EXEMPT PUBLIC	368 PRINCETON AVE.	JERSEY CITY, NJ	NEW JERSEY TRANSIT	ONE PENN PLAZA EAST	NEWARK, NJ	07105
28904	12	1 - VACANT LAND	370 PRINCETON AVE.	JERSEY CITY, NJ	PRINCETON 370, LLC	332 MONTGOMERY ST.	JERSEY CITY, NJ	07302
28904	13	1-VACANT LAND	372 PRINCETON AVE.	JERSEY CITY, NJ	PRINCETON 370, LLC	332 MONTGOMERY ST.	JERSEY CITY, NJ	07302
28904	14	2 - RESIDENTIAL (SENSITIVE)	374 PRINCETON AVE.	JERSEY CITY, NJ	374 PRINCETON AVE LLC	374 PRINCETON AVE.	JERSEY CITY, N.J.	07305
28904	15	2 - RESIDENTIAL (SENSITIVE)	376 PRINCETON AVE.	JERSEY CITY, NJ	JOHNSON, DAVID & HOPE M.	376 PRINCETON AVE.	JERSEY CITY, N.J.	07305
28904	16	2 - RESIDENTIAL (SENSITIVE)	378 PRINCETON AVE.	JERSEY CITY, NJ	ASPERAS, CARMENCITA	378 PRINCETON AVE	JERSEY CITY, N J	07305
28904	17	2 - RESIDENTIAL (SENSITIVE)	380 PRINCETON AVE.	JERSEY CITY, NJ	MISURACA, THOMAS F. JR	380 PRINCETON AVE.	JERSEY CITY, N.J.	07305
28904	18	2 - RESIDENTIAL (SENSITIVE)	382 PRINCETON AVE.	JERSEY CITY, NJ	RIZZIO, JEAN	382 PRINCETON AVE	JERSEY CITY, NJ	07305
28904	19	2 - RESIDENTIAL (SENSITIVE)	384 PRINCETON AVE.	JERSEY CITY, NJ	CRUZ, DAVID	384 PRINCETON AVE.	JERSEY CITY, N.J.	07305
28904	20	2 - RESIDENTIAL (SENSITIVE)	386 PRINCETON AVE.	JERSEY CITY, NJ	BUDHOO, DAVE	386 PRINCETON AVE.	JERSEY CITY, NJ	07305
28904	21	2 - RESIDENTIAL (SENSITIVE)	388 PRINCETON AVE.	JERSEY CITY, NJ	388 PRINCETON LLC.	316 COMMUNIPAW AVENUE	JERSEY CITY, N J	07304
28904	22	2 - RESIDENTIAL (SENSITIVE)	390 PRINCETON AVE.	JERSEY CITY, NJ	SPIRIDONAKOS, DIMTRI ANDREW	390 PRINCETON AVE.	JERSEY CITY, NJ	07305
28904	23	1 - VACANT LAND	392 PRINCETON AVE.	JERSEY CITY, NJ	WILEY, ROBERT	40 RIVER RUN	LAWNSIDE, NJ	08045
29505	45	2 - RESIDENTIAL (SENSITIVE)	330 PRINCETON AVE.	JERSEY CITY, NJ	CHEU, LINDA	330 PRINCETON AVE.	JERSEY CITY, N.J.	07305
29505	46	2 - RESIDENTIAL (SENSITIVE)	332 PRINCETON AVE.	JERSEY CITY, NJ	PANK, NICOLE E	332 PRINCETON AVE.	JERSEY CITY, NJ	07305
29505	47	2 - RESIDENTIAL (SENSITIVE)	334 PRINCETON AVE.	JERSEY CITY, NJ	KSIEZ, JUDITH BARBARA	334 PRINCETON AVE.	JERSEY CITY, N.J.	07305
29505	48	2 - RESIDENTIAL (SENSITIVE)	336 PRINCETON AVE.	JERSEY CITY, NJ	GUY, NATALIE	336 PRINCETON AVE	JERSEY CITY, N J	07305
29505	49	2 - RESIDENTIAL (SENSITIVE)	338 PRINCETON AVE.	JERSEY CITY, NJ	HARVEY, DENNARD & MANANCE, CHERMITE	338 PRINCETON AVE	JERSEY CITY, NJ	07304
29505	50	2 - RESIDENTIAL (SENSITIVE)	340 PRINCETON AVE.	JERSEY CITY, NJ	MENDEL,SANDER & FREUND,SARA	340 PRINCETON AVE	JERSEY CITY, N.J.	07305
29505	51	2 - RESIDENTIAL (SENSITIVE)	344 PRINCETON AVE.	JERSEY CITY, NJ	GIL-ARIAS, ELIEZER	344 PRINCETON AVE.	JERSEY CITY, NJ	07305
30304	21	5A - CLASS II RAILROAD	MORRIS CANAL	JERSEY CITY, NJ	CONSOLIDATED RAIL	P.O. BOX 8499	PHILADELPHIA, PA	19101
30305	22	5A - CLASS II RAILROAD	BROWN PL.TO LINDEN	JERSEY CITY, NJ	CONSOLIDATED RAIL	P.O. BOX 8499	PHILADELPHIA, PA.	19101
30305	23	4B - INDUSTRIAL	LINDEN AVE. EAST	JERSEY CITY, NJ	BCDPF 25 LINDEN INDUSTRIAL CEN, LLC	1200 17TH ST., 29TH FL.	DENVER, CO.	80202
30305	24	15C - EXEMPT PUBLIC	15 E. LINDEN AVE.	JERSEY CITY, NJ	CITY OF JERSEY CITY	280 GROVE STREET	JERSEY CITY, NJ	07302

**Notes:**

1. Parcel information is sourced from the MOD-IV Composite for Hudson County, New Jersey. Accessed December 2023.

NJ - New Jersey



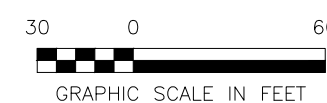
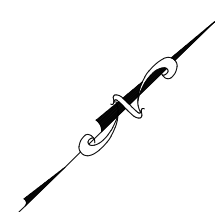
File: C:\Users\MichaelM\AECOM\PPG - 051 910 CA0100 SHEETS\BAP\Conrail Excavation BAP\Conrail BAP 2021 Property Mapping Layout Property Map Users: MichaelM Date: Jan 30, 2024 - 10:27am Xref:

**LEGEND**

- HUDSON COUNTY GIS PARCEL BOUNDARIES
- 30305/24 BLOCK/LOT DESIGNATION
- 200 FOOT BUFFER
- CONRAIL RIGHT-OF-WAY BOUNDARY (AOC 1)
- 1 - VACANT LAND
- 2 - RESIDENTIAL
- 4B - INDUSTRIAL
- 4C - APARTMENT
- 5A - RAILROAD
- 15C - EXEMPT PUBLIC
- 15E - CEMETARY
- 1 - VACANT LAND / 15F OTHER EXEMPT

**NOTES:**

1. PARCELS ARE SOURCED FROM THE MOD-IV COMPOSITE FOR HUDSON COUNTY, NEW JERSEY. ACCESSED DECEMBER 2023.
2. BLOCK/LOT INFORMATION WAS SOURCED FROM THE JERSEY CITY PARCEL DATA FROM THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK (NJGIN).
3. PROPERTY CLASSIFICATIONS, AS DEFINED BY N.J.A.C. SECTION 15:12-2.2, ARE SOURCED FROM THE HUDSON COUNTY TAX ASSESSMENT RECORDS.



PPG  
 CONRAIL RIGHT-OF-WAY (AOC 1)  
 JERSEY CITY, NEW JERSEY

**ATTACHMENT 1**  
**200-FOOT PROPERTY MAP**

DATE: 01/31/2023

DRWN: MDN

**FIGURE 1**





**New Jersey Department of Environmental Protection**  
**Site Remediation and Waste Management Program**

**PUBLIC NOTIFICATION AND OUTREACH**

Date Stamp  
 (For Department use only)

**SECTION A. SITE LOCATION**

Site Name: Conrail Right-of-Way (AOC 1)  
 Program Interest (PI) Number(s): G000008728  
 Case Tracking Number(s) for this submission: \_\_\_\_\_

**This form must be submitted with the Authorization to Submit a Report/Form Through NJDEP Online Form  
 Completed form should be uploaded to NJDEP Online.  
 There are required fields on this form, see instructions for details.**

**SECTION B. NOTIFICATION INFORMATION**

- Indicate the type of Public Notification:  
 Initial       Update
- Provide the date initial field activities associated with the remedial investigation will or have commenced pursuant to 7:26C-1.7 (h). Date: 02/10/2011
- Has it been determined that contamination migrated off site?.....  Yes     No  
 If "Yes", provide the date off site migration was determined pursuant to 7:26C-1.7 (l): ..... \_\_\_\_\_
- Public notification was provided via: *(Check all that apply)*  
 Sign .....  Yes     No  
 If "Yes", date posted: \_\_\_\_\_  
 Letter .....  Yes     No  
 If "Yes", date provided: 08/31/2009  
 Fact sheet.....  Yes     No  
 If "Yes", date provided: \_\_\_\_\_  
 Newspaper Display Advertisement.....  Yes     No  
 If "Yes", date published: \_\_\_\_\_
- Were materials produced in a language other than English? .....  Yes     No  
 If "Yes", in what other language was notification prepared? Spanish
- Were copies provided to municipal clerk, local/county health dept., and local health agency? .....  Yes     No
- Was public notification conducted using an alternate plan and is the rationale for this plan included? .....  Yes     No
- Was additional public outreach conducted due to the NJDEP's determination of substantial public interest? .....  Yes     No
- Add any comments:

**NOTE: Do not scan this form or alter it in any way, and do not incorporate it into any other document prior to upload. Complete the form on your computer and save it with a unique file name prior to upload.**

**Completed form should be uploaded to NJDEP Online**



PPG  
440 College Park Drive  
Monroeville, PA 15146

August 29, 2023

**Re: Hudson County Chrome Site 107, Fashionland  
18 Chapel Ave., Jersey City, N.J. 07305  
NJDEP ID No. G000008728  
Block 27401, Lot 42  
and  
Hudson County Chrome Site 108, Albanil Dyestuff  
20 E. Linden Ave., Jersey City, N.J. 07305  
NJDEP ID No. G000008729  
Block 27401, Lot 43  
and  
Conrail Property  
Block 27401, Lot 45**

To Whom It May Concern:

This letter is to inform you that PPG is the party responsible for the investigation and/or remediation of chromium at the addresses referenced above and to advise you of the status of the work at the sites.

This notification is being sent to you in compliance with New Jersey's requirements for public notification in connection with contaminated site cleanups. These rules require that property owners and tenants within 200 feet of the site boundary of a contaminated site be notified before investigation or remediation work begins and every two years until the cleanup is complete.

You are being notified by PPG because you are a property owner or tenant located within 200 feet of the boundary of one or more of the sites referenced above. No action is required on your part. For your reference, however, we are enclosing a brief description of the sites, summarizing conditions and activities to be taken.

If you have any questions about the sites mentioned in the attached, you can contact Jeff Worden, a PPG community relations consultant. His telephone number is: 412.253.0816. His email address is: [jeff@worden-pr.com](mailto:jeff@worden-pr.com).

Sincerely,  
PPG

(Over for Spanish)  
(Página de la vuelta para español)



PPG  
440 College Park Drive  
Monroeville, PA 15146

29 de agosto de 2023

**Asunto:** **Sitio contaminado con cromo No. 107, Fashionland**  
**18 Chapel Ave., Jersey City, N.J. 07305**  
**N.º de identificación del NJDEP G000008728**  
**Cuadra 27401, Lote 42**  
**Y**  
**Sitio contaminado con cromo No. 108, Albanil Dyestuff**  
**20 E. Linden Ave., Jersey City, N.J. 07305**  
**N.º de identificación del NJDEP G000008729**  
**Cuadra 27401, Lote 43**  
**Y**  
**Propiedad de Conrail**  
**Cuadra 27401, Lote 45**

A quien le pueda interesar:

Sirva esta carta para hacerle saber que PPG es la parte responsable de la investigación y/o del saneamiento de cromo en los domicilios anteriores y para avisarle de la situación del trabajo en cada sitio.

Se le envía esta notificación en cumplimiento con los requisitos de Nueva Jersey de notificación pública en relación con las tareas de limpieza de lugares contaminados. Estas normas exigen que los propietarios e inquilinos dentro de un radio de 200 pies (61 m) del perímetro del sitio contaminado sean notificados antes de iniciar la investigación o las tareas de saneamiento, y cada dos años hasta que la limpieza haya concluido.

Usted ha recibido una notificación de PPG debido a su condición de propietario o inquilino que se encuentra dentro de un perímetro de 200 pies respecto de los límites de uno o ambos lugares mencionados anteriormente. No es necesario que tome ninguna medida. Sin embargo, para su referencia, adjuntamos una breve descripción de los lugares y un resumen de las condiciones y actividades que se realizarán.

Si tiene alguna pregunta sobre los sitios mencionados en el adjunto, puede comunicarse con Jeff Worden, consultor de relaciones comunitarias de PPG. Su número de teléfono es: 412.253.0816. Su dirección de correo electrónico es: [jeff@worden-pr.com](mailto:jeff@worden-pr.com).

Atentamente,  
PPG

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(Página de la vuelta para inglés)



## Site Descriptions

**Hudson County Chrome Site 107**  
**Fashionland**  
**18 Chapel Ave.**  
**Jersey City, N.J. 07305**  
**NJDEP ID No. G000008728**  
**Block 27401, Lot 42**

**Hudson County Chromate Site 108**  
**Albanil Dyestuff**  
**20 E. Linden Ave.**  
**Jersey City, N.J. 07305**  
**NJDEP ID No. G000008729**  
**Block 27401, Lot 43**

**Conrail Property**  
**Block 27401, Lot 45**

Chromate chemical production waste, or CCPW, a byproduct from chromium manufacturing, was distributed as fill at Site 107 and the immediate vicinity. As a result, concentrations of hexavalent chromium – a component of CCPW – and related metals exceeded soil cleanup criteria. In addition, total chromium concentrations exceed groundwater quality standards.

PPG excavated chromium-impacted soil from Site 107, Site 108 and the adjacent Conrail right-of-way, between May 2018 and March 2021. The New Jersey Department of Environmental Protection issued consent judgment compliance letters for Site 107 soil in January of 2022, documenting no further remedial action is required.

To address remaining chromium-impacted soil at Site 108, PPG submitted in a draft remedial action work plan and remedial action report that called for institutional and engineering controls in May 2021. The remedial approach is under discussion with the property owner.

To address remaining chromium-impacted soil within the Conrail Right-of-Way, PPG initiated a supplemental remedial excavation in July 2023 that is expected to continue through October 2023 on the weekends.

PPG, meanwhile, submitted in October 2022 reports describing the nature and extent of groundwater contamination and a proposed remedy that calls for monitoring the natural processes for decreasing contaminant concentrations.

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August 2023





## Descripciones del lugar

**Sitio contaminado con cromo No. 107 del condado de Hudson**  
**Fashionland**  
**18 Chapel Ave.**  
**Jersey City, N.J. 07305**  
**No. de identificación del NJDEP G000008728**  
**Cuadra 27401, Lote 42**

**Sitio contaminado con cromo No. 108 del condado de Hudson**  
**Albanil Dyestuff**  
**20 E. Linden Ave.**  
**Jersey City, N.J. 07305**  
**No. de identificación del NJDEP G000008729**  
**Cuadra 27401, Lote 43**

**Propiedad de Conrail**  
**Cuadra 27401, Lote 45**

En el sitio n.º 107 se distribuyeron residuos químicos de cromato, o CCPW (por sus siglas en inglés), un subproducto de la fabricación de cromo, como material de relleno. Como resultado, las concentraciones de cromo hexavalente, un componente de los CCPW, y metales relacionados excedieron los criterios para limpieza del suelo. Además, las concentraciones de cromo totales exceden las normas de calidad para aguas subterráneas.

PPG excavó suelo impactado por cromo del Sitio 107, el Sitio 108 y el derecho de paso adyacente de Conrail, entre mayo de 2018 y marzo de 2021. El Departamento de Protección Ambiental de Nueva Jersey emitió cartas de cumplimiento de sentencia de consentimiento para el suelo del Sitio 107 en enero de 2022, documentar no se requiere ninguna acción correctiva adicional.

Para tratar el suelo afectado por restos de cromo en el Sitio No. 108, PPG presentó un borrador del plan de trabajo de las medidas correctivas y un informe de las medidas correctivas que solicitaba controles institucionales y de ingeniería en mayo de 2021. La propuesta de saneamiento está en discusión con el dueño de la propiedad.

Para tratar el suelo afectado por restos de cromo en el derecho de paso de Conrail, PPG inició una excavación complementaria de saneamiento en julio de 2023, que se prevé continuará hasta octubre de 2023 durante los fines de semana.


Mientras tanto, PPG presentó en octubre de 2022 informes que describen la naturaleza y el alcance de la contaminación de las aguas subterráneas y una propuesta de saneamiento que exige hacer un monitoreo de los procesos naturales para disminuir las concentraciones de contaminantes.

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(Página de la vuelta para inglés)

Agosto de 2023





Certificate of Mailing — Firm

Name and Address of Sender  <p style="font-size: 1.2em; margin: 0;">PPG Industries, Inc. P.O. Box 10443 Pittsburgh, Pa. 15234</p>	TOTAL NO. of Pieces Listed by Sender  <div style="font-size: 2em; text-align: center; margin: 10px 0;">6</div>	TOTAL NO. of Pieces Received at Post Office™  <div style="font-size: 2em; text-align: center; margin: 10px 0;">6</div>	Affix Stamp Here <i>Postmark with Date of Receipt</i>  <div style="text-align: center;">  </div>
Postmaster, per (name of receiving employee)  <div style="font-size: 1.5em; text-align: center; margin: 10px 0;">Weegy</div>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Bay View-New York Bay Cemetery Assoc. 321 Garfield Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 440 Garfield Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 326 Garfield Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Consolidated Rail P.O. Box 8499 Philadlephia, PA 19101	\$ .63	\$ .57		
5.	Current Occupant Morris Canal Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Current Occupant 111 Chapel Ave. Jersey City, NJ 07305	\$ .63	\$ .57		




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	Postmaster, per (name of receiving employee)  <p style="font-size: 2em; text-align: center;">W. King</p>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Simsmetal East, LLC 1 Linden Avenue East Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 119 Chapel Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 127 Chapel Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Hudson Main Urban Renewal, LLC 105 Shearwater Ct. East Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 143 Chapel Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
6.	City of Jersey City 280 Grove Street Jersey City, NJ 07302	\$ .63	\$ .57		




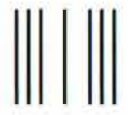
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	Postmaster, per (name of receiving employee)  <p style="font-size: 2em; text-align: center;">Weeg</p>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 10 Linden Avenue East Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 152 Chapel Ave. Jersev Citv NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 148 Chapel Ave. Jersey Citv, NJ 07305	\$ .63	\$ .57		
4.	Jersey City Redevelopment Agency 39 Kearney Ave. Jersev City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 138 Chapel Ave. Jersev Citv NJ 07305	\$ .63	\$ .57		
6.	Black Bear Hollow, LLC 534 Broadway Bavonne. N.J. 07002	\$ .63	\$ .57		



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	Postmaster, per (name of receiving employee)  Weis				

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 128 Chapel Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
2.	346 Princeton LLC 182 Fulton Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 346 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
4.	350 Princeton LLC 204 Fulton Ave., Suite 1R Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 350 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Webster, Stewart III & Jenna Or Current Occupant 352 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		






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	Postmaster, per (name of receiving employee)  Weiss			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Furdyna, Wanda 255 Baldwin Avenue Jersey City, NJ 07306	\$ .63	\$ .57		
2.	Current Occupant 354 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Awwad, Tarek & Kamel, Mohamed Or Current Occupant 356 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Nair, Sunil 546 Brook Avenue River Vale, NJ 07675	\$ .63	\$ .57		
5.	Current Occupant 358 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Bisumber, Geonauth & Devika Or Current Occupant 360 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		






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USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Da Cruz, Isabel Or Current Occupant 362 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Kuruvilla, Bose & Bose, Biji Or Current Occupant 364 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
3.	New Jersey Transit One Penn Plaza East Newark, NJ 07105	\$ .63	\$ .57		
4.	Current Occupant 366 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 368 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Princeton 370, LLC 332 Montgomery St. Jersey City, NJ 07302	\$ .63	\$ .57		



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Postmaster, per (name of receiving employee)  <div style="text-align: center; font-size: 1.5em;">  </div>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 370 Princeton Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Princeton 370, LLC 332 Montgomery St. Jersey City, NJ 07302	\$ .63	\$ .57		
3.	Current Occupant 372 Princeton Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
4.	374 Princeton Ave. LLC Or Current Occupant 374 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Johnson, David & Hope M. Or Current Occupant 376 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Asperas, Carmencita Or Current Occupant 378 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		







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Postmaster, per (name of receiving employee)  				

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Misuraca, Thomas F. Jr Or Current Occupant 380 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Rizzio, Jean Or Current Occupant 382 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Cruz, David Or Current Occupant 384 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Budhoo, Dave and Shakuntala Or Current Occupant 386 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
5.	388 Princeton LLC 316 Communipaw Avenue Jersey City, NJ 07304	\$ .63	\$ .57		
6.	Current Occupant 388 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		



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Postmaster, per (name of receiving employee)  <p style="font-size: 2em; font-family: cursive;">R Al</p>		US POSTAGE \$03.42 <sup>0</sup>  AUG 31 2023 ZIP 10199 0801 1053069	

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Spiridonakos, Dimtri Andrew Or Current Occupant 290 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 390 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Wiley, Robert 40 River Run Lawnside, NJ 08045	\$ .63	\$ .57		
4.	Current Occupant 392 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Dunn, Theodore & Karen Ksiez Or Current Occupant 328 Princeton Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Cheu, Linda Or Current Occupant 330 Princeton Ave. Jersey City, NJ 07305	\$ .63	\$ .57		



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	Postmaster, per (name of receiving employee)  Wells			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Pank, Nicole E. Or Current Occupant 332 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Ksiez, Judith Barbara Or Current Occupant 334 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Guy, Natalie Or Current Occupant 336 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Harvey, Dennard & Manance, Chermite Or Current Occupant 338 Princeton Ave. Jersey City, NJ 07304	\$ .63	\$ .57		
5.	Mendel, Sander & Freund, Sara Or Current Occupant 340 Princeton Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Gil-Arias, Eliezer Or Current Occupant 344 Princeton Avenue Jersev City, NJ 07305	\$ .63	\$ .57		



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	Postmaster, per (name of receiving employee)  Weiss			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant Central R.R. Jersey City, NJ 07305	\$.63	\$.57		
2.	Current Occupant Brown Pl. to Linden Jersey City, NJ 07305	\$.63	\$.57		
3.	BCDPF 25 Linden Industrial Cen, LLC 518 17th St., 17th Floor Denver, Col. 80202	\$.63	\$.57		
4.	Current Occupant Linden Avenue East Jersey City, NJ 07305	\$.63	\$.57		
5.	Current Occupant 15 E. Linden Avenue Jersey City, NJ 07302	\$.63	\$.57		
6.	Current Occupant 35 Linden Avenue East Jersey City, NJ 07305	\$.63	\$.57		





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USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 9 East Linden Avenue Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 101 Linden Ave. East Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 344 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Current Occupant 338 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 336 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Current Occupant 332 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		



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	Postmaster, per (name of receiving employee)  Weeg		US POSTAGE \$03.42 <sup>0</sup> AUG 31 2023 ZIP 10199 0801 1053069



USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 346 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 346 Princeton Avenue, No. 3 Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 346 Princeton Avenue, No. 4 Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Current Occupant 346 Princeton Avenue, No. 5 Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 346 Princeton Avenue, No. 6 Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Current Occupant 346 Princeton Avenue, No. 7 Jersey City, NJ 07305	\$ .63	\$ .57		




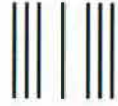

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Postmaster, per (name of receiving employee)  <p style="font-size: 1.5em; text-align: center;">Wacey</p>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 346 Princeton Avenue, No. 8 Jersey City, NJ 07 305	\$ .63	\$ .57		
2.	Current Occupant 346 Princeton Avenue, No. 9 Jersey City, NJ 07 305	\$ .63	\$ .57		
3.	Current Occupant 346 Princeton Avenue, No. 10 Jersey City, NJ 07 305	\$ .63	\$ .57		
4.	Current Occupant 350 Princeton Avenue, No. 2 Jersey City, NJ 07 305	\$ .63	\$ .57		
5.	Current Occupant 350 Princeton Avenue, No. 3 Jersey City, NJ 07 305	\$ .63	\$ .57		
6.	Current Occupant 350 Princeton Avenue, No. 4 Jersey City, NJ 07 305	\$ .63	\$ .57		



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Postmaster, per (name of receiving employee)  <p style="font-size: 1.5em; text-align: center; color: blue;">Weas</p>			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 350 Princeton Avenue, No. 5 Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 350 Princeton Avenue, No. 6 Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 354 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
4.	Current Occupant 358 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
5.	Current Occupant 360 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Current Occupant 362 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		





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USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Current Occupant 364 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
2.	Current Occupant 364 Princeton Avenue, No. 3 Jersey City, NJ 07305	\$ .63	\$ .57		
3.	Current Occupant 374 Princeton Avenue, No. 2 Jersey City, NJ 07305	\$ .63	\$ .57		
4.	La Base Deli Or Current Occupant 9 Linden Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
5.	GXR Used Parts Or Current Occupant 10 Linden Ave. Jersey City, NJ 07305	\$ .63	\$ .57		
6.	Cenveo Or Current Occupant 25 Linden Ave. East Jersey City, NJ 07305	\$ .63	\$ .57		



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	Postmaster, per (name of receiving employee)  Weaver			

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Liberty Self Storage Or Current Occupant 15 Linden Ave. East Jersey City, NJ 07305	\$ .63	\$ .57		
2.	ANCAM LLC Or Current Occupant 143 CHAPEL AVE. Jersey City, N.J. 07305	\$ .63	\$ .57		
3.	JERSEY CITY LOGISTICS LLC 199 LEE AVE., STE 722 BROOKLYN, NY 11211	\$ .63	\$ .57		
4.	<del>_____</del>				
5.	<del>_____</del>				
6.	<del>_____</del>				



**New Jersey Department of Environmental Protection**  
 Site Remediation and Waste Management Program

**FULL LABORATORY DATA DELIVERABLES FORM**

LSRP       Subsurface Evaluator

Date Stamp  
 (For Department use only)

**SECTION A. SITE NAME AND LOCATION**

Site Name: Conrail Right-of-Way (AOC 1)

List all AKAs: \_\_\_\_\_

Street Address: Conrail Right-of-Way

Municipality: Jersey City (Township, Boro or City)

County: Hudson Zip Code: 07305

Program Interest (PI) Number(s): G000008728 Case Tracking Number(s): \_\_\_\_\_

**SECTION B. NJDEP CASE MANAGER**

Do you have an assigned Case Manager?.....  Yes     No

If "Yes," please list the Case Manager: Ian Curtis

**SECTION C. REMEDIAL PHASE**

- |                                                            |                                                                           |
|------------------------------------------------------------|---------------------------------------------------------------------------|
| <input type="checkbox"/> Immediate Environmental Concern   | <input type="checkbox"/> Preliminary Assessment Report                    |
| <input type="checkbox"/> Site Investigation Report         | <input type="checkbox"/> Remedial Investigation/Remedial Action Work Plan |
| <input checked="" type="checkbox"/> Remedial Action Report | <input type="checkbox"/> Response Action Outcome                          |
| <input type="checkbox"/> Remedial Action Permit            |                                                                           |

**SECTION D. Matrix Type/Analysis and Number of Samples**

- |                                                                                                |                          |                                  |
|------------------------------------------------------------------------------------------------|--------------------------|----------------------------------|
| <input type="checkbox"/> Potable Well Water .....                                              | # of samples: _____      | Sampling Date: _____             |
| Analytical Method(s) _____                                                                     |                          |                                  |
| <input type="checkbox"/> VI (i.e., indoor air, soil gas, and ambient air samples) .....        | # of samples: _____      | Sampling Date: _____             |
| Analytical Method _____                                                                        |                          |                                  |
| <input type="checkbox"/> Polychlorinated dibenzo-p-dioxins/polychlorinated dibenzofurans ..... | # of samples: _____      | Sampling Date: _____             |
| Analytical Method _____                                                                        |                          |                                  |
| <input checked="" type="checkbox"/> Hexavalent chromium soil sample .....                      | # of samples: <u>176</u> | Sampling Date: <u>02/10/2011</u> |
| Analytical Method <u>EPA 7196, 7199 02/10/2011-09/25/2022</u>                                  |                          |                                  |
| <input checked="" type="checkbox"/> Other <u>CCPW Metals soil samples</u> .....                | # of samples: <u>147</u> | Sampling Date: <u>02/10/2011</u> |
| Analytical Method <u>EPA 6010C/6010B 02/10/2011-09/05/2019</u>                                 |                          |                                  |
| <input type="checkbox"/> Other _____                                                           | # of samples: _____      | Sampling Date: _____             |
| Analytical Method _____                                                                        |                          |                                  |
| <input type="checkbox"/> Other _____                                                           | # of samples: _____      | Sampling Date: _____             |
| Analytical Method _____                                                                        |                          |                                  |

**SECTION E. GENERAL**

- Was a full laboratory data deliverables package provided? .....  Yes     No
- Was a certified laboratory(s) used for the analyses? .....  Yes     No  
 Provide name of laboratory(s): TestAmerica (NJ), SGS (NJ), Integrated Analytical Laboratories (NJ)
- Were data summaries provided for all samples? .....  Yes     No
- Were electronic deliverables submitted? .....  Yes     No
- For air sample data, were the TO-15 Conversion Tables (hit-lists) provided on disc in the appropriate Excel format pursuant to the VIG? .....  Yes     No

**Section F. Data Quality Assurance/Quality Control**

1. Were the appropriate sample preservation requirements met? .....  Yes  No
2. Were appropriate sample holding times (for both extraction/sample preparation and analysis) met? .....  Yes  No  
If "No," provide a brief explanation.

3. Were the samples diluted? .....  Yes  No  
Indicate the identity of the samples and why.

Metals: Most samples in this data set were analyzed at 2X, 3X, or 4X dilutions for CCPW Metals analysis. Note: Dilution factors for some data not available (provided by another consultant).  
Hexavalent Chromium: No dilutions were required or dilutions were not available (provided by another consultant).

4. If applicable, did sample dilutions result in elevated reporting limits that exceed applicable standards? ..  Yes  No  
If "Yes," list the affected samples.

5. Were any applicable standards exceeded for any samples? .....  Yes  No  
If "Yes," include the number of samples and laboratory sample identification numbers.

The antimony result in sample 108\_M008 exceeded applicable standards.  
For sample SW-A34(2.0-2.5), compliance with the vanadium alternate remediation standard (ARS) is demonstrated through spatial averaging. The spatially weighted average vanadium concentration is 247 mg/kg, which is compliant with the ARS. Calculations are included in Appendix I.  
Applicable standards were not exceeded for any hexavalent chromium results.

6. Were the laboratory reporting limits below the applicable remediation standards/criteria required for the site? .....  Yes  No  
If "No," provide a brief explanation of action taken.

7. Were qualifications noted in the non-conformance summary? .....  Yes  No  
Provide a brief explanation.

Nonconformances were noted in the laboratory report case narrative as well as the data validation memos. See Appendices G-1 and H, respectively.

8. Were qualified data used? .....  Yes  No

9. Were rejections noted in the non-conformance summary? .....  Yes  No  
Provide a brief explanation.

10. Were rejected data used?.....  Yes  No

If "Yes," please indicate reasons rejected data were used:

- For Hex Chrome, data were rejected because spike recovery was less than 50%.
- Data were rejected due to missing deliverables.
- Data were rejected but an applicable standard exceedance exists.
- Data were rejected in an early phase of a remediation; however, additional sampling and analysis are scheduled to be performed.
- Other reasons not noted directly above. Explain:

11. Were the quality control criteria associated with the compounds of concern at the site met?.....  Yes  No

12. Were the QC Summary Forms reviewed?.....  Yes  No

13. Surrogate recoveries acceptable.....  Yes  No

14. Internal Standards acceptable.....  Yes  No

15. MS/MSDs acceptable.....  Yes  No

16. Tune summaries acceptable.....  Yes  No

17. Calibration summaries acceptable.....  Yes  No

18. Serial dilutions acceptable.....  Yes  No

19. Inorganic duplicates acceptable.....  Yes  No

20. LCS recovery acceptable.....  Yes  No

21. Other QC acceptable?.....  Yes  No

Provide a brief explanation if applicable:

Item 11: QC criteria that were not met are described in the items below.

Items 13, 14, and 16 are not applicable to the methods addressed in this form.

Item 15: Results for hexavalent chromium qualified due to low matrix spike recoveries and MS/MSD precision. Results for antimony and chromium were qualified due to low matrix spike recoveries.

Item 18: Results for chromium qualified due to serial dilution precision.

Item 19: Results for hexavalent chromium and total chromium qualified due to lab duplicate precision. Results for hexavalent chromium qualified due to field duplicate precision.

Item 21: Results for hexavalent chromium qualified due to field blank contamination and results for total chromium qualified due to lab blank contamination.

### SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: PPG Industries, Inc.

Representative First Name: Brianne Representative Last Name: Hastings

Title: Environmental Remediation Project Manager - Environment, Health and Safety

Phone Number: (412) 613-2743 Ext: \_\_\_\_\_ Fax: \_\_\_\_\_

Mailing Address: 440 College Park Drive

City/Town: Monroeville State: Pennsylvania Zip Code: 15146

Email Address: bhastings@ppg.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature:  Date: 10/15/2024

Name/Title: Brianne J. Hastings - Environmental Remediation Project Manager

**SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**

LSRP ID Number: \_\_\_\_\_  
First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_  
Phone Numbers: \_\_\_\_\_ Ext.: \_\_\_\_\_ Fax: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Municipality: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Email Address: \_\_\_\_\_

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-14, and N.J.S.A. 58:10B-1.3b(1) and (2).

- (1) *I certify, as a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C-1 et seq. to conduct business in New Jersey, that for the remediation described in this submission, and all attachments included in this submission, I personally: Managed, supervised, or performed the remediation conducted at this site that is described in this submission, and all attachments included in this submission; and/or periodically reviewed and evaluated the work performed by other persons that forms the basis for the information in this submission; and/or completed the work of another site remediation professional, licensed or not, after having: (1) reviewed all available documentation on which I relied; (2) conducted a site visit and observed the then-current conditions and verified the status of as much of the work as was reasonably observable; and (3) concluded, in the exercise of my independent professional judgment, that there was sufficient information upon which to complete any additional phase of remediation and prepare workplans and reports related thereto.*
- (2) *I certify:*
- *That I have read this submission and all attachments to this submission;*
  - *That in performing the professional services as the licensed site remediation professional for the entire site or each area of concern, I adhered to the professional conduct standards and requirements governing licensed site remediation professionals provided in N.J.S.A. 58:10C-16;*
  - *That the remediation conducted at the entire site or each area of concern, that is described in this submission and all attachments to this submission, was conducted pursuant to and in compliance with the remediation requirements in N.J.S.A. 58:10C-14.c;*
  - *That the remediation described in this submission, and all attachments to this submission, was conducted pursuant to and in compliance with the regulations of the Site Remediation Professional Licensing Board at N.J.A.C. 7:26I; and*
  - *That the information contained in this submission and all attachments to this submission is true, accurate, and complete.*
- (3) *I certify, when this submission includes a response action outcome, that the entire site or each area of concern has been remediated in compliance with all applicable statutes, rules, and regulations and is protective of public health and safety and the environment.*
- (4) *I certify that no other person is authorized or able to use any password, encryption method, or electronic signature that the Board or the Department have provided to me.*
- (5) *I certify that I understand and acknowledge that:*
- *If I knowingly make a false statement, representation, or certification in any document or information I submit to the Department I may be subject to civil and administrative enforcement pursuant to N.J.S.A. 58:10C-17.a.1(a)through (f) by the Board, including but not limited to license suspension, revocation, or denial of renewal; and*
  - *If I purposely, knowingly, or recklessly make a false statement, representation, or certification in any application, form, record, document or other information submitted to the Department or required to be maintained pursuant to the Site Remediation Reform Act, I shall be guilty, upon conviction, of a crime of the third degree and shall, notwithstanding the provisions of subsection b. of N.J.S.2C:43-3, be subject to a fine of not less than \$5,000 nor more than \$75,000 per day of violation, or by imprisonment, or both.*
- (6) *I certify that I have read this certification prior to signing, certifying, and making this submission.*

LSRP Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
LSRP Name: \_\_\_\_\_  
Company Name: \_\_\_\_\_



**SECTION I. SUBSURFACE EVALUATOR UST REPORT CERTIFICATION FORM**

**Certification by the Subsurface Evaluator:**

*I certify under penalty of law that the work was performed under my oversight and I have reviewed the report and all attached documents, and the submitted information is true, accurate and complete in accordance with the requirements of N.J.A.C. 7:14B and N.J.A.C. 7:26E. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information including fines and/or imprisonment.*

Name: \_\_\_\_\_ UST Cert. No.: \_\_\_\_\_  
Firm: \_\_\_\_\_ Firm's UST Cert. Number: \_\_\_\_\_  
Firm Address: \_\_\_\_\_  
City/Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Ext: \_\_\_\_\_ Fax: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
Site Remediation Program  
NJ Department of Environmental Protection  
401-05H  
PO Box 420  
Trenton, NJ 08625-0420

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## List of Acronyms and Abbreviations

ACO	Administrative Consent Order
AMP	Air Monitoring Plan
AOC	Area of Concern
ARS	Alternative Remediation Standard
ASTM	American Society for Testing and Materials
AWT	AWT Environmental Services, Inc.
bgs	below ground surface
BOL	bill of lading
Borbas	Borbas Surveying & Mapping, Inc.
CCPW	Chromate Chemical Production Waste
CE	Clean Earth
CFR	Code of Federal Regulations
CID	Case Inventory Document
COPR	Chromite Ore Processing Residue
Cr <sup>+6</sup>	hexavalent chromium
CrSCC	Chromium Soil Cleanup Criterion/Criteria
DGA	dense-graded aggregate
DGW	discharge to groundwater
DIGWSSL	Default Impact to Groundwater Soil Screening Level
EDD	electronic data deliverable
EI.	elevation
ENTACT	ENTACT Environmental Services of Latrobe, Pennsylvania
EQ	Environmental Quality Company Detroit Inc., of Detroit, Michigan
FCI	Freehold Cartage, Inc.
FSP-QAPP	Field Sampling Plan – Quality Assurance Project Plan
FSPM	Field Sampling Procedures Manual
ft	foot or feet
GPR	ground-penetrating radar
GPS	global positioning system
GW	groundwater
HCC	Hudson County Chromate
HEPSCD	Hudson, Essex, Passaic Soil Conservation District
SSIGWSRS	Site-specific Impact to Groundwater Soil Remediation Standard
JCO	Judicial Consent Order
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
Maser	Maser Consulting P.A. of Montvale, New Jersey
mg/kg	milligram(s) per kilogram
MRCE	Mueser Rutledge Consulting Engineers
MS	matrix spike
MSD	matrix spike duplicate
msl	mean sea level
NAVD88	North American Vertical Datum of 1988



NJ	New Jersey
N.J.A.C.	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NJGIN	New Jersey Geographic Information Network
N.J.S.A.	New Jersey Statutes Annotated
NRDCSRS	Non-residential Direct Contact Soil Remediation Standard(s)
PCBs	polychlorinated biphenyls
PDI	pre-design investigation
PEL	Permissible Exposure Limit
PI	Program Interest
PM10	Particulate matter, 10 micrometers or less in diameter
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RA	remedial action
RAR	Remedial Action Report
RAWP	Remedial Action Work Plan
RDCSRS	Residential Direct Contact Soil Remediation Standard(s)
RE	receptor evaluation
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RPD	relative percent difference
SESC	Soil Erosion and Sediment Control
SESCP	Soil Erosion and Sediment Control Plan
SGS	SGS EGS Laboratory, of Dayton, New Jersey
SOP	Standard Operating Procedure
SRP	Site Remediation Program
SRS	Soil Remediation Standard(s)
TEP	Technical Execution Plan
TPI	TPI Environmental of Easton, Pennsylvania
TRSR	Technical Requirements for Site Remediation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
V	vanadium
Weldon	Weldon Materials, Inc.
Weston	Weston Solutions, Inc.
WTS	WTS Transportation Services, LLC.

## Regulatory Cross Reference Table

**Regulatory Cross Reference Table  
Remedial Action Report  
Conrail Right-of-Way (AOC 1)  
PPG, Jersey City, New Jersey**

**N.J.A.C. 7:26E (last amended August 6, 2018) and 7:26C (last amended August 6, 2018) regulations are the primary source of Remedial Action Report (RAR) requirements. This document is not to be used as a replacement for the Technical Regulations.**

Regulation	Description	Document Location	
		Report	Location
<b>N.J.A.C. 7:26E-5.7</b>	<b>Remedial Action Report Requirements</b>		
5.7(a)	The person responsible for conducting the remediation shall implement the remedial action and submit to the Department a remedial action report, along with a form found on the Department's website at <a href="http://www.nj.gov/dep/srp/srra/forms">www.nj.gov/dep/srp/srra/forms</a> , pursuant to (b) below, and according to the applicable regulatory timeframe in N.J.A.C. 7:26E-5.8.	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Throughout
5.7(b)	The person responsible for conducting the remediation shall present and discuss in the remedial action report all of the information identified or collected pursuant to N.J.A.C. 7:26E-5.1 through 5.6, along with all of the following:	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Throughout
5.7(b) 1	The general reporting requirements in N.J.A.C. 7:26E-1.6;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	See below
1.6(a) 1	Submit all documents, forms, spreadsheets and worksheets required in this chapter;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	The Cover/Certification Form is included with the Regulatory Forms.  The paper Remedial Action Report form is no longer accepted and is intended for work conducted under the Licensed Site Remediation Professional Program. As this work is being conducted under direct oversight and not being submitted online, no Remedial Action Report form is included.
1.6(a) 2	Certify and have the licensed site remediation professional certify, pursuant to N.J.A.C. 7:26C-1.5, all forms and documents prepared to pursuant to this chapter;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	The Cover/Certification Form is included with the Regulatory Forms. The work is being conducted under direct oversight so it does not require certification by a Licensed Site Remediation Professional.
1.6(a) 3	Submit a completed case inventory document (CID) worksheet available on the Department's website at <a href="http://www.nj.gov/dep/srp/srra/forms">www.nj.gov/dep/srp/srra/forms</a> at the front of each remedial phase workplan and report required by this chapter, except for a preliminary assessment report where no areas of concern were identified;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Regulatory Forms
1.6(a) 4	Submit a quality assurance project plan (QAPP) prepared pursuant to N.J.A.C. 7:26E-2.2 with each remedial phase workplan and report required by this chapter, except for a preliminary assessment report and remedial action report;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Not Applicable for this Remedial Action Report
1.6(a) 5	Except where a final remediation document for unrestricted use is filed with the Department within one year after the earliest applicable trigger to remediate listed in N.J.A.C. 7:26C-2.2, submit all sampling data electronically in a summary table using the format outlined in the Site Remediation Program's "Electronic Data Interchange Manual," available at <a href="http://www.nj.gov/dep/srp/hazsite/docs/">www.nj.gov/dep/srp/hazsite/docs/</a> , in effect as of the date the document is submitted and include items described in subsections 1.6(a) 5.i-iii of Tech Reg.	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Electronic data deliverable to be provided to NJDEP upon submission of the Final Remedial Action Report
1.6(a) 6	Submit a geographic information system (GIS) compatible site plan that includes the site boundaries and the location of all areas of concern as polygons.	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Figure 1-2 - Site Map - Conrail Right-of-Way (AOC 1)
1.6(b) 1	The physical setting of the site that includes a general description of soils, geology, hydrology, hydrogeology, and topography of the site and surroundings;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 2.2 - Physical Setting of AOC 1

**Regulatory Cross Reference Table  
Remedial Action Report  
Conrail Right-of-Way (AOC 1)  
PPG, Jersey City, New Jersey**

**N.J.A.C. 7:26E (last amended August 6, 2018) and 7:26C (last amended August 6, 2018) regulations are the primary source of Remedial Action Report (RAR) requirements. This document is not to be used as a replacement for the Technical Regulations.**

Regulation	Description	Document Location	
		Report	Location
<b>N.J.A.C. 7:26E-5.7</b>	<b>Remedial Action Report Requirements</b>		
1.6(b) 2	A description of any significant events or seasonal variations that may have influenced sampling procedures or analytical results;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	No significant events or seasonal variations influenced sampling procedures or analytical results. Soil sampling results are discussed in: Section 2.1 - Summary of Soil Remedial Investigation Findings Section 5.0 - Description of the Remedial Action
1.6(b) 3	A description of the results and implications of field measurements or area-specific changes in sampling protocol due to field conditions;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Not Applicable for this Site
1.6(b) 4	A list of: i. All variances from the requirements of this chapter submitted pursuant to N.J.A.C. 7:26E-1.7; and ii. All rationales submitted for deviations from any technical guidance pursuant to N.J.A.C. 7:26C-1.2(a)3;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Not Applicable for this Site
1.6(b) 5	The applicable regulatory timeframe, including: i. Regulatory citation of the regulatory timeframe; and ii. Calendar date of the regulatory timeframe;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Master Schedule, referenced in Section 1.0
1.6(b) 6	A summary table(s), organized by area of concern, of all sampling results, including sample location, medium, sample depth, field and laboratory identification numbers, analytical results, and comparison to remediation standards, and the following: i. Identification of each contaminant concentration exceeding a remediation standard; ii. Identification of each sample with a method detection limit or a practical quantitation level that exceeds a remediation standard, along with an explanation in the table key; and iii. A report of all soils and solids sample results in milligrams per kilogram on a dry weight basis, aqueous sample results in micrograms per liter, and air results in micrograms per cubic meter;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Tables 5-1, 5-2, and 5-3 - Analytical Results for In-Place Soil
1.6(b) 7	For soil borings, test pits and monitoring wells: i. Stratigraphic logs, which include soil/rock physical descriptions and field instrument readings detected during drilling for each soil boring, test pit and monitoring well; ii. State permit numbers and as-built specifications, if applicable; and iii. Monitoring well certification forms A (the well construction as built certification) and B (the well location certification) available on the Department's website at <a href="http://www.nj.gov/dep/srp/regs/guidance.htm">www.nj.gov/dep/srp/regs/guidance.htm</a> ;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	i. Appendix A - Boring Logs ii. Not Applicable iii. Appendix D - Permits & Approvals (Form B only)
1.6(b) 8	Maps and figures, with map scale and orientation, including: i. Site location, land use, receptor evaluation, and area of concern maps; ii. Sample location map(s), that include the following: (1) Field identification numbers for all samples; (2) Sample locations, sample depths and contaminant concentrations plotted on the map; and (3) If data for more than 25 samples are presented for an area of concern, soil, ground water and sediment contaminant isopleth maps and cross section diagram(s), including the horizontal and vertical distribution of contaminants in each media, with sample point location numbers and contaminant concentrations; and iii. Ground water elevation contour maps showing the location of all monitoring wells, piezometers, or other ground water sampling points, for each set of static ground water level measurements for each aquifer;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	i. Site Location - Figure 1-1 - USGS AOC 1 Map Area of Concern - Figure 1-2 - Site Map - Conrail Right-of-Way (AOC 1) Land Use – Regulatory Forms – Receptor Evaluation ii. Sample Location Maps: Figures 5-1A through 5-3B - Soil Sample Locations and Results Figure 5-4 - Conrail Right-of-Way (AOC 1) - Cross-Section Figure 5-5A through 5-5R - Excavation Cross-Sections iii. Groundwater maps - Not Applicable
1.6(b) 9	A discussion of the usability of laboratory analytical data;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 6.0 - Reliability of Data: Data Validation and Usability

**Regulatory Cross Reference Table  
Remedial Action Report  
Conrail Right-of-Way (AOC 1)  
PPG, Jersey City, New Jersey**

**N.J.A.C. 7:26E (last amended August 6, 2018) and 7:26C (last amended August 6, 2018) regulations are the primary source of Remedial Action Report (RAR) requirements. This document is not to be used as a replacement for the Technical Regulations.**

Regulation	Description	Document Location	
		Report	Location
<b>N.J.A.C. 7:26E-5.7</b>	<b>Remedial Action Report Requirements</b>		
1.6(b) 10	A description of the significance of information generated in the library search of tentatively identified compounds and unknown compounds.	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Not Applicable for this Site
5.7(b) 2	A presentation and discussion of all of the information identified or collected, pursuant to N.J.A.C. 7:26E-1.10 through 1.16 and an updated receptor evaluation on a form found on the Department's website at <a href="http://www.nj.gov/dep/srp/srra/forms">www.nj.gov/dep/srp/srra/forms</a> ;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Regulatory Forms - Receptor Evaluation and Section 8.0 - Receptor Evaluation Update
5.7(b) 3	A summary of the findings and recommendations for each area of concern from the remedial investigation report prepared pursuant to N.J.A.C. 7:26E-4.9;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 2.1 - Summary of Soil Remedial Investigation Findings Section 2.4 - Recommended Remedial Action
5.7(b) 4	A description, by area of concern, of each remedial action implemented;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 5.0 - Description of Remedial Action
5.7(b) 5	A list, by remedial action, of the remediation standards that apply to each remedial action;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 3.0 - Identification of Applicable Remedial Standards/Criteria and Table 3-1 - Soil Remediation Standards/Criteria
5.7(b) 6	Documentation, by area of concern, that each remedial action is effective in protecting the public health and safety and the environment by: i. Providing an overview of the data to establish the remedial action is operating as designed; or ii. Demonstrating compliance with the applicable remediation standards;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.0 - Documentation of the Protectiveness of the Remedial Action
5.7(b) 7	A remedial action permit application prepared pursuant to N.J.A.C. 7:26C-7, if applicable;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Not Applicable for this Site
5.7(b) 8	"As-built" diagrams for any permanent structures associated with the remedial action including, without limitation, caps or other structures associated with the remedial action and engineering controls, if applicable;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.1 - As-Built Diagrams Appendix E - As-Built Diagrams
5.7(b) 9	A detailed description of site restoration activities, if applicable;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.2 - Description of Site Restoration Activities
5.7(b) 10	The total remediation costs through the implementation of the remedial action;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.3 - Total Remedial Action Cost
5.7(b) 11	Documentation of all types and quantities of waste generated by the remedial action, including copies of fully executed manifests or bill(s) of lading documenting any off-site transport of waste;	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.4 - Documentation of Waste Generation and Disposal
5.7(b) 12	Documentation of the source, type, quantities, and location of each alternative fill and clean fill used as part of the remedial action at the site; and	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.5 - Documentation of Source, Type, Quantities, and Location of Fill
5.7(b) 13	A description of each permit required and obtained to implement the remedial action.	Remedial Action Report, Conrail Right-of-Way (AOC 1), Soil, Final, Revision 1	Section 7.6 - Identification of Required Permits and Authorizations

## Executive Summary

This Remedial Action Report (RAR) has been prepared by AECOM on behalf of PPG to document the remedial action (RA) for Non-Residential Chromate Chemical Production Waste (CCPW)-impacted soil at Conrail Right-of-Way (Area of Concern [AOC] 1) (**Figures 1-1 and 1-2**). The New Jersey Department of Environmental Protection (NJDEP) Site Remediation Program (SRP), Program Interest (PI) Number for Conrail Right-of-Way (AOC 1) is G000008728. The objective of this RAR is to demonstrate compliance with the applicable remediation requirements for the soils on Conrail Right-of-Way (AOC 1), and that no further action with regard to AOC 1 is needed.

AOC 1 is approximately 2.05 acres and occupies a portion of tax parcel Block 27401 Lot 45 in the Jersey City Parcel Data from New Jersey Geographic Information Network (NJGIN), last updated on August 6, 2019 (at: <https://njogis-newjersey.opendata.arcgis.com/datasets/884f1f948dcb4353aa0fe52cdb6bc9f5>). AOC 1 is bounded to the northeast by the northeastern portion of Conrail Right-of-Way (which is bounded to the northeast by Chapel Avenue), to the southeast by Site 107 (Block 27401 Lot 42) and Site 108 (Block 27401 Lot 43), to the southwest by Linden Avenue East, and to the northwest by New Jersey Transit property (Block 27401 Lot 1). The Conrail Right-of-Way (AOC 1) property is currently owned by Consolidated Rail Corp.

This RAR addresses only the soil impacts for which PPG is responsible under the *Administrative Consent Order* (ACO) (NJDEP, 1990) and the *Partial Consent Judgment Concerning the PPG Sites* (Judicial Consent Order [JCO]) (Superior Court of New Jersey Chancery Division – Hudson County, 2009). PPG is responsible for CCPW-related impacts. Under the ACO and JCO, PPG is not responsible for other constituents exceeding the NJDEP Soil Remediation Standards (SRS) or Default Impact to Groundwater Soil Screening Levels (DIGWSSLs) that may be present at AOC 1.

Based on findings presented in the Remedial Investigation Report (RIR) for Site 108 (Dresdner Robin, 2012) (Site 108 RIR), the RIR for Site 107 (Dresdner Robin, 2013), the subsequent remediation (soil excavation) implemented at Conrail Right-of-Way (AOC 1) and the immediately-adjacent Site 107 (which extended onto AOC 1), and additional test pitting within AOC 1, this RAR addresses the following impacts associated with CCPW on AOC 1:

- Hexavalent chromium (Cr<sup>+6</sup>) in soil exceeding the Chromium Soil Cleanup Criteria (CrSCC);
- CCPW metals (antimony, nickel, thallium, total chromium, and vanadium) in soil exceeding their respective NJDEP SRS or Alternative Remediation Standard (ARS); and
- CCPW metals in soil exceeding their respective DIGWSSLs.

The Site 108 RIR concluded that the presence of metals detected during the remedial investigation in soil samples associated with Site 108 was due to historic fill. Non-CCPW-related constituents, including those associated with historic fill, are not PPG's responsibility.

The overall remedial objectives for soil with CCPW-related impacts at AOC 1 included:

- Mitigate potential exposure to Cr<sup>+6</sup> and CCPW metals in soil at concentrations greater than their respective CrSCC, SRS, ARS, DIGWSSL, or Site-Specific Impact to Groundwater Soil Remediation Standard (SSIGWSRS); and



- Establish conditions suitable for current and future uses of AOC 1.

The remedial action implemented was soil excavation. The initial remedial excavation within AOC 1 was associated with the Site 107 remedial action, which began in October 2018 and was completed in September 2019. Due to structural concerns relating to the Conrail railway, CCPW-related impacts within a 15-foot offset of the track centerline were not removed during this mobilization. PPG conducted a supplemental remedial excavation between July and October 2023 to remove the remaining CCPW-related impacts. Backfill and restoration occurred daily throughout construction. Final restoration of AOC 1 was completed on November 4, 2023.

Confirmation sampling results presented on figures and tables in this report indicate that the remedial objectives for AOC 1 have been achieved as follows:

- Excavation of soil containing Cr<sup>+6</sup> met the requirements specified in the NJDEP Memorandum entitled *Chromium Moratorium*, February 8, 2007 (the Chromium Policy) (NJDEP, 2007).
- For soil with one vanadium (V) sample concentration exceeding the ARS, compliance averaging was used to attain compliance with this criterion.
- CCPW metals other than V (i.e., antimony, total chromium, nickel, thallium) are not present at concentrations greater than the applicable remediation criteria.

The soil RA for Conrail Right-of-Way (AOC 1) is effective in protecting public health and safety and the environment, and no further soil remediation is warranted for AOC 1. This RAR demonstrates compliance with the applicable remediation requirements for the soils at AOC 1 and no further action is needed. PPG requests the closure of AOC 1 by the NJDEP through the issuance of a Consent Judgment Compliance Letter.

## 1.0 Introduction

This Remedial Action Report (RAR) has been prepared by AECOM on behalf of PPG to document the remedial action (RA) for Non-Residential Chromate Chemical Production Waste (CCPW)-impacted soil at Conrail Right-of-Way (Areas of Concern [AOC] 1 (**Figures 1-1 and 1-2**)). The New Jersey Department of Environmental Protection (NJDEP) Site Remediation Program (SRP), Program Interest (PI) Number for Conrail Right-of-Way (AOC 1) is G000008728. The objective of this RAR is to demonstrate compliance with the applicable remediation requirements for the soils on Conrail Right-of-Way (AOC 1), and that no further action with regard to AOC 1 is needed.

AOC 1 is approximately 2.05 acres and occupies a portion of tax parcel Block 27401 Lot 45 in the Jersey City Parcel Data from New Jersey Geographic Information Network (NJGIN), last updated on August 6, 2019 (at: <https://njogis-newjersey.opendata.arcgis.com/datasets/884f1f948dcb4353aa0fe52cdb6bc9f5>). AOC 1 is bounded to the northeast by the northeastern portion of Conrail Right-of-Way (which is bounded to the northeast by Chapel Avenue), to the southeast by Site 107 (Block 27401 Lot 42) and Site 108 (Block 27401 Lot 43), to the southwest by Linden Avenue East, and to the northwest by New Jersey Transit property (Block 27401 Lot 1). The Conrail Right-of-Way (AOC 1) property is currently owned by Consolidated Rail Corp.

In 1990, PPG and the NJDEP entered into an *Administrative Consent Order* (ACO) (NJDEP, 1990) to investigate and remediate locations where CCPW-impacted materials related to former PPG operations may be present. On June 26, 2009, NJDEP, PPG, and the City of Jersey City (the City) entered into a *Partial Consent Judgment Concerning the PPG Sites*, also referred to as the Judicial Consent Order (JCO) (Superior Court of New Jersey Chancery Division – Hudson County, 2009), with the purpose of remediating soil and sources of contamination at the Hudson County Chromate (HCC) sites. Priority for the remedial activities was given to residential locations where the CCPW-impacted materials were present. The provisions of the original ACO remain in effect with the JCO taking precedence where there are conflicts between the two documents.

As part of the JCO, a judicially-enforceable master schedule was created, establishing RA milestone dates for the New Jersey (NJ) Chrome Remediation Sites, including Conrail Right-of-Way. Since its establishment in 2009, the master schedule has been revised several times. The most recent revision to the Master Schedule was finalized on August 6, 2024 (Riccio, 2024).

This RAR presents a summary of the implemented RA for CCPW-related impacts in soil within Conrail Right-of-Way (AOC 1), as presented in the Case Inventory Document (CID). The survey limits of AOC 1 are depicted on **Figure 1-2**. Groundwater remedial activities associated with CCPW within Site 107, Site 108, and the Conrail Right-of-Way, which is being tracked under the PI number G000008728, is not included on the CID for Conrail Right-of-Way (AOC 1); documentation of the RA for groundwater will be provided in a separate document. This RAR was prepared in accordance with the requirements set forth in the *Technical Requirements for Site Remediation* (TRSR), New Jersey Administrative Code (N.J.A.C.), Title 7, Chapter 26E, Subchapter 5.5 (N.J.A.C. 7:26E-5.5) (NJDEP, 1993b), Appendix A of the 1990 ACO (NJDEP, 1990), and the June 26, 2009 JCO (Superior Court of New Jersey Chancery Division – Hudson County, 2009).

The remainder of this RAR is organized as follows:

- **Section 2** provides the summary of soil remedial investigation (RI) and supplemental pre-design investigation (PDI) findings and recommendations;
- **Section 3** identifies the applicable remedial standards/criteria;
- **Section 4** presents the summary of pre-remedial action design activities;
- **Section 5** provides the description of the RA implemented;
- **Section 6** discusses the reliability of the data including data validation and usability;
- **Section 7** includes documentation of the protectiveness of the remedy;
- **Section 8** provides the updated receptor evaluation information;
- **Section 9** presents the conclusions and recommendations; and
- **Section 10** lists the references cited in the report.

Supporting information is presented in the appendices.

## 2.0 Summary of Soil Remedial Investigation and Supplemental Pre-Design Investigation Findings and Recommendations

### 2.1 Summary of Soil Remedial Investigation Findings

Remedial investigation activities performed at Conrail Right-of-Way (AOC 1) and the adjacent sites were detailed in the following reports, including a Remedial Investigation Work Plan (RIWP) and Remedial Investigation Reports (RIRs), previously submitted to the NJDEP:

- October 2010 *Remedial Investigation Work Plan, Non-Residential Chromate Chemical Production Waste Sites – Sites 107 & 108, Jersey City, New Jersey, Final* (AECOM, 2010b).
- December 2012 *Remedial Investigation Report, Non-Residential Chromate Chemical Production Waste Site 108* (Dresdner Robin, 2012).
- March 2013 *Remedial Investigation Report, Non-Residential Chromate Chemical Production Waste Site 107* (Dresdner Robin, 2013).

The initial soil investigation, consistent with the *Remedial Investigation Work Plan, Non-Residential Chromate Chemical Production Waste Sites – Sites 107 & 108* (AECOM, 2010b), was conducted in January and February 2011. Additional soil investigations were conducted in June, July, and August 2011 to further delineate Cr<sup>+6</sup> detected during the February 2011 investigation. Additional soil investigations extended onto the Conrail Right-of-Way (AOC 1) property in December 2011 and July and November 2012 to further delineate Cr<sup>+6</sup> detected during the earlier investigations. The goal of the RI was to horizontally and vertically delineate CCPW-impacted materials at, and potentially emanating from, Site 107 onto Conrail Right-of-Way.

The soil RI consisted of soil boring advancements, along with soil sample collection and laboratory analysis. Soil borings were installed along a 60-foot by 60-foot grid to confirm the presence or absence of CCPW-impacted material. Boring logs for soil samples presented in this RAR are included in **Appendix A**. Details of the RI, including the results, were documented in both the Site 107 RIR (Dresdner Robin, 2013) and Site 108 RIR (Dresdner Robin 2012). The Site 107 RIR was conditionally approved by NJDEP on March 28, 2013 (NJDEP, 2013b); the Site 108 RIR was approved by NJDEP on January 14, 2013 (NJDEP, 2013a). The final Site 107 RIR was submitted electronically to NJDEP on April 30, 2019 and approved by NJDEP on September 16, 2019 (NJDEP, 2019b).

During the February 2011 RI, 53 soil borings were advanced along the northwestern portion of Site 108 (eight of which were advanced within Conrail Right-of-Way [AOC 1]). A total of 278 soil samples were collected and analyzed for Cr<sup>+6</sup>, total chromium, CCPW metals, pH, and Eh (Dresdner Robin, 2012); 33 of these soil samples were collected within Conrail Right-of-Way (AOC 1).

During the December 2011 RI, 27 soil borings were advanced along the northwestern portion of Site 107 and on Conrail Right-of-Way (AOC 1), with 146 soil samples collected and analyzed for Cr<sup>+6</sup> and/or vanadium, pH, and Eh. During the July 2012 RI, 10 soil borings were advanced at Conrail Right-of-Way (AOC 1), with 45 soil samples analyzed for Cr<sup>+6</sup> and/or vanadium, pH, and Eh. During the November 2012 RI, seven soil borings were advanced at Conrail Right-of-Way (AOC 1), with 23 soil samples analyzed for Cr<sup>+6</sup>, pH, and Eh.

### 2.1.1 Supplemental Pre-Design Investigation

AECOM conducted a Supplemental PDI in September 2022 to horizontally delineate Cr<sup>+6</sup> exceedances within AOC 1 that were detected in the sidewalls of the Site 107 RA excavation. Ten test pits were completed to the northwest of the former Site 107 excavation footprint for sample collection and to horizontally delineate the extent of CCPW. Twenty-three soil samples were collected and analyzed for Cr<sup>+6</sup>.

Spoils generated during completion of the Supplemental PDI were containerized and transported off-site to a licensed disposal facility (see **Section 7.4** for additional information). The test pits were backfilled with clean fill and compacted using a vibratory plate compactor to match the approximate existing grade. For disturbed areas within the ballasted extents of the railroad, the surface was restored with both imported and previously segregated railway ballast.

Additional information relating to the Supplemental PDI, including the supplemental PDI work plan, sample location maps and cross-sections, analytical results, test pit logs, waste disposal documentation, and clean fill documentation, is provided in **Appendix B**.

The following is a summary of the soil RI and Supplemental PDI findings.

### 2.1.2 Hexavalent Chromium

Hexavalent chromium was found in soils on Conrail Right-of-Way (AOC 1) at concentrations greater than the Chromium Soil Cleanup Criteria (CrSCC) and was horizontally and vertically delineated during the RI and Supplemental PDI.

### 2.1.3 CCPW Metals

No CCPW metals were detected at a concentration greater than their respective Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS). However, antimony and vanadium were detected at concentrations greater than their respective Residential Direct Contact Soil Remediation Standards (RDCSRS) in two samples. Nickel was not detected in any soil samples at concentrations greater than its RDCSRS. Thallium does not have an RDCSRS or NRDCSRS.

The soil samples collected with the portions of AOC 1 immediately adjacent to Site 107 were not analyzed for antimony, nickel, thallium, and total chromium as delineation of these CCPW metals was already achieved for Site 107. Vanadium was the only CCPW metal that was targeted during the RI in this area as it was not fully delineated along the Site 107 and Conrail Right-of-Way (AOC 1) property boundary. The Site 107 RIR documented that vanadium at concentrations exceeding its RDCSRS was found on the Conrail Right-of-Way (AOC 1) property and indicated that further delineation of vanadium was required (Dresdner Robin, 2013). Vanadium delineation samples within the Conrail Right-of-Way (AOC 1) property were collected during the Site 107 RA.

Soil samples collected in the unsaturated zone (i.e., above the depth-to-water observed during the soil boring advancement) were compared to their Default Impact to Groundwater Soil Screening Levels (DIGWSSLs). Antimony, nickel, and thallium were detected at concentrations greater than their DIGWSSLs in at least one soil sample collected in the unsaturated zone. Vanadium, total chromium, and Cr<sup>+6</sup> do not have DIGWSSLs.

As indicated in the Site 108 RIR (Dresdner Robin, 2012) Section 4.3 and Attachment I, the detection of these metals in soils associated with Site 108 is attributed to the presence of historic

fill material and is not attributed to CCPW. Non-CCPW-related constituents are not PPG's responsibility. Therefore, no additional delineation or investigation is required by PPG.

#### **2.1.4 Observations of CCPW**

As documented in the Site 107 RIR (Dresdner Robin, 2013), CCPW (a potential source of Cr<sup>+6</sup> and CCPW metals) was observed at select boring locations along the Site 107/Conrail Right-of-Way (AOC 1) property boundary and would be addressed in the RAWP. CCPW was not observed in the RI soil borings advanced within the Conrail Right-of-Way (AOC 1) property that are associated with Site 108 (Dresdner Robin, 2012). As presented in **Appendix B**, sparse COPR nodules were observed during the 2022 Supplemental PDI within select sidewalls of Test Pits 1, 2, and 3. COPR nodules observed during the 2022 Supplemental PDI pits, including COPR nodules associated with sample CONRAIL-TP-1-SW-N-C, were fully removed prior to backfill and restoration of the test pits.

### **2.2 Physical Setting of AOC 1**

The Conrail Right-of-Way (AOC 1) property occupies a portion of Block 27401 Lot 45 in Jersey City, Hudson County, New Jersey. AOC 1 is approximately 2.05 acres and is a right-of-way for the Conrail railroad line. It is located within a residential, commercial, and light industrial area of Jersey City, New Jersey. A United States Geological Survey (USGS) map presenting the regional location of AOC 1 is presented as **Figure 1-1**. This area of Jersey City is generally characterized by residential, commercial, and light industrial uses. AOC 1 is bounded to the northeast by the northeastern portion of Conrail Right-of-Way (which is bounded by Chapel Avenue), to the southeast by Site 107 (Block 27401 Lot 42) and Site 108 (Block 27401 Lot 43), to the southwest by Linden Avenue East, and to the northwest by New Jersey Transit property (Block 27401 Lot 1). The Conrail Right-of-Way (AOC 1) property is currently owned by Consolidated Rail Corp.

#### **2.2.1 Topography**

The USGS Topographic Map (**Figure 1-1**) presents the regional topography in the area. The AOC 1 property is generally flat with minimal topographic relief and an average ground surface elevation of approximately 20 ft above mean sea level (msl). The ground surface elevations range from approximately 17 to 25 ft North American Vertical Datum of 1988 (NAVD88). A stone-lined drainage swale is located within the central portion of AOC 1. The drainage swale is located immediately southeast of the railway and generally drains from southwest to northeast.

#### **2.2.2 Regional Geology**

The AOC 1 property area is located in the Piedmont Physiographic Province of New Jersey along the eastern edge of the Newark Basin. The Piedmont is described as a rolling plain that extends south and east from the southeastern edge of the New Jersey Highlands to the Hudson River, in the northern portion of New Jersey.

The Newark Basin was formed during the Late Triassic and Early Jurassic periods and extends locally from the west of the first Watchung Mountain in northern central New Jersey to the Hudson River. The Triassic Newark Supergroup consists of non-marine sedimentary rocks and diabase intrusions. The Newark Supergroup is divided into three formations based on distinctive lithology: (1) the lower unit - the Stockton Formation; (2) the middle unit - the Lockatong Formation; and (3) the upper unit - the Passaic Formation.



The Bedrock Geology Map of Northern New Jersey (USGS, 1996) indicates that the bedrock at the Site is comprised of the Lockatong Formation. The Stockton Formation is found to the east of the AOC 1 property, and Diabase, to the west of the AOC 1 property. The Lockatong Formation is composed of light to dark gray, greenish-gray and black dolomitic or silty argillite, mudstone, sandstone, siltstone, and minor silty limestone.

### 2.2.3 AOC 1 Property-Specific Geology

The AOC 1 property is located on miscellaneous fill material that was often placed in low-lying areas to raise surface elevations above the existing water level in an effort to reclaim wetlands and flood prone areas. The placement of fill was generally used for development and can range from 10 to 20 ft in the general AOC 1 property area. The presence of deeply occurring subsurface fill is common in Jersey City.

Generally, the subsurface conditions in the area of the AOC 1 property consist of the following strata listed in order of increasing depth:

- **Fill Material:** The thickness and composition of the fill material is variable. The fill material generally rests on top of marine deposits, glacial deposits, and bedrock. The fill material is composed of a mixture of cinders, sand, and gravel with a trace of silt and clay, construction demolition debris (concrete, brick, glass, metal, etc.), wood, slag, and miscellaneous debris. Additionally, the fill may include CCPW and/or CCPW-impacted material.
- **Natural Marine and Estuarine Marsh Deposits:** Generally, these deposits are composed of organic silt and clay (clayey silt), fine sand, traces of shells, and traces of wood and peat (meadow mat). These deposits can range in thickness from 20 to 40 ft and thickness varies regionally. Organic sediments at the AOC 1 property are not expected to be greater than 5 ft thick.
- **Glacial Deposits (undifferentiated):** Glacial deposits underlying the marine and estuarine marsh deposits are typified by reddish-brown coarse to fine sand with silt and clay, and occasional lenses of gravel or clay. The thickness of these materials is variable, depending on the depth to the underlying bedrock surface.

### 2.2.4 Hydrogeology

This RAR only addresses the RA of soil at Conrail Right-of-Way (AOC 1). Groundwater remedial activities associated with CCPW within Site 107, Site 108, and the Conrail Right-of-Way is being tracked under PI number G000008728. The status of the groundwater remedial investigation for Site 107, Site 108, and the Conrail Right-of-Way is documented in the *Groundwater Remedial Investigation Report/Remedial Action Work Plan (AOC-2), Final* (AECOM, 2022) (GW RIR/RAWP). A separate RAR will be prepared and submitted to document the groundwater RA. The description of hydrogeology is provided herein solely to meet the regulatory requirements of N.J.A.C. 7:26E-5.7(b)1, as specified by N.J.A.C. 7:26E-1.6(b)1.

#### 2.2.4.1 Regional Groundwater Flow

Groundwater occurs regionally in the following geologic formations:

- Non-native fill;
- Unconsolidated native deposits including meadow mat and glacial silt, sand, and gravel; and
- Bedrock.

A summary of groundwater flow in these formations is provided below:

- **Fill:** Groundwater in the fill is unconfined and is typically encountered within 10 ft bgs. In general, groundwater flow patterns represent a subdued version of land surface topography. Variations in these flow patterns can be attributed to heterogeneities in the fill, subsurface structures, exfiltration from, and infiltration to subsurface utilities, and spatially variable recharge due to the presence of impervious surfaces.
- **Native Unconsolidated Deposits:** Groundwater flow in overburden materials is controlled by permeability or flow through the connected pore spaces in the soil matrix. In this zone, groundwater is mostly unconfined, but may be semi-confined to confined in areas with complex stratigraphy consisting of alternating layers of less and more permeable materials. Groundwater generally flows horizontally in these soils but may be influenced by local recharge and discharge zones. The meadow mat is a dense matrix of organic material and fine-grained soils, and this layer generally exhibits permeability that is three or more orders-of-magnitude less than surrounding materials.
- **Bedrock:** Groundwater within bedrock is stored and transmitted along fractures, bedding planes, and interconnected cracks or voids in the rock. In general, although highly fractured, the diabase has low permeability and is understood to be a no-flow boundary. For sedimentary formations (Lokatong and Stockton), groundwater flow occurs primarily along bedding plane fractures with the prevailing direction parallel to bedding strike, with secondary flow along steeply dipping fractures (joints) which are pathways for leakage between bedding fractures; the vertical extent of such leakage between bedding plane fractures is commonly inhibited by the termination of the majority of the joints at bedding plane boundaries. Regionally, bedrock well yields have been reported to range from several gallons to several hundred gallons per minute, with yields generally decreasing with depth.

#### 2.2.4.2 Conrail Right-of-Way (AOC 1) Groundwater Flow

Groundwater at the AOC 1 property and the immediate vicinity occurs in one overburden water-bearing zone and within bedrock. The overburden water bearing zone consists of an unconfined aquifer within fill materials and underlying native materials, which include marine and estuarine marsh deposits and glacial deposits (AECOM 2022). Due to the relatively shallow depth to bedrock (less than 30 ft), the intermediate and deep overburden water-bearing zones typical of the regional hydrogeology are not present at the AOC 1 property.

The marine and estuarine marsh deposits comprise a transition zone between the fill and underlying native materials, and generally limit vertical groundwater movement between these zones where present. Where these deposits are absent, the fill and underlying native materials are in direct contact. The fill ranges from moderate to high hydraulic conductivity, depending primarily upon the materials making up the fill. The underlying native materials are generally characterized as low to moderately conductive due to the silt and clay content of the glacial deposits.

During previous investigations, depth to groundwater at Site 107, Site 108, and Conrail Right-of-Way was found to range from 5 to 15 ft bgs. The groundwater table was encountered at an elevation of 9.5 ft msl during soil excavation activities conducted at Site 107 between June 2018 and September 2019 (Arcadis, 2021a). The Preliminary Site Characterization Report for Site 067 (BCM, 2001) (Site 067 is located to the east/southeast of Conrail Right-of-Way) concluded that the groundwater flow direction across Site 067 was from northwest to southeast, based on water level readings collected at wells MW01 through MW07, as shown on Figure 4 of the BCM report.

Depth to water measurements were collected from accessible monitoring wells in the vicinity of Conrail Right-of-Way (AOC 1) between July 28, 2021 and February 28, 2022. A groundwater elevation contour map developed from the February 28, 2022 gauging data is presented on Figure 2-2 in the AECOM Groundwater RIR-RAWP. Based on this contour map, the direction of groundwater flow across Site 107, Site 108, and Conrail Right-of-Way (AOC 1) is from northwest to southeast. During the February 28, 2022 synoptic groundwater gauging event, groundwater elevations throughout Site 107, Site 108, and Conrail Right-of-Way (AOC 1) ranged from 17.17 to 11.51 ft NAVD88 (AECOM, 2022).

The groundwater elevation (above which is the unsaturated zone) was estimated as the 50<sup>th</sup> percentile groundwater elevation from three monitoring wells located in the vicinity of Conrail Right-of-Way (AOC 1) that were gauged between July 2021 and February 2022. The monitoring well locations and data are included in **Appendix C**. The estimated groundwater elevation for Conrail Right-of-Way (AOC 1) is elevation (El.) 14.8 ft NAVD88.

The groundwater flow conditions discussed in this section reference information described in the GW RIR/RAWP (AECOM, 2022). While not yet approved by NJDEP (as of submission of this RAR), the data collected and reported in the GW RIR/RAWP are considered representative of the groundwater flow conditions within Conrail Right-of-Way and support the conclusions presented in this section.

### 2.3 Remedial Activities on Adjacent Properties

Remedial excavations have been completed at the following properties adjacent to the AOC 1:

- Site 107 Majority Site Area (completed in September 2019),
- Site 107 Material Staging Area (completed in February 2021), and
- Portions of Site 108 (completed in September 2019).

Documentation of the remedial actions described above are provided in the following reports:

- Site 107 Majority Site Area: *Remedial Action Report, Site 107 Majority Site Area, Soil (AOC-1A)* (Arcadis, 2021a), as approved by NJDEP on January 10, 2022 (NJDEP 2022a).
- Site 107 Material Staging Area: *Remedial Action Report, Site 107 Material Staging Area Soil (AOC-1B)* (Arcadis, 2021b), as approved by NJDEP on March 25, 2022 (NJDEP, 2022b).

### 2.4 Recommended Remedial Action

Based on the findings of the RI for Site 107 (Dresdner Robin, 2013), which extended onto the Conrail Right-of-Way (AOC 1) property, excavation and removal of impacted soils was the remedial action proposed in the Site 107 RAWP (CB&I, 2013b). It was anticipated that the presence of CCPW metals (antimony, total chromium, nickel, thallium, and vanadium) at concentrations greater than the CrSCC, SRS, DIGWSSLs, or the SSIGWSRS (Site-Specific Impact to Groundwater Soil Remediation Standard) would be resolved as a result of the excavation being driven by the presence of Cr<sup>+6</sup> at concentrations greater than the CrSCC.

## 3.0 Identification of Applicable Remedial Standards/Criteria

### 3.1 Regulatory Requirements, Guidance, and Alternative/Site-Specific Determinations

Remedial activities were performed in accordance with the following regulatory requirements, NJDEP Guidance, and Site-specific determinations:

- N.J.A.C. 7:26C – *Administrative Requirements for the Remediation of Contaminated Sites*, last amended February 23, 2023 (NJDEP, 1993a).
- N.J.A.C. 7:26D – *Soil Remediation Standards*, last amended May 17, 2021 (NJDEP, 2008a).
- N.J.A.C. 7:26E – *Technical Requirements for Site Remediation*, last amended August 6, 2018 (NJDEP, 1993b).
- NJDEP *Field Sampling Procedures Manual*, dated August 2005, last updated April 2011 (NJDEP, 2005).
- NJDEP *Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria, Version 2.0*, dated July 2021 (NJDEP, 2021).
- NJDEP Memorandum from Lisa P. Jackson to Irene Kropp, Subject: Chromium Moratorium, February 8, 2007 (the Chromium Policy) (NJDEP, 2007).
- NJDEP *Chromium Soil Cleanup Criteria*, September 2008, revised April 2010 (NJDEP, 2008b).
- NJDEP *Administrative Consent Order*, dated July 19, 1990 (NJDEP, 1990).
- *Partial Consent Judgment Concerning the PPG Sites (JCO)* between NJDEP, PPG, and the City of Jersey City, June 26, 2009 (Superior Court of New Jersey Law Division - Hudson County, 2009).
- Alternative Soil Remediation Standard for Vanadium, approved by NJDEP November 7, 2018 (NJDEP, 2018).
- Impact to Groundwater Soil Remediation Standard for Nickel, approved by NJDEP April 25, 2019 (NJDEP, 2019a).

### 3.2 Soil Remediation Standards/Criteria

For soil at Conrail Right-of-Way, under the ACO and JCO, PPG is responsible for CCPW-related impacts only. Under the ACO and JCO, PPG is not responsible for any other constituents at concentrations exceeding the NJDEP SRS, CrSCC, DIGWSSL, and/or IGWSRS that may be present at Conrail Right-of-Way. This RAR addresses only the soil impacts for which PPG is responsible under the ACO and JCO. Non-CCPW-related constituents are not PPG's responsibility.

A request for an Alternative Remediation Standard (ARS) for Soil - Vanadium was submitted to NJDEP by Arcadis, on behalf of PPG (Arcadis, 2018d). The ARS of 390 milligrams per kilogram (mg/kg) for vanadium was approved by NJDEP on November 7, 2018 (NJDEP, 2018).

A request for an ARS for Impact to Groundwater - Nickel was submitted to NJDEP by Arcadis, on behalf of PPG, on March 4, 2019. The SSIGWSRS of 855 mg/kg for nickel was approved by NJDEP on April 25, 2019 (NJDEP, 2019a).

The NJDEP SRS and other criteria relevant to the remediation at AOC 1 are presented in **Table 3-1**.

For the purposes of determining the applicability of comparing soil concentrations with the DIGWSSLs or SSIGWSRS, the groundwater elevation (above which is the unsaturated zone) was estimated as the 50<sup>th</sup> percentile groundwater elevation from three monitoring wells located in the vicinity of the AOC 1 that were gauged between July 2021 and February 2022. The monitoring well locations and data are included in **Appendix C**. The estimated groundwater elevation for the AOC 1 is El. 14.8 ft NAVD88.

On May 17, 2021, the NJDEP adopted amended Remediation Standards at N.J.A.C. 7:26D (NJDEP, 2008a), which included amended SRS for soil ingestion-dermal, soil inhalation, and migration-to-groundwater exposure pathways. Sites with an NJDEP-approved RAWP, where no final remediation document has been issued, which includes Conrail Right-of-Way (AOC 1), must conduct an order-of-magnitude evaluation to determine the protectiveness of the proposed or implemented remedy relative to the new standards pursuant to New Jersey Statutes Annotated (N.J.S.A.) 58:10B-13e.

With regard to the migration to groundwater exposure pathway, none of the parameters that PPG is responsible for at the Conrail Right-of-Way (AOC 1) (i.e., Cr<sup>+6</sup> and CCPW metals only) were impacted by an order-of-magnitude or more decrease from the DIGWSSL.

With regard to the soil ingestion-dermal and inhalation pathways (both residential and non-residential), none of the parameters that PPG is responsible for at the Conrail Right-of-Way (AOC 1) (i.e., Cr<sup>+6</sup> and CCPW metals only) were impacted by an order-of-magnitude or more decrease from the previous standard.

Based on the order-of-magnitude evaluation conducted specific to the parameters addressed by this RAR (Cr<sup>+6</sup> and CCPW metals only), the remedy is protective pursuant to the new standards.

## 4.0 Summary of Pre-Remedial Action Design Activities

Based on the findings of the RI (as summarized in **Section 2.0**), the recommended RA for soil at the AOC 1 included the excavation and removal of soil with CCPW-related impacts.

### 4.1 Summary of the Remedial Action Work Plan (Soil) and Technical Execution Plan

Following the preparation and submittal of the RIR (Dresdner Robin, 2013), PPG developed a 2013 RAWP for Site 107 (RAWP) (CB&I, 2013b), and a subsequent Site 107 Technical Execution Plan (TEP) (Arcadis, 2018d) to address CCPW-related impacts in soil. The RAWP was approved by NJDEP on February 21, 2017 (NJDEP, 2017); the TEP was approved by NJDEP on November 7, 2018 (NJDEP, 2018).

The overall RA objectives for soil with CCPW-related impacts on Conrail Right-of-Way included:

- Mitigate potential exposure to Cr<sup>+6</sup> and CCPW metals in soil at concentrations greater than their respective CrSCC, SRS, ARS, DIGWSSL, or SSIGWSRS; and
- Establish conditions suitable for current and future uses of AOC 1.

The selected RA for soils at Conrail Right-of-Way, as described in the RAWP and TEP, was excavation and off-site disposal of soils impacted by CCPW and CCPW-related metals. In accordance with the RAWP and TEP, excavation areas were to be backfilled with clean fill.

### 4.2 Summary of Pre-Design Investigation Activities

As part of the pre-RA activities, PDI activities were implemented. These activities included advancing soil borings and conducting test pits, utility surveys, and sampling, and obtaining permits, where required. The goals of these activities were to define the limits of the planned excavation and the locations of underground utilities. Supplemental PDI activities performed in 2022 are documented in **Appendix B**. The results of the Supplemental PDI activities are discussed in **Section 2.1.1**.

### 4.3 Capillary Break Evaluation

A capillary break is not needed on Conrail Right-of-Way because contaminated media is not present. Specifically:

- Soil at Conrail Right-of-Way (AOC 1) complies with the SRS, ARS, and CrSCC, as documented in this RAR; and
- Groundwater with CCPW-related contamination is not present within Conrail Right-of-Way (AOC 1), as documented on Figure 3-1 and 3-2 of the GW RIR/RAWP (AECOM, 2022).

## 5.0 Description of the Remedial Action

The RA for the AOC 1 included excavation of soil with CCPW-related impacts, off-site transport and disposal of affected soil, backfilling of the excavations, and restoration of the affected areas. It was anticipated that the presence of CCPW metals (antimony, total chromium, nickel, thallium, and vanadium) at concentrations greater than the CrSCC, SRS, and DIGWSSLs, as relevant, would be resolved as a result of the excavation being driven by the presence of Cr<sup>+6</sup> at concentrations greater than the CrSCC.

The RA within AOC 1 was conducted in two mobilizations. The first mobilization was conducted between October 2018 and September 2019 during the RA at immediately-adjacent Site 107, which extended onto the Conrail Right-of-Way (AOC 1) property, and included the removal of CCPW-related impacts in soil within portions of AOC 1 (2018 Mobilization). Due to structural concerns related to the proximity of the railroad, soils within a 15-ft offset of the track centerline were not removed at that time. A second mobilization was conducted between June and November 2023 to remove the remaining soil with CCPW-related impacts (2023 Mobilization). Both mobilizations were implemented in accordance with the TEP (Arcadis, 2018d).

Preparatory activities for the first RA mobilization began in April 2017 with excavation plan development to facilitate implementation of RA; field activities associated with the first mobilization commenced in October 2018. Preparatory activities for the second RA mobilization began in February 2023 and included excavation plan development and contractor procurement. Field activities associated with the second mobilization commenced in June 2023.

During the 2018 Mobilization, the following engineers and contractors were involved in the completion of the RA:

- Arcadis served as the design engineer. Arcadis and AECOM provided construction management oversight. Mueser Rutledge Consulting Engineers (MRCE) served as the geotechnical/structural engineer.
- Arcadis served as the remedial contractor to manage and coordinate the work of multiple contractors hired by PPG to perform the required remedial construction and support work.
- Emilcott performed the air monitoring at the AOC 1 during remedial action activities, in accordance with the *Air Monitoring Plan, Site 107 Fashionland*, September 2018 (Arcadis, 2018c), submitted as an appendix to the TEP (Arcadis, 2018d).
- ENTACT, LLC of Latrobe, Pennsylvania (ENTACT) performed the remedial construction activities at AOC 1. WTS Transportation Services, LLC (WTS), US Ecology, and Clean Earth (CE) served as transportation and disposal brokers for the waste streams.

During the 2023 Mobilization, the following engineers and contractors were involved in the completion of the RA:

- AECOM served as the design engineer and provided construction management oversight.



- AECOM served as the remediation contractor to manage and coordinate the work of multiple contractors to perform the required remedial construction and support work.
- AECOM performed the air monitoring at AOC 1 during remedial action activities, in general conformance with the *Air Monitoring Plan, Site 107 Fashionland*, September 2018 (Arcadis, 2018c). Additional information regarding air monitoring performed during the 2023 Mobilization is provided in **Section 5.2.2**.
- Borbas Surveying & Mapping, LLC. (Borbas) completed topographic surveys of the as-built excavation depths and restoration surface and conducted settlement monitoring of the Conrail railroad tracks.
- AWT Environmental Services, Inc. (AWT) performed the remedial construction activities at AOC 1. These services consisted of a monitoring well modification, excavation and backfilling, decontamination, dewatering, and site restoration.
- Freehold Cartage Inc. (FCI) and CE served as the transportation and disposal providers for the waste streams.
- Atlantic Testing Services performed the subsurface utility survey.

The following subsections summarize the RA activities as implemented.

## 5.1 Pre-Construction Activities

The following activities were conducted prior to starting excavation of soil with CCPW-related impacts, as needed:

- Obtaining an access agreement from the applicable property owners.
- Approval of permit applications and plans submitted to the state and local agencies.
- Implementation of a Soil Erosion and Sediment Control Plan (SESCP).
- Implementation of the Air Monitoring Plan (AMP).
- Utility clearance activities.
- Modification of a monitoring well located in the vicinity of the laydown area.
- Mobilization of equipment and set up of temporary facilities.
- Establishment of work zones.

The necessary permits were obtained from and approved by the state, local, and county agencies prior to initiation of activities covered by the permits as detailed in **Section 7.6**. Necessary permits and approvals are documented in **Appendix D**.

Access agreements were obtained from Conrail Right-of-Way property owner, Consolidated Rail Corporation, to perform both RA mobilizations. For the 2023 Mobilization, a separate access agreement was obtained from the Site 108 property owner, Jersey City Logistics, LLC., for a temporary staging area and to allow for the movement of equipment, materials, and personnel to and from AOC 1.

During the 2018 Mobilization, Soil Erosion and Sediment Control (SESC) measures were installed in accordance with the Hudson, Essex, Passaic Soil Conservation District (HEPSCD)-approved SESC Plan (**Appendix D**) and the Discharge to Surface Water General Permit for Construction Activity - Stormwater (**Appendix D**). In general, the SESC measures implemented during this mobilization consisted of installing straw wattle around the site perimeter, inlet protection on stormwater grates, a temporary construction entrance, and material staging areas. SESC measures were installed before initiating the remedial action. SESC measures were monitored and inspected weekly and/or within 24 hours following a significant storm event to verify that the SESC measures were functioning properly and positioned adequately to be effective during use. Deficiencies were immediately corrected.

Because the disturbed area for the 2023 Mobilization did not exceed 5,000 square ft, an HEPSCD-approved SESC Plan was not required. Excavation, backfill, and restoration activities were completed on a daily basis during this mobilization. As a result, minimal SESC measures were required during construction, as daily stabilization of disturbed areas was achieved. However, dust monitoring was conducted throughout the RA so that mitigation measures could be taken (if needed) to minimize the amount of dust generated during construction.

In addition to contacting the New Jersey One-Call system, utility surveys were conducted prior to intrusive activities to mark underground utilities (i.e., gas, sewer, water, phone, cable, electrical, etc.) that exist within the proposed excavation area. As part of the Site 107 RA, TPI Environmental of Easton, Pennsylvania (TPI) was contracted to complete a subsurface utility investigation. The subsurface utility investigation included review of historical as-built drawings and a ground-penetrating radar (GPR) survey of Site 107 and portions of the Conrail Right-of-Way (AOC 1) property. Markings associated with underground utilities were maintained throughout the 2018 Mobilization. Caution was observed to prevent movement and/or damage of underground utilities, except for those slated to be terminated in association with the Site 107 building demolition. A supplemental GPR survey of Conrail Right-of-Way (AOC 1) was completed by Atlantic Testing Services during the 2023 Mobilization to locate potential utilities within the excavation area.

During the 2023 Mobilization, monitoring well PPG-108-MW1S (permit number E202104187) within neighboring Site 108 was converted to a flush-mount well to provide additional space for material staging. In accordance with the NJDEP's *Well Construction and Maintenance; Sealing of Abandoned Wells* (N.J.A.C. 7:9D) (NJDEP, 2001), a revised Monitoring Well Record (permit number E202312460) was submitted to the NJDEP Bureau of Water Allocation and Well Permitting. A copy of the revised Monitoring Well Record is included in **Appendix D**.

ENTACT/AWT mobilized the appropriate type and quantity of major heavy equipment needed to complete the RA. Upon arrival, the machines and facilities were inspected and equipped with sufficient supplies (e.g., spill response kits and fire extinguishers). Equipment was inspected daily when in use and decontaminated as required to move about AOC 1. Before demobilization, the equipment was decontaminated and inspected. Work zones were established to exclude unauthorized personnel from entering AOC 1 and to prevent contamination from being tracked off site or into clean work zones.

## 5.2 Excavation

The RA at Conrail Right-of-Way (AOC 1) was implemented in accordance with the TEP (Arcadis, 2018d). These activities included the excavation of CCPW-impacted soil at AOC 1, off-site transport and disposal of affected soil, backfilling of the excavation, and restoration of the affected areas to approximately match the existing conditions. Soil analytical results from the RI soil boring program, the

PDI soil boring program, and Supplemental PDI were used to develop the vertical and horizontal excavation limits. See **Section 2.0** for further information regarding the RI and supplemental PDI, and **Section 4.0** for further information regarding PDI activities.

Due to structural concerns associated with the adjacent Conrail railroad tracks, the remedial excavation activities were conducted in two mobilizations, as described below.

### 5.2.1 2018 Mobilization

Soil within Conrail Right-of-Way (AOC 1) was excavated in 30-foot-by-30-foot-grid cells. Each grid was excavated to a target depth based on soil analytical results from the RI soil boring program. Due to the structural restrictions associated with the railroad track, the excavation was terminated at a 15-ft offset from the railroad track. Excavation at AOC 1 began on October 31, 2018, and was completed on September 6, 2019. Excavation was performed by ENTACT using an excavator. Excavated material was direct loaded into lined trucks to the extent feasible.

ENTACT implemented dust control during the remedial action to prevent the potential spread of contamination and to maintain the particulate level at the permissible exposure level (PEL) specified in 29 Code of Federal Regulations (CFR) 1926.55 and the AMP. To obtain this goal, the dust control program consisted of both dust suppression measures and work zone/perimeter air monitoring to verify the success of dust suppression. The following dust controls were implemented for the equipment-moving activities throughout the project duration:

- Wetting of equipment in active demolition and excavation areas, as necessary.
- Covering waste/debris piles to prevent fugitive dust particles.
- Hauling wastes/debris leaving AOC 1 in covered or closed containers.
- Keeping vehicles speeds at less than 10 miles per hour on unpaved surfaces.

Emilcott performed the air monitoring at AOC 1 in accordance with the AMP in the 2018 TEP and a subsequent AMP Amendment accepted by NJDEP on November 19, 2019. The AMP Amendment was issued to revise the Acceptable Air Concentration to account for extended remedial action duration. Results of the air monitoring and sampling during implementation of the 2018 Mobilization were documented in the final Monthly Air Monitoring Report, which is available on the Chromium Cleanup Website (<http://www.chromiumcleanup.com>). Air monitoring data from the 2018 Mobilization was also referenced in the Site 107 Majority Site Area RAR (NJDEP, 2022a). The concentrations and the short-duration metrics demonstrated that the dust control measures were effective at maintaining Cr<sup>+6</sup> in dust at concentrations less than the acceptable ambient concentration.

ENTACT verified that horizontal and vertical excavation extents were achieved using global positioning system (GPS) survey equipment. Once the excavation target limits and depths were reached within each grid, post-excavation samples were collected to document compliance at the base and along the sidewalls. Once the excavation extents were finalized, Maser Consulting P.A. of Montvale, New Jersey (Maser), a professional land surveyor, performed the necessary as-built surveying, which included a topographical survey of the excavation base, collection of final excavation elevations at historical soil borings, and identification of sample locations for post-excavation samples.

A figure depicting the final as-built excavation surface on the Conrail Right-of-Way (AOC 1) property for the 2018 Mobilization is included in **Appendix E**.

## 5.2.2 2023 Mobilization

A second excavation mobilization was completed between June and November 2023 to remove soil with CCPW-related impacts remaining in AOC 1. Because the work area was in close proximity to the railroad track, excavation was completed in 9.75-foot-long segments (parallel to the railroad track) that were excavated, backfilled, and restored during a single work shift. Excavation occurred between July 15 and October 29, 2023. Work within AOC 1 was completed on weekends only and under a Conrail track outage. Final restoration of AOC 1 occurred on November 4, 2023. Excavation was performed by AWT using a miniature excavator. Excavated materials were loaded into lined roll-off containers that were temporarily staged near the excavation. Existing railway surface ballast was removed and segregated for on-site reuse during restoration. Roll-off containers were removed at the end of each weekend's activities and the contents were transported to a licensed disposal facility, as described in **Section 7.4**. Water accumulated within the open excavations was removed using a submersible pump and discharged into a 2,000-gallon portable tank and totes that were temporarily staged near the excavation. Upon completion of the work, pumped water was transported off-site for disposal at a licensed facility, as described in **Section 7.4**.

AECOM performed air monitoring during the 2023 Mobilization in general conformance with the AMP in the 2018 TEP and the subsequent AMP Amendment. Note that an AMP Amendment specific to the 2023 Mobilization was not prepared. Air monitoring stations were equipped with aerosol dust monitors that allowed for continuous measurement of particulate matter 10 micrometers or less in diameter (PM10) levels. Prior to the start of daily excavations, air monitoring locations were determined in the field based on the active work location, potential receptor pathways, forecasted weather conditions, and field-observed wind direction.

Due to the reduced scope of the 2023 Mobilization (i.e., limited excavation footprint with daily backfill and restoration), the following AMP components were appropriately scaled accordingly:

- The 2023 Mobilization was completed in multiple segments (approximately 9.75 ft long and approximately 12 ft wide) that were excavated and backfilled in the same day. Due to the limited active excavation footprint and low dust generation potential, the number of air monitoring stations was reduced from four to two (one upwind and one downwind of the active work zone). Furthermore, integrated air samples for PM10 and Cr<sup>+6</sup> were not collected.
- The use of hand-held monitoring equipment was deemed unnecessary since the upwind and downwind air monitoring stations were deployed in close proximity to the active work zone and were relocated throughout the duration of the project as the work progressed.
- Air monitoring results in **Appendix F** are reported as daily maximum 15-minute time-weighted average (TWA) values and project maximum and project average values. Weekly, biweekly, and monthly reports were not prepared.

AWT implemented dust control measures, including hauling waste/debris leaving AOC 1 in covered containers and covering temporary clean fill piles, to minimize dust emissions in accordance with the AMP. As noted above, an AMP Amendment specific to the 2023 Mobilization was not developed.

The concentrations and the short-duration metrics demonstrated that the dust control measures were effective at maintaining Cr<sup>+6</sup> in dust at concentrations less than the acceptable ambient concentration. A summary of air monitoring data collected during the 2023 Mobilization is included in **Appendix F**.

Borbas, a professional land surveyor, verified that horizontal and vertical excavation extents were achieved using total station surveying equipment. Borbas also performed a post-construction topographic survey of AOC 1 to verify that backfill and restoration were completed to represent the approximate pre-construction conditions.

A figure depicting the final as-built excavation surface AOC 1 for the 2023 Mobilization is included in **Appendix E**.

### 5.3 Post-Excavation Soil Sampling

**Figures 5-1 through 5-3** and **Tables 5-1 through 5-3** depict sampling locations and analytical results for soil samples within AOC 1. **Figure 5-4** includes a cross-section diagram of Cr<sup>+6</sup> samples remaining in place. **Figures 5-5A through 5-5R** present cross-section diagrams that depict a composite as-built excavation limit from the 2018 and 2023 Mobilizations in relation to the Cr<sup>+6</sup> sample locations. Laboratory analytical reports and data validation reports for the data presented in these tables are included in **Appendix G-1** and **Appendix H**, respectively. Laboratory analytical reports and data validation reports are provided for sample locations that are remaining in place and other specific locations that were removed by the RA that are required to document compliance with the remediation goals.

Laboratory electronic data deliverables (EDDs) for data presented in **Tables 5-1 through 5-3** have been submitted; documentation of the EDD submittals is provided in **Appendix G-2**.

#### 5.3.1 2018 Mobilization

During the 2018 Mobilization, post-excavation sidewall and base samples were collected, if required, to document compliance as follows:

- At the excavation limits, where sidewall soil was accessible, sidewall samples were collected every 30 linear ft and at 2-ft depth intervals.
- At the excavation bottom, where historical samples were at depths greater than 0.5 ft below the surface, base samples were collected every 900 square ft (or within the pre-established grids).
- At the excavation bottom, within a grid where the surface elevation had a 1-ft or greater shear face, a second base sample was collected within the grids.

Before collection of the post-excavation samples, the areas were visually inspected by an Arcadis geologist for CCPW or Chromite Ore Processing Residue (COPR) nodules, as they are a potential source of Cr<sup>+6</sup> and CCPW metals. Inspection was overseen by a Weston Solutions, Inc. (Weston) representative. If no CCPW or COPR nodules were present and a sample was required, the post-excavation sample was collected in accordance with the NJDEP *Field Sampling Procedures Manual* (FSPM) (NJDEP, 2005). Post-excavation samples were submitted to the SGS EHS Laboratory located in Dayton, New Jersey (SGS) and analyzed for:

- Cr<sup>+6</sup> using United States Environmental Protection Agency (USEPA) SW-846 Method 3060A digestion and USEPA SW-846 Method 7196A, as modified by NJDEP.
- pH using USEPA SW-846 Method 9045D.

- Redox Potential using method American Society for Testing and Materials (ASTM) International Method D1498-76M.
- Antimony, nickel, thallium, total chromium, and vanadium using USEPA SW-846 Method 6010D.

Additional excavation was completed during the 2018 Mobilization where post-excavation soil samples exceeded the CrSCC or CCPW was observed. Due to the structural restrictions associated with the railroad track, the excavation was terminated at a 15-ft offset from the railroad track.

### 5.3.2 2023 Mobilization

Post-excavation samples were not collected during the 2023 Mobilization since the excavation extended to clean confirmation samples collected from excavation sidewalls during the 2018 Mobilization and the 2022 supplemental PDI, as described in **Section 2.0**. Confirmation samples were generally collected every 30 linear feet and at 2-ft depth intervals.

Excavation areas were inspected by an AECOM geologist for CCPW or COPR nodules, as they are a potential source of Cr<sup>+6</sup> and CCPW metals. No CCPW or COPR nodules were observed to be remaining in place following completion of the 2023 Mobilization excavation.

The pre-determined remedial design extents were achieved during the 2023 Mobilization, with the exception of two locations where subsurface obstructions were encountered:

- A large boulder was encountered at the bottom of the excavation between CONRAIL-TP-4 and CONRAIL-TP-5. The top elevation of the boulder was observed at approximately El. 15.6 ft NAVD88, and the boulder extended below the target excavation elevation of El. 14.9 ft NAVD88 (i.e., no inaccessible soil remained within the depth of the excavation). The boulder appeared to extend under the railroad tracks and could not be safely removed during the excavation. The target excavation elevation of El. 14.9 ft NAVD88 depth was obtained immediately adjacent to the boulder. No CCPW-impacted soil was left in place in proximity to the boulder. The boulder was visually free of CCPW-related impacts. Contaminated soils in the vicinity of the boulder were removed and no CCPW-related impacts remain at this location.
- A concrete storm sewer outfall, which daylights within the existing drainage swale, was encountered between CONRAIL-TP-5 and CONRAIL-TP-6. The storm sewer outfall was protected in place during excavation activities. The top of pipe was encountered at approximately El. 17.6 ft NAVD88 and the invert of the pipe was encountered at approximately El. 15.95 ft NAVD88. The target excavation elevation of El. 14.9 ft NAVD88 was achieved adjacent to the storm sewer pipe. No excavation was conducted below the pipe, in order to protect it and because the storm sewer pipe is underlain with clean stone bedding that did not necessitate remediation. Contaminated soils in the vicinity of the storm sewer outfall were removed and no CCPW-related impacts remain at this location.

These locations are depicted on **Figures 5-1B, 5-2B, and 5-3B**.

### 5.4 CCPW Metals

Following excavation, vanadium remained in soil at one sample location (SW-A34 [2.0-2.5]) at a concentration greater than the ARS (**Figure 5-2 and Table 5-2**). For vanadium remaining in soil at a

concentration greater than the ARS, compliance averaging was used to attain compliance with the ARS. The compliance averaging memorandum is provided in **Appendix I**.

In the memorandum, *Hudson County Chromium (HCC), Site 107 – 18 Chapel Avenue, SRP Program Interest No. G000008728, Vanadium Exceedances in Fill Unrelated to CCPW Fill*, submitted to NJDEP on May 3, 2013, it was documented that fill materials in the “Vanadium-only exceedance area” are unrelated to CCPW filling operations and are not the responsibility of PPG (CB&I, 2013a). Based on the close proximity of sample SW-A34 (2.0-2.5) to the “Vanadium-only exceedance area,” it is expected that this exceedance is associated with historic fill material and not CCPW-related impacts.

No other CCPW metals (antimony, nickel, thallium, and total chromium) remain in place in soil at concentrations greater than the RDCSRS, DIGWSSLs, or SSIGWSRS.

## **5.5 Field Change Notifications**

Field changes made during implementation of the RA in accordance with the TEP (Arcadis, 2018d) were documented in Field Change Notification forms. Field Change Notifications submitted relevant to the RA activities at AOC 1 are listed in **Table 5-4**.

## 6.0 Reliability of Data: Data Validation and Usability

### 6.1 Data Validation

Data validation was performed by AECOM (as well as by other consultants) to evaluate whether the analytical data collected to demonstrate compliance with the RAR objectives were scientifically defensible, properly documented, of known quality, and met RAR objectives. Data validation included the review of analytical procedures, quality control (QC) results, calibration procedures, data reduction, and completeness of the laboratory data packages as specified in the Field Sampling Plan – Quality Assurance Project Plan (FSP-QAPP) (AECOM, 2010a) and QAPP – Addendum (QAPP) (Arcadis, 2018b). Deficiencies noted were communicated to the laboratory and resolutions were documented in the data validation reports. If appropriate, data were qualified for use as described later in this section.

The laboratory analytical data packages (**Appendix G-1**) were reviewed in accordance with the FSP-QAPP (AECOM, 2010a), the QAPP (Arcadis, 2018b), the NJDEP validation Standard Operating Procedures (SOPs) for Cr<sup>+6</sup> and inorganic data, and USEPA Region 2 metals validation guidelines. The following NJDEP validation guidelines served as the basis for the actions taken during validation:

- NJDEP Office of Data Quality *SOP 5.A.10, Rev 3 (September 2009), SOP for Analytical Data Validation of Hexavalent Chromium – for USEPA SW-846 Method 3060A, USEPA SW-846 Method 7196A and USEPA SW-846 Method 7199* (NJDEP, 2009); and
- NJDEP Office of Data Quality *SOP 5.A.16, Rev 1 (May 2002), Quality Assurance Data Validation of Analytical Deliverables for Inorganics (based on USEPA SW-846 Methods)* (NJDEP, 2002).

Where USEPA Region 2 inorganic validation guidelines were also used in assessing metals, the most current guidance in effect at the time of validation was used; the specific revision used is listed in each data validation report provided in **Appendix H**. The link to Region 2 validation guidance on the USEPA website is shown below:

- <https://www.epa.gov/quality/region-2-quality-assurance-guidance-and-standard-operating-procedures> (last accessed in June 2024).

The level of validation ranged from a comprehensive validation according to the NJDEP guidelines to a limited validation based on QC summary information or completeness reviews, depending on the analyte and matrix. The validation procedures for the Cr<sup>+6</sup> data included full validation, which involved a comprehensive review of both summary forms and raw data, whereas the metals data received limited validation. Limited validation for metals data was based on information provided by the laboratory on its QC summary forms and did not include raw data review. At a minimum, limited validation included validation of the following data elements:

- Agreement of analyses conducted with chain-of-custody requests;
- Holding times and sample preservation;
- Method blanks/field equipment blanks/trip blanks;
- Laboratory control samples (LCS) or equivalent results;



- Matrix spike (MS)/matrix spike duplicate (MSD) results;
- Laboratory duplicate results;
- Field duplicate results; and
- Quantitation limits and sample results (limited to evaluating dilutions and re-analyses).

Full validation was conducted on the Cr<sup>+6</sup> data. Full validation included each of the data elements listed for limited validation along with review of calibration data and raw data and spot checks for verification of calculations.

Validation reports were prepared for each data package that was validated. The validation reports are provided in **Appendix H**. The reports summarize the samples reviewed, parameters reviewed, nonconformance with the established criteria, and validation actions (including application of data qualifiers) presented in accordance with the NJDEP “hit list” format for validation performed by AECOM. Validation data qualifiers were based on the NJDEP validation SOPs for the Cr<sup>+6</sup> and inorganic data. The following qualifiers are used in data validation:

- J Indicates the result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample. J+ or J- is used when the direction of bias can be determined.
- U Indicates the analyte was not detected in the sample above the sample reporting limit.
- UJ Indicates the analyte was not detected above the reporting limit and the reporting limit was approximate.
- UB The inorganic analyte concentration is less than or equal to three (3) times the concentration in the associated method/preparation blank. The presence of the analyte in the sample is negated due to laboratory blank contamination.
- JB The inorganic analyte concentration is greater than three (3) times, but less than or equal to ten (10) times the concentration in the associated method/preparation blank. The presence of that analyte in the sample is considered “real” but the concentration is quantitatively estimated due to method blank contamination.
- R The sample result was rejected due to serious deficiencies; the presence or absence of the analyte could not be confirmed.
- RA The sample result was rejected due to NJ-specific data validation QC requirements; however, the result is usable for project objectives. Refer to the Data Quality and Usability section of the data validation report for further information.

## 6.2 Data Usability Assessment

Soil samples collected to demonstrate compliance with the RAR objectives were sent to Test America Laboratories in Edison, NJ (NJ certification 12028), SGS-Accutest Laboratories in Dayton, NJ (NJ Certification 12129), or Integrated Analytical Laboratories, Randolph, NJ (NJ certification 14751). The analyses were performed in accordance with USEPA- and NJDEP-approved analytical protocols in place at the time the analyses were performed. Quality assurance analytical measures were implemented in accordance with the NJDEP TRSR (N.J.A.C. 7:26E) (NJDEP, 1993b) and complied with the requirements for a NJDEP-certified laboratory specified in *Regulations Governing the*

*Certification of Laboratories and Environmental Measurements* (NJDEP, 1981). Specific quality control issues identified during validation are documented in the individual data validation reports provided in **Appendix H**. Results of the data validation indicated that, in general, the analytical data were of adequate quality to meet the project objectives. However, there were some quality assurance (QA)/QC issues identified during data validation that resulted in qualification of data as estimated.

Data usability was evaluated using the data quality indicators of precision, accuracy, representativeness, comparability, completeness, and sensitivity. Data are regarded as usable.

### **6.2.1 Precision**

Precision is the measure of agreement among repeated measurements of the same property under identical or substantially similar conditions and includes both field and analytical components. The information used to evaluate precision included results for field duplicates, matrix duplicates, laboratory duplicates, and serial dilutions. For the RAR data set, relative percent difference (RPD) non-conformances were observed for field and laboratory duplicates associated with Cr<sup>+6</sup> and CCPW metals.

Field precision was assessed through the collection and analysis of field duplicates and expressed as the RPD of the sample and field duplicate pair results. Approximately 1.7% of the Cr<sup>+6</sup> results included field duplicate precision as a reason for qualification. No CCPW metals results were qualified based on field duplicate precision.

Laboratory precision was assessed through the RPD results for MS/MSDs, LCS/laboratory control sample duplicate (LCSD) pairs, and duplicate sample analyses. MS/MSDs and duplicate sample analyses do not reflect laboratory precision as purely as LCS/LCSDs since sample homogeneity, which can be a significant issue for soil samples, can impact the precision of sample and matrix spike duplicates. However, no differentiation of the applied reason code is made between LCS/LCSDs and MS/MSDs or sample duplicates. Overall, 24% of the Cr<sup>+6</sup> results were qualified based on laboratory precision. One Cr<sup>+6</sup> result was also qualified for failure to meet the 20% RPD criteria between duplicate injection results associated with the ion chromatography analysis used in Method 7199. For the CCPW metals, 11 chromium results (1.6%) of the data were qualified based on laboratory precision.

Two CCPW metals results for chromium were qualified (J) as estimated based on serial dilution results.

### **6.2.2 Accuracy**

Accuracy is the degree of agreement between an observed value and an accepted reference or true value. The results of LCS data, method blanks, and MS/MSDs were used as the primary indicators of accuracy; information such as sample container type, preservation, and holding time was also considered as impacting to analytical accuracy. Some of this information was assessed by the laboratory at the time of receipt (container type and preservation); other parameters were evaluated during the validation process.

Qualification of data as estimated (J/J-UJ) for accuracy was related to issues such as field or laboratory blank contamination, LCS results, MS results, and percent solids. A summary of the validation findings is presented by QC parameter type below.

The presence of target analytes in laboratory blanks and blanks related to field activities (i.e., field blanks) was cited as a reason for qualification of one CCPW metals chromium result (approximately

0.16% of reported values). One Cr<sup>+6</sup> result was qualified (J) as estimated based on field blank contamination. For those blanks in which contaminants were detected, action levels were established per the NJDEP or USEPA Region 2 validation guidance documents. Associated sample results were qualified accordingly.

In the CCPW metals fraction, 34 antimony results (4.8% of the CCPW results) and 3 chromium results (0.43% of the CCPW results) were qualified based on MS and/or MSD recoveries. Approximately 25.6% of the Cr<sup>+6</sup> results were flagged as estimated based on the results of soluble and/or insoluble spike recoveries outside the range of 75-125% but within the limits of 50-150%. Data points impacted by MS and/or MSD recoveries within this range were flagged as J/J- or UJ; individual validation reports address the potential for high or low bias to sample results based on matrix interferences.

There were no CCPW metals or Cr<sup>+6</sup> results qualified due to LCS recoveries.

### **6.2.3 Representativeness**

The representativeness of any field program is a function of the planning and procedures used to collect the samples and the locations and density of samples collected. Sampling and preservation methods were based on established methods and SOPs outlined in the FSP-QAPP (AECOM, 2010a) and QAPP (Arcadis, 2018b), which are known to minimize error associated with the disturbance of environmental samples from their natural setting.

Factors to be considered in evaluating representativeness are the use of standard analytical procedures, sample preservation, and the use of the appropriate sample container. The analytical methods, preservation procedures, and containers used in this program were as specified in the FSP-QAPP (AECOM, 2010a).

Environmental samples are generally shipped so that the samples are maintained at a temperature of approximately 4°Celsius. The sample receipt temperatures were compliant and no discrepancies in sample containment were noted.

The moisture content of samples is also a factor in the representativeness of the data. In accordance with USEPA Region 2 validation guidance, samples containing more than 50% moisture would be qualified as estimated. As noted previously, this requirement did not result in the qualification of the results.

### **6.2.4 Comparability**

Comparability of the data in the RAR data set was maximized by using standard methods for sampling, analysis, and data validation.

### **6.2.5 Completeness**

Completeness is the measure of the amount of valid data obtained from a measurement system; valid data are defined as those data judged to be usable (i.e., not rejected as a result of the validation process). For the RAR, 879 individual data points were generated. Of those data points, no Cr<sup>+6</sup> results or CCPW results were rejected. The results are considered usable for remedial action compliance decisions with an understanding of the quality issues identified during validation.

### **6.2.6 Sensitivity**

Analytical dilutions can be necessary due to the sample matrix or elevated concentrations of target or non-target analytes. The detection limits reported by the laboratory were adjusted to reflect dilution factors. Limitations in analytical methodologies and/or low percent solids content for some soil samples can result in detection limits that exceed either the CrSCC, RDCSRS, NRDCSRS, DIGWSSL, or the SSIGWSRS. No non-detect Cr<sup>+6</sup> or CCPW metals analytical results had detection limits greater than the RDCSRS or NRDCSRS.

### **6.2.7 Data Quality/Data Usability Conclusions**

The findings of this Data Quality Assessment and Data Usability Evaluation indicate that the data used to demonstrate compliance with the RAR objectives are sufficiently representative of actual conditions and may be used to support decisions with the qualification of results noted above.

Data qualifiers and reason codes were applied by the data validator to identify data limitations found in the validation process. Specific details regarding analytes and samples can be found in the individual data validation reports in **Appendix H**.

## 7.0 Documentation of the Protectiveness of the Remedial Action

Soil analytical results from the RI and Supplemental PDI, in combination with the post-excavation sampling results, were used to document the effectiveness and completeness of the soil remediation. The locations of samples used to demonstrate compliance with the remediation goals for AOC 1 are depicted on **Figures 5-1A** through **5-3B**. **Tables 5-1** through **5-3** present the analytical results for samples used to demonstrate compliance with the remediation goals. Documentation of compliance averaging used to achieve ARS compliance for vanadium in soil is provided in **Appendix I**. Laboratory analytical reports and data validation reports for the data presented in the tables are included in **Appendices G-1** and **H**, respectively. As discussed in **Section 6.0**, the laboratory analytical data for the collected samples were found to be usable for the purposes of defining the extents of the remedial excavation.

AOC 1 has been remediated as follows:

- Excavation of soil containing Cr<sup>+6</sup> met the requirements specified in the NJDEP Memorandum entitled *Chromium Moratorium*, February 8, 2007 (the Chromium Policy) (NJDEP, 2007).
- For soil with one V sample concentration exceeding the ARS, compliance averaging was used to attain compliance with this criterion, as discussed in **Appendix I**.
- CCPW metals other than V (i.e., antimony, total chromium, nickel, thallium) are not present at concentrations greater than the applicable remediation criteria.

Waste manifests for soil and water that were loaded for off-site disposal are presented in **Appendix J**. Clean fill documentation for backfill materials imported during the 2018 Mobilization is provided in the Site 107 RAR (Arcadis, 2021a). Clean fill documentation for backfill materials imported during the 2023 Mobilization is provided in **Appendix K**.

### 7.1 As-Built Diagrams

The following as-built diagrams are included in **Appendix E**:

- A diagram depicting the horizontal and vertical extents of the 2018 Site 107 excavation, which extended onto the Conrail Right-of-Way (AOC 1) property.
- A diagram depicting the topography of the restored surface associated with the Site 107 restoration, which extended onto the Conrail Right-of-Way (AOC 1) property.
- A diagram depicting the horizontal and vertical extents of the 2023 AOC 1 excavation.
- A diagram depicting the topography of the restored surface associated with the 2023 AOC 1 restoration.

### 7.2 Description of Site Restoration Activities

As described in **Section 1.0** and **Section 5.2**, the remediation was completed in multiple phases. As a result, the backfilling activities were completed in separate phases as described below:

- Backfilling and restoration activities during the 2018 Mobilization were commenced on August 2, 2018 and were completed on October 3, 2019.
- Backfilling and restoration activities during the 2023 Mobilization were generally conducted concurrently with the excavations between July 15 and October 29, 2023. Final restoration was completed on November 4, 2023.

Backfill and restoration details specific to each mobilization are provided in the following sections.

### 7.2.1 2018 Mobilization

Excavation areas were brought to within 6 inches of final grade with licensed quarry material from Tilcon's Mount Hope and Pompton Lakes licensed quarries. Licensed quarry material was imported in accordance with NJDEP's *Fill Material Guidance for SRP Sites* (NJDEP, 2015). Licensed quarry material was delivered to adjacent Site 107 and stockpiled before placement within the open excavations.

ENTACT amended licensed quarry material with FerroBlack®-H in accordance with the Discharge to Groundwater (DGW) Authorization, Hudson County Chrome Site 107/Site 108 (Arcadis, 2018a) (see **Appendix D**). FerroBlack®-H-amended backfill was placed in Conrail Right-of-Way (AOC 1) during the 2018 Mobilization. Clean backfill was blended with a low dose of FerroBlack®-H (0% to 0.5% by weight). The application of backfill amendments is intended to reduce Cr<sup>+6</sup> in groundwater to the less-toxic and less-mobile trivalent form, Cr<sup>+3</sup>, preventing recontamination of soil in the excavated area, and to remediate groundwater. Additional details regarding the blending and placement of the FerroBlack®-H, as well as the extents of licensed quarry material amended with FerroBlack®-H, are presented in the Permit-By-Rule – FerroBlack®-H approval and amendment (**Appendix D**). Other areas were backfilled with non-amended licensed quarry material.

Licensed quarry material or licensed quarry material amended with FerroBlack®-H was placed in 10- to 12-inch loose lifts and compacted to 95 percent of the maximum dry density per ASTM D-1557. Compaction testing was performed at the rate of one test per 2,500 square ft per 10-inch lift of licensed quarry material or amended licensed quarry material.

Final grades were established to promote positive drainage toward the existing storm sewers to closely mimic pre-existing grade. The surface was restored with 6 inches of dense-graded aggregate (DGA).

### 7.2.2 2023 Mobilization

Excavation areas were brought to the approximate pre-construction elevations with licensed quarry material from the Weldon Materials, Inc. Lake Hopatcong licensed quarry. Licensed quarry material was imported in accordance with NJDEP's *Fill Material Guidance for SRP Sites* (NJDEP, 2015). Licensed quarry material was delivered to adjacent Site 108 and staged in covered stockpiles before placement within the open excavations. FerroBlack®-H-amended backfill was not placed in Conrail Right-of-Way during the 2023 Mobilization.

The DGA was placed in 6-inch loose lifts and compacted to 95 percent (minimum) of the maximum dry density per ASTM D-1557, Method "C." In locations where standing water was present in the excavation bottom, a ¾" stone bridge (maximum 12-inch thick) was installed. A non-woven geotextile fabric was placed above the stone bridge prior to backfill and compaction with DGA. Compaction testing was generally performed at a rate of one test per 9.75-ft excavation segment per 6-inch lift of DGA.

Final grades were established to promote positive drainage within the existing swale and to closely mimic the pre-existing grade. New ballast from the Lake Hopatcong licensed quarry or previously segregated ballast was placed in areas that were previously covered with railway ballast, to the approximate pre-construction horizontal and vertical extents. Surfaces outside of ballasted areas were restored with DGA to final grade.

### 7.3 Total Remedial Action Cost

The 2018 Mobilization estimated remediation cost is captured under the total Site 107 RA cost, which is reported in the Site 107 RAR (Arcadis, 2021a).

The 2023 Mobilization estimated remediation cost is \$2 million. This includes the costs for RI implementation, engineering, excavation and backfilling, dewatering, restoration, air monitoring, construction management, waste transportation and disposal, and overall project management and reporting.

### 7.4 Documentation of Waste Generation and Disposal

The 2018 and 2023 Mobilizations cumulative in-place volume of soil that was excavated from Conrail Right-of-Way (AOC 1) and disposed off-site was approximately 2,780 cubic yards.

The 2018 Mobilization's approximate quantities of soil and concrete removed from AOC 1 and transported off-site for disposal are reported in Section 7.3 of the Site 107 RAR (Arcadis, 2021a). Groundwater removed from the Conrail Right-of-Way (AOC 1) property during the 2018 Mobilization was transferred to a treatment plant located on Site 137, as documented in the Site 107 RAR (Arcadis, 2021a).

The 2023 Mobilization's approximate quantities of materials removed from AOC 1 and transported off-site for disposal are as follows:

- Non-Hazardous Soil: Approximately 625 tons.
- Water: Approximately 710 gallons.

Waste manifests and bills of lading (BOLs) for grids within the AOC 1 excavation area are included in **Appendix J**. Loads that were removed from grids or sets of grids that straddle the Conrail Right-of-Way (AOC 1) property boundaries with Site 107 and Site 108 are also included in **Appendix J**.

As discussed in **Section 2.1.1**, spoils generated from AOC 1 as part of the Supplemental PDI were transported off-site for disposal. Approximately 15.04 tons of non-hazardous soils were transported by FCI to the Conestoga Landfill in Morgantown, Pennsylvania. Copies of the BOLs for the Supplemental PDI are provided in **Appendix B**.

The following facilities were used for the off-site disposal of waste materials generated during RA activities at Conrail Right-of-Way (AOC 1):

#### Hazardous Waste Materials

- Stablex Canada, Inc., Blainville, Québec, Canada;
- Environmental Quality Company (EQ) Detroit, Inc., Detroit, Michigan;
- Envirite of Pennsylvania, Inc., York, Pennsylvania; and/or

- Michigan Disposal Waste Treatment Plant, Belleville, Michigan.

#### Non-Hazardous Solid Waste Materials

- Cumberland County Improvements Authority Landfill, Deerfield Township, NJ.
- Clean Earth of North Jersey Treatment, Storage, and Disposal Facility, Kearny, NJ.

#### Water:

- Cycle Chem, Inc., Elizabeth, NJ.

Copies of fully executed manifests, BOLs, and certificates of disposal documenting the off-site transport of waste materials are presented in **Appendix J**.

## 7.5 Documentation of Source, Type, Quantities, and Location of Fill

Material used for backfilling and restoration consisted of licensed quarry material, DGA, and railway ballast (No. 3 stone). These materials were supplied by Tilcon and Welden Materials, Inc. (Welden) and were sourced from the following mining facilities:

- 625 Mt. Hope Road, Wharton, NJ (Tilcon);
- Broad Street, Pompton Lakes, NJ (Tilcon);
- 125 Hamburg Turnpike, Riverdale, NJ (Tilcon); and
- 181 State Highway 181, Lake Hopatcong, NJ (Welden).

These are licensed quarry facilities permitted to operate as commercial quarries by NJDEP.

Backfill amended with FerroBlack®-H was placed in Conrail Right-of-Way (AOC 1) only during the 2018 Mobilization.

To meet the minimum requirements of the NJDEP's *Fill Material Guidance for SRP Sites* (NJDEP, 2015), sources of imported fill met the following criteria:

- Certified by the supplier as clean from a virgin source, based on their knowledge of the place of origin and history.
- A representative sample of fines was analyzed to confirm that concentrations of volatile organic compounds, semi-volatile organic compounds, pesticides, polychlorinated biphenyls (PCBs), metals, extractable petroleum hydrocarbons, cyanide, and Cr<sup>+6</sup> were less than the NJDEP RDCSRS and the licensed quarry material did not pose a potential impact to groundwater.

In addition, the Site Construction Manager implemented a stringent visual inspection process, by on-site personnel, to verify the quality of the backfill. Visual inspection criteria included the presence of foreign debris, the ratio of fines in the material, and significant differences in color.

The 2018 Mobilization mine certifications and a list of the quarry material load reports are provided in Appendix I of the Site 107 RAR (Arcadis, 2021a).

As discussed in **Section 2.1.1**, clean fill was imported to backfill test pits completed during the Supplemental PDI. Approximately 25.16 tons of railway ballast and 26.70 tons of DGA from the



Stavola Construction Materials, Inc. Bound Brook Quarry in Bridgewater, New Jersey were imported during the Supplemental PDI. The mine certificate and load tickets for these materials are provided in **Appendix B**.

The 2023 Mobilization mine certifications and a list of the quarry material load reports are provided in **Appendix K** of this RAR.

## **7.6 Identification of Required Permits and Authorizations**

The 2018 Mobilization permits and approvals are listed below:

- Discharge to Groundwater Authorization for site-wide FerroBlack®-H Backfill Amendment from the NJDEP, Site Remediation Program.
- Discharge to Surface Water General Permit for Construction Activity - Stormwater (5G3) from the NJDEP, Division of Water Quality.
- SESCO approvals from Hudson-Essex-Passaic County Soil Conservation District.

The 2023 Mobilization approvals are listed below:

- Submission of a revised Monitoring Well Record for PPG-108-MW1S to NJDEP Bureau of Water Allocation and Well Permitting.

Since the disturbed area associated with the 2023 Mobilization did not meet or exceed 5,000 square ft, SESCO Plan and 5G3 approvals were not required per N.J.S.A. 4:24-39 et seq. (NJDEP, 1980). A Discharge to Groundwater Authorization was also not necessary for the 2023 Mobilization since FerroBlack®-H-amended backfill was not used.

The necessary permits were obtained from and approved by the state, local, and county agencies prior to initiation of the activities covered by the permits. Necessary permits and approvals are documented in **Appendix D**.

## 8.0 Receptor Evaluation Update

The purpose of a receptor evaluation (RE) is to document the existence of human or ecological receptors, and the actions taken to protect those receptors, at contaminated sites. Pursuant to N.J.A.C. 7:25E-1.12, REs must include general site information, an evaluation of surrounding land use, a description of contamination, a discussion of groundwater use in the area, an evaluation of vapor intrusion potential, and an ecological evaluation.

The Receptor Evaluation Report was submitted as part of the 2013 RIR (Dresdner Robin, 2013). An updated RE Form and required attachments are provided with this RAR.

## 9.0 Conclusions and Recommendations

This RAR documents that the soil RA for AOC 1 is effective in protecting public health and safety and the environment and remedial objectives have been achieved as follows:

- Excavation of soil containing Cr<sup>+6</sup> met the requirements specified in the NJDEP Memorandum entitled *Chromium Moratorium*, February 8, 2007 (the Chromium Policy) (NJDEP, 2007).
- For soil with one V sample concentration exceeding the ARS, compliance averaging was used to attain compliance with this criterion, as presented in **Appendix I**.
- CCPW metals other than V (i.e., antimony, total chromium, nickel, thallium) are not present at concentrations greater than the applicable remediation criteria.

On this basis, PPG, the responsible party, has demonstrated compliance with the applicable remediation requirements for the soil within Conrail Right-of-Way (AOC 1), and no further action with regard to AOC 1 soil is needed. PPG requests the closure of AOC 1, by the NJDEP through the issuance of a Consent Judgment Compliance Letter.

## 10.0 References

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## Tables

**Table 3-1**  
**Soil Remediation Standards/Criteria**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
**PPG, Jersey City, New Jersey**

Constituent	CrSCC (mg/kg)	RDCSRS (mg/kg)	NRDCSRS (mg/kg)	Alternative SRS mg/kg	DIGWSSL (mg/kg)	SSIGWSRS mg/kg
Hexavalent Chromium	20	N/A	N/A	N/A	N/A	N/A
Antimony	N/A	31	450	N/A	6	N/A
Chromium (total) <sup>1</sup>	N/A	120,000	N/A	N/A	N/A	N/A
Nickel <sup>2</sup>	N/A	1,600	23,000	N/A	N/A	855
Thallium	N/A	N/A	N/A	N/A	3	N/A
Vanadium <sup>3</sup>	N/A	N/A	1,100	390	N/A	N/A

**Notes:**

<sup>1</sup>There is currently no NJDEP SRS and no NJDEP SCC for total chromium. Therefore, total chromium results are compared to the interim NJDEP Residential SCC for trivalent chromium of 120,000 mg/kg as the cleanup criteria for soil. There is no non-residential SCC for trivalent chromium.

<sup>2</sup>A request for an Alternative Remediation Standard for Impact to Groundwater - Nickel was submitted to NJDEP by Arcadis, on behalf of PPG, on March 4, 2019. The Site-Specific Impact to Groundwater Soil Remediation of Standard of 855 mg/kg for nickel was approved by NJDEP on April 25, 2019.

<sup>3</sup>A request for an Alternative Soil Remediation Standard for vanadium was submitted to NJDEP by Arcadis, on behalf of PPG, as part of Appendix G of the August 20, 2018 *Technical Execution Plan - Site Soils, Site 107 Fashionland*, which was approved by NJDEP on November 7, 2018.

CrSCC - Chromium Soil Cleanup Criteria

DIGWSSL - Default Impact to Groundwater Soil Screening Level

SSIGWSRS - Site-Specific Impact to Groundwater Soil Remediation Standard

mg/kg - milligrams per kilogram

N/A - not applicable

NJDEP - New Jersey Department of Environmental Protection

NRDCSRS - Non-Residential Direct Contact Soil Remediation Standard

RDCSRS - Residential Direct Contact Soil Remediation Standard

SCC - Soil Cleanup Criteria

SRS - Soil Remediation Standard



**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15)	
107_M018E2	19.8	107_M018E2_1.0	1.0 - 1.5 ft	18.8	18.3	460-34820-15	460348201	12/14/2011	REMOVED	N	Y	99.0		S1
107_M018E2	19.8	107_M018E2_3.0	3.0 - 3.5 ft	16.8	16.3	460-34820-16	460348201	12/14/2011	REMOVED	N	Y	53.9		S1
107_M018E2	19.8	REP121411-1	3.0 - 3.5 ft	16.8	16.3	460-34820-21	460348201	12/14/2011	REMOVED	FD	Y	25.0		S1
107_M018E2	19.8	107_M018E2_3.5	3.5 - 4.0 ft	16.3	15.8	460-34820-17	460348201	12/14/2011	REMOVED	N	Y	194		S1
107_M018E2	19.8	107_M018E2_4.0	4.0 - 4.5 ft	15.8	15.3	460-34820-18	460348201	12/14/2011	REMOVED	N	Y	< 1	U	S1
107_M018E2	19.8	107_M018E2_4.5	4.5 - 5.0 ft	15.3	14.8	460-34820-19	460348201	12/14/2011	REMAIN	N	Y	< 1	U	
107_M018E2	19.8	107_M018E2_5.0	5.0 - 5.5 ft	14.8	14.3	460-34820-20	460348201	12/14/2011	REMAIN	N	Y	< 0.88	U	
107_M018E2_N	19.8	1-7/10/2012-44	1.0 - 1.5 ft	18.8	18.3	06877-044	06877	7/10/2012	REMOVED	N	Y	24.0		S1
107_M018E2_N	19.8	1-7/10/2012-45	1.5 - 2.0 ft	18.3	17.8	06877-045	06877	7/10/2012	REMOVED	N	Y	8.29		S1
107_M018E2_N	19.8	1-7/10/2012-46	2.0 - 2.5 ft	17.8	17.3	06877-046	06877	7/10/2012	REMOVED	N	Y	5.64		
107_M018E2_N	19.8	1-7/10/2012-47	3.5 - 4.0 ft	16.3	15.8	06877-047	06877	7/10/2012	REMOVED	N	Y	4.97		
107_M018E2_N	19.8	1-7/10/2012-48	5.5 - 6.0 ft	14.3	13.8	06877-048	06877	7/10/2012	REMOVED	N	Y	0.622	J	
107_M018E2_N_1	18.0	107_M018E2_N_1-1.0-1.5	1.0 - 1.5 ft	17.0	16.5	E12-11760-014	E12-11760	11/29/2012	REMOVED	N	Y	9.68		
107_M020	19.8	107_M020_0.0	0.0 - 0.5 ft	19.8	19.3	460-23018-11	460230181	2/11/2011	REMOVED	N	Y	< 0.58	U	
107_M020	19.8	107_M020_1.0/1.2	1.0 - 1.5 ft	18.8	18.3	460-23018-15	460230181	2/11/2011	REMOVED	N	Y	116		S1
107_M020	19.8	107_M020_2.5	2.5 - 3.0 ft	17.3	16.8	460-23018-16	460230181	2/11/2011	REMOVED	N	Y	239		S1
107_M020	19.8	107_M020_3.0	3.0 - 3.5 ft	16.8	16.3	460-23018-17	460230181	2/11/2011	REMOVED	N	Y	158		S1
107_M020	19.8	107_M020_3.5	3.5 - 4.0 ft	16.3	15.8	460-23018-12	460230181	2/11/2011	REMOVED	N	Y	3.2		S1, S2
107_M020	19.8	107_M020_7.5	7.5 - 8.0 ft	12.3	11.8	460-23018-13	460230181	2/11/2011	REMAIN	N	Y	1.2		
107_M020	19.8	REP021111-1	7.5 - 8.0 ft	12.3	11.8	460-23018-8	460230181	2/11/2011	REMAIN	FD	Y	1.2		
107_M020	19.8	107_M020_11.5	11.5 - 12.0 ft	8.3	7.8	460-23018-14	460230181	2/11/2011	REMAIN	N	Y	1.3		
107_M020E1	19.5	107_M020E1_1.0	1.0 - 1.5 ft	18.5	18.0	460-34820-2	460348201	12/14/2011	REMOVED	N	Y	3010		S1
107_M020E1	19.5	107_M020E1_1.5	1.5 - 2.0 ft	18.0	17.5	460-34820-3	460348201	12/14/2011	REMOVED	N	Y	7950		S1
107_M020E1	19.5	107_M020E1_2.5	2.5 - 3.0 ft	17.0	16.5	460-34820-4	460348201	12/14/2011	REMOVED	N	Y	11700		S1
107_M020E1	19.5	107_M020E1_3.0	3.0 - 3.5 ft	16.5	16.0	460-34820-5	460348201	12/14/2011	REMOVED	N	Y	11700		S1
107_M020E1	19.5	107_M020E1_3.5	3.5 - 4.0 ft	16.0	15.5	460-34820-6	460348201	12/14/2011	REMOVED	N	Y	65.7		S1
107_M020E1	19.5	107_M020E1_4.0	4.0 - 4.5 ft	15.5	15.0	460-34820-7	460348201	12/14/2011	REMOVED	N	Y	3.7		S1
107_M020E2	19.3	107_M020E2_1.0	1.0 - 1.5 ft	18.3	17.8	460-34781-74	460347811	12/13/2011	REMOVED	N	Y	9040		S1
107_M020E2	19.3	107_M020E2_1.5	1.5 - 2.0 ft	17.8	17.3	460-34781-75	460347811	12/13/2011	REMOVED	N	Y	8880		S1
107_M020E2	19.3	107_M020E2_2.5	2.5 - 3.0 ft	16.8	16.3	460-34781-76	460347811	12/13/2011	REMOVED	N	Y	2170		S1
107_M020E2	19.3	107_M020E2_3.0	3.0 - 3.5 ft	16.3	15.8	460-34781-77	460347811	12/13/2011	REMOVED	N	Y	62.8		S1
107_M020E2	19.3	107_M020E2_3.5	3.5 - 4.0 ft	15.8	15.3	460-34781-78	460347811	12/13/2011	REMOVED	N	Y	2.5		S1
107_M020E2	19.3	107_M020E2_4.0	4.0 - 4.5 ft	15.3	14.8	460-34781-79	460347811	12/13/2011	REMOVED	N	Y	1.4	J	
107_M020E2_N	17.9	107_M020E2_N-1.0-1.5	1.0 - 1.5 ft	16.9	16.4	E12-11760-019	E12-11760	11/29/2012	REMOVED	N	Y	1.36		
107_M020E2_N	17.9	107_M020E2_N-1.5-2.0	1.5 - 2.0 ft	16.4	15.9	E12-11760-020	E12-11760	11/29/2012	REMAIN	N	Y	1.35		
107_M020E2_N	17.9	107_M020E2_N-2.5-3.0	2.5 - 3.0 ft	15.4	14.9	E12-11760-021	E12-11760	11/29/2012	REMAIN	N	Y	3.23		
107_M020E2_N	17.9	107_M020E2_N-3.0-3.5	3.0 - 3.5 ft	14.9	14.4	E12-11760-022	E12-11760	11/29/2012	REMAIN	N	Y	7.32		
107_M020N	19.1	107_M020N_1.0	1.0 - 1.5 ft	18.1	17.6	460-34781-2	460347811	12/13/2011	REMOVED	N	Y	583		S3
107_M020N	19.1	107_M020N_1.5	1.5 - 2.0 ft	17.6	17.1	460-34781-3	460347811	12/13/2011	REMOVED	N	Y	126		S3
107_M020N	19.1	REP121311-1	1.5 - 2.0 ft	17.6	17.1	460-34781-8	460347811	12/13/2011	REMOVED	FD	Y	106	JJ	S3
107_M020N	19.1	107_M020N_2.5	2.5 - 3.0 ft	16.6	16.1	460-34781-4	460347811	12/13/2011	REMOVED	N	Y	25.4		S3
107_M020N	19.1	107_M020N_3.0	3.0 - 3.5 ft	16.1	15.6	460-34781-5	460347811	12/13/2011	REMOVED	N	Y	28.4		S3
107_M020N	19.1	107_M020N_3.5	3.5 - 4.0 ft	15.6	15.1	460-34781-6	460347811	12/13/2011	REMOVED	N	Y	28.4	JJ	S3
107_M020N	19.1	107_M020N_4.0	4.0 - 4.5 ft	15.1	14.6	460-34781-7	460347811	12/13/2011	REMOVED	N	Y	26.2	JJ	S3
107_M020N	19.1	107_M020N_20190108	5.3 - 5.8 ft	13.8	13.3	JC81058-3	JC81058	1/8/2019	REMOVED	N	Y	41.5		S3
107_M020N(A)	19.1	107_M020N(A)_20190116	6.5 - 7.0 ft	12.6	12.1	JC81419-3	JC81419	1/16/2019	REMAIN	N	Y	1.6	J-	S3
107_M020N_1	18.0	1-7/10/2012-50	1.0 - 1.5 ft	17.0	16.5	06877-50	06877	7/10/2012	REMOVED	N	Y	< 0.284	U	
107_M020N_1	18.0	1-7/10/2012-51	2.0 - 2.5 ft	16.0	15.5	06877-51	06877	7/10/2012	REMOVED	N	Y	7.96		
107_M020N_1	18.0	1-7/10/2012-52	3.0 - 3.5 ft	15.0	14.5	06877-52	06877	7/10/2012	REMOVED	N	Y	< 0.263	U	
107_M020N_1	18.0	1-7/10/2012-53	4.0 - 4.5 ft	14.0	13.5	06877-53	06877	7/10/2012	REMAIN	N	Y	1.76		
107_M020N_1	18.0	1-7/10/2012-54	5.0 - 5.5 ft	13.0	12.5	06877-54	06877	7/10/2012	REMAIN	N	Y	3.69		
107_M020W	18.8	107_M020W-1.0	1.0 - 1.5 ft	17.8	17.3	460-34820-9	460348201	12/14/2011	REMOVED	N	Y	1060		S2

**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15)	
107_M022	20.0	107_M022_0.0	0.0 - 0.5 ft	20.0	19.5	460-23018-1	460230181	2/11/2011	REMOVED	N	Y	0.72		
107_M022	20.0	107_M022_1.0/2.0	1.0 - 1.5 ft	19.0	18.5	460-23018-2	460230181	2/11/2011	REMOVED	N	Y	1.4		
107_M022	20.0	107_M022_4.0/4.5	4.0 - 4.5 ft	16.0	15.5	460-23018-3	460230181	2/11/2011	REMOVED	N	Y	7.7		
107_M022	20.0	107_M022_4.5	4.5 - 5.0 ft	15.5	15.0	460-23018-4	460230181	2/11/2011	REMAIN	N	Y	< 0.58	U	
107_M022	20.0	107_M022_8.5	8.5 - 9.0 ft	11.5	11.0	460-23018-5	460230181	2/11/2011	REMAIN	N	Y	0.63		
107_M022	20.0	107_M022_12.5	12.5 - 13.0 ft	7.5	7.0	460-23018-6	460230181	2/11/2011	REMAIN	N	Y	< 0.55	U	
107_M022_1	19.6	1-7/10/2012-30	1.0 - 1.5 ft	18.6	18.1	06877-030	06877	7/10/2012	REMOVED	N	Y	5.26		
107_M022_1	19.6	1-7/10/2012-31	2.0 - 2.5 ft	17.6	17.1	06877-031	06877	7/10/2012	REMOVED	N	Y	3.97		
107_M022_1	19.6	1-7/10/2012-32	3.0 - 3.5 ft	16.6	16.1	06877-032	06877	7/10/2012	REMOVED	N	Y	2.69		
107_M022_1	19.6	1-7/10/2012-33	4.0 - 4.5 ft	15.6	15.1	06877-033	06877	7/10/2012	REMAIN	N	Y	1.04	J	
107_M022N_1	18.0	1-7/10/2012-57	1.0 - 1.5 ft	17.0	16.5	06877-057	06877	7/10/2012	REMOVED	N	Y	0.83	J	
107_M022N_1	18.0	1-7/10/2012-58	2.0 - 2.5 ft	16.0	15.5	06877-058	06877	7/10/2012	REMOVED	N	Y	0.553	J	
107_M022N_1	18.0	1-7/10/2012-59	3.0 - 3.5 ft	15.0	14.5	06877-059	06877	7/10/2012	REMAIN	N	Y	0.858	J	S4
107_M022N_1	18.0	1-7/10/2012-60	4.0 - 4.5 ft	14.0	13.5	06877-060	06877	7/10/2012	REMAIN	N	Y	1.01	J	
107_M024	19.0	107_M024_0.0	0.0 - 0.5 ft	19.0	18.5	460-22995-33	460229951	2/10/2011	REMOVED	N	Y	< 0.62	U	
107_M024	19.0	107_M024_0.5	0.5 - 2.0 ft	18.5	17.0	460-22995-34	460229951	2/10/2011	REMOVED	N	Y	16.7		
107_M024	19.0	107_M024_2.0	2.0 - 2.5 ft	17.0	16.5	460-22995-35	460229951	2/10/2011	REMOVED	N	Y	3.2		
107_M024	19.0	107_M024_3.5	3.5 - 4.0 ft	15.5	15.0	460-22995-36	460229951	2/10/2011	REMOVED	N	Y	< 0.54	U	
107_M024	19.0	107_M024_7.5	7.5 - 8.0 ft	11.5	11.0	460-22995-37	460229951	2/10/2011	REMAIN	N	Y	< 0.68	U	
107_M024	19.0	107_M024_15.5	15.5 - 16.0 ft	3.5	3.0	460-22995-38	460229951	2/10/2011	REMAIN	N	Y	< 0.53	U	
107_M024_1	19.0	1-7/10/2012-36	0.5 - 1.0 ft	18.5	18.0	06877-036	06877	7/10/2012	REMOVED	N	Y	< 0.251	U	
107_M024_1	19.0	1-7/10/2012-37	1.0 - 1.5 ft	18.0	17.5	06877-037	06877	7/10/2012	REMOVED	N	Y	189		S1
107_M024_1	19.0	1-7/10/2012-38	2.0 - 2.5 ft	17.0	16.5	06877-038	06877	7/10/2012	REMOVED	N	Y	7.98		S1
107_M024_1	19.0	1-7/10/2012-39	3.0 - 3.5 ft	16.0	15.5	06877-039	06877	7/10/2012	REMOVED	N	Y	< 0.268	U	
107_M024_1	19.0	1-7/10/2012-40	4.0 - 4.5 ft	15.0	14.5	06877-040	06877	7/10/2012	REMAIN	N	Y	< 0.272	U	
107_M024N_1	17.9	1-7/10/2012-65	1.0 - 1.5 ft	16.9	16.4	06877-065	06877	7/10/2012	REMOVED	N	Y	< 0.29	U	
107_M024N_1	17.9	1-7/10/2012-66	2.0 - 2.5 ft	15.9	15.4	06877-066	06877	7/10/2012	REMOVED	N	Y	< 0.301	U	
107_M024N_1	17.9	107_M024N_1_20190227	2.5 - 3.0 ft	15.4	14.9	JC83511-6	JC83511	2/27/2019	REMOVED	N	Y	47.7	J	S5
107_M024N_1	17.9	1-7/10/2012-67	3.0 - 3.5 ft	14.9	14.4	06877-067	06877	7/10/2012	REMAIN	N	Y	< 0.298	U	S5
107_M024N_1	17.9	1-7/10/2012-68	4.0 - 4.5 ft	13.9	13.4	06877-068	06877	7/10/2012	REMAIN	N	Y	< 0.332	U	
107_M026	19.0	107_M026_0.0	0.0 - 0.5 ft	19.0	18.5	460-22995-32	460229951	2/10/2011	REMOVED	N	Y	< 0.59	U	
107_M026	19.0	REP-021011-01	0.0 - 0.5 ft	19.0	18.5	460-22995-39	460229951	2/10/2011	REMOVED	FD	Y	< 0.54	U	
107_M026	19.0	107_M026_0.5	0.5 - 3.0 ft	18.5	16.0	460-22995-27	460229951	2/10/2011	REMOVED	N	Y	223		S1
107_M026	19.0	107_M026_3.0	3.0 - 3.5 ft	16.0	15.5	460-22995-28	460229951	2/10/2011	REMOVED	N	Y	58.2		S1
107_M026	19.0	107_M026_4.0	4.0 - 4.5 ft	15.0	14.5	460-22995-29	460229951	2/10/2011	REMOVED	N	Y	6.2		S1
107_M026	19.0	107_M026_8.0	8.0 - 8.5 ft	11.0	10.5	460-22995-30	460229951	2/10/2011	REMAIN	N	Y	< 0.63	U	
107_M026	19.0	107_M026_12.0	12.0 - 12.5 ft	7.0	6.5	460-22995-31	460229951	2/10/2011	REMAIN	N	Y	0.84		
107_M026E1	19.0	107_M026E1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-73	460346861	12/12/2011	REMOVED	N	Y	10.9		
107_M026E1	19.0	107_M026E1_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-74	460346861	12/12/2011	REMOVED	N	Y	226		S1
107_M026E1	19.0	107_M026E1_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-75	460346861	12/12/2011	REMOVED	N	Y	782		S1
107_M026E1	19.0	107_M026E1_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-76	460346861	12/12/2011	REMOVED	N	Y	4240		S1
107_M026E1	19.0	REP121211-4	2.0 - 2.5 ft	17.0	16.5	460-34686-84	460346861	12/12/2011	REMOVED	FD	Y	4340		S1
107_M026E1	19.0	107_M026E1_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-77	460346861	12/12/2011	REMOVED	N	Y	1000		S1
107_M026E1	19.0	107_M026E1_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-78	460346861	12/12/2011	REMOVED	N	Y	81.9		S1
107_M026E1	19.0	107_M026E1_3.5	3.5 - 4.0 ft	15.5	15.0	460-34686-79	460346861	12/12/2011	REMOVED	N	Y	29.8		S1
107_M026E1	19.0	107_M026E1_4.0	4.0 - 4.5 ft	15.0	14.5	460-34686-80	460346861	12/12/2011	REMOVED	N	Y	52.6		S1
107_M026E1	19.0	107_M026E1_4.5	4.5 - 5.0 ft	14.5	14.0	460-34686-81	460346861	12/12/2011	REMOVED	N	Y	2.2	J	S1
107_M026E1	19.0	107_M026E1_5.0	5.0 - 5.5 ft	14.0	13.5	460-34686-82	460346861	12/12/2011	REMAIN	N	Y	1.1	J	
107_M026E1	19.0	107_M026E1_6.0	6.0 - 6.5 ft	13.0	12.5	460-34686-83	460346861	12/12/2011	REMAIN	N	Y	< 0.95	U	
107_M026E2	19.0	107_M026E2_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-61	460346861	12/12/2011	REMOVED	N	Y	225		S6
107_M026E2	19.0	107_M026E2_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-62	460346861	12/12/2011	REMOVED	N	Y	5670		S6
107_M026E2	19.0	REP121211-3	1.0 - 1.5 ft	18.0	17.5	460-34686-72	460346861	12/12/2011	REMOVED	FD	Y	5790		S6

**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
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Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15)	
107_M026E2	19.0	107_M026E2_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-63	460346861	12/12/2011	REMOVED	N	Y	7020	S6	
107_M026E2	19.0	107_M026E2_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-64	460346861	12/12/2011	REMOVED	N	Y	2210	S6	
107_M026E2	19.0	107_M026E2_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-65	460346861	12/12/2011	REMOVED	N	Y	1070	S6	
107_M026E2	19.0	107_M026E2_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-66	460346861	12/12/2011	REMOVED	N	Y	259	S6	
107_M026E2	19.0	107_M026E2_3.5	3.5 - 4.0 ft	15.5	15.0	460-34686-67	460346861	12/12/2011	REMOVED	N	Y	32.1	S6	
107_M026E2	19.0	107_M026E2_4.0	4.0 - 4.5 ft	15.0	14.5	460-34686-68	460346861	12/12/2011	REMOVED	N	Y	10.2		
107_M026E2	19.0	107_M026E2_4.5	4.5 - 5.0 ft	14.5	14.0	460-34686-69	460346861	12/12/2011	REMOVED	N	Y	< 0.86	U	
107_M026E2	19.0	107_M026E2_5.0	5.0 - 5.5 ft	14.0	13.5	460-34686-70	460346861	12/12/2011	REMOVED	N	Y	147	S6	
107_M026E2	19.0	107_M026E2_6.0	6.0 - 6.5 ft	13.0	12.5	460-34686-71	460346861	12/12/2011	REMAIN	N	Y	3.9	S6	
107_M026E2_N	18.0	107_M026E2_N-0.5-1.0	0.5 - 1.0 ft	17.5	17.0	E12-11760-025	E12-11760	11/29/2012	REMOVED	N	Y	1.33		
107_M026E2_N	18.0	107_M026E2_N-1.5-2.0	1.5 - 2.0 ft	16.5	16.0	E12-11760-026	E12-11760	11/29/2012	REMOVED	N	Y	< 0.292	U	
107_M026E2_N	18.0	107_M026E2_N-2.5-3.0	2.5 - 3.0 ft	15.5	15.0	E12-11760-027	E12-11760	11/29/2012	REMOVED	N	Y	< 0.308	U	
107_M026E2_N	18.0	107_M026E2_N-3.5-4.0	3.5 - 4.0 ft	14.5	14.0	E12-11760-028	E12-11760	11/29/2012	REMOVED	N	Y	< 0.315	U	
107_M026E2_N	18.0	107_M026E2_N-4.5-5.0	4.5 - 5.0 ft	13.5	13.0	E12-11760-029	E12-11760	11/29/2012	REMAIN	N	Y	< 0.316	U	S7
107_M026E2_N	18.0	107_M026E2_N-5.5-6.0	5.5 - 6.0 ft	12.5	12.0	E12-11760-030	E12-11760	11/29/2012	REMAIN	N	Y	< 0.299	U	
107_M026N	17.9	107_M026N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-18	460347811	12/13/2011	REMOVED	N	Y	11.9		
107_M026N	17.9	107_M026N_1.0	1.0 - 1.5 ft	16.9	16.4	460-34781-19	460347811	12/13/2011	REMOVED	N	Y	2.6		
107_M026N	17.9	107_M026N_1.5	1.5 - 2.0 ft	16.4	15.9	460-34781-20	460347811	12/13/2011	REMOVED	N	Y	2.6		
107_M026N	17.9	107_M026N_2.0	2.0 - 2.5 ft	15.9	15.4	460-34781-21	460347811	12/13/2011	REMOVED	N	Y	5.4		
107_M026N	17.9	107_M026N_2.5	2.5 - 3.0 ft	15.4	14.9	460-34781-22	460347811	12/13/2011	REMOVED	N	Y	< 0.86	U	S8
107_M026N	17.9	107_M026N_3.0	3.0 - 3.5 ft	14.9	14.4	460-34781-23	460347811	12/13/2011	REMAIN	N	Y	< 0.93	U	
107_M026W1	19.0	107_M026W1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-85	460346861	12/12/2011	REMOVED	N	Y	154	S1	
107_M026W1	19.0	107_M026W1_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-86	460346861	12/12/2011	REMOVED	N	Y	4920	S1	
107_M026W1	19.0	107_M026W1_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-87	460346861	12/12/2011	REMOVED	N	Y	6760	S1	
107_M026W1	19.0	REP121211-5	1.5 - 2.0 ft	17.5	17.0	460-34686-96	460346861	12/12/2011	REMOVED	FD	Y	90.3	S1	
107_M026W1	19.0	107_M026W1_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-88	460346861	12/12/2011	REMOVED	N	Y	907	S1	
107_M026W1	19.0	107_M026W1_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-89	460346861	12/12/2011	REMOVED	N	Y	111	S1	
107_M026W1	19.0	107_M026W1_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-90	460346861	12/12/2011	REMOVED	N	Y	9.1	S1	
107_M026W2	19.0	107_M026W2_0.5	0.5 - 1.0 ft	18.5	18.0	460-34781-61	460347811	12/13/2011	REMOVED	N	Y	4.7		
107_M026W2	19.0	107_M026W2_1.0	1.0 - 1.5 ft	18.0	17.5	460-34781-62	460347811	12/13/2011	REMOVED	N	Y	7.3		
107_M026W2	19.0	107_M026W2_1.5	1.5 - 2.0 ft	17.5	17.0	460-34781-63	460347811	12/13/2011	REMOVED	N	Y	27600	S1	
107_M026W2	19.0	107_M026W2_2.0	2.0 - 2.5 ft	17.0	16.5	460-34781-64	460347811	12/13/2011	REMOVED	N	Y	2320	S1	
107_M026W2	19.0	107_M026W2_2.5	2.5 - 3.0 ft	16.5	16.0	460-34781-65	460347811	12/13/2011	REMOVED	N	Y	78.9	S1	
107_M026W2	19.0	107_M026W2_3.0	3.0 - 3.5 ft	16.0	15.5	460-34781-66	460347811	12/13/2011	REMOVED	N	Y	11.1	S1	
107_M026W2_N	17.9	107_M026W2_N-1.5-2.0	1.5 - 2.0 ft	16.4	15.9	E12-11760-032	E12-11760	11/29/2012	REMOVED	N	Y	< 0.274	U	
107_M026W2_N	17.9	107_M026W2_N-2.0-2.5	2.0 - 2.5 ft	15.9	15.4	E12-11760-033	E12-11760	11/29/2012	REMOVED	N	Y	< 0.306	U	
107_M026W2_N	17.9	107_M026W2_N-2.5-3.0	2.5 - 3.0 ft	15.4	14.9	E12-11760-034	E12-11760	11/29/2012	REMOVED	N	Y	< 0.308	U	
107_M028	19.0	107_M028_0.0	0.0 - 0.5 ft	19.0	18.5	460-22995-21	460229951	2/10/2011	REMOVED	N	Y	80.4	S1	
107_M028	19.0	107_M028_0.5	0.5 - 1.0 ft	18.5	18.0	460-22995-22	460229951	2/10/2011	REMOVED	N	Y	225	S1	
107_M028	19.0	107_M028_1.0	1.0 - 1.5 ft	18.0	17.5	460-22995-23	460229951	2/10/2011	REMOVED	N	Y	160	S1	
107_M028	19.0	107_M028_3.5	3.5 - 4.0 ft	15.5	15.0	460-22995-24	460229951	2/10/2011	REMOVED	N	Y	6	S1	
107_M028	19.0	107_M028_7.5	7.5 - 8.0 ft	11.5	11.0	460-22995-25	460229951	2/10/2011	REMAIN	N	Y	< 0.61	U	
107_M028	19.0	107_M028_11.5	11.5 - 12.0 ft	7.5	7.0	460-22995-26	460229951	2/10/2011	REMAIN	N	Y	< 0.55	U	
107_M028E1	19.0	107_M028E1_0.0	0.0 - 0.5 ft	19.0	18.5	460-34686-45	460346861	12/12/2011	REMOVED	N	Y	< 1	U	
107_M028E1	19.0	107_M028E1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-46	460346861	12/12/2011	REMOVED	N	Y	41.6	S1	
107_M028E1	19.0	107_M028E1_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-47	460346861	12/12/2011	REMOVED	N	Y	107	S1	
107_M028E1	19.0	107_M028E1_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-48	460346861	12/12/2011	REMOVED	N	Y	24.2	S1	
107_M028E1	19.0	107_M028E1_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-49	460346861	12/12/2011	REMOVED	N	Y	22.4	S1	
107_M028E1	19.0	107_M028E1_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-50	460346861	12/12/2011	REMOVED	N	Y	14.4	S1	
107_M028E1	19.0	107_M028E1_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-51	460346861	12/12/2011	REMOVED	N	Y	1.5	J	
107_M028E2	18.8	107_M028E2_0.0	0.0 - 0.5 ft	18.8	18.3	460-34686-38	460346861	12/12/2011	REMOVED	N	Y	< 1.1	U	
107_M028E2	18.8	107_M028E2_0.5	0.5 - 1.0 ft	18.3	17.8	460-34686-39	460346861	12/12/2011	REMOVED	N	Y	5.5		

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Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
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PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15) Qualifier (G16, G17)	
107_M028E2	18.8	107_M028E2_1.0	1.0 - 1.5 ft	17.8	17.3	460-34686-40	460346861	12/12/2011	REMOVED	N	Y		17.6	
107_M028E2	18.8	107_M028E2_20190121	5.5 - 6.0 ft	13.3	12.8	JC81644-4	JC81644	1/21/2019	REMAIN	N	Y		0.54	
107_M028N	17.9	107_M028N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-29	460347811	12/13/2011	REMOVED	N	Y		< 1.3	U
107_M028N	17.9	107_M028N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-30	460347811	12/13/2011	REMOVED	N	Y		12.6	
107_M028N	17.9	REP121311-2	0.5 - 1.0 ft	17.4	16.9	460-34781-36	460347811	12/13/2011	REMOVED	FD	Y		15.6	
107_M028N	17.9	107_M028N_1.0	1.0 - 1.5 ft	16.9	16.4	460-34781-31	460347811	12/13/2011	REMOVED	N	Y		5.7	
107_M028W	19.0	107_M028W_0.0	0.0 - 0.5 ft	19.0	18.5	460-34686-52	460346861	12/12/2011	REMOVED	N	Y		4.6	
107_M028W	19.0	107_M028W_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-53	460346861	12/12/2011	REMOVED	N	Y		3390	S1
107_M028W	19.0	107_M028W_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-54	460346861	12/12/2011	REMOVED	N	Y		9270	S1
107_M028W	19.0	107_M028W_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-55	460346861	12/12/2011	REMOVED	N	Y		7860	S1
107_M028W	19.0	REP121211-2	1.5 - 2.0 ft	17.5	17.0	460-34686-59	460346861	12/12/2011	REMOVED	FD	Y		6340	S1
107_M028W	19.0	107_M028W_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-56	460346861	12/12/2011	REMOVED	N	Y		5710	S1
107_M028W	19.0	107_M028W_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-57	460346861	12/12/2011	REMOVED	N	Y		1170	S1
107_M028W	19.0	107_M028W_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-58	460346861	12/12/2011	REMOVED	N	Y		278	S1
107_M028W	19.0	107-M028W	5.6 - 6.1 ft	13.4	12.9	JC81681-2	JC81681	1/22/2019	REMAIN	N	Y		< 0.50	UJ-
107_M028W	19.0	DUP-02(20190122)RR	5.6 - 6.1 ft	13.4	12.9	JC81681-6	JC81681	1/22/2019	REMAIN	FD	Y		< 0.49	UJ-
107_M030	18.4	107_M030_0.0	0.0 - 0.5 ft	18.4	17.9	460-22995-15	460229951	2/10/2011	REMOVED	N	Y		3.9	
107_M030	18.4	107_M030_0.5	0.5 - 2.0 ft	17.9	16.4	460-22995-16	460229951	2/10/2011	REMOVED	N	Y		77.6	S1
107_M030	18.4	107_M030_2.5	2.5 - 3.0 ft	15.9	15.4	460-22995-17	460229951	2/10/2011	REMOVED	N	Y		9.1	S1
107_M030	18.4	107_M030_3.5	3.5 - 4.0 ft	14.9	14.4	460-22995-18	460229951	2/10/2011	REMOVED	N	Y		2.1	
107_M030	18.4	107_M030_7.5	7.5 - 8.0 ft	10.9	10.4	460-22995-19	460229951	2/10/2011	REMAIN	N	Y		0.8	
107_M030	18.4	107_M030_11.5	11.5 - 12.0 ft	6.9	6.4	460-22995-20	460229951	2/10/2011	REMAIN	N	Y		< 0.63	U
107_M030E1	18.3	107_M030E1_0.0	0.0 - 0.5 ft	18.3	17.8	460-34686-29	460346861	12/12/2011	REMOVED	N	Y		< 1	U
107_M030E1	18.3	107_M030E1_0.5	0.5 - 1.0 ft	17.8	17.3	460-34686-30	460346861	12/12/2011	REMOVED	N	Y		19.2	
107_M030E2	18.2	107_M030E2_0.0	0.0 - 0.5 ft	18.2	17.7	460-34686-19	460346861	12/12/2011	REMOVED	N	Y		7.3	
107_M030E2	18.2	107_M030E2_0.5	0.5 - 1.0 ft	17.7	17.2	460-34686-20	460346861	12/12/2011	REMOVED	N	Y		9.2	
107_M030E2	18.2	107_M030E2	10.4 - 10.9 ft	7.8	7.3	JC81681-4	JC81681	1/22/2019	REMAIN	N	Y		1.0	J-
107_M030N	17.9	107_M030N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-37	460347811	12/13/2011	REMOVED	N	Y		12.2	
107_M030N	17.9	107_M030N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-38	460347811	12/13/2011	REMOVED	N	Y		5.5	
107_M032	17.4	107_M032_0.0	0.0 - 0.5 ft	17.4	16.9	460-22995-9	460229951	2/10/2011	REMOVED	N	Y		1.3	
107_M032	17.4	107_M032_0.5	0.5 - 1.5 ft	16.9	15.9	460-22995-10	460229951	2/10/2011	REMOVED	N	Y		189	S1
107_M032	17.4	107_M032_1.5	1.5 - 2.0 ft	15.9	15.4	460-22995-11	460229951	2/10/2011	REMOVED	N	Y		263	S1
107_M032	17.4	107_M032_3.0	3.0 - 3.5 ft	14.4	13.9	460-22995-12	460229951	2/10/2011	REMOVED	N	Y		3	S1
107_M032	17.4	107_M032_7.0	7.0 - 7.5 ft	10.4	9.9	460-22995-13	460229951	2/10/2011	REMAIN	N	Y		0.88	
107_M032	17.4	107_M032_11.0	11.0 - 11.5 ft	6.4	5.9	460-22995-14	460229951	2/10/2011	REMAIN	N	Y		< 0.57	U
107_M032E1	17.7	107_M032E1_0.5	0.5 - 1.0 ft	17.2	16.7	460-34686-11	460346861	12/12/2011	REMOVED	N	Y		14.3	
107_M032E1	17.7	107_M032E1_1.0	1.0 - 1.5 ft	16.7	16.2	460-34686-12	460346861	12/12/2011	REMOVED	N	Y		7.4	
107_M032E1	17.7	107_M032E1_1.5	1.5 - 2.0 ft	16.2	15.7	460-34686-13	460346861	12/12/2011	REMOVED	N	Y		14.8	
107_M032E2	17.7	107_M032E2_0.5	0.5 - 1.0 ft	17.2	16.7	460-34686-2	460346861	12/12/2011	REMOVED	N	Y		1.1	J
107_M032E2	17.7	107_M032E2_1.0	1.0 - 1.5 ft	16.7	16.2	460-34686-3	460346861	12/12/2011	REMOVED	N	Y		7.9	
107_M032E2	17.7	107_M032E2_1.5	1.5 - 2.0 ft	16.2	15.7	460-34686-4	460346861	12/12/2011	REMOVED	N	Y		14.5	
107_M032N	16.6	107_M032N_0.5	0.5 - 1.0 ft	16.1	15.6	460-34781-47	460347811	12/13/2011	REMOVED	N	Y		4.7	
107_M032N	16.6	107_M032N_1.0	1.0 - 1.5 ft	15.6	15.1	460-34781-48	460347811	12/13/2011	REMOVED	N	Y		4.4	
107_M032N	16.6	107_M032N_1.5	1.5 - 2.0 ft	15.1	14.6	460-34781-49	460347811	12/13/2011	REMOVED	N	Y		3.5	
107_M034N	16.6	107_M034N_20190125	3.3 - 3.8 ft	13.3	12.8	JC81864-6R	JC81864R	1/25/2019	REMAIN	N	Y		< 0.46	U
107_M034N	16.6	107_M034N_20190227	3.3 - 3.8 ft	13.3	12.8	JC83511-7	JC83511	2/27/2019	REMAIN	N	Y		< 0.46	UJ
108_M006	25.2	G000008729-2/23/2011-1936	0.0 - 0.5 ft	25.2	24.7	460-23391-10	460233911	2/23/2011	REMAIN	N	Y		< 0.64	U
108_M006	25.2	G000008729-2/23/2011-1938	4.0 - 4.5 ft	21.2	20.7	460-23391-11	460233911	2/23/2011	REMAIN	N	Y		< 0.57	U
108_M006	25.2	G000008729-2/23/2011-1939	8.0 - 8.5 ft	17.2	16.7	460-23391-12	460233911	2/23/2011	REMAIN	N	Y		< 0.54	U
108_M006	25.2	G000008729-2/23/2011-1937	12.0 - 12.5 ft	13.2	12.7	460-23391-13	460233911	2/23/2011	REMAIN	N	Y		< 0.53	U
108_M008	25.0	G000008729-2/17/2011-1796	0.0 - 0.5 ft	25.0	24.5	460-23196-34	460231961	2/17/2011	REMAIN	N	Y		0.72	J
108_M008	25.0	G000008729-2/17/2011-1798	4.5 - 5.0 ft	20.5	20.0	460-23196-35	460231961	2/17/2011	REMAIN	N	Y		< 0.66	U

**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15)	
108_M008	25.0	G000008729-2/17/2011-1799	8.5 - 9.0 ft	16.5	16.0	460-23196-36	460231961	2/17/2011	REMAIN	N	Y	< 0.56	U	
108_M008	25.0	G000008729-2/17/2011-1804	8.5 - 9.0 ft	16.5	16.0	460-23196-28	460231961	2/17/2011	REMAIN	FD	Y	0.6	J	
108_M008	25.0	G000008729-2/17/2011-1797	12.5 - 13.0 ft	12.5	12.0	460-23196-37	460231961	2/17/2011	REMAIN	N	Y	< 0.56	U	
108_M010	25.0	G000008729-2/17/2011-1800	0.0 - 0.5 ft	25.0	24.5	460-23196-24	460231961	2/17/2011	REMAIN	N	Y	< 0.67	U	
108_M010	25.0	G000008729-2/17/2011-1802	2.0 - 2.5 ft	23.0	22.5	460-23196-25	460231961	2/17/2011	REMAIN	N	Y	< 0.65	U	
108_M010	25.0	G000008729-2/17/2011-1803	6.0 - 6.5 ft	19.0	18.5	460-23196-26	460231961	2/17/2011	REMAIN	N	Y	< 0.58	U	
108_M010	25.0	G000008729-2/17/2011-1801	10.0 - 10.5 ft	15.0	14.5	460-23196-27	460231961	2/17/2011	REMAIN	N	Y	< 0.54	U	
108_M012	25.1	G000008729-2/17/2011-1807	0.0 - 0.5 ft	25.1	24.6	460-23196-14	460231961	2/17/2011	REMAIN	N	Y	< 0.57	U	
108_M012	25.1	G000008729-2/17/2011-1809	3.5 - 4.0 ft	21.6	21.1	460-23196-15	460231961	2/17/2011	REMAIN	N	Y	< 0.6	U	
108_M012	25.1	G000008729-2/17/2011-1810	5.5 - 6.0 ft	19.6	19.1	460-23196-16	460231961	2/17/2011	REMAIN	N	Y	< 0.61	U	
108_M012	25.1	G000008729-2/17/2011-1811	9.5 - 10.0 ft	15.6	15.1	460-23196-17	460231961	2/17/2011	REMAIN	N	Y	< 0.57	U	
108_M012	25.1	G000008729-2/17/2011-1808	13.5 - 14.0 ft	11.6	11.1	460-23196-18	460231961	2/17/2011	REMAIN	N	Y	< 0.55	U	
108_M014	24.1	G000008729-2/16/2011-1728	0.0 - 0.5 ft	24.1	23.6	460-23155-13	460231551	2/16/2011	REMOVED	N	Y	< 0.52	U	
108_M014	24.1	G000008729-2/16/2011-1729	10.0 - 10.5 ft	14.1	13.6	460-23155-14	460231551	2/16/2011	REMOVED	N	Y	1.1	J	
108_M014	24.1	G000008729-2/16/2011-1730	15.0 - 15.5 ft	9.1	8.6	460-23155-15	460231551	2/16/2011	REMAIN	N	Y	< 0.57	U	
108_M014	24.1	G000008729-2/16/2011-1733	19.0 - 19.5 ft	5.1	4.6	460-23155-16	460231551	2/16/2011	REMAIN	N	Y	< 0.54	U	
108_M016	23.1	G000008729-2/16/2011-1734	0.0 - 0.5 ft	23.1	22.6	460-23155-18	460231551	2/16/2011	REMOVED	N	Y	< 0.55	U	
108_M016	23.1	G000008729-2/16/2011-1736	3.5 - 4.0 ft	19.6	19.1	460-23155-19	460231551	2/16/2011	REMAIN	N	Y	1.9	J	
108_M016	23.1	G000008729-2/16/2011-1737	5.5 - 6.0 ft	17.6	17.1	460-23155-20	460231551	2/16/2011	REMAIN	N	Y	< 0.75	U	
108_M016	23.1	G000008729-2/16/2011-1738	9.5 - 10.0 ft	13.6	13.1	460-23155-21	460231551	2/16/2011	REMAIN	N	Y	< 0.54	U	
108_M016	23.1	G000008729-2/16/2011-1735	13.5 - 14.0 ft	9.6	9.1	460-23155-22	460231551	2/16/2011	REMAIN	N	Y	< 0.56	U	
108_M016_1	23.3	G000008729-7/10/2012-5329	1.0 - 1.5 ft	22.3	21.8	06877-008	06877	7/10/2012	REMOVED	N	Y	0.424	J	
108_M016_1	23.3	G000008729-7/10/2012-5330	1.5 - 2.0 ft	21.8	21.3	06877-009	06877	7/10/2012	REMOVED	N	Y	1.12	J	
108_M016_1	23.3	G000008729-7/10/2012-5284	2.0 - 2.5 ft	21.3	20.8	06877-010	06877	7/10/2012	REMOVED	N	Y	13.2		
108_M016W_1	23.3	108_M016_1_20190125	3.4 - 3.9 ft	19.9	19.4	JC81864-5R	JC81864R	1/25/2019	REMAIN	N	Y	1.3		
108_M016W_1	24.0	G000008729-7/10/2012-5283	1.0 - 1.5 ft	23.0	22.5	06877-001	06877	7/10/2012	REMOVED	N	Y	0.492	J	
108_M016W_1	24.0	G000008729-7/10/2012-5290	1.5 - 2.0 ft	22.5	22.0	06877-002	06877	7/10/2012	REMOVED	N	Y	< 0.261	U	
108_M016W_1	24.0	G000008729-7/10/2012-5298	2.0 - 2.5 ft	22.0	21.5	06877-003	06877	7/10/2012	REMOVED	N	Y	< 0.263	U	
108_M018	21.6	G000008729-2/23/2011-1940	0.0 - 0.5 ft	21.6	21.1	460-23391-5	460233911	2/23/2011	REMOVED	N	Y	< 0.7	U	
108_M018	21.6	G000008729-2/23/2011-1944	3.5 - 4.0 ft	18.1	17.6	460-23391-9	460233911	2/23/2011	REMOVED	N	Y	20.2		S1
108_M018	21.6	G000008729-2/23/2011-1945	4.0 - 4.5 ft	17.6	17.1	460-23391-6	460233911	2/23/2011	REMOVED	N	Y	3.2		S1
108_M018	21.6	G000008729-2/23/2011-1946	8.0 - 8.5 ft	13.6	13.1	460-23391-7	460233911	2/23/2011	REMAIN	N	Y	11.7		
108_M018	21.6	G000008729-2/23/2011-1941	12.0 - 12.5 ft	9.6	9.1	460-23391-8	460233911	2/23/2011	REMAIN	N	Y	< 0.54	U	
108_M018	21.6	G000008729-2/23/2011-1975	12.0 - 12.5 ft	9.6	9.1	460-23391-27	460233911	2/23/2011	REMAIN	FD	Y	< 0.55	U	
108_M018_A	21.1	G000008729-8/16/2011-3466	0.0 - 0.5 ft	21.1	20.6	460-30033-29	460300331	8/16/2011	REMOVED	N	Y	1.1	J	
108_M018_A	21.1	G000008729-8/16/2011-3467	1.0 - 1.5 ft	20.1	19.6	460-30033-28	460300331	8/16/2011	REMOVED	N	Y	19.6		
108_M018_A	21.1	G000008729-8/16/2011-3468	2.0 - 2.5 ft	19.1	18.6	460-30033-30	460300331	8/16/2011	REMOVED	N	Y	3220		S1
108_M018_A	21.1	G000008729-8/16/2011-3469	2.5 - 3.0 ft	18.6	18.1	460-30033-31	460300331	8/16/2011	REMOVED	N	Y	9140		S1
108_M018_A	21.1	G000008729-8/16/2011-3528	2.5 - 3.0 ft	18.6	18.1	460-30033-60	460300331	8/16/2011	REMOVED	FD	Y	9.1		
108_M018_A	21.1	G000008729-8/16/2011-3470	3.0 - 3.5 ft	18.1	17.6	460-30033-32	460300331	8/16/2011	REMOVED	N	Y	7320		S1
108_M018_A	21.1	G000008729-8/16/2011-3471	3.5 - 4.0 ft	17.6	17.1	460-30033-33	460300331	8/16/2011	REMOVED	N	Y	1300		S1
108_M018_A	21.1	G000008729-8/16/2011-3472	4.0 - 4.5 ft	17.1	16.6	460-30033-34	460300331	8/16/2011	REMOVED	N	Y	< 0.56	U	S1, S9
108_M018_A	21.1	G000008729-8/16/2011-3475	4.5 - 5.0 ft	16.6	16.1	460-30033-35	460300331	8/16/2011	REMOVED	N	Y	0.99	J	
108_M018_B	21.0	G000008729-8/16/2011-3476	0.0 - 0.5 ft	21.0	20.5	460-30033-38	460300331	8/16/2011	REMOVED	N	Y	< 0.51	U	
108_M018_B	21.0	G000008729-8/16/2011-3477	1.0 - 1.5 ft	20.0	19.5	460-30033-39	460300331	8/16/2011	REMOVED	N	Y	57.7		S1
108_M018_B	21.0	G000008729-8/16/2011-3478	2.0 - 2.5 ft	19.0	18.5	460-30033-40	460300331	8/16/2011	REMOVED	N	Y	18.3		S1
108_M018_B	21.0	G000008729-8/16/2011-3479	2.5 - 3.0 ft	18.5	18.0	460-30033-41	460300331	8/16/2011	REMOVED	N	Y	2.3	J	
108_M018_B	21.0	G000008729-8/16/2011-3480	3.0 - 3.5 ft	18.0	17.5	460-30033-42	460300331	8/16/2011	REMOVED	N	Y	< 0.61	U	
108_M018_B	21.0	G000008729-8/16/2011-3481	3.5 - 4.0 ft	17.5	17.0	460-30033-43	460300331	8/16/2011	REMOVED	N	Y	< 0.73	U	
108_M018_B	21.0	G000008729-8/16/2011-3482	4.5 - 5.0 ft	16.5	16.0	460-30033-44	460300331	8/16/2011	REMOVED	N	Y	< 0.62	U	
108_M018_C	20.5	G000008729-8/16/2011-3483	0.0 - 0.5 ft	20.5	20.0	460-30033-48	460300331	8/16/2011	REMOVED	N	Y	20.1		S1
108_M018_C	20.5	G000008729-8/16/2011-3484	1.0 - 1.5 ft	19.5	19.0	460-30033-49	460300331	8/16/2011	REMOVED	N	Y	171		S1

**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15)	
108_M018_C	20.5	G000008729-8/16/2011-3486	2.0 - 2.5 ft	18.5	18.0	460-30033-50	460300331	8/16/2011	REMOVED	N	Y	398		S1
108_M018_C	20.5	G000008729-8/16/2011-3487	2.5 - 3.0 ft	18.0	17.5	460-30033-51	460300331	8/16/2011	REMOVED	N	Y	7.5		S1
108_M018_C	20.5	108_M018_C_20181130	7.0 - 7.5 ft	13.5	13.0	JC78809-2	JC78809	11/30/2018	REMAIN	N	Y	10.7		
108_M018_N	21.5	G000008729-6/21/2011-2357	2.0 - 2.5 ft	19.5	19.0	460-27904-3	460279041	6/21/2011	REMOVED	N	Y	20.8		S1
108_M018_N	21.5	G000008729-6/10/2011-2329	3.5 - 4.0 ft	18.0	17.5	460-27543-4	460275431	6/10/2011	REMOVED	N	Y	< 0.92	U	S1, S10
108_M018_S	21.6	G000008729-6/21/2011-2360	2.5 - 3.0 ft	19.1	18.6	460-27904-1	460279041	6/21/2011	REMOVED	N	Y	7.3		
108_M018_S	21.6	G000008729-6/10/2011-2330	3.5 - 4.0 ft	18.1	17.6	460-27543-2	460275431	6/10/2011	REMOVED	N	Y	< 0.62	U	
108_M018_W	21.6	G000008729-6/21/2011-2362	2.5 - 3.0 ft	19.1	18.6	460-27904-2	460279041	6/21/2011	REMOVED	N	Y	7.2		
108_M018_W	21.6	G000008729-6/10/2011-2331	3.5 - 4.0 ft	18.1	17.6	460-27543-3	460275431	6/10/2011	REMOVED	N	Y	10.5		
108_M018_W	21.6	G000008729-6/6/2011-3074	3.5 - 4.0 ft	18.1	17.6	460-27331-9	460273311	6/6/2011	REMOVED	FD	Y	0.96	J	
108_M018E1	21.2	G000008729-12/14/2011-3781	0.5 - 1.0 ft	20.7	20.2	460-34820-22	460348201	12/14/2011	REMOVED	N	Y	4.7		
108_M018E1	21.2	G000008729-12/14/2011-3782	1.0 - 1.5 ft	20.2	19.7	460-34820-23	460348201	12/14/2011	REMOVED	N	Y	50.8		S9
108_M018E1	21.2	G000008729-12/14/2011-3783	3.0 - 3.5 ft	18.2	17.7	460-34820-24	460348201	12/14/2011	REMOVED	N	Y	9290		S9
108_M018E1	21.2	G000008729-12/14/2011-3871	3.0 - 3.5 ft	18.2	17.7	460-34820-29	460348201	12/14/2011	REMOVED	FD	Y	12000		S9
108_M018E1	21.2	G000008729-12/14/2011-3784	3.5 - 4.0 ft	17.7	17.2	460-34820-25	460348201	12/14/2011	REMOVED	N	Y	623		S9
108_M018N	21.2	G000008729-12/14/2011-3794	1.0 - 1.5 ft	20.2	19.7	460-34820-30	460348201	12/14/2011	REMOVED	N	Y	58.7		S1
108_M018N	21.2	G000008729-12/14/2011-3795	1.5 - 2.0 ft	19.7	19.2	460-34820-31	460348201	12/14/2011	REMOVED	N	Y	60.7		S1
108_M018N	21.2	G000008729-12/14/2011-3797	2.0 - 2.5 ft	19.2	18.7	460-34820-32	460348201	12/14/2011	REMOVED	N	Y	52.6		S1
108_M018N	21.2	G000008729-12/14/2011-3798	3.0 - 3.5 ft	18.2	17.7	460-34820-33	460348201	12/14/2011	REMOVED	N	Y	1.2	J	S1
108_M018N	21.2	G000008729-12/14/2011-3801	3.5 - 4.0 ft	17.7	17.2	460-34820-34	460348201	12/14/2011	REMOVED	N	Y	1.5	J	
108_M018N	21.2	108_M018N_20190125	5.0 - 5.5 ft	16.2	15.7	JC81864-8R	JC81864R	1/25/2019	REMOVED	N	Y	6.1		
108_M018N	21.2	108_M018N_20190129	6.6 - 7.1 ft	14.6	14.1	JC82063-4R	JC82063R	1/29/2019	REMAIN	N	Y	3.2		
108_M018N_1	20.1	G000008729-7/10/2012-5292	1.0 - 1.5 ft	19.1	18.6	06877-023	06877	7/10/2012	REMOVED	N	Y	< 0.244	U	
108_M018N_1	20.1	G000008729-7/10/2012-5293	1.5 - 2.0 ft	18.6	18.1	06877-024	06877	7/10/2012	REMOVED	N	Y	81.6		S1
108_M018N_1	20.1	G000008729-7/10/2012-5294	2.0 - 2.5 ft	18.1	17.6	06877-025	06877	7/10/2012	REMOVED	N	Y	72.3		S1
108_M018N_1	20.1	G000008729-7/10/2012-5295	3.0 - 3.5 ft	17.1	16.6	06877-026	06877	7/10/2012	REMOVED	N	Y	90.6		S1
108_M018N_1	20.1	G000008729-7/10/2012-5296	3.5 - 4.0 ft	16.6	16.1	06877-027	06877	7/10/2012	REMOVED	N	Y	< 0.296	U	S1
108_M018N_1	20.1	108_M018N_1_20190125	3.5 - 4.0 ft	16.6	16.1	JC81864-7R	JC81864R	1/25/2019	REMOVED	N	Y	2.3		
108_M018N_1	20.1	108_M018N_1_20190129	5.7 - 6.2 ft	14.4	13.9	JC82063-5R	JC82063R	1/29/2019	REMAIN	N	Y	2.2		
108_M018N_2	18.0	108_M018N_2-1.5-2.0	1.5 - 2.0 ft	16.5	16.0	E12-11760-009	E12-11760	11/29/2012	REMOVED	N	Y	3.48		
108_M018N_2	18.0	REP-112912-1	1.5 - 2.0 ft	16.5	16.0	E12-11760-036	E12-11760	11/29/2012	REMOVED	FD	Y	0.489		
108_M018N_2	18.0	108_M018N_2-2.0-2.5	2.0 - 2.5 ft	16.0	15.5	E12-11760-010	E12-11760	11/29/2012	REMOVED	N	Y	< 0.26	U	
108_M018N_2	18.0	108_M018N_2-3.0-3.5	3.0 - 3.5 ft	15.0	14.5	E12-11760-011	E12-11760	11/29/2012	REMOVED	N	Y	< 0.257	U	
108_M018N_2	18.0	108_M018N_2-4.0-4.5	4.0 - 4.5 ft	14.0	13.5	E12-11760-012	E12-11760	11/29/2012	REMAIN	N	Y	< 0.256	U	
108_M018W1	21.9	G000008729-12/14/2011-3802	0.5 - 1.0 ft	21.4	20.9	460-34820-38	460348201	12/14/2011	REMOVED	N	Y	19.2		
108_M018W1	21.9	G000008729-12/14/2011-3803	1.0 - 1.5 ft	20.9	20.4	460-34820-39	460348201	12/14/2011	REMOVED	N	Y	27.0		S1
108_M018W1	21.9	G000008729-12/14/2011-3804	1.5 - 2.0 ft	20.4	19.9	460-34820-40	460348201	12/14/2011	REMOVED	N	Y	33.3		S1
108_M018W1	21.9	G000008729-12/14/2011-3805	2.0 - 2.5 ft	19.9	19.4	460-34820-47	460348201	12/14/2011	REMOVED	N	Y	25.4		S1
108_M018W1	21.9	G000008729-12/14/2011-3806	2.5 - 3.0 ft	19.4	18.9	460-34820-41	460348201	12/14/2011	REMOVED	N	Y	11.4		S1
108_M018W1	21.9	G000008729-12/14/2011-3807	3.0 - 3.5 ft	18.9	18.4	460-34820-42	460348201	12/14/2011	REMOVED	N	Y	11.4		
108_M018W1	21.9	G000008729-12/14/2011-3808	3.5 - 4.0 ft	18.4	17.9	460-34820-43	460348201	12/14/2011	REMOVED	N	Y	< 1.1	U	
108_M018W1	21.9	108_M018W1_20190315	6.0 - 6.5 ft	15.9	15.4	JC84519-6	JC84519	3/15/2019	REMAIN	N	Y	3.1	J	
108_M018W2	22.2	G000008729-12/14/2011-3809	0.5 - 1.0 ft	21.7	21.2	460-34820-49	460348201	12/14/2011	REMOVED	N	Y	15		
108_M018W2	22.2	G000008729-12/14/2011-3810	1.0 - 1.5 ft	21.2	20.7	460-34820-50	460348201	12/14/2011	REMOVED	N	Y	1100		S11
108_M018W2	22.2	G000008729-12/14/2011-3811	3.0 - 3.5 ft	19.2	18.7	460-34820-51	460348201	12/14/2011	REMOVED	N	Y	3800		S11
108_M018W2	22.2	G000008729-12/14/2011-3814	4.0 - 4.5 ft	18.2	17.7	460-34820-52	460348201	12/14/2011	REMOVED	N	Y	57.5		S11
108_M018W2	22.2	108_M018W2_20190315	6.5 - 7.0 ft	15.7	15.2	JC84519-5	JC84519	3/15/2019	REMAIN	N	Y	0.48	J	S11
108_M018W2_1	22.3	G000008729-7/10/2012-5285	1.0 - 1.5 ft	21.3	20.8	06877-015	06877	7/10/2012	REMOVED	N	Y	< 0.244	U	
108_M018W2_1	22.3	G000008729-7/10/2012-5286	1.5 - 2.0 ft	20.8	20.3	06877-016	06877	7/10/2012	REMOVED	N	Y	10.6		
108_M018W2_1	22.3	G000008729-7/10/2012-5287	2.0 - 2.5 ft	20.3	19.8	06877-017	06877	7/10/2012	REMOVED	N	Y	25.0		S1
108_M018W2_1	22.3	G000008729-7/10/2012-5288	3.0 - 3.5 ft	19.3	18.8	06877-018	06877	7/10/2012	REMOVED	N	Y	556		S1
108_M018W2_1	22.3	G000008729-7/10/2012-5289	4.0 - 4.5 ft	18.3	17.8	06877-019	06877	7/10/2012	REMOVED	N	Y	< 0.376	U	S1

**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte	CHROMIUM (HEXAVALENT)	Specific Notes
												CAS RN Units CrSCC	18540-29-9 mg/kg 20	
108_M018W2_2	22.3	108_M018W2_2-2.0-2.5	2.0 - 2.5 ft	20.3	19.8	E12-11760-001	E12-11760	11/29/2012	REMOVED	N	Y		106	S1
108_M018W2_2	22.3	108_M018W2_2-3.0-3.5	3.0 - 3.5 ft	19.3	18.8	E12-11760-002	E12-11760	11/29/2012	REMOVED	N	Y		2.94	S1
108_M018W2_2	22.3	108_M018W2_2-4.0-4.5	4.0 - 4.5 ft	18.3	17.8	E12-11760-003	E12-11760	11/29/2012	REMOVED	N	Y		5.82	
108_M018W2_2	22.3	REP-112912-2	4.0 - 4.5 ft	18.3	17.8	E12-11760-037	E12-11760	11/29/2012	REMOVED	FD	Y		0.998	
108_M018W2_2	22.3	108_M018W2_2-5.0-5.5	5.0 - 5.5 ft	17.3	16.8	E12-11760-004	E12-11760	11/29/2012	REMOVED	N	Y		< 0.266	U
108_M018W2_3	18.9	108_M018W2_3-2.0-2.5	2.0 - 2.5 ft	16.9	16.4	E12-11760-005	E12-11760	11/29/2012	REMAIN	N	Y		0.705	
108-M018-N-0	21.5	G000008729-7/1/2011-2591	2.0 - 2.5 ft	19.5	19.0	460-28340-1	460283401	7/1/2011	REMOVED	N	Y		306	S10
BS-A0	24.0	BS-A0_20190115	7.1 - 7.6 ft	16.9	16.4	JC81350-2R	JC81350R	1/15/2019	REMOVED	N	Y		0.87	
BS-A0S	21.1	BS-A0S_20190118	4.3 - 4.8 ft	16.8	16.3	JC81597-2	JC81597	1/18/2019	REMAIN	N	Y		1.1	
BS-A0T	24.0	BS-A0T_20190123	8.9 - 9.4 ft	15.1	14.6	JC81743-3	JC81743	1/23/2019	REMAIN	N	Y		0.56	
BS-A1	21.8	BS-A1_20190123	5.3 - 5.8 ft	16.5	16.0	JC81743-6	JC81743	1/23/2019	REMAIN	N	Y		0.64	
BS-A10	18.7	BS-A10_20190111	3.8 - 4.3 ft	14.9	14.4	JC81225-2	JC81225	1/11/2019	REMAIN	N	Y		1.1	J-
BS-A11	18.6	BS-A11_20190111	3.3 - 3.8 ft	15.3	14.8	JC81225-3	JC81225	1/11/2019	REMAIN	N	Y		1.9	J-
BS-A12	18.5	BS-A12_20190111	4.8 - 5.3 ft	13.7	13.2	JC81225-4	JC81225	1/11/2019	REMAIN	N	Y		3.2	J-
BS-A12S	17.9	BS-A12S_20190111	2.5 - 3.0 ft	15.4	14.9	JC81225-5	JC81225	1/11/2019	REMOVED	N	Y		2.4	J-
BS-A14	18.5	BS-A14_20190121	4.9 - 5.4 ft	13.6	13.1	JC81644-3	JC81644	1/21/2019	REMAIN	N	Y		< 0.48	U
BS-A15	18.1	BS-A15	4.8 - 5.3 ft	13.3	12.8	JC81681-3	JC81681	1/22/2019	REMAIN	N	Y		< 0.47	UJ-
BS-A16I	18.9	BS-A16I	7.5 - 8.0 ft	11.4	10.9	JC81681-7	JC81681	1/22/2019	REMAIN	N	Y		0.99	J-
BS-A16S	18.4	BS-A16S	5.1 - 5.6 ft	13.3	12.8	JC81681-5	JC81681	1/22/2019	REMAIN	N	Y		< 0.51	UJ-
BS-A17	17.4	BS-A17_20190125	4.0 - 4.5 ft	13.4	12.9	JC81864-4R	JC81864R	1/25/2019	REMAIN	N	Y		0.64	
BS-A17I	17.7	BS-A17I_20190220	9.2 - 9.7 ft	8.5	8.0	JC83225-2	JC83225	2/20/2019	REMAIN	N	Y		0.91	J-
BS-A18	17.8	BS-A18_20190125	4.6 - 5.1 ft	13.2	12.7	JC81864-2R	JC81864R	1/25/2019	REMAIN	N	Y		1.3	
BS-A19	16.9	BS-A19_20190125	3.9 - 4.4 ft	13.0	12.5	JC81864-3R	JC81864R	1/25/2019	REMAIN	N	Y		< 0.46	U
BS-A1T	23.9	BS-A1T_20190123	9.0 - 9.5 ft	14.9	14.4	JC81743-4	JC81743	1/23/2019	REMAIN	N	Y		1.3	
BS-A2	20.8	BS-A2_20190123	4.2 - 4.7 ft	16.6	16.1	JC81743-7	JC81743	1/23/2019	REMAIN	N	Y		< 0.44	U
BS-A20	19.5	BS-A20_20190129	4.7 - 5.2 ft	14.8	14.3	JC81985-14	JC81985	1/29/2019	REMAIN	N	Y		2.3	J-
BS-A2T	23.0	BS-A2T_20190123	8.3 - 8.8 ft	14.7	14.2	JC81743-5	JC81743	1/23/2019	REMAIN	N	Y		< 0.45	U
BS-A3	19.8	BS-A3_20190129	3.0 - 3.5 ft	16.8	16.3	JC82063-2R	JC82063R	1/29/2019	REMOVED	N	Y		1.8	
BS-A3D	20.6	BS-A3D_20190123	5.7 - 6.2 ft	14.9	14.4	JC81743-12	JC81743	1/23/2019	REMAIN	N	Y		0.84	
BS-A3S	22.0	BS-A3S_20190123	6.0 - 6.5 ft	16.0	15.5	JC81743-13	JC81743	1/23/2019	REMAIN	N	Y		2.6	
BS-A3T	22.0	BS-A3T_20190123	6.7 - 7.2 ft	15.3	14.8	JC81743-14	JC81743	1/23/2019	REMAIN	N	Y		0.63	
BS-A3TT	18.0	BS-A3TT_20190129	2.3 - 2.8 ft	15.7	15.2	JC82063-3R	JC82063R	1/29/2019	REMAIN	N	Y		9.9	
BS-A4	20.9	BS-A4_20190128	6.9 - 7.4 ft	14.0	13.5	JC81918-2	JC81918	1/28/2019	REMAIN	N	Y		2.9	
BS-A5	20.3	BS-A5_20190108	6.5 - 7.0 ft	13.8	13.3	JC81058-2	JC81058	1/8/2019	REMAIN	N	Y		16.5	
BS-A7	19.4	BS-A7_20181204	3.5 - 4.0 ft	15.9	15.4	JC79072-3	JC79072	12/4/2018	REMAIN	N	Y		0.54	
CONRAIL-TP-1	19.1	CONRAIL-TP-1-3.6-4.1	3.6 - 4.1 ft	15.5	15.0	JD52479-1	JD52479	9/24/2022	REMOVED	N	Y		6.4	J
CONRAIL-TP-1-SW-N-C	19.1	CONRAIL-TP-1-SW-N-C	1.2 - 1.7 ft	17.9	17.4	JD52479-3	JD52479	9/24/2022	REMOVED	N	Y		12.7	J
CONRAIL-TP-10	17.4	CONRAIL-TP-10-1.9-2.4	1.9 - 2.4 ft	15.5	15.0	JD52479-11	JD52479	9/24/2022	REMOVED	N	Y		9.7	J
CONRAIL-TP-10	17.4	CONRAIL-TP-10-1.9-2.4-X	1.9 - 2.4 ft	15.5	15.0	JD52479-12	JD52479	9/24/2022	REMOVED	FD	Y		10.6	J
CONRAIL-TP-2	19.3	CONRAIL-TP-2-1.5-2.0	1.5 - 2.0 ft	17.8	17.3	JD51581-1	JD51581	9/11/2022	REMOVED	N	Y		5.7	J
CONRAIL-TP-2	19.3	CONRAIL-TP-2-1.5-2.0X	1.5 - 2.0 ft	17.8	17.3	JD51581-2	JD51581	9/11/2022	REMOVED	FD	Y		4.7	J
CONRAIL-TP-2	19.3	CONRAIL-TP-2-3.5-4.0	3.5 - 4.0 ft	15.8	15.3	JD51581-3	JD51581	9/11/2022	REMOVED	N	Y		2.8	J
CONRAIL-TP-2-N-SW-C	19.2	CONRAIL-TP-2-N-SW-C	0.9 - 1.4 ft	18.3	17.8	JD51581-5	JD51581	9/11/2022	REMOVED	N	Y		5.1	J
CONRAIL-TP-2-S-SW-C	19.2	CONRAIL-TP-2-S-SW-C	0.9 - 1.4 ft	18.3	17.8	JD51581-4	JD51581	9/11/2022	REMOVED	N	Y		9.5	J
CONRAIL-TP-3	19.0	CONRAIL-TP-3-1.1-1.5	1.1 - 1.6 ft	17.9	17.4	JD51581-10	JD51581	9/11/2022	REMOVED	N	Y		9.4	J
CONRAIL-TP-3	19.0	CONRAIL-TP-3-3.0-3.5	3.0 - 3.5 ft	16.0	15.5	JD51581-11	JD51581	9/11/2022	REMOVED	N	Y		23.3	J
CONRAIL-TP-3-N-SW-C	19.0	CONRAIL-TP-3-N-SW-C	0.9 - 1.4 ft	18.1	17.6	JD51581-13	JD51581	9/11/2022	REMOVED	N	Y		10.6	J
CONRAIL-TP-3-S	19.0	CONRAIL-TP-3-3.0-3.5-S	3.0 - 3.5 ft	16.0	15.5	JD52486-1	JD52486	9/25/2022	REMOVED	N	Y		2.1	J
CONRAIL-TP-3-S-SW-C	19.0	CONRAIL-TP-3-S-SW-C	0.8 - 1.3 ft	18.2	17.7	JD51581-12	JD51581	9/11/2022	REMOVED	N	Y		11.7	J
CONRAIL-TP-4	18.8	CONRAIL-TP-4-1.1-1.6	1.1 - 1.6 ft	17.7	17.2	JD51581-8	JD51581	9/11/2022	REMOVED	N	Y		3.3	J
CONRAIL-TP-4	18.8	CONRAIL-TP-4-3.2-3.7	3.2 - 3.7 ft	15.6	15.1	JD51581-9	JD51581	9/11/2022	REMOVED	N	Y		9.2	J
CONRAIL-TP-5	18.3	CONRAIL-TP-5-2.8-3.3	2.8 - 3.3 ft	15.5	15.0	JD52479-5	JD52479	9/24/2022	REMOVED	N	Y		0.45	J

**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15)	
CONRAIL-TP-6	18.1	CONRAIL-TP-6-3.0-3.5	3.0 - 3.5 ft	15.1	14.6	JD51581-7	JD51581	9/11/2022	REMAIN	N	Y	13.0	J	S13
CONRAIL-TP-7	18.1	CONRAIL-TP-7-2.8-3.3	2.8 - 3.3 ft	15.3	14.8	JD52479-7	JD52479	9/24/2022	REMOVED	N	Y	2.3	J	
CONRAIL-TP-8	17.8	CONRAIL-TP-8-2.3-2.8	2.3 - 2.8 ft	15.5	15.0	JD52479-9	JD52479	9/24/2022	REMOVED	N	Y	2.4	J	
CONRAIL-TP-9	17.5	CONRAIL-TP-9-2.8-3.3	2.8 - 3.3 ft	14.7	14.2	JD51581-6	JD51581	9/11/2022	REMOVED	N	Y	23.7	J	S7
CONRAIL-TP-9-S	17.5	CONRAIL-TP-9-2.8-3.3-S	2.8 - 3.3 ft	14.7	14.2	JD52486-2	JD52486	9/25/2022	REMOVED	N	Y	0.88	J	
CONRAIL-TP-9-S	17.5	CONRAIL-TP-9-2.8-3.3-S-X	2.8 - 3.3 ft	14.7	14.2	JD52486-3	JD52486	9/25/2022	REMOVED	FD	Y	1.8	J	
SW-A0 (0.0-0.5)	24.2	SW-A0(0.0-0.5)_20180109	0.4 - 0.9 ft	23.8	23.3	JC81057-2	JC81057	1/9/2019	REMAIN	N	Y	1.4	J-	
SW-A0 (2.0-2.5)	24.1	SW-A0(2.0-2.5)_20180109	2.3 - 2.8 ft	21.8	21.3	JC81057-3	JC81057	1/9/2019	REMAIN	N	Y	1.4	J-	
SW-A0 (4.0-4.5)	24.0	SW-A0(4.0-4.5)_20180109	4.2 - 4.7 ft	19.8	19.3	JC81057-4	JC81057	1/9/2019	REMAIN	N	Y	3.0	J-	
SW-A0 (6.0-6.5)	24.0	SW-A0(6.0-6.5)_20180109	6.2 - 6.7 ft	17.8	17.3	JC81057-5	JC81057	1/9/2019	REMAIN	N	Y	3.2	J-	
SW-A0 (8.0-8.5)	24.0	SW-A0(8.0-8.5)_20180109	6.7 - 7.2 ft	17.3	16.8	JC81057-6	JC81057	1/9/2019	REMAIN	N	Y	1.6	J-	
SW-A0 (8.0-8.5) R	24.0	SW-A0 (8.0-8.5) 20190123	8.1 - 8.6 ft	15.9	15.4	JC81743-2	JC81743	1/23/2019	REMAIN	N	Y	0.77		
SW-A10 (6.0-6.5)	23.8	SW-A10 (6.0-6.5) 20190123	5.6 - 6.1 ft	18.2	17.7	JC81743-11	JC81743	1/23/2019	REMOVED	N	Y	< 0.45	U	
SW-A10 (6.0-6.5) R	24.0	SW-A10(6.0-6.5) 20190318	7.0 - 7.5 ft	17.0	16.5	JC84633-7	JC84633	3/18/2019	REMAIN	N	Y	0.95	J	
SW-A10 (7.5-8.0)	24.0	SW-A10(7.5-8.0) 20190318	8.3 - 8.8 ft	15.7	15.2	JC84633-8	JC84633	3/18/2019	REMAIN	N	Y	1.3	J	
SW-A10 (8.0-8.5)	23.9	SW-A10 (8.0-8.5) 20190123	7.7 - 8.2 ft	16.2	15.7	JC81743-9	JC81743	1/23/2019	REMOVED	N	Y	0.46		
SW-A11 (6.0-6.5)	24.0	SW-A11 (6.0-6.5) 20190123	5.5 - 6.0 ft	18.5	18.0	JC81743-10	JC81743	1/23/2019	REMOVED	N	Y	< 0.46	U	
SW-A11 (8.0-8.5)	24.0	SW-A11 (8.0-8.5) 20190123	8.7 - 9.2 ft	15.3	14.8	JC81743-8	JC81743	1/23/2019	REMAIN	N	Y	0.95		
SW-A12 (0.0-0.5)	18.6	SW-A12(0.0-0.5) 20190129	0.0 - 0.5 ft	18.6	18.1	JC81985-2	JC81985	1/29/2019	REMAIN	N	Y	0.62	J-	
SW-A12 (1.0-1.5)	18.0	SW-A12(1.0-1.5) 20190129	1.0 - 1.5 ft	17.0	16.5	JC81985-3	JC81985	1/29/2019	REMAIN	N	Y	1.6	J-	
SW-A13 (0.0-0.5)	18.2	SW-A13(0.0-0.5) 20190129	0.0 - 0.5 ft	18.2	17.7	JC81985-4	JC81985	1/29/2019	REMAIN	N	Y	1.1	J-	
SW-A13 (2.0-2.5)	18.0	SW-A13(2.0-2.5) 20190129	1.5 - 2.0 ft	16.5	16.0	JC81985-5	JC81985	1/29/2019	REMAIN	N	Y	0.47	J-	
SW-A14 (0.0-0.5)	18.5	SW-A14(0.0-0.5) 20190129	0.3 - 0.8 ft	18.2	17.7	JC81985-6	JC81985	1/29/2019	REMAIN	N	Y	0.94	J-	
SW-A14 (2.0-2.5)	17.9	SW-A14(2.0-2.5) 20190129	1.7 - 2.2 ft	16.2	15.7	JC81985-7	JC81985	1/29/2019	REMAIN	N	Y	< 0.44	UU-	
SW-A15 (0.0-0.5)	18.5	SW-A15(0.0-0.5) 20190129	0.2 - 0.7 ft	18.3	17.8	JC81985-8	JC81985	1/29/2019	REMAIN	N	Y	0.98	J-	
SW-A15 (2.0-2.5)	17.9	SW-A15(2.0-2.5) 20190129	1.5 - 2.0 ft	16.4	15.9	JC81985-9	JC81985	1/29/2019	REMAIN	N	Y	1.3	J-	
SW-A16 (0.0-0.5)	18.5	SW-A16(0.0-0.5) 20190129	0.2 - 0.7 ft	18.3	17.8	JC81985-10	JC81985	1/29/2019	REMAIN	N	Y	0.90	J-	
SW-A16 (2.0-2.5)	17.9	SW-A16(2.0-2.5) 20190129	1.6 - 2.1 ft	16.3	15.8	JC81985-11	JC81985	1/29/2019	REMAIN	N	Y	2.2	J-	
SW-A17 (0.0-0.5)	18.1	SW-A17(0.0-0.5) 20190129	0.2 - 0.7 ft	17.9	17.4	JC81985-12	JC81985	1/29/2019	REMOVED	N	Y	5.5	J-	
SW-A17 (2.0-2.5)	17.9	SW-A17(2.0-2.5) 20190129	2.0 - 2.5 ft	15.9	15.4	JC81985-13	JC81985	1/29/2019	REMOVED	N	Y	6.6	J-	
SW-A18 (0.0-0.5)	18.5	SW-A18(0.0-0.5) 20190308	0.5 - 1.0 ft	18.0	17.5	JC84109-9R	JC84109R	3/8/2019	REMOVED	N	Y	11.0	J	
SW-A18 (2.0-2.5)	18.0	SW-A18(2.0-2.5) 20190308	2.0 - 2.5 ft	16.0	15.5	JC84109-10R	JC84109R	3/8/2019	REMOVED	N	Y	25.9	J	S14
SW-A18 (4.0-4.5)	17.9	SW-A18(4.0-4.5) 20190308	4.0 - 4.5 ft	13.9	13.4	JC84109-11R	JC84109R	3/8/2019	REMAIN	N	Y	6.8	J	S14
SW-A19 (0.0-0.5)	18.4	SW-A19(0.0-0.5) 20190308	0.1 - 0.6 ft	18.3	17.8	JC84109-6R	JC84109R	3/8/2019	REMOVED	N	Y	24.6	J	S15
SW-A19 (2.0-2.5)	18.0	SW-A19(2.0-2.5) 20190308	1.7 - 2.2 ft	16.3	15.8	JC84109-7R	JC84109R	3/8/2019	REMOVED	N	Y	102	J	S15
SW-A19 (4.0-4.5)	17.9	SW-A19(4.0-4.5) 20190308	3.7 - 4.2 ft	14.2	13.7	JC84109-8R	JC84109R	3/8/2019	REMAIN	N	Y	3.9	J	S15
SW-A20 (0.0-0.5)	18.4	SW-A20(0.0-0.5) 20190308	0.0 - 0.5 ft	18.4	17.9	JC84109-4R	JC84109R	3/8/2019	REMOVED	N	Y	52.3	J	S4
SW-A20 (2.0-2.5)	18.0	SW-A20(2.0-2.5) 20190308	1.5 - 2.0 ft	16.5	16.0	JC84109-5R	JC84109R	3/8/2019	REMOVED	N	Y	138	J	S4
SW-A21 (0.0-0.5)	18.3	SW-A21(0.0-0.5) 20190308	0.0 - 0.5 ft	18.3	17.8	JC84109-2R	JC84109R	3/8/2019	REMOVED	N	Y	39.1	J	S4
SW-A21 (2.0-2.5)	18.0	SW-A21(2.0-2.5) 20190308	1.8 - 2.3 ft	16.2	15.7	JC84109-3R	JC84109R	3/8/2019	REMOVED	N	Y	34.0	J	S4
SW-A22 (0.0-0.5)	18.1	SW-A22(0.0-0.5) 20190227	0.3 - 0.8 ft	17.8	17.3	JC83511-2	JC83511	2/27/2019	REMOVED	N	Y	19.1	J	
SW-A22 (2.0-2.5)	17.9	SW-A22(2.0-2.5) 20190227	1.9 - 2.4 ft	16.0	15.5	JC83511-3	JC83511	2/27/2019	REMOVED	N	Y	45.4	J	S5
SW-A23 (0.0-0.5)	18.1	SW-A23(0.0-0.5) 20190227	0.4 - 0.9 ft	17.7	17.2	JC83511-4	JC83511	2/27/2019	REMOVED	N	Y	17.4	J	
SW-A23 (2.0-2.5)	17.9	SW-A23(2.0-2.5) 20190227	2.2 - 2.7 ft	15.7	15.2	JC83511-5	JC83511	2/27/2019	REMOVED	N	Y	46.1	J	S13
SW-A24 (0.0-0.5)	18.0	SW-A24(0.0-0.5) 20190222	0.3 - 0.8 ft	17.7	17.2	JC83296-2	JC83296	2/22/2019	REMOVED	N	Y	3.0	J-	
SW-A24 (2.0-2.5)	17.9	SW-A24(2.0-2.5) 20190222	2.1 - 2.6 ft	15.8	15.3	JC83296-3	JC83296	2/22/2019	REMOVED	N	Y	44.5	J-	S8
SW-A25 (0.0-0.5)	17.9	SW-A25(0.0-0.5) 20190222	0.8 - 1.3 ft	17.1	16.6	JC83296-4	JC83296	2/22/2019	REMOVED	N	Y	6.8	J-	
SW-A25 (2.0-2.5)	17.9	DUP-03(20190222)RR	2.5 - 3.0 ft	15.4	14.9	JC83296-8	JC83296	2/22/2019	REMOVED	N	Y	14.0	J-	
SW-A25 (2.0-2.5)	17.9	SW-A25(2.0-2.5) 20190222	2.5 - 3.0 ft	15.4	14.9	JC83296-5	JC83296	2/22/2019	REMOVED	N	Y	14.0	J-	
SW-A26 (0.0-0.5)	17.9	SW-A26(0.0-0.5) 20190222	0.7 - 1.2 ft	17.2	16.7	JC83296-6	JC83296	2/22/2019	REMOVED	N	Y	14.3	J-	
SW-A26 (2.0-2.5)	17.9	SW-A26(2.0-2.5) 20190222	2.6 - 3.1 ft	15.3	14.8	JC83296-7	JC83296	2/22/2019	REMOVED	N	Y	43.4	J-	S7
SW-A27 (0.0-0.5)	17.9	SW-A27(0.0-0.5) 20190226	1.0 - 1.5 ft	16.9	16.4	JC83434-2	JC83434	2/26/2019	REMOVED	N	Y	6.9	J	



**Table 5-1  
Cr+6 Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion  
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Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Analyte CAS RN Units CrSCC		Specific Notes
												CHROMIUM (HEXAVALENT) 18540-29-9 mg/kg 20	Result (G14, G15) Qualifier (G16, G17)	
SW-A27 (2.0-2.5)	17.9	DUP-04(20190226)RR	2.9 - 3.4 ft	15.0	14.5	JC83434-8	JC83434	2/26/2019	REMOVED	FD	Y	< 0.47	UJ	
SW-A27 (2.0-2.5)	17.9	SW-A27(2.0-2.5)_20190226	2.9 - 3.4 ft	15.0	14.5	JC83434-3	JC83434	2/26/2019	REMOVED	N	Y	1.4	J	
SW-A28 (0.0-0.5)	17.9	SW-A28(0.0-0.5)_20190226	0.9 - 1.4 ft	17.0	16.5	JC83434-4	JC83434	2/26/2019	REMOVED	N	Y	13.4	J	
SW-A28 (2.0-2.5)	17.9	SW-A28(2.0-2.5)_20190226	2.9 - 3.4 ft	15.0	14.5	JC83434-5	JC83434	2/26/2019	REMAIN	N	Y	0.97	J	
SW-A29 (0.0-0.5)	17.9	SW-A29(0.0-0.5)_20190226	1.7 - 2.2 ft	16.2	15.7	JC83434-6	JC83434	2/26/2019	REMAIN	N	Y	5.6	J	
SW-A29 (2.0-2.5)	17.9	SW-A29(2.0-2.5)_20190226	3.7 - 4.2 ft	14.2	13.7	JC83434-7	JC83434	2/26/2019	REMAIN	N	Y	0.82	J	
SW-A30 (0.0-0.5)	17.3	SW-A30(0.0-0.5)_20190312	0.7 - 1.2 ft	16.6	16.1	JC84245-2	JC84245	3/12/2019	REMAIN	N	Y	3.1	J	
SW-A30 (2.0-2.5)	17.2	SW-A30(2.0-2.5)_20190312	2.7 - 3.2 ft	14.5	14.0	JC84245-3	JC84245	3/12/2019	REMAIN	N	Y	18.5	J	
SW-A30 (4.0-4.5)	17.3	SW-A30(4.0-4.5)_20190312	4.8 - 5.3 ft	12.5	12.0	JC84245-4	JC84245	3/12/2019	REMAIN	N	Y	< 0.53	UJ	
SW-A30 (6.0-6.5)	17.4	SW-A30(6.0-6.5)_20190312	7.0 - 7.5 ft	10.4	9.9	JC84245-5	JC84245	3/12/2019	REMAIN	N	Y	< 0.50	UJ	
SW-A30 (8.0-8.5)	17.6	SW-A30(8.0-8.5)_20190312	8.7 - 9.2 ft	8.9	8.4	JC84245-6	JC84245	3/12/2019	REMAIN	N	Y	< 0.54	UJ	
SW-A31 (0.0-0.5)	16.5	SW-A31(0.0-0.5)_20190312	0.2 - 0.7 ft	16.3	15.8	JC84245-7	JC84245	3/12/2019	REMAIN	N	Y	3.3	J	
SW-A31 (2.0-2.5)	16.0	SW-A31(2.0-2.5)_20190312	1.7 - 2.2 ft	14.3	13.8	JC84245-8	JC84245	3/12/2019	REMAIN	N	Y	3.2	J	
SW-A32 (0.0-0.5)	16.5	SW-A32(0.0-0.5)_20190312	0.4 - 0.9 ft	16.1	15.6	JC84245-9	JC84245	3/12/2019	REMAIN	N	Y	< 0.50	UJ	
SW-A32 (2.0-2.5)	16.0	SW-A32(2.0-2.5)_20190312	1.8 - 2.3 ft	14.2	13.7	JC84245-10	JC84245	3/12/2019	REMAIN	N	Y	1.3	J	
SW-A33 (0.0-0.5)	15.8	SW-A33(0.0-0.5)_20190312	0.3 - 0.8 ft	15.5	15.0	JC84245-11	JC84245	3/12/2019	REMAIN	N	Y	< 0.51	UJ	
SW-A34 (0.0-0.5)	18.0	SW-34(0.0-0.5)	0.0 - 0.5 ft	18.0	17.5	JC89030-2	JC89030	5/31/2019	REMOVED	N	Y	2.3	J	
SW-A34 (0.0-0.5)_R	18.0	SW-A34(0.0-0.5)	1.2 - 1.7 ft	16.8	16.3	JC94441-3	JC94441	9/5/2019	REMAIN	N	Y	7.3	J-	
SW-A34 (2.0-2.5)	18.0	SW-A34(2.0-2.5)	2.0 - 2.5 ft	16.0	15.5	JC94441-4	JC94441	9/5/2019	REMAIN	N	Y	3.3	J-	
SW-A9 (5.5-6.0)	23.6	SW-A9(5.5-6.0)_20190318	7.9 - 8.4 ft	15.7	15.2	JC84633-5	JC84633	3/18/2019	REMAIN	N	Y	1.7	J	

**Table 5-1**  
**Cr<sup>+6</sup> Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion**  
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**ABBREVIATIONS:**

bgs - below ground surface  
CAS RN - Chemical Abstracts Service Registry Number  
Cr<sup>+6</sup> - hexavalent chromium  
CrSCC - Chromium Soil Cleanup Criteria  
COPR - Chromite Ore Processing Residue  
El. - elevation  
FD - field duplicate sample type  
ft - feet  
mg/kg - milligrams per kilogram  
N - normal sample type  
NAVD88 - North American Vertical Datum of 1988  
NJDEP - New Jersey Department of Environmental Protection  
PDI - Pre-Design Investigation  
SDG - sample delivery group  
SSE - sample start elevation  
TEE - terminal excavation elevation  
U.S. - United States

**QUALIFIERS:**

J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample. A +/- sign indicates the direction of bias.  
U - The result was not detected above either the method detection limit or sample reporting limit shown.  
UJ - The analyte was not detected above the sample reporting limit shown and the reporting limit was approximate. A +/- sign indicates the direction of bias.

**GENERAL NOTES:**

G1. "Location ID" refers to the location name where samples were collected.  
G2. "Location Elevation" refers to the pre-remediation surface elevation.  
G3. Elevation vertical datum is NAVD88, in U.S. survey ft.  
G4. "Sample ID" refers to the name of a sample collected at a given location and is unique to the depth of the sample collected. The depth listed in the "Sample ID" column may not necessarily correspond to the actual sample depth interval due to corrections made as a result of post-field work review of surveyed surface elevations and/or boring logs. In some cases, the "Sample ID" in the table is a variant of the sample ID in the laboratory report and/or data validation report. In these cases, the "Lab ID" associates the sample results to the laboratory report and/or data validation report.  
G5. "Depth Interval" is based on the "Location Elevation."  
G6. "Sample Start Elevation" refers to the start of the sample interval. There may be up to 0.1 ft variation between the listed Sample Start Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G7. "Sample End Elevation" refers to the end of the sample interval. There may be up to 0.1 ft variation between the listed Sample End Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G8. "Lab ID" refers to the identification number assigned to the sample by the analytical laboratory performing the sample analysis. "Lab SDG" refers to the delivery group number assigned to the sample by the analytical laboratory.  
G9. "Date Collected" refers to the date the soil sample was collected.  
G10. "Sample Status" indicates whether a sample is remaining or removed:  
- "Remaining" indicates the soil in that interval is outside the excavation footprint, and remains in-place at that location; and  
- "Removed" indicates the sample was removed during excavation.  
G11. Sample statuses were determined based on review of the post-excavation sample survey dated 08/07/2018, performed by Maser Consulting, and a topographic survey dated 11/14/2023, performed by Borbas Surveying & Mapping.  
G12. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).  
G13. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.  
G14. "Result" refers to the analytical result, which is reported in mg/kg.  
G15. Bold text indicates that the result exceeds the CrSCC. Non-bold text indicates that the result does not exceed the CrSCC.  
G16. "Qualifier" refers to the data qualifier assigned by the data validation team reviewing the data from the laboratory for validated data. For unvalidated data, it refers to the qualifier assigned by the laboratory.  
G17. Non-detect results are shown on this table using the method detection limit or the reporting limit.

**SPECIFIC NOTES:**

S1. At least one sample interval associated with this sample location exceeds the Chromium Soil Cleanup Criteria (CrSCC) and has been removed by remedial excavation. A deeper sample interval at this location, which does not exceed the CrSCC, has been removed and serves as the clean confirmation sample.

S2. 107\_M020 (3.5-4.0 ft) was removed during remedial excavation but serves as the clean confirmation sample for removal of the CrSCC exceedance associated with Sample Location 107\_M020W. The sample start elevation (SSE) for 107\_M020 is elevation (El.) 16.3 ft NAVD88; the terminal excavation elevation (TEE) is El. 13.0 ft NAVD88 at 107\_M020W.

S3. 107\_M020N(A) (6.5-7.0 ft) remains in place and serves as the clean confirmation sample for removal of CrSCC exceedances associated with Sample Location 107\_M020N. The SSE for 107\_M020N(A) is El. 12.6 ft NAVD88; the TEE is El. 12.6 ft NAVD88 at 107\_M020N.

**Table 5-1**  
**Cr<sup>+6</sup> Analytical Results for Soil Compared to Chromium Soil Cleanup Criterion**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
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S4. 107\_M022N\_1 (3.0-3.5 ft) remains in place and serves as the clean confirmation sample for removal of the CrSCC exceedances associated with CONRAIL-TP-3 (3.0-3.5 ft), SW-A20 (0.0-0.5), SW-A20 (2.0-2.5), SW-A21 (0.0-0.5), and SW-A21 (2.0-2.5). The SSE for 107\_M022N\_1 (3.0-3.5) is El. 15.0 ft NAVD88; the TEEs for the removed samples are as follows: El. 15.0 ft NAVD88 at CONRAIL-TP-3-3.0-3.5, El. 14.9 ft NAVD88 at SW-A20 (0.0-0.5), El. 14.9 ft NAVD88 at SW-A20 (2.0-2.5), El. 15.0 ft NAVD88 at SW-A21 (0.0-0.5), and El. 15.0 ft NAVD88 at SW-A21 (2.0-2.5).

S5. 107\_M024N\_1 (3.0-3.5 ft) remains in place and serves as the clean confirmation sample for removal of the CrSCC exceedance associated with SW-A22 (2.0-2.5) and 107\_M024N\_1 (2.5-3.0 ft). The SSE for 107\_M024N\_1 (3.0-3.5 ft) is El. 14.9 ft NAVD88; the TEEs for the removed samples are as follows: El. 14.7 ft NAVD88 at SW-A22 (2.0-2.5) and El. 14.8 ft NAVD88 at 107\_M024N\_1 (2.5-3.0 ft).

S6. 107\_M026E2 (6.0-6.5 ft) remains in place and serves as the clean confirmation sample for removal of CrSCC exceedances associated with Sample Location 107\_M026E2. The SSE for 107\_M026E2 (6.0-6.5 ft) is El. 13.0 ft NAVD88; the TEE is El. 12.9 ft NAVD88 at 107\_M026E2.

S7. 107\_M026E2\_N (4.5-5.0 ft) remains in place and serves as the clean confirmation sample for removal of the CrSCC exceedances associated with CONRAIL-TP-9 (2.8-3.3 ft) and SW-A26 (2.0-2.5). The SSE for 107\_M026E2\_N (4.5-5.0 ft) is El. 13.5 ft NAVD88; the TEEs for the removed samples are as follows: El. 13.5 ft NAVD88 at CONRAIL-TP-9 (2.8-3.3 ft) and SW-A26 (2.0-2.5).

S8. 107\_M026N (2.5-3.0 ft) was removed during remedial excavation but serves as the clean confirmation sample for removal of the CrSCC exceedance associated with SW-A24 (2.0-2.5). The SSE for 107\_M026N (2.5-3.0 ft) is El. 15.4 ft NAVD88; the TEE is El. 14.8 ft NAVD88 at SW-A24 (2.0-2.5).

S9. 108\_M018\_A (4.0-4.5 ft) was removed during remedial excavation but serves as the clean confirmation sample for removal of the CrSCC exceedances associated with Sample Location 108\_M018E1. The SSE for 108\_M018\_A (4.0-4.5 ft) is El. 17.1 ft NAVD88; the TEE is El. 15.7 ft NAVD88 at 108\_M018E1.

S10. 108\_M018\_N (3.5-4.0 ft) was removed during remedial excavation but serves as the clean confirmation sample for removal of the CrSCC exceedances associated with Sample Location 108-M018-N-0. The SSE for 108\_M018\_N (3.5-4.0 ft) is El. 18.0 ft NAVD88; the TEE is El. 16.1 ft NAVD88 at 108-M018-N-0.

S11. 108\_M018W2 (6.5-7.0 ft) remains in place and serves as the clean confirmation sample for removal of the CrSCC exceedances associated with Sample Location 108\_M018W2. The SSE for 108\_M018W2 (6.5-7.0 ft) is El. 15.7 ft NAVD88; the TEE is El. 15.7 ft NAVD88 at 108\_M018W2.

S12. The sampled material associated with CONRAIL-TP-1-SW-N-C consists of a homogenized mixture of soil and sparse crushed Chromite Ore Processing Residue (COPR) nodules. CONRAIL-TP-1-SW-N-C was analyzed for Cr<sup>+6</sup> and the concentrations were less than the CrSCC. Due to the presence of the crushed COPR nodules in the sampled material, the analytical results for this sample are considered to be biased high. COPR nodules associated with CONRAIL-TP-1-SW-N-C were fully removed during the Supplemental Pre-Design Investigation (PDI) prior to the backfill and restoration of Test Pit 1 (TP-1). Furthermore, no COPR nodules were observed to be remaining in place in TP-1 following completion of the 2023 Mobilization. Because neither CCPW nor COPR nodules were observed in the excavation sidewall at this location during the 2023 Mobilization and the analytical results do not exceed the CrSCC, this sample serves as a Cr<sup>+6</sup> confirmation sidewall sample.

S13. CONRAIL-TP-6 (3.0-3.5) remains in place and serves as the clean confirmation sample for the removal of the CrSCC exceedance associated with Sample Location SW-A23 (2.0-2.5). The SSE for CONRAIL-TP-6 (3.0-3.5) is El. 15.1 ft NAVD88; the TEE is El. 14.8 ft NAVD88 at SW-A23 (2.0-2.5).

S14. SW-A18 (4.0-4.5) remains in place and serves as the clean confirmation sample for the removal of CrSCC exceedance associated with Sample Location SW-A18 (2.0-2.5). The SSE for SW-A18 (4.0-4.5) is El. 13.9 ft NAVD88; the TEE is El. 13.8 ft NAVD88 at SW-A18 (2.0-2.5).

S15. SW-A19 (4.0-4.5) remains in place and serves as the clean confirmation sample for the removal of CrSCC exceedances associated with Sample Locations SW-A19 (0.0-0.5) and SW-A19 (2.0-2.5). The SSE for SW-A19 (4.0-4.5) is El. 14.2 ft NAVD88; the TEEs for the removed samples are as follows: El. 14.2 ft NAVD88 at SW-A19 (0.0-0.5) and El. 14.1 ft NAVD88 at SW-A19 (2.0-2.5).

**Table 5-2  
CCPW Metals Analytical Results for Soil Compared to NJDEP SRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 31 NRDCSRS (G19) 450 ARS (G20) N/A		CHROMIUM 7440-47-3 mg/kg 120000 N/A N/A		NICKEL 7440-02-0 mg/kg 1600 N/A 23000 N/A		THALLIUM 7440-28-0 mg/kg N/A N/A N/A		VANADIUM 7440-62-2 mg/kg N/A 1100 390		Specific Notes
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	
107_M018E2	19.8	107_M018E2_1.0	1.0 - 1.5 ft	18.8	18.3	460-34820-15	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	607	S1	
107_M018E2	19.8	107_M018E2_3.0	3.0 - 3.5 ft	16.8	16.3	460-34820-16	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	83.8		
107_M018E2	19.8	REP121411-1	3.0 - 3.5 ft	16.8	16.3	460-34820-21	460348201	12/14/2011	REMOVED	FD	Y	-	-	-	-	-	-	-	-	344		
107_M018E2	19.8	107_M018E2_3.5	3.5 - 4.0 ft	16.3	15.8	460-34820-17	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	412	S1	
107_M018E2	19.8	107_M018E2_4.0	4.0 - 4.5 ft	15.8	15.3	460-34820-18	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	42.1	S1	
107_M018E2	19.8	107_M018E2_4.5	4.5 - 5.0 ft	15.3	14.8	460-34820-19	460348201	12/14/2011	REMAIN	N	Y	-	-	-	-	-	-	-	-	50.0		
107_M018E2	19.8	107_M018E2_5.0	5.0 - 5.5 ft	14.8	14.3	460-34820-20	460348201	12/14/2011	REMAIN	N	Y	-	-	-	-	-	-	-	-	20.9		
107_M018E2_N	19.8	1-7/10/2012-44	1.0 - 1.5 ft	18.8	18.3	06877-044	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	16.5		
107_M018E2_N	19.8	1-7/10/2012-45	1.5 - 2.0 ft	18.3	17.8	06877-045	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	17.2		
107_M018E2_N	19.8	1-7/10/2012-46	2.0 - 2.5 ft	17.8	17.3	06877-046	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	20.8		
107_M018E2_N	19.8	1-7/10/2012-47	3.5 - 4.0 ft	16.3	15.8	06877-047	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	18.9		
107_M018E2_N	19.8	1-7/10/2012-48	5.5 - 6.0 ft	14.3	13.8	06877-048	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	13.3		
107_M020	19.8	107_M020_0.0	0.0 - 0.5 ft	19.8	19.3	460-23018-11	460230181	2/11/2011	REMOVED	N	Y	< 1 U	-	158	-	38.6	-	< 1.1 U	-	104		
107_M020	19.8	107_M020_1.0/1.2	1.0 - 1.5 ft	18.8	18.3	460-23018-15	460230181	2/11/2011	REMOVED	N	Y	< 1 U	-	2180	-	321	-	< 1.1 U	-	734	S1	
107_M020	19.8	107_M020_2.5	2.5 - 3.0 ft	17.3	16.8	460-23018-16	460230181	2/11/2011	REMOVED	N	Y	< 3.1 U	-	4600	-	457	-	< 3.4 U	-	701	S1	
107_M020	19.8	107_M020_3.0	3.0 - 3.5 ft	16.8	16.3	460-23018-17	460230181	2/11/2011	REMOVED	N	Y	3.9	-	3450	-	123	-	< 1.4 U	-	217	S1, S2	
107_M020	19.8	107_M020_3.5	3.5 - 4.0 ft	16.3	15.8	460-23018-12	460230181	2/11/2011	REMOVED	N	Y	< 1 U	-	730	-	8.9	-	< 1.1 U	-	11.7		
107_M020	19.8	107_M020_7.5	7.5 - 8.0 ft	12.3	11.8	460-23018-13	460230181	2/11/2011	REMAIN	N	Y	< 0.94 U	-	21.6	-	12	-	< 1 U	-	17.4		
107_M020	19.8	REP021111-1	7.5 - 8.0 ft	12.3	11.8	460-23018-8	460230181	2/11/2011	REMAIN	FD	Y	< 0.96 U	-	24.5	-	12.5	-	< 1.1 U	-	18.7		
107_M020	19.8	107_M020_11.5	11.5 - 12.0 ft	8.3	7.8	460-23018-14	460230181	2/11/2011	REMAIN	N	Y	< 0.99 U	-	18.8	-	12	-	< 1.1 U	-	18.3		
107_M020E1	19.5	107_M020E1_0.0	0.0 - 0.5 ft	19.5	19.0	460-34820-1	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	205		
107_M020E1	19.5	107_M020E1_1.0	1.0 - 1.5 ft	18.5	18.0	460-34820-2	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1130	S1	
107_M020E1	19.5	107_M020E1_1.5	1.5 - 2.0 ft	18.0	17.5	460-34820-3	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1110	S1	
107_M020E1	19.5	107_M020E1_2.5	2.5 - 3.0 ft	17.0	16.5	460-34820-4	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1120	S1	
107_M020E1	19.5	107_M020E1_3.0	3.0 - 3.5 ft	16.5	16.0	460-34820-5	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1330	S1	
107_M020E1	19.5	107_M020E1_3.5	3.5 - 4.0 ft	16.0	15.5	460-34820-6	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	97.3	S1	
107_M020E1	19.5	107_M020E1_4.0	4.0 - 4.5 ft	15.5	15.0	460-34820-7	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	30.7		
107_M020E2	19.3	107_M020E2_0.0	0.0 - 0.5 ft	19.3	18.8	460-34781-73	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	918	S1	
107_M020E2	19.3	107_M020E2_1.0	1.0 - 1.5 ft	18.3	17.8	460-34781-74	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1340	S1	
107_M020E2	19.3	107_M020E2_1.5	1.5 - 2.0 ft	17.8	17.3	460-34781-75	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1190	S1	
107_M020E2	19.3	107_M020E2_2.5	2.5 - 3.0 ft	16.8	16.3	460-34781-76	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	509	S1	
107_M020E2	19.3	107_M020E2_3.0	3.0 - 3.5 ft	16.3	15.8	460-34781-77	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	104	S1	
107_M020E2	19.3	107_M020E2_3.5	3.5 - 4.0 ft	15.8	15.3	460-34781-78	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	26.4		
107_M020E2	19.3	107_M020E2_4.0	4.0 - 4.5 ft	15.3	14.8	460-34781-79	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	17.1		
107_M020N	19.1	107_M020N_0.0	0.0 - 0.5 ft	19.1	18.6	460-34781-1	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	210		
107_M020N	19.1	107_M020N_1.0	1.0 - 1.5 ft	18.1	17.6	460-34781-2	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	638	S1	
107_M020N	19.1	107_M020N_1.5	1.5 - 2.0 ft	17.6	17.1	460-34781-3	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	101	S1	
107_M020N	19.1	REP121311-1	1.5 - 2.0 ft	17.6	17.1	460-34781-8	460347811	12/13/2011	REMOVED	FD	Y	-	-	-	-	-	-	-	-	139		
107_M020N	19.1	107_M020N_2.5	2.5 - 3.0 ft	16.6	16.1	460-34781-4	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	18.4		
107_M020N	19.1	107_M020N_3.0	3.0 - 3.5 ft	16.1	15.6	460-34781-5	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	13.6		
107_M020N	19.1	107_M020N_20190108	5.3 - 5.8 ft	13.8	13.3	JC81058-3A	JC81058A	1/8/2019	REMOVED	N	Y	< 2.2 U	-	199	-	20.6	-	< 1.1 U	-	22.7		
107_M020N(A)	19.1	107_M020N(A)_20190116	6.5 - 7.0 ft	12.6	12.1	JC81419-3A	JC81419A	1/16/2019	REMAIN	N	Y	< 2.3 U	-	22.5	-	16.0	-	< 1.2 U	-	23.2		
107_M020N_1	18.0	1-7/10/2012-50	1.0 - 1.5 ft	17.0	16.5	06877-50	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	30.6		
107_M020N_1	18.0	1-7/10/2012-51	2.0 - 2.5 ft	16.0	15.5	06877-51	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	20.3		
107_M020N_1	18.0	1-7/10/2012-52	3.0 - 3.5 ft	15.0	14.5	06877-52	06877	7/10/2012	REMOVED	N	Y	-	-	-	-	-	-	-	-	14.8		
107_M020N_1	18.0	1-7/10/2012-53	4.0 - 4.5 ft	14.0	13.5	06877-53	06877	7/10/2012	REMAIN	N	Y	-	-	-	-	-	-	-	-	17.1		
107_M020N_1	18.0	1-7/10/2012-54	5.0 - 5.5 ft	13.0	12.5	06877-54	06877	7/10/2012	REMAIN	N	Y	-	-	-	-	-	-	-	-	17.8		
107_M020W	18.8	107_M020W-0.0	0.0 - 0.5 ft	18.8	18.3	460-34820-8	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	292		
107_M020W	18.8	107_M020W-1.0	1.0 - 1.5 ft	17.8	17.3	460-34820-9	460348201	12/14/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	1150	S2	
107_M022	20.0	107_M022_0.0	0.0 - 0.5 ft	20.0	19.5	460-23018-1	460230181	2/11/2011	REMOVED	N	Y	< 1.1 U	-	449	-	68	-	< 1.2 U	-	130		
107_M022	20.0	107_M022_1.0/2.0	1.0 - 1.5 ft	19.0	18.5	460-23018-2	460230181	2/11/2011	REMOVED	N	Y	0.96	-	210	-	41.8	-	< 1 U	-	99.1		
107_M022	20.0	107_M022_4.0/4.5	4.0 - 4.5 ft	16.0	15.5	460-23018-3	460230181	2/11/2011	REMOVED	N	Y	1.8	-	66.1	-	15.5	-	< 1.2 U	-	21.5		
107_M022	20.0	107_M022_4.5	4.5 - 5.0 ft	15.5	15.0	460-23018-4	460230181	2/11/2011	REMAIN	N	Y	< 1 U	-	40.2	-	7.4	-	< 1.1 U	-	17.9		
107_M022	20.0	107_M022_8.5	8.5 - 9.0 ft	11.5	11.0	460-23018-5	460230181	2/11/2011	REMAIN	N	Y	< 1 U	-	11.9	-	6.2	-	< 1.1 U	-	12.8		
107_M022	20.0	107_M022_12.5	12.5 - 13.0 ft	7.5	7.0	460-23018-6	460230181	2/11/2011	REMAIN	N	Y	< 0.91 U	-	13.2	-	13.4	-	< 1 U	-	17.3		
107_M022N	17.9	107_M022N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-9	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	61.3		
107_M022N	17.9	107_M022N_1.0	1.0 - 1.5 ft	16.9	16.4	460-34781-10	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	28.5		
107_M024	19.0	107_M024_0.0	0.0 - 0.5 ft	19.0	18.5	460-22995-33	460229951	2/10/2011														

**Table 5-2  
CCPW Metals Analytical Results for Soil Compared to NJDEP SRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 31 NRDCSRS (G19) 450 ARS (G20) N/A		CHROMIUM 7440-47-3 mg/kg 120000 N/A N/A		NICKEL 7440-02-0 mg/kg 1600 23000 N/A		THALLIUM 7440-28-0 mg/kg N/A N/A N/A		VANADIUM 7440-62-2 mg/kg N/A 1100 390		Specific Notes	
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)		
107_M024N	17.9	107_M024N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-14	460347811	12/13/2011	REMOVED	N	Y											31.2	
107_M024N_1	17.9	107_M024N_1_20190227	2.5 - 3.0 ft	15.4	14.9	JC83511-6A	JC83511A	2/27/2019	REMOVED	N	Y	< 2.5	U	564		56.9		< 2.5	U			94.3	S3
107_M026	19.0	107_M026_0.0	0.0 - 0.5 ft	19.0	18.5	460-22995-32	460229951	2/10/2011	REMOVED	N	Y	< 0.96	U	37.5		17.4		< 1.1	U			41.9	
107_M026	19.0	REP-021011-01	0.0 - 0.5 ft	19.0	18.5	460-22995-39	460229951	2/10/2011	REMOVED	FD	Y	< 0.98	U	36.8		14.4		< 1.1	U			22.4	
107_M026	19.0	107_M026_0.5	0.5 - 3.0 ft	18.5	16.0	460-22995-27	460229951	2/10/2011	REMOVED	N	Y	< 1.1	U	4360		309		< 1.2	U			547	S1
107_M026	19.0	107_M026_3.0	3.0 - 3.5 ft	16.0	15.5	460-22995-28	460229951	2/10/2011	REMOVED	N	Y	< 1	U	189		19.2		< 1.1	U			35.6	S1
107_M026	19.0	107_M026_4.0	4.0 - 4.5 ft	15.0	14.5	460-22995-29	460229951	2/10/2011	REMOVED	N	Y	< 1.2	U	534		13.3		< 1.3	U			22.1	
107_M026	19.0	107_M026_8.0	8.0 - 8.5 ft	11.0	10.5	460-22995-30	460229951	2/10/2011	REMAIN	N	Y	< 1.1	U	11.1		7		< 1.2	U			16.2	
107_M026	19.0	107_M026_12.0	12.0 - 12.5 ft	7.0	6.5	460-22995-31	460229951	2/10/2011	REMAIN	N	Y	< 0.94	U	21.9		14.4		< 1	U			26.1	
107_M026E1	19.0	107_M026E1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-73	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			68.5	
107_M026E2	19.0	107_M026E2_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-61	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			842	S1
107_M026E2	19.0	107_M026E2_3.5	3.5 - 4.0 ft	15.5	15.0	460-34686-67	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			34.1	S1
107_M026E2	19.0	107_M026E2_4.0	4.0 - 4.5 ft	15.0	14.5	460-34686-68	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			21.4	
107_M026E2	19.0	107_M026E2_4.5	4.5 - 5.0 ft	14.5	14.0	460-34686-69	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			20.4	
107_M026E2	19.0	107_M026E2_5.0	5.0 - 5.5 ft	14.0	13.5	460-34686-70	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			80.2	
107_M026E2	19.0	107_M026E2_6.0	6.0 - 6.5 ft	13.0	12.5	460-34686-71	460346861	12/12/2011	REMAIN	N	Y	-	-	-		-		-	-			21.7	
107_M026N	17.9	107_M026N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-18	460347811	12/13/2011	REMOVED	N	Y	-	-	-		-		-	-			18	
107_M026W1	19.0	107_M026W1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-85	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			965	S1
107_M026W1	19.0	107_M026W1_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-90	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			15.7	S1
107_M026W2	19.0	107_M026W2_0.5	0.5 - 1.0 ft	18.5	18.0	460-34781-61	460347811	12/13/2011	REMOVED	N	Y	-	-	-		-		-	-			70.7	
107_M028	19.0	107_M028_0.0	0.0 - 0.5 ft	19.0	18.5	460-22995-21	460229951	2/10/2011	REMOVED	N	Y	1.6		416		100		< 1	U			147	
107_M028	19.0	107_M028_0.5	0.5 - 1.0 ft	18.5	18.0	460-22995-22	460229951	2/10/2011	REMOVED	N	Y	4.7		3950		510		< 3.3	U*			648	S1
107_M028	19.0	107_M028_1.0	1.0 - 1.5 ft	18.0	17.5	460-22995-23	460229951	2/10/2011	REMOVED	N	Y	21.2		11600		673		< 7.3	U*			734	S1
107_M028	19.0	107_M028_3.5	3.5 - 4.0 ft	15.5	15.0	460-22995-24	460229951	2/10/2011	REMOVED	N	Y	< 0.95	U	41	J	11.7		< 1	U			18.2	S1
107_M028	19.0	107_M028_7.5	7.5 - 8.0 ft	11.5	11.0	460-22995-25	460229951	2/10/2011	REMAIN	N	Y	< 1.1	U	11.6		9		< 1.2	U			15.1	
107_M028	19.0	107_M028_11.5	11.5 - 12.0 ft	7.5	7.0	460-22995-26	460229951	2/10/2011	REMAIN	N	Y	< 0.96	U	7.3		9.2		< 1.1	U			11.6	
107_M028E1	19.0	107_M028E1_0.0	0.0 - 0.5 ft	19.0	18.5	460-34686-45	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			78.7	
107_M028E1	19.0	107_M028E1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-46	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			186	
107_M028E1	19.0	107_M028E1_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-47	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			959	S1
107_M028E1	19.0	107_M028E1_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-48	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			377	S1
107_M028E1	19.0	107_M028E1_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-49	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			30.2	
107_M028E1	19.0	107_M028E1_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-50	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			46.5	
107_M028E1	19.0	107_M028E1_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-51	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			20.3	
107_M028E2	18.8	107_M028E2_0.0	0.0 - 0.5 ft	18.8	18.3	460-34686-38	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			40	
107_M028E2	18.8	107_M028E2_0.5	0.5 - 1.0 ft	18.3	17.8	460-34686-39	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			46.3	
107_M028E2	18.8	107_M028E2_1.0	1.0 - 1.5 ft	17.8	17.3	460-34686-40	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			66.6	
107_M028E2	18.8	107-M028E2_20190121	5.5 - 6.0 ft	13.3	12.8	JC81644-4A	JC81644A	1/21/2019	REMAIN	N	Y	< 2.3	U	16.6		14.6		< 1.1	U			24.5	
107_M028N	17.9	107_M028N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-29	460347811	12/13/2011	REMOVED	N	Y	-	-	-		-		-	-			82.6	
107_M028N	17.9	107_M028N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-30	460347811	12/13/2011	REMOVED	N	Y	-	-	-		-		-	-			85.1	
107_M028N	17.9	REP121311-2	0.5 - 1.0 ft	17.4	16.9	460-34781-36	460347811	12/13/2011	REMOVED	FD	Y	-	-	-		-		-	-			56.5	
107_M028N	17.9	107_M028N_1.0	1.0 - 1.5 ft	16.9	16.4	460-34781-31	460347811	12/13/2011	REMOVED	N	Y	-	-	-		-		-	-			87.2	
107_M028N	17.9	107_M028N_3.0	3.0 - 3.5 ft	14.9	14.4	460-34781-35	460347811	12/13/2011	REMOVED	N	Y	-	-	-		-		-	-			18.1	
107_M028W	19.0	107_M028W_0.0	0.0 - 0.5 ft	19.0	18.5	460-34686-52	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			51.3	
107_M028W	19.0	107_M028W_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-53	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			828	S1
107_M028W	19.0	107_M028W_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-54	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			1100	S1
107_M028W	19.0	107_M028W_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-55	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			1180	S1
107_M028W	19.0	107_M028W_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-56	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			1130	S1
107_M028W	19.0	107_M028W_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-57	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			293	S1
107_M028W	19.0	107_M028W_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-58	460346861	12/12/2011	REMOVED	N	Y	-	-	-		-		-	-			113	
107_M028W	19.0	107-M028W_20190122	5.6 - 6.1 ft	13.4	12.9	JC81681-2A	JC81681A	1/22/2019	REMAIN	N	Y	< 2.5	UJ-	18.1		11.2		< 1.3	U			28.2	
107_M028W	19.0	DUP-02(20190122)RR	5.6 - 6.1 ft	13.4	12.9	JC81681-6A	JC81681A	1/22/2019	REMAIN	FD	Y	< 2.4	UJ-	19.6		11.6		< 2.4	U			35.5	
107_M030	18.4	107_M030_0.0	0.0 - 0.5 ft	18.4	17.9	460-22995-15	460229951	2/10/2011	REMOVED	N	Y	1.8		748		111		< 1.2	U			214	
107_M030	18.4	107_M030_0.5	0.5 - 2.0 ft	17.9	16.4	460-22995-16	460229951	2/10/2011	REMOVED	N	Y	2		822		98.1		< 1.1	U			134	
107_M030	18.4	107_M030_2.5	2.5 - 3.0 ft	15.9	15.4	460-22995-17	460229951	2/10/2011	REMOVED	N	Y	< 0.97	U	90.8		19.2		< 1.1	U			25.7	
107_M030	18.4	107_M030_3.5	3.5 - 4.0 ft	14.9	14.4	460-22995-18	460229951	2/10/2011	REMOVED	N	Y	< 0.92	U	36.9	J	12.7		< 1	U			21.1	
107_M030	18.4	107_M030_7.5	7.5 - 8.0 ft	10.9	10.4	460-22995-19	460229951	2/10/2011	REMAIN	N	Y	< 1	U	22.3		12		< 1.1	U			38.4	
107_M030	18.4	107_M030_11.5	11.5																				

**Table 5-2  
CCPW Metals Analytical Results for Soil Compared to NJDEP SRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 31 NRDCSRS (G18) 450 ARS (G20) N/A		CHROMIUM 7440-47-3 mg/kg 120000 N/A		NICKEL 7440-02-0 mg/kg 1600 23000 N/A		THALLIUM 7440-28-0 mg/kg N/A N/A		VANADIUM 7440-62-2 mg/kg N/A 1100 390		Specific Notes	
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)		
107_M030E2	18.2	107_M030E2_4.0	4.0 - 4.5 ft	14.2	13.7	460-34686-27	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	521	S4	
107_M030E2	18.2	107-M030E2_20190122	10.4 - 10.9 ft	7.8	7.3	JC81681-4A	JC81681A	1/22/2019	REMAIN	N	Y	< 2.8	UJ-	19.0	-	14.0	-	< 1.4	U	-	-	29.4	
107_M030N	17.9	107_M030N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-37	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	46.9	
107_M030N	17.9	107_M030N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-38	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	29	
107_M032	17.4	107_M032_0.0	0.0 - 0.5 ft	17.4	16.9	460-22995-9	460229951	2/10/2011	REMOVED	N	Y	< 1.1	U	89.8	-	26.5	-	< 1.2	U	-	-	112	
107_M032	17.4	107_M032_0.5	0.5 - 1.5 ft	16.9	15.9	460-22995-10	460229951	2/10/2011	REMOVED	N	Y	2.7	-	1470	-	179	-	< 1.1	U	-	-	286	
107_M032	17.4	107_M032_1.5	1.5 - 2.0 ft	15.9	15.4	460-22995-11	460229951	2/10/2011	REMOVED	N	Y	8.7	-	3130	-	355	-	< 1.6	U	-	-	620	S1
107_M032	17.4	107_M032_3.0	3.0 - 3.5 ft	14.4	13.9	460-22995-12	460229951	2/10/2011	REMOVED	N	Y	< 0.85	U	138	J	20.1	-	< 0.93	U	-	-	30.6	S1
107_M032	17.4	107_M032_7.0	7.0 - 7.5 ft	10.4	9.9	460-22995-13	460229951	2/10/2011	REMAIN	N	Y	< 0.93	U	12.1	-	10.5	-	< 1	U	-	-	15.6	
107_M032	17.4	107_M032_11.0	11.0 - 11.5 ft	6.4	5.9	460-22995-14	460229951	2/10/2011	REMAIN	N	Y	< 0.92	U	10.7	-	12.5	-	< 1	U	-	-	16.9	
107_M032E1	17.7	107_M032E1_0.0	0.0 - 0.5 ft	17.7	17.2	460-34686-10	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	76.2	
107_M032E1	17.7	107_M032E1_0.5	0.5 - 1.0 ft	17.2	16.7	460-34686-11	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	119	
107_M032E1	17.7	107_M032E1_1.0	1.0 - 1.5 ft	16.7	16.2	460-34686-12	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	32.5	
107_M032E1	17.7	107_M032E1_1.5	1.5 - 2.0 ft	16.2	15.7	460-34686-13	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	21.2	
107_M032E2	17.7	107_M032E2_0.0	0.0 - 0.5 ft	17.7	17.2	460-34686-1	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	114	
107_M032E2	17.7	107_M032E2_0.5	0.5 - 1.0 ft	17.2	16.7	460-34686-2	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	122	
107_M032E2	17.7	107_M032E2_1.0	1.0 - 1.5 ft	16.7	16.2	460-34686-3	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	120	
107_M032E2	17.7	107_M032E2_1.5	1.5 - 2.0 ft	16.2	15.7	460-34686-4	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	78.7	
107_M032E2	17.7	107_M032E2_4.0	4.0 - 4.5 ft	13.7	13.2	460-34686-9	460346861	12/12/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	17.6	
107_M032N	16.6	107_M032N_0.0	0.0 - 0.5 ft	16.6	16.1	460-34781-46	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	11.4	J
107_M032N	16.6	107_M032N_0.5	0.5 - 1.0 ft	16.1	15.6	460-34781-47	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	20.1	
107_M032N	16.6	107_M032N_1.0	1.0 - 1.5 ft	15.6	15.1	460-34781-48	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	23.2	
107_M032N	16.6	107_M032N_1.5	1.5 - 2.0 ft	15.1	14.6	460-34781-49	460347811	12/13/2011	REMOVED	N	Y	-	-	-	-	-	-	-	-	-	-	22	
107_M034N	16.6	107_M034N_3.0	3.0 - 3.5 ft	13.6	13.1	460-34781-55	460347811	12/13/2011	REMAIN	N	Y	-	-	-	-	-	-	-	-	-	-	22.6	
107_M034N	16.6	REP121311-3	3.0 - 3.5 ft	13.6	13.1	460-34781-60	460347811	12/13/2011	REMAIN	FD	Y	-	-	-	-	-	-	-	-	-	-	21.9	
107_M034N	16.6	107_M034N_20190125	3.3 - 3.8 ft	13.3	12.8	JC81864-6A	JC81864A	1/25/2019	REMAIN	N	Y	< 2.2	UJ-	18.8	-	16.6	-	< 1.1	U	-	-	25.7	
107_M034N	16.6	107_M034N_20190227	3.3 - 3.8 ft	13.3	12.8	JC83511-7A	JC83511A	2/27/2019	REMAIN	N	Y	< 2.4	U	15.2	-	13.5	-	< 1.2	U	-	-	22.3	
107_M034N	16.6	107_M034N_3.5	3.5 - 4.0 ft	13.1	12.6	460-34781-56	460347811	12/13/2011	REMAIN	N	Y	-	-	-	-	-	-	-	-	-	-	19.7	
108_M006	25.2	G000008729-2/23/2011-1936	0.0 - 0.5 ft	25.2	24.7	460-23391-10	460233911	2/23/2011	REMAIN	N	Y	< 1.1	U	38.9	-	24.3	-	< 1.2	U	-	-	33.4	
108_M006	25.2	G000008729-2/23/2011-1938	4.0 - 4.5 ft	21.2	20.7	460-23391-11	460233911	2/23/2011	REMAIN	N	Y	< 0.96	U	20.3	-	14	-	< 1.1	U	-	-	23.6	
108_M006	25.2	G000008729-2/23/2011-1939	8.0 - 8.5 ft	17.2	16.7	460-23391-12	460233911	2/23/2011	REMAIN	N	Y	< 0.91	U	12.4	-	10.8	-	< 1	U	-	-	16.9	
108_M006	25.2	G000008729-2/23/2011-1937	12.0 - 12.5 ft	13.2	12.7	460-23391-13	460233911	2/23/2011	REMAIN	N	Y	< 0.98	U	11.9	-	9.7	-	< 1.1	U	-	-	17.5	
108_M008	25.0	G000008729-2/17/2011-1796	0.0 - 0.5 ft	25.0	24.5	460-23196-34	460231961	2/17/2011	REMAIN	N	Y	1.6	J	28	-	17.4	-	< 1.2	U	-	-	28.8	
108_M008	25.0	G000008729-2/17/2011-1798	4.5 - 5.0 ft	20.5	20.0	460-23196-35	460231961	2/17/2011	REMAIN	N	Y	32.3	-	32.1	-	15.7	-	< 1.3	U	-	-	26.3	S5
108_M008	25.0	G000008729-2/17/2011-1799	8.5 - 9.0 ft	16.5	16.0	460-23196-36	460231961	2/17/2011	REMAIN	N	Y	< 0.94	U	15.6	-	14.8	-	< 1	U	-	-	18.7	
108_M008	25.0	G000008729-2/17/2011-1804	8.5 - 9.0 ft	16.5	16.0	460-23196-28	460231961	2/17/2011	REMAIN	FD	Y	< 0.99	U	17.9	-	14.7	-	< 1.1	U	-	-	22.9	
108_M008	25.0	G000008729-2/17/2011-1797	12.5 - 13.0 ft	12.5	12.0	460-23196-37	460231961	2/17/2011	REMAIN	N	Y	< 0.95	U	18.4	-	9.8	-	< 1	U	-	-	17.6	
108_M010	25.0	G000008729-2/17/2011-1800	0.0 - 0.5 ft	25.0	24.5	460-23196-24	460231961	2/17/2011	REMAIN	N	Y	< 1.2	U	86.7	-	26.3	-	< 1.3	U	-	-	35.3	
108_M010	25.0	G000008729-2/17/2011-1802	2.0 - 2.5 ft	23.0	22.5	460-23196-25	460231961	2/17/2011	REMAIN	N	Y	2.1	J	41.5	-	22.7	-	< 1.2	U	-	-	27.9	
108_M010	25.0	G000008729-2/17/2011-1803	6.0 - 6.5 ft	19.0	18.5	460-23196-26	460231961	2/17/2011	REMAIN	N	Y	< 0.95	U	14.3	-	13.5	-	< 1	U	-	-	21.1	
108_M010	25.0	G000008729-2/17/2011-1801	10.0 - 10.5 ft	15.0	14.5	460-23196-27	460231961	2/17/2011	REMAIN	N	Y	< 0.91	U	15.8	-	16.5	-	< 1	U	-	-	20.2	
108_M012	25.1	G000008729-2/17/2011-1807	0.0 - 0.5 ft	25.1	24.6	460-23196-14	460231961	2/17/2011	REMAIN	N	Y	< 1	U	24.8	-	11.7	-	< 1.1	U	-	-	22.2	
108_M012	25.1	G000008729-2/17/2011-1809	3.5 - 4.0 ft	21.6	21.1	460-23196-15	460231961	2/17/2011	REMAIN	N	Y	1.4	J	29.7	-	25.6	-	< 1.1	U	-	-	34.2	
108_M012	25.1	G000008729-2/17/2011-1810	5.5 - 6.0 ft	19.6	19.1	460-23196-16	460231961	2/17/2011	REMAIN	N	Y	1.8	J	23.3	-	22.7	-	< 1.1	U	-	-	26.8	
108_M012	25.1	G000008729-2/17/2011-1811	9.5 - 10.0 ft	15.6	15.1	460-23196-17	460231961	2/17/2011	REMAIN	N	Y	< 0.95	U	18.8	-	15.4	-	< 1	U	-	-	25.8	
108_M012	25.1	G000008729-2/17/2011-1808	13.5 - 14.0 ft	11.6	11.1	460-23196-18	460231961	2/17/2011	REMAIN	N	Y	< 0.96	U	13.5	-	13.5	-	< 1.1	U	-	-	17	
108_M014	24.1	G000008729-2/16/2011-1728	0.0 - 0.5 ft	24.1	23.6	460-23155-13	460231551	2/16/2011	REMOVED	N	Y	< 0.84	U	7.5	-	9	-	< 0.92	U	-	-	30.7	
108_M014	24.1	G000008729-2/16/2011-1729	10.0 - 10.5 ft	14.1	13.6	460-23155-14	460231551	2/16/2011	REMAIN	N	Y	< 0.96	U	18.7	-	13.3	-	< 1.1	U	-	-	22	
108_M014	24.1	G000008729-2/16/2011-1730	15.0 - 15.5 ft	9.1	8.6	460-23155-15	460231551	2/16/2011	REMAIN	N	Y	< 1	U	13.7	-	12	-	< 1.1	U	-	-	20.3	
108_M014	24.1	G000008729-2/16/2011-1733	19.0 - 19.5 ft	5.1	4.6	460-23155-16	460231551	2/16/2011	REMAIN	N	Y	< 0.93	U	12.6	-	9.2	-	< 1	U	-	-	18.3	
108_M016	23.1	G000008729-2/16/2011-1734	0.0 - 0.5 ft	23.1	22.6	460-23155-18	460231551	2/16/2011	REMOVED	N	Y	0.93	J	60.6	-	15.7	-	< 0.96	U	-	-	68.5	
108_M016	23.1	G000008729-2/16/2011-1736	3.5 - 4.0 ft	19.6	19.1	460-23155-19	460231551	2/16/2011	REMAIN	N	Y	< 1	U	1260	-	97.6	-	< 1.1	U	-	-	173	
108_M016	23.1	G000008729-2/16/2011-1737	5.5 - 6.0 ft	17.6	17.1	460-23155-20	460231551	2/16/2011	REMAIN	N	Y	4	J	292									

**Table 5-2**  
**CCPW Metals Analytical Results for Soil Compared to NJDEP SRS**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
**PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0		CHROMIUM 7440-47-3		NICKEL 7440-02-0		THALLIUM 7440-28-0		VANADIUM 7440-62-2		Specific Notes	
												Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
												RDCSRS (G18)	120000	N/A	1600	N/A	N/A	N/A	N/A	N/A	N/A	1100	
												NRDCSRS (G19)	450	N/A	23000	N/A	N/A	N/A	N/A	N/A	N/A	390	
												ARS (G20)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
108_M018	21.6	G000008729-2/23/2011-1944	3.5 - 4.0 ft	18.1	17.6	460-23391-9	460233911	2/23/2011	REMOVED	N	Y		5.5		2430		92.8		< 1.5 U		135		
108_M018	21.6	G000008729-2/23/2011-1945	4.0 - 4.5 ft	17.6	17.1	460-23391-6	460233911	2/23/2011	REMOVED	N	Y		14.3		790		19.9		< 1.2 U		28.7		
108_M018	21.6	G000008729-2/23/2011-1946	8.0 - 8.5 ft	13.6	13.1	460-23391-7	460233911	2/23/2011	REMAIN	N	Y		< 0.92 U		265		10.4		< 1 U		16.9		
108_M018	21.6	G000008729-2/23/2011-1975	12.0 - 12.5 ft	9.6	9.1	460-23391-27	460233911	2/23/2011	REMAIN	FD	Y		< 0.97 U		15.9		12.2		< 1.1 U		20.1		
108_M018	21.6	G000008729-2/23/2011-1941	12.0 - 12.5 ft	9.6	9.1	460-23391-8	460233911	2/23/2011	REMAIN	N	Y		< 0.98 U		12.7		10.5		< 1.1 U		18.3		
108_M018_C	20.5	108_M018_C_20181130	7.0 - 7.5 ft	13.5	13.0	JC78809-2A	JC78809A	11/30/2018	REMAIN	N	Y		< 2.5 U		233		12.0		< 1.3 U		14.3		
108_M018E1	21.2	G000008729-12/14/2011-3781	0.5 - 1.0 ft	20.7	20.2	460-34820-22	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		75.4		
108_M018E1	21.2	G000008729-12/14/2011-3782	1.0 - 1.5 ft	20.2	19.7	460-34820-23	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		367		
108_M018E1	21.2	G000008729-12/14/2011-3783	3.0 - 3.5 ft	18.2	17.7	460-34820-24	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		1130		S1
108_M018E1	21.2	G000008729-12/14/2011-3871	3.0 - 3.5 ft	18.2	17.7	460-34820-29	460348201	12/14/2011	REMOVED	FD	Y		-		-		-		-		1010		S1
108_M018E1	21.2	G000008729-12/14/2011-3784	3.5 - 4.0 ft	17.7	17.2	460-34820-25	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		263		S1
108_M018E1	21.2	G000008729-12/14/2011-3785	4.0 - 4.5 ft	17.2	16.7	460-34820-26	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		55		
108_M018E1	21.2	G000008729-12/14/2011-3786	4.5 - 5.0 ft	16.7	16.2	460-34820-27	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		82		
108_M018E1	21.2	G000008729-12/14/2011-3787	5.0 - 5.5 ft	16.2	15.7	460-34820-28	460348201	12/14/2011	REMAIN	N	Y		-		-		-		-		45.4		
108_M018N	21.2	G000008729-12/14/2011-3794	1.0 - 1.5 ft	20.2	19.7	460-34820-30	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		476		S1
108_M018N	21.2	G000008729-12/14/2011-3795	1.5 - 2.0 ft	19.7	19.2	460-34820-31	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		351		S1
108_M018N	21.2	G000008729-12/14/2011-3797	2.0 - 2.5 ft	19.2	18.7	460-34820-32	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		170		
108_M018N	21.2	G000008729-12/14/2011-3798	3.0 - 3.5 ft	18.2	17.7	460-34820-33	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		33.6		
108_M018N	21.2	G000008729-12/14/2011-3801	3.5 - 4.0 ft	17.7	17.2	460-34820-34	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		32.3		
108_M018N	21.2	108_M018N_20190125	5.0 - 5.5 ft	16.2	15.7	JC81864-8A	JC81864A	1/25/2019	REMOVED	N	Y		< 2.3 U		30.6		14.8		< 1.2 U		25.5		
108_M018N	21.2	108_M018N_20190129	6.6 - 7.1 ft	14.6	14.1	JC82063-4A	JC82063A	1/29/2019	REMAIN	N	Y		< 2.3 U		49.0		13.5		< 1.1 U		23.3		
108_M018N_1	20.1	G000008729-7/10/2012-5292	1.0 - 1.5 ft	19.1	18.6	06877-023	06877	7/10/2012	REMOVED	N	N		-		-		-		-		62.2		
108_M018N_1	20.1	G000008729-7/10/2012-5293	1.5 - 2.0 ft	18.6	18.1	06877-024	06877	7/10/2012	REMOVED	N	N		-		-		-		-		417		S1
108_M018N_1	20.1	G000008729-7/10/2012-5294	2.0 - 2.5 ft	18.1	17.6	06877-025	06877	7/10/2012	REMOVED	N	N		-		-		-		-		246		S1
108_M018N_1	20.1	G000008729-7/10/2012-5295	3.0 - 3.5 ft	17.1	16.6	06877-026	06877	7/10/2012	REMOVED	N	N		-		-		-		-		274		
108_M018N_1	20.1	G000008729-7/10/2012-5296	3.5 - 4.0 ft	16.6	16.1	06877-027	06877	7/10/2012	REMOVED	N	N		< 0.35 U		-		-		-		-		
108_M018N_1	20.1	108_M018N_1_20190125	3.5 - 4.0 ft	16.6	16.1	JC81864-7A	JC81864A	1/25/2019	REMOVED	N	Y		< 2.3 U		64.2		26.0		< 1.2 U		29.1		
108_M018N_1	20.1	G000008729-7/10/2012-5297	4.5 - 5.0 ft	15.6	15.1	06877-028	06877	7/10/2012	REMOVED	N	N		< 0.303 U		-		-		-		-		
108_M018N_1	20.1	108_M018N_1_20190129	5.7 - 6.2 ft	14.4	13.9	JC82063-5A	JC82063A	1/29/2019	REMAIN	N	Y		< 2.3 U		60.7		15.1		< 1.1 U		23.2		
108_M018W1	21.9	G000008729-12/14/2011-3802	0.5 - 1.0 ft	21.4	20.9	460-34820-38	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		233		
108_M018W1	21.9	G000008729-12/14/2011-3803	1.0 - 1.5 ft	20.9	20.4	460-34820-39	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		285		
108_M018W1	21.9	G000008729-12/14/2011-3804	1.5 - 2.0 ft	20.4	19.9	460-34820-40	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		241		
108_M018W1	21.9	G000008729-12/14/2011-3805	2.0 - 2.5 ft	19.9	19.4	460-34820-47	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		151		
108_M018W1	21.9	G000008729-12/14/2011-3806	2.5 - 3.0 ft	19.4	18.9	460-34820-41	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		53.3		
108_M018W1	21.9	G000008729-12/14/2011-3807	3.0 - 3.5 ft	18.9	18.4	460-34820-42	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		41.6		
108_M018W1	21.9	G000008729-12/14/2011-3808	3.5 - 4.0 ft	18.4	17.9	460-34820-43	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		127		
108_M018W1	21.9	108_M018W1_20190315	6.0 - 6.5 ft	15.9	15.4	JC84519-6A	JC84519A	3/15/2019	REMAIN	N	Y		< 2.2 U		149		20.0		< 2.2 U		25.5		
108_M018W2	22.2	G000008729-12/14/2011-3809	0.5 - 1.0 ft	21.7	21.2	460-34820-49	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		126		
108_M018W2	22.2	G000008729-12/14/2011-3810	1.0 - 1.5 ft	21.2	20.7	460-34820-50	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		607		S1
108_M018W2	22.2	G000008729-12/14/2011-3811	3.0 - 3.5 ft	19.2	18.7	460-34820-51	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		988		S1
108_M018W2	22.2	G000008729-12/14/2011-3814	4.0 - 4.5 ft	18.2	17.7	460-34820-52	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		80.7		S1
108_M018W2	22.2	G000008729-12/14/2011-3815	4.5 - 5.0 ft	17.7	17.2	460-34820-53	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		52.4		
108_M018W2	22.2	G000008729-12/14/2011-3816	5.0 - 5.5 ft	17.2	16.7	460-34820-54	460348201	12/14/2011	REMOVED	N	Y		-		-		-		-		23.8		
108_M018W2	22.2	108_M018W2_20190315	6.5 - 7.0 ft	15.7	15.2	JC84519-5A	JC84519A	3/15/2019	REMAIN	N	Y		< 2.2 U		32.0		14.9		< 1.1 U		36.1		
108_M018W2_1	22.3	G000008729-7/10/2012-5285	1.0 - 1.5 ft	21.3	20.8	06877-015	06877	7/10/2012	REMOVED	N	N		-		-		-		-		81.6		
108_M018W2_1	22.3	G000008729-7/10/2012-5286	1.5 - 2.0 ft	20.8	20.3	06877-016	06877	7/10/2012	REMOVED	N	N		-		-		-		-		96.5		
108_M018W2_1	22.3	G000008729-7/10/2012-5287	2.0 - 2.5 ft	20.3	19.8	06877-017	06877	7/10/2012	REMOVED	N	N		-		-		-		-		133		
BS-A0	24.0	BS-A0_20190115	7.1 - 7.6 ft	16.9	16.4	JC81350-2A	JC81350A	1/15/2019	REMOVED	N	Y		< 2.3 U		18.0		16.6		< 1.2 U		25.7		
BS-A0S	21.1	BS-A0S_20190118	4.3 - 4.8 ft	16.8	16.3	JC81597-2A	JC81597A	1/18/2019	REMAIN	N	Y		< 2.3 U		26.0		18.4		< 2.3 U		43.1		
BS-A0T	24.0	BS-A0T_20190123	8.9 - 9.4 ft	15.1	14.6	JC81743-3A	JC81743A	1/23/2019	REMAIN	N	Y		< 2.3 U		16.2		12.8		< 1.1 U		23.6		
BS-A1	21.8	BS-A1_20190123	5.3 - 5.8 ft	16.5	16.0	JC81743-6A	JC81743A	1/23/2019	REMAIN	N	Y		< 2.3 U		22.3		19.8		< 1.2 U		25.1		
BS-A10	18.7	BS-A10_20190111	3.8 - 4.3 ft	14.9	14.4	JC81225-2A	JC81225A	1/11/2019	REMAIN	N	Y		< 2.3 U		12.0		8.1		< 1.1 U		18.7		
BS-A11	18.6	BS-A11_20190111	3.3 - 3.8 ft	15.3	14.8	JC81225-3A	JC81225A	1/11/2019	REMAIN	N	Y		< 2.3 U		14.4		11.8		< 1.1 U		21.3		
BS-A12	18.5	BS-A12_20190111	4.8 - 5.3 ft	13.7	13.2	JC81225-4A	JC81225A	1/11/2019	REMAIN	N	Y		< 2.5 U		23.7		7.0		< 1.2 U		12.3		
BS-A12S																							

**Table 5-2  
CCPW Metals Analytical Results for Soil Compared to NJDEP SRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 31 NRDCSRS (G18) 450 ARS (G20) N/A		CHROMIUM 7440-47-3 mg/kg 120000 N/A		NICKEL 7440-02-0 mg/kg 1600 23000 N/A		THALLIUM 7440-28-0 mg/kg N/A N/A		VANADIUM 7440-62-2 mg/kg N/A 1100 390		Specific Notes
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	
BS-A1T	23.9	BS-A1T_20190123	9.0 - 9.5 ft	14.9	14.4	JC81743-4A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.7	UJ-	16.8		15.7		< 1.4	U	26.7		
BS-A2	20.8	BS-A2_20190123	4.2 - 4.7 ft	16.6	16.1	JC81743-7A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.2	UJ-	17.3		12.7		< 1.1	U	22.9		
BS-A20	19.5	BS-A20_20190129	4.7 - 5.2 ft	14.8	14.3	JC81985-14A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.2	U	29.2		15.6		< 1.1	U	24.1		
BS-A2T	23.0	BS-A2T_20190123	8.3 - 8.8 ft	14.7	14.2	JC81743-5A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.2	UJ-	15.6		11.8		< 1.1	U	23.5		
BS-A3	19.8	BS-A3_20190129	3.0 - 3.5 ft	16.8	16.3	JC82063-2A	JC82063A	1/29/2019	REMOVED	N	Y	< 2.2	U	28.3		14.7		< 1.1	U	24.2		
BS-A3D	20.6	BS-A3D_20190123	5.7 - 6.2 ft	14.9	14.4	JC81743-12A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.5	UJ-	66.4		24.7		< 1.3	U	31.3		
BS-A3S	22.0	BS-A3S_20190123	6.0 - 6.5 ft	16.0	15.5	JC81743-13A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.3	UJ-	69.5		12.6		< 1.2	U	22.7		
BS-A3T	22.0	BS-A3T_20190123	6.7 - 7.2 ft	15.3	14.8	JC81743-14A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.2	UJ-	25.9		16.5		< 1.1	U	23.1		
BS-A3TT	18.0	BS-A3TT_20190129	2.3 - 2.8 ft	15.7	15.2	JC82063-3A	JC82063A	1/29/2019	REMAIN	N	Y	< 2.3	U	75.8		15.0		< 1.1	U	23.1		
BS-A4	20.9	BS-A4_20190128	6.9 - 7.4 ft	14.0	13.5	JC81918-2A	JC81918A	1/28/2019	REMAIN	N	Y	< 2.2	U	21.7		14.3		< 1.1	U	20.8		
BS-A4	20.9	BS-A4_20190129	6.9 - 7.4 ft	14.0	13.5	JC82063-6A	JC82063A	1/29/2019	REMAIN	N	Y	< 2.2	U	16.6		13.9		< 1.1	U	19.2		
BS-A5	20.3	BS-A5_20190108	6.5 - 7.0 ft	13.8	13.3	JC81058-2A	JC81058A	1/8/2019	REMAIN	N	Y	< 2.4	U	102		12.1		< 1.2	U	20.7		
BS-A7	19.4	BS-A7_20181204	3.5 - 4.0 ft	15.9	15.4	JC79072-3A	JC79072A	12/4/2018	REMAIN	N	Y	< 2.4	U	8.7		9.4		< 1.2	U	10.7		S6
BS-A8	19.4	BS-A8_20190110	3.7 - 4.2 ft	15.7	15.2	JC81147-2A	JC81147A	1/10/2019	REMAIN	N	Y	< 2.3	UJ-	76.1	J	8.5		< 1.1	U	17.9		
BS-A9	19.1	BS-A9_20190110	4.5 - 5.0 ft	14.6	14.1	JC81147-3A	JC81147A	1/10/2019	REMAIN	N	Y	< 2.4	UJ-	15.0	J	11.9		< 1.2	U	23.7		
BS-A9	19.1	DUP(20190110)RR	0.0 - 0.0 ft	19.1	19.1	JC81147-5A	JC81147A	1/10/2019	REMOVED	FD	Y	< 2.4	UJ-	55.3	J	8.5		< 1.2	U	18.2		
SW-A0 (0.0-0.5)	24.2	SW-A0(0.0-0.5)_20180109	0.4 - 0.9 ft	23.8	23.3	JC81057-2A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.2	U	16.3		13.3		< 1.1	U	20.0		
SW-A0 (2.0-2.5)	24.1	SW-A0(2.0-2.5)_20180109	2.3 - 2.8 ft	21.8	21.3	JC81057-3A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.3	U	39.5		24.8		< 1.2	U	36.9		
SW-A0 (4.0-4.5)	24.0	SW-A0(4.0-4.5)_20180109	4.2 - 4.7 ft	19.8	19.3	JC81057-4A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.4	U	25.2		28.3		< 1.2	U	43.6		
SW-A0 (6.0-6.5)	24.0	SW-A0(6.0-6.5)_20180109	6.2 - 6.7 ft	17.8	17.3	JC81057-5A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.4	U	30.9		24.2		< 1.2	U	39.3		
SW-A0 (8.0-8.5)	24.0	SW-A0(8.0-8.5)	6.7 - 7.2 ft	17.3	16.8	JC81057-6A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.6	U	51.5		19.5		< 1.3	U	41.3		
SW-A0 (8.0-8.5)_R	24.0	SW-A0 (8.0-8.5)_20190123	8.1 - 8.6 ft	15.9	15.4	JC81743-2A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.7	UJ-	26.0		44.1		< 1.3	U	30.6		
SW-A10 (6.0-6.5)	23.8	SW-A10 (6.0-6.5)_20190123	5.6 - 6.1 ft	18.2	17.7	JC81743-11A	JC81743A	1/23/2019	REMOVED	N	Y	< 2.3	UJ-	17.3		14.8		< 1.2	U	23.6		
SW-A10 (6.0-6.5)_R	24.0	SW-A10(6.0-6.5)_20190318	7.0 - 7.5 ft	17.0	16.5	JC84633-7A	JC84633A	3/18/2019	REMAIN	N	Y	< 2.5	U	23.9		20.0		< 1.2	U	35.7		
SW-A10 (7.5-8.0)	24.0	SW-A10(7.5-8.0)_20190318	8.3 - 8.8 ft	15.7	15.2	JC84633-8A	JC84633A	3/18/2019	REMAIN	N	Y	< 2.6	U	17.7		15.1		< 1.3	U	21.1		
SW-A10 (8.0-8.5)	23.9	SW-A10 (8.0-8.5)_20190123	7.7 - 8.2 ft	16.2	15.7	JC81743-9A	JC81743A	1/23/2019	REMOVED	N	Y	< 2.2	UJ-	15.6		14.2		< 1.1	U	20.9		
SW-A11 (6.0-6.5)	24.0	SW-A11 (6.0-6.5)_20190123	5.5 - 6.0 ft	18.5	18.0	JC81743-10A	JC81743A	1/23/2019	REMOVED	N	Y	< 2.3	UJ-	17.0		14.1		< 1.1	U	27.6		
SW-A11 (8.0-8.5)	24.0	SW-A11 (8.0-8.5)_20190123	8.7 - 9.2 ft	15.3	14.8	JC81743-8A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.3	UJ-	21.8		16.4		< 1.1	U	32.1		
SW-A12 (0.0-0.5)	18.6	SW-A12(0.0-0.5)_20190129	0.0 - 0.5 ft	18.6	18.1	JC81985-2A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	364		58.8		< 2.6	U	65.2		
SW-A12 (1.0-1.5)	18.0	SW-A12(1.0-1.5)_20190129	1.0 - 1.5 ft	17.0	16.5	JC81985-3A	JC81985A	1/29/2019	REMAIN	N	Y	< 3.1	U	35.7		22.0		< 1.6	U	43.9		
SW-A13 (0.0-0.5)	18.2	SW-A13(0.0-0.5)_20190129	0.0 - 0.5 ft	18.2	17.7	JC81985-4A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	24.0		16.5		< 1.3	U	42.0		
SW-A13 (2.0-2.5)	18.0	SW-A13(2.0-2.5)_20190129	1.5 - 2.0 ft	16.5	16.0	JC81985-5A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.3	U	27.1		18.8		< 1.2	U	30.9		
SW-A14 (0.0-0.5)	18.5	SW-A14(0.0-0.5)_20190129	0.3 - 0.8 ft	18.2	17.7	JC81985-6A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	60.3		25.4		< 1.3	U	42.0		
SW-A14 (2.0-2.5)	17.9	SW-A14(2.0-2.5)_20190129	1.7 - 2.2 ft	16.2	15.7	JC81985-7A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.2	U	17.3		14.9		< 1.1	U	23.2		
SW-A15 (0.0-0.5)	18.5	SW-A15(0.0-0.5)_20190129	0.2 - 0.7 ft	18.3	17.8	JC81985-8A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.4	U	58.5		29.7		< 1.2	U	35.2		
SW-A15 (2.0-2.5)	17.9	SW-A15(2.0-2.5)_20190129	1.5 - 2.0 ft	16.4	15.9	JC81985-9A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	36.1		15.6		< 1.3	U	41.0		
SW-A16 (0.0-0.5)	18.5	SW-A16(0.0-0.5)_20190129	0.2 - 0.7 ft	18.3	17.8	JC81985-10A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	43.3		37.7		< 1.3	U	38.2		
SW-A16 (2.0-2.5)	17.9	SW-A16(2.0-2.5)_20190129	1.6 - 2.1 ft	16.3	15.8	JC81985-11A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	125		21.2		< 1.3	U	46.7		
SW-A17 (0.0-0.5)	18.1	SW-A17(0.0-0.5)_20190129	0.2 - 0.7 ft	17.9	17.4	JC81985-12A	JC81985A	1/29/2019	REMOVED	N	Y	< 2.5	U	180		15.7		< 1.2	U	36.6		
SW-A17 (2.0-2.5)	17.9	SW-A17(2.0-2.5)_20190129	2.0 - 2.5 ft	15.9	15.4	JC81985-13A	JC81985A	1/29/2019	REMOVED	N	Y	< 2.4	U	143		17.4		< 1.2	U	29.9		
SW-A18 (0.0-0.5)	18.5	SW-A18(0.0-0.5)_20190308	0.5 - 1.0 ft	18.0	17.5	JC84109-9A	JC84109A	3/8/2019	REMOVED	N	Y	< 2.5	U	296		36.8		< 1.3	U	58.9		
SW-A18 (2.0-2.5)	18.0	SW-A18(2.0-2.5)_20190308	2.0 - 2.5 ft	16.0	15.5	JC84109-10A	JC84109A	3/8/2019	REMOVED	N	Y	< 2.6	U	299		31.8		< 2.6	U	34.3		
SW-A18 (4.0-4.5)	17.9	SW-A18(4.0-4.5)_20190308	4.0 - 4.5 ft	13.9	13.4	JC84109-11A	JC84109A	3/8/2019	REMAIN	N	Y	< 2.3	U	103		16.1		< 1.2	U	28.3		
SW-A19 (0.0-0.5)	18.4	SW-A19(0.0-0.5)_20190308	0.1 - 0.6 ft	18.3	17.8	JC84109-6A	JC84109A	3/8/2019	REMOVED	N	Y	< 4.9	U	815		90.6		< 2.4	U	150		
SW-A19 (2.0-2.5)	18.0	SW-A19(2.0-2.5)_20190308	1.7 - 2.2 ft	16.3	15.8	JC84109-7A	JC84109A	3/8/2019	REMOVED	N	Y	< 7.2	U	1740		139		< 3.6	U	231		
SW-A19 (4.0-4.5)	17.9	SW-A19(4.0-4.5)_20190308	3.7 - 4.2 ft	14.2	13.7	JC84109-8A	JC84109A	3/8/2019	REMAIN	N	Y	< 2.4	U	53.7		13.6		< 1.2	U	20.6		
SW-A20 (0.0-0.5)	18.4	SW-A20(0.0-0.5)_20190308	0.0 - 0.5 ft	18.4	17.9	JC84109-4A	JC84109A	3/8/2019	REMOVED	N	Y	< 9.8	U	1730		404		< 4.9	U	778		S6
SW-A20 (2.0-2.5)	18.0	SW-A20(2.0-2.5)_20190308	1.5 - 2.0 ft	16.5	16.0	JC84109-5A	JC84109A	3/8/2019	REMOVED	N	Y	< 15	U	3540		513		< 7.7	U	884		S6
SW-A21 (0.0-0.5)	18.3	SW-A21(0.0-0.5)_20190308	0.0 - 0.5 ft	18.3	17.8	JC84109-3A	JC84109A	3/8/2019	REMOVED	N	Y	< 12	U	2400		454		< 5.9	U	802		S1
SW-A21 (2.0-2.5)	18.0	SW-A21(2.0-2.5)_20190308	1.8 - 2.3 ft	16.2	15.7	JC84109-3A	JC84109A	3/8/2019	REMOVED	N	Y	< 6.1	U	1020		170		< 3.1	U	283		S1
SW-A22 (0.0-0.5)	18.1	SW-A22(0.0-0.5)_20190227	0.3 - 0.8 ft	17.8	17.3	JC83511-2A	JC83511A	2/27/2019	REMOVED	N	Y	< 2.7	U	925		193		< 4.1	U	295		
SW-A22 (2.0-2.5)	17.9	SW-A22(2.0-2.5)_20190227	1.9 - 2.4 ft	16.0	15.5	JC83511-3A	JC83511A	2/27/2019	REMOVED	N	Y	< 15	U	2420		384		< 7.3	U	554		S3
SW-A23 (0.0-0.5)	18.1	SW-A23(0.0-0.5)_20190227	0.4 - 0.9 ft	17.7	17.2	JC83511-4A	JC83511A	2/27/2019	REMOVED	N	Y	< 2.3	U	214		34.7		< 1.2	U	44.9		
SW-A23 (2.0-2.5)	17.9	SW-A23(2.0-2.5)_20190227	2																			



**Table 5-2  
CCPW Metals Analytical Results for Soil Compared to NJDEP SRS  
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												Analyte CAS RN Units RDCSRS (G18) NRDCSRS (G19) ARS (G20)		ANTIMONY 7440-36-0 mg/kg 31 450 N/A		CHROMIUM 7440-47-3 mg/kg 120000 N/A N/A		NICKEL 7440-02-0 mg/kg 1600 23000 N/A		THALLIUM 7440-28-0 mg/kg N/A N/A N/A		VANADIUM 7440-62-2 mg/kg N/A 1100 390		
Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Specific Notes		
SW-A27 (2.0-2.5)	17.9	SW-A27(2.0-2.5)_20190226	2.9 - 3.4 ft	15.0	14.5	JC83434-3A	JC83434A	2/26/2019	REMOVED	N	Y	< 2.4	UJ-	16.6		14.3		< 1.2	U	23.5				
SW-A28 (0.0-0.5)	17.9	SW-A28(0.0-0.5)_20190226	0.9 - 1.4 ft	17.0	16.5	JC83434-4A	JC83434A	2/26/2019	REMOVED	N	Y	< 2.3	UJ-	227		24.3		< 1.2	U	41.3				
SW-A28 (2.0-2.5)	17.9	SW-A28(2.0-2.5)_20190226	2.9 - 3.4 ft	15.0	14.5	JC83434-5A	JC83434A	2/26/2019	REMAIN	N	Y	< 2.1	UJ-	15.3		13.1		< 1.1	U	25.1				
SW-A29 (0.0-0.5)	17.9	SW-A29(0.0-0.5)_20190226	1.7 - 2.2 ft	16.2	15.7	JC83434-6A	JC83434A	2/26/2019	REMAIN	N	Y	4.1	J-	146		23.7		< 2.5	U	29.8				
SW-A29 (2.0-2.5)	17.9	SW-A29(2.0-2.5)_20190226	3.7 - 4.2 ft	14.2	13.7	JC83434-7A	JC83434A	2/26/2019	REMAIN	N	Y	< 2.2	UJ-	17.2		12.0		< 1.1	U	22.3				
SW-A30 (0.0-0.5)	17.3	SW-A30(0.0-0.5)_20190312	0.7 - 1.2 ft	16.6	16.1	JC84245-2A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.1	U	82.5		23.7		< 2.1	U	39.5				
SW-A30 (2.0-2.5)	17.2	SW-A30(2.0-2.5)_20190312	2.7 - 3.2 ft	14.5	14.0	JC84245-3A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.2	U	233		28.7		< 1.1	U	54.5				
SW-A30 (4.0-4.5)	17.3	SW-A30(4.0-4.5)_20190312	4.8 - 5.3 ft	12.5	12.0	JC84245-4A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.6	U	11.4		12.4		< 1.3	U	16.6				
SW-A30 (6.0-6.5)	17.4	SW-A30(6.0-6.5)_20190312	7.0 - 7.5 ft	10.4	9.9	JC84245-5A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.4	U	13.9		11.7		< 1.2	U	21.1				
SW-A30 (8.0-8.5)	17.6	SW-A30(8.0-8.5)_20190312	8.7 - 9.2 ft	8.9	8.4	JC84245-6A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.7	U	12.2		11.7		< 1.3	U	17.5				
SW-A31 (0.0-0.5)	16.5	SW-A31(0.0-0.5)_20190312	0.2 - 0.7 ft	16.3	15.8	JC84245-7A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.4	U	51.0		29.3		< 1.2	U	39.3				
SW-A31 (2.0-2.5)	16.0	SW-A31(2.0-2.5)_20190312	1.7 - 2.2 ft	14.3	13.8	JC84245-8A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.5	U	86.9		23.9		< 1.3	U	38.4				
SW-A32 (0.0-0.5)	16.5	SW-A32(0.0-0.5)_20190312	0.4 - 0.9 ft	16.1	15.6	JC84245-9A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.4	U	23.0		17.2		< 1.2	U	45.1				
SW-A32 (2.0-2.5)	16.0	SW-A32(2.0-2.5)_20190312	1.8 - 2.3 ft	14.2	13.7	JC84245-10A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.3	U	29.2		18.2		< 2.3	U	28.7				
SW-A33 (0.0-0.5)	15.8	SW-A33(0.0-0.5)_20190312	0.3 - 0.8 ft	15.5	15.0	JC84245-11A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.5	U	21.3		16.0		< 1.2	U	41.2				
SW-A34 (0.0-0.5)	18.0	SW-34(0.0-0.5)	0.0 - 0.5 ft	18.0	17.5	JC89030-2A	JC89030A	5/31/2019	REMOVED	N	Y	< 2.7	UJ-	122		30.0		< 1.3	U	59.3				
SW-A34 (0.0-0.5) R	18.0	SW-A34(0.0-0.5)_20190312	1.2 - 1.7 ft	16.8	16.3	JC94441-3A	JC94441A	9/5/2019	REMAIN	N	Y	< 2.1	UJ-	54.1		26.5		< 1.0	U	53.0				
SW-A34 (2.0-2.5)	18.0	SW-A34(2.0-2.5)_20190905	2.0 - 2.5 ft	16.0	15.5	JC94441-4A	JC94441A	9/5/2019	REMAIN	N	Y	< 7.3	UJ-	1250		214		< 3.6	U	416		S7		
SW-A9 (5.5-6.0)	23.6	SW-A9(5.5-6.0)_20190318	7.9 - 8.4 ft	15.7	15.2	JC84633-5A	JC84633A	3/18/2019	REMAIN	N	Y	< 2.3	U	55.7		21.5		< 1.2	U	34.6				

**Table 5-2**  
**CCPW Metals Analytical Results for Soil Compared to NJDEP SRS**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
**PPG, Jersey City, New Jersey**



**ABBREVIATIONS:**

ARS - alternate remediation standard  
bgs - below ground surface  
CAS RN - Chemical Abstracts Service Registry Number  
CCPW - Chromate Chemical Production Waste  
Cr - chromium  
Cr<sup>+3</sup> - trivalent chromium  
El. - elevation  
FD - field duplicate sample type  
ft - feet  
mg/kg - milligrams per kilogram  
N - normal sample type  
NAVD88 - North American Vertical Datum of 1988  
N.J.A.C. - New Jersey Administrative Code  
NJDEP - New Jersey Department of Environmental Protection  
NRDCSRS - Non-Residential Direct Contact Soil Remediation Standard  
RDCSRS - Residential Direct Contact Soil Remediation Standard  
SDG - sample delivery group  
SSE - sample start elevation  
SRS - Soil Remediation Standard  
TEE - terminal excavation elevation  
U.S. - United States  
V - vanadium

**QUALIFIERS:**

J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample. A +/- sign indicates the direction of bias.  
U - The result was not detected above either the method detection limit or sample reporting limit shown.  
UJ - The analyte was not detected above the sample reporting limit shown and the reporting limit was approximate. A +/- sign indicates the direction of bias.

**GENERAL NOTES:**

G1. "Location ID" refers to the location name where samples were collected.  
G2. "Location Elevation" refers to the pre-remediation surface elevation.  
G3. Elevation vertical datum is NAVD88, in U.S. survey ft.  
G4. "Sample ID" refers to the name of a sample collected at a given location and is unique to the depth of the sample collected. The depth listed in the "Sample ID" column may not necessarily correspond to the actual sample depth interval due to corrections made as a result of post-field work review of surveyed surface elevations and/or boring logs. In some cases, the "Sample ID" in the table is a variant of the sample ID in the laboratory report and/or data validation report. In these cases, the "Lab ID" associates the sample results to the laboratory report and/or data validation report.  
G5. "Depth Interval" is based on the "Location Elevation."  
G6. "Sample Start Elevation" refers to the start of the sample interval. There may be up to 0.1 ft variation between the listed Sample Start Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G7. "Sample End Elevation" refers to the end of the sample interval. There may be up to 0.1 ft variation between the listed Sample End Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G8. "Lab ID" refers to the identification number assigned to the sample by the analytical laboratory performing the sample analysis. "Lab SDG" refers to the delivery group number assigned to the sample by the analytical laboratory.  
G9. "Date Collected" refers to the date the soil sample was collected.  
G10. "Sample Status" indicates whether a sample is remaining or removed:  
- "Remaining" indicates the soil in that interval is outside the excavation footprint, and remains in-place at that location; and  
- "Removed" indicates the sample was removed during excavation.  
G11. Sample statuses were determined based on review of the post-excavation sample survey dated 08/07/2018, performed by Maser Consulting, and a topographic survey dated 11/14/2023, performed by Borbas Surveying & Mapping, LLC.  
G12. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).  
G13. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.  
G14. "Result" refers to the analytical result which is reported in mg/kg. A "-" indicates that the sample was not tested for that analyte.  
G15. Bold or underlined text indicates that the result exceeds the NJDEP SRS. Non-bold/non-underlined text indicates that the result does not exceed the SRS.  
G16. "Qualifier" refers to the data qualifier assigned by the data validation team reviewing the data from the laboratory for validated data. For unvalidated data, it refers to the qualifier assigned by the laboratory.  
G17. Non-detect results are shown on this table using the method detection limit or the reporting limit.  
G18. There is currently no established NJDEP SRS for Cr. Therefore, Cr results are compared to the interim NJDEP residential SRS for Cr<sup>+3</sup> of 120,000 mg/kg. Bolded values indicate the result is greater than the NJDEP RDCSRS.  
G19. Thallium no longer has an RDCSRS or NRDCSRS, per the Site Remediation & Waste Management Program, Implementation of Updated Soil Remediation Standards, N.J.A.C. 7:26D, effective September 18, 2017. Exceedances of the NRDCSRS are underlined.  
G20. Samples on Site 107 and post-excavation samples collected within the Conrail Right-of-Way are subject to the ARS of 390 mg/kg for vanadium, per Appendix G of the December 2018 *Technical Execution Plan – Site Soils, PPG Site 107 Fashionland – 18 Chapel Avenue, Jersey City, New Jersey*.

**Table 5-2**  
**CCPW Metals Analytical Results for Soil Compared to NJDEP SRS**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
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**SPECIFIC NOTES:**

S1. The vanadium (V) result for at least one sample interval associated with this sample location exceeds the ARS and has been removed by remedial excavation. A deeper sample interval at this location, which does not exceed the ARS, has been removed and serves as the clean confirmation sample.

S2. Sample 107\_M020 (3.0-3.5 ft) was removed during remedial excavation but serves as the clean confirmation sample for removal of the ARS exceedance associated with Sample Location 107\_M020W (1.0-1.5 ft). The sample start elevation (SSE) for 107\_M020 (3.0-3.5 ft) is elevation (El.) 16.8 ft NAVD88; the terminal excavation elevation (TEE) is El. 13.0 ft NAVD88 at 107\_M020W (1.0-1.5 ft).

S3. Sample 107\_M024N\_1 (2.5-3.0 ft) was removed during remedial excavation but serves as the clean confirmation sample for removal of the ARS exceedance associated with Sample Location SW-A22 (2.0-2.5 ft). The SSE for 107\_M024N\_1 (2.5-3.0 ft) is El. 15.4 ft NAVD88; the TEE is El. 14.7 ft NAVD88 at SW-A22 (2.0-2.5).

S4. Sample BS-A16I (7.5-8.0 ft) is remaining in place and serves as the clean confirmation sample for removal of the ARS exceedance associated with Sample Location 107\_M030E2 (4.0-4.5 ft). The SSE for BS-A16I (7.5-8.0 ft) is El. 11.4 ft NAVD88; the TEE is El. 7.8 ft NAVD88 at 107\_M030E2 (4.0-4.5 ft).

S5. Metals concentrations in soil exceeding the SRS on Site 108, including this location/sample, are associated with the site-wide presence of historic fill material (as defined by the NJDEP) and are not associated with CCPW-related impacts. This determination is documented in the technical memorandum entitled *Site 108 – Historic Fill Technical Memo*, dated July 20, 2012 that was included as Attachment I to the *Remedial Investigation Report; Non-Residential Chromate Chemical Production Waste Site 108*, dated December 2012, which was approved by the NJDEP in a letter dated January 14, 2013. PPG is not responsible for non-CCPW-related impacts such as historic fill-related impacts.

S6. Sample BS-A7 (3.5-4.0 ft) is remaining in place and serves as the clean confirmation sample for removal of the ARS exceedance associated with Samples SW-A20 (0.0-0.5 ft) and SWA20 (2.0-2.5 ft). The SSE for BS-A7 (3.5-4.0 ft) is El. 15.9 ft NAVD88; the TEE is El. 14.9 ft NAVD88 at SW-A20 (0.0-0.5 ft) and SW-A20 (1.5-2.0 ft).

S7. Compliance with the ARS for this sample is demonstrated through spatial averaging. The calculations are included in Appendix I. The spatially weighted average vanadium concentration is 247 mg/kg, which is compliant with the ARS of 390 mg/kg.



**Table 5-3  
CCPW Metals Analytical Results for Soil Compared to NJDEP DIGWSSL and SSGWSRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 6 N/A		CHROMIUM 7440-47-3 mg/kg N/A N/A		NICKEL 7440-02-0 mg/kg N/A 855 (G19)		THALLIUM 7440-28-0 mg/kg 3.0 N/A		VANADIUM 7440-62-2 mg/kg N/A N/A		Specific Notes
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	
107_M028	19.0	107_M028_1.0	1.0 - 1.5 ft	18.0	17.5	460-22995-23	460229951	2/10/2011	REMOVED	N	Y	21.2		11600		673		< 7.3	U	734		S1, S2
107_M028	19.0	107_M028_3.5	3.5 - 4.0 ft	15.5	15.0	460-22995-24	460229951	2/10/2011	REMOVED	N	Y	< 0.95	U	41	J	11.7		< 1	U	18.2		S2
107_M028E1	19.0	107_M028E1_0.0	0.0 - 0.5 ft	19.0	18.5	460-34686-45	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		78.7		
107_M028E1	19.0	107_M028E1_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-46	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		186		
107_M028E1	19.0	107_M028E1_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-47	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		959		
107_M028E1	19.0	107_M028E1_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-48	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		377		
107_M028E1	19.0	107_M028E1_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-49	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		30.2		
107_M028E1	19.0	107_M028E1_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-50	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		46.5		
107_M028E1	19.0	107_M028E1_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-51	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		20.3		
107_M028E2	18.8	107_M028E2_0.0	0.0 - 0.5 ft	18.8	18.3	460-34686-38	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		40		
107_M028E2	18.8	107_M028E2_0.5	0.5 - 1.0 ft	18.3	17.8	460-34686-39	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		46.3		
107_M028E2	18.8	107_M028E2_1.0	1.0 - 1.5 ft	17.8	17.3	460-34686-40	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		66.6		
107_M028N	17.9	107_M028N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-29	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		82.6		
107_M028N	17.9	107_M028N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-30	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		85.1		
107_M028N	17.9	REP121311-2	0.5 - 1.0 ft	17.4	16.9	460-34781-36	460347811	12/13/2011	REMOVED	FD	Y	-		-		-		-		56.5		
107_M028N	17.9	107_M028N_1.0	1.0 - 1.5 ft	16.9	16.4	460-34781-31	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		87.2		
107_M028W	19.0	107_M028W_0.0	0.0 - 0.5 ft	19.0	18.5	460-34686-52	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		51.3		
107_M028W	19.0	107_M028W_0.5	0.5 - 1.0 ft	18.5	18.0	460-34686-53	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		828		
107_M028W	19.0	107_M028W_1.0	1.0 - 1.5 ft	18.0	17.5	460-34686-54	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		1100		
107_M028W	19.0	107_M028W_1.5	1.5 - 2.0 ft	17.5	17.0	460-34686-55	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		1180		
107_M028W	19.0	107_M028W_2.0	2.0 - 2.5 ft	17.0	16.5	460-34686-56	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		1130		
107_M028W	19.0	107_M028W_2.5	2.5 - 3.0 ft	16.5	16.0	460-34686-57	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		293		
107_M028W	19.0	107_M028W_3.0	3.0 - 3.5 ft	16.0	15.5	460-34686-58	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		113		
107_M030	18.4	107_M030_0.0	0.0 - 0.5 ft	18.4	17.9	460-22995-15	460229951	2/10/2011	REMOVED	N	Y	1.8		748		111		< 1.2	U	214		
107_M030	18.4	107_M030_0.5	0.5 - 2.0 ft	17.9	16.4	460-22995-16	460229951	2/10/2011	REMOVED	N	Y	2		822		98.1		< 1.1	U	134		
107_M030	18.4	107_M030_2.5	2.5 - 3.0 ft	15.9	15.4	460-22995-17	460229951	2/10/2011	REMOVED	N	Y	< 0.97	U	90.8		19.2		< 1.1	U	25.7		
107_M030E1	18.3	107_M030E1_0.0	0.0 - 0.5 ft	18.3	17.8	460-34686-29	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		98		
107_M030E1	18.3	107_M030E1_0.5	0.5 - 1.0 ft	17.8	17.3	460-34686-30	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		116		
107_M030E2	18.2	107_M030E2_0.0	0.0 - 0.5 ft	18.2	17.7	460-34686-19	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		89		
107_M030E2	18.2	107_M030E2_0.5	0.5 - 1.0 ft	17.7	17.2	460-34686-20	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		202		
107_M030E2	18.2	REP121211-1	0.5 - 1.0 ft	17.7	17.2	460-34686-28	460346861	12/12/2011	REMOVED	FD	Y	-		-		-		-		198		
107_M030N	17.9	107_M030N_0.0	0.0 - 0.5 ft	17.9	17.4	460-34781-37	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		46.9		
107_M030N	17.9	107_M030N_0.5	0.5 - 1.0 ft	17.4	16.9	460-34781-38	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		29		
107_M032	17.4	107_M032_0.0	0.0 - 0.5 ft	17.4	16.9	460-22995-9	460229951	2/10/2011	REMOVED	N	Y	< 1.1	U	89.8		26.5		< 1.2	U	112		
107_M032	17.4	107_M032_0.5	0.5 - 1.5 ft	16.9	15.9	460-22995-10	460229951	2/10/2011	REMOVED	N	Y	2.7		1470		179		< 1.1	U	286		
107_M032	17.4	107_M032_1.5	1.5 - 2.0 ft	15.9	15.4	460-22995-11	460229951	2/10/2011	REMOVED	N	Y	8.7		3130		355		< 1.6	U	620		S2
107_M032	17.4	107_M032_3.0	3.0 - 3.5 ft	14.4	13.9	460-22995-12	460229951	2/10/2011	REMOVED	N	Y	< 0.85	U	138	J	20.1		< 0.93	U	30.6		S2, S3
107_M032E1	17.7	107_M032E1_0.0	0.0 - 0.5 ft	17.7	17.2	460-34686-10	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		76.2		
107_M032E1	17.7	107_M032E1_0.5	0.5 - 1.0 ft	17.2	16.7	460-34686-11	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		119		
107_M032E1	17.7	107_M032E1_1.0	1.0 - 1.5 ft	16.7	16.2	460-34686-12	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		32.5		
107_M032E1	17.7	107_M032E1_1.5	1.5 - 2.0 ft	16.2	15.7	460-34686-13	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		21.2		
107_M032E2	17.7	107_M032E2_0.0	0.0 - 0.5 ft	17.7	17.2	460-34686-1	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		114		
107_M032E2	17.7	107_M032E2_0.5	0.5 - 1.0 ft	17.2	16.7	460-34686-2	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		122		
107_M032E2	17.7	107_M032E2_1.0	1.0 - 1.5 ft	16.7	16.2	460-34686-3	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		120		
107_M032E2	17.7	107_M032E2_1.5	1.5 - 2.0 ft	16.2	15.7	460-34686-4	460346861	12/12/2011	REMOVED	N	Y	-		-		-		-		78.7		
107_M032N	16.6	107_M032N_0.0	0.0 - 0.5 ft	16.6	16.1	460-34781-46	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		11.4	J	
107_M032N	16.6	107_M032N_0.5	0.5 - 1.0 ft	16.1	15.6	460-34781-47	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		20.1		
107_M032N	16.6	107_M032N_1.0	1.0 - 1.5 ft	15.6	15.1	460-34781-48	460347811	12/13/2011	REMOVED	N	Y	-		-		-		-		23.2		
108_M006	25.2	G000008729-2/23/2011-1936	0.0 - 0.5 ft	25.2	24.7	460-23391-10	460233911	2/23/2011	REMAIN	N	Y	< 1.1	U	38.9		24.3		< 1.2	U	33.4		
108_M006	25.2	G000008729-2/23/2011-1938	4.0 - 4.5 ft	21.2	20.7	460-23391-11	460233911	2/23/2011	REMAIN	N	Y	< 0.96	U	20.3		14		< 1.1	U	23.6		
108_M006	25.2	G000008729-2/23/2011-1939	8.0 - 8.5 ft	17.2	16.7	460-23391-12	460233911	2/23/2011	REMAIN	N	Y	< 0.91	U	12.4		10.8		< 1	U	16.9		
108_M008	25.0	G000008729-2/17/2011-1796	0.0 - 0.5 ft	25.0	24.5	460-23196-34	460231961	2/17/2011	REMAIN	N	Y	1.6	J	28		17.4		< 1.2	U	28.8		
108_M008	25.0	G000008729-2/17/2011-1798	4.5 - 5.0 ft	20.5	20.0	460-23196-35	460231961	2/17/2011	REMAIN	N	Y	32.3		32.1		15.7		< 1.3	U	26.3		S4
108_M008	25.0	G000008729-2/17/2011-1799	8.5 - 9.0 ft	16.5	16.0	460-23196-36	460231961	2/17/2011	REMAIN	N	Y	< 0.94	U	15.6		14.8		< 1	U	18.7		
108_M008	25.0	G000008729-2/17/2011-1804	8.5 - 9.0 ft	16.5	16.0	460-23196-28	460231961	2/17/2011	REMAIN	FD	Y	< 0.99	U	17.9		14.7		< 1.1	U	22.9		
108_M010	25.0	G000008729-2/17/2011-1800	0.0 - 0.5 ft	25.0	24.5	460-23196-24	460231961	2/17/2011	REMAIN	N	Y	< 1.2	U	86.7		26.3		< 1.3	U	35.3		
108_M010	25.0	G000008729-2/17/2011-1802	2.0 - 2.5 ft	23.0	22.5	460-23196-25	460231961	2/17/2011	REMAIN	N	Y	2.1	J	41.5		22.7		< 1.2	U	27.9		
108_M010	25.0	G000008729-2/17/2011-1803	6.0 - 6.5 ft	19.0	18.5	460-23196-26	460231961	2/17/2011	REMAIN	N	Y	< 0.95	U	14.3		13.5						

**Table 5-3  
CCPW Metals Analytical Results for Soil Compared to NJDEP DIGWSSL and SSIWSSRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 6 N/A		CHROMIUM 7440-47-3 mg/kg N/A N/A		NICKEL 7440-02-0 mg/kg N/A 855 (G19)		THALLIUM 7440-28-0 mg/kg 3.0 N/A		VANADIUM 7440-62-2 mg/kg N/A N/A		Specific Notes
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	
108_M016	23.1	G000008729-2/16/2011-1736	3.5 - 4.0 ft	19.6	19.1	460-23155-19	460231551	2/16/2011	REMAIN	N	Y	< 1	U	1260		97.6		< 1.1	U	173		
108_M016	23.1	G000008729-2/16/2011-1737	5.5 - 6.0 ft	17.6	17.1	460-23155-20	460231551	2/16/2011	REMAIN	N	Y	4	J	292		44.9		< 3.3	U	48.7		S1
108_M016_1	23.3	G000008729-7/10/2012-5329	1.0 - 1.5 ft	22.3	21.8	06877-008	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		84.1	
108_M016_1	23.3	G000008729-7/10/2012-5330	1.5 - 2.0 ft	21.8	21.3	06877-009	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		241	
108_M016_1	23.3	G000008729-7/10/2012-5284	2.0 - 2.5 ft	21.3	20.8	06877-010	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		128	
108_M016_1	23.3	108_M016_1_20190125	3.4 - 3.9 ft	19.9	19.4	JC81864-5A	JC81864A	1/25/2019	REMAIN	N	Y	< 2.4	UJ-	37.4		16.5		< 1.2	U	24.7		
108_M016W_1	24.0	G000008729-7/10/2012-5283	1.0 - 1.5 ft	23.0	22.5	06877-001	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		42.6	
108_M016W_1	24.0	G000008729-7/10/2012-5290	1.5 - 2.0 ft	22.5	22.0	06877-002	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		62.5	
108_M016W_1	24.0	G000008729-7/10/2012-5298	2.0 - 2.5 ft	22.0	21.5	06877-003	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		50.6	
108_M018	21.6	G000008729-2/23/2011-1940	0.0 - 0.5 ft	21.6	21.1	460-23391-5	460233911	2/23/2011	REMOVED	N	Y	2.2	J	44.9		24		< 1.3	U	43.3		
108_M018	21.6	G000008729-2/23/2011-1944	3.5 - 4.0 ft	18.1	17.6	460-23391-9	460233911	2/23/2011	REMOVED	N	Y	5.5		2430		92.8		< 1.5	U	135		
108_M018	21.6	G000008729-2/23/2011-1945	4.0 - 4.5 ft	17.6	17.1	460-23391-6	460233911	2/23/2011	REMOVED	N	Y	14.3		790		19.9		< 1.2	U	28.7		S4
108_M018E1	21.2	G000008729-12/14/2011-3781	0.5 - 1.0 ft	20.7	20.2	460-34820-22	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		75.4	
108_M018E1	21.2	G000008729-12/14/2011-3782	1.0 - 1.5 ft	20.2	19.7	460-34820-23	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		367	
108_M018E1	21.2	G000008729-12/14/2011-3783	3.0 - 3.5 ft	18.2	17.7	460-34820-24	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		1130	
108_M018E1	21.2	G000008729-12/14/2011-3871	3.0 - 3.5 ft	18.2	17.7	460-34820-29	460348201	12/14/2011	REMOVED	FD	Y	-		-		-		-	-		1010	
108_M018E1	21.2	G000008729-12/14/2011-3784	3.5 - 4.0 ft	17.7	17.2	460-34820-25	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		263	
108_M018E1	21.2	G000008729-12/14/2011-3785	4.0 - 4.5 ft	17.2	16.7	460-34820-26	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		55	
108_M018E1	21.2	G000008729-12/14/2011-3786	4.5 - 5.0 ft	16.7	16.2	460-34820-27	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		82	
108_M018E1	21.2	G000008729-12/14/2011-3787	5.0 - 5.5 ft	16.2	15.7	460-34820-28	460348201	12/14/2011	REMAIN	N	Y	-		-		-		-	-		45.4	
108_M018N	21.2	G000008729-12/14/2011-3794	1.0 - 1.5 ft	20.2	19.7	460-34820-30	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		476	
108_M018N	21.2	G000008729-12/14/2011-3795	1.5 - 2.0 ft	19.7	19.2	460-34820-31	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		351	
108_M018N	21.2	G000008729-12/14/2011-3797	2.0 - 2.5 ft	19.2	18.7	460-34820-32	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		170	
108_M018N	21.2	G000008729-12/14/2011-3798	3.0 - 3.5 ft	18.2	17.7	460-34820-33	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		33.6	
108_M018N	21.2	G000008729-12/14/2011-3801	3.5 - 4.0 ft	17.7	17.2	460-34820-34	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		32.3	
108_M018N	21.2	108_M018N_20190125	5.0 - 5.5 ft	16.2	15.7	JC81864-8A	JC81864A	1/25/2019	REMOVED	N	Y	< 2.3	UJ-	30.6		14.8		< 1.2	U	25.5		
108_M018N_1	20.1	G000008729-7/10/2012-5292	1.0 - 1.5 ft	19.1	18.6	06877-023	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		62.2	
108_M018N_1	20.1	G000008729-7/10/2012-5293	1.5 - 2.0 ft	18.6	18.1	06877-024	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		417	
108_M018N_1	20.1	G000008729-7/10/2012-5294	2.0 - 2.5 ft	18.1	17.6	06877-025	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		246	
108_M018N_1	20.1	G000008729-7/10/2012-5295	3.0 - 3.5 ft	17.1	16.6	06877-026	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		274	
108_M018N_1	20.1	G000008729-7/10/2012-5296	3.5 - 4.0 ft	16.6	16.1	06877-027	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		-	
108_M018N_1	20.1	108_M018N_1_20190125	3.5 - 4.0 ft	16.6	16.1	JC81864-7A	JC81864A	1/25/2019	REMOVED	N	Y	< 2.3	UJ-	64.2		26.0		< 1.2	U	29.1		
108_M018N_1	20.1	G000008729-7/10/2012-5297	4.5 - 5.0 ft	15.6	15.1	06877-028	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		-	
108_M018W1	21.9	G000008729-12/14/2011-3802	0.5 - 1.0 ft	21.4	20.9	460-34820-38	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		233	
108_M018W1	21.9	G000008729-12/14/2011-3803	1.0 - 1.5 ft	20.9	20.4	460-34820-39	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		285	
108_M018W1	21.9	G000008729-12/14/2011-3804	1.5 - 2.0 ft	20.4	19.9	460-34820-40	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		241	
108_M018W1	21.9	G000008729-12/14/2011-3805	2.0 - 2.5 ft	19.9	19.4	460-34820-47	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		151	
108_M018W1	21.9	G000008729-12/14/2011-3806	2.5 - 3.0 ft	19.4	18.9	460-34820-41	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		53.3	
108_M018W1	21.9	G000008729-12/14/2011-3807	3.0 - 3.5 ft	18.9	18.4	460-34820-42	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		41.6	
108_M018W1	21.9	G000008729-12/14/2011-3808	3.5 - 4.0 ft	18.4	17.9	460-34820-43	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		127	
108_M018W1	21.9	108_M018W1_20190315	6.0 - 6.5 ft	15.9	15.4	JC84519-6A	JC84519A	3/15/2019	REMAIN	N	Y	< 2.2	UJ-	149		20.0		< 2.2	U	25.5		
108_M018W2	22.2	G000008729-12/14/2011-3809	0.5 - 1.0 ft	21.7	21.2	460-34820-49	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		126	
108_M018W2	22.2	G000008729-12/14/2011-3810	1.0 - 1.5 ft	21.2	20.7	460-34820-50	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		607	
108_M018W2	22.2	G000008729-12/14/2011-3811	3.0 - 3.5 ft	19.2	18.7	460-34820-51	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		988	
108_M018W2	22.2	G000008729-12/14/2011-3814	4.0 - 4.5 ft	18.2	17.7	460-34820-52	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		80.7	
108_M018W2	22.2	G000008729-12/14/2011-3815	4.5 - 5.0 ft	17.7	17.2	460-34820-53	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		52.4	
108_M018W2	22.2	G000008729-12/14/2011-3816	5.0 - 5.5 ft	17.2	16.7	460-34820-54	460348201	12/14/2011	REMOVED	N	Y	-		-		-		-	-		23.8	
108_M018W2	22.2	108_M018W2_20190315	6.5 - 7.0 ft	15.7	15.2	JC84519-5A	JC84519A	3/15/2019	REMAIN	N	Y	< 2.2	UJ-	32.0		14.9		< 1.1	U	36.1		
108_M018W2_1	22.3	G000008729-7/10/2012-5285	1.0 - 1.5 ft	21.3	20.8	06877-015	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		81.6	
108_M018W2_1	22.3	G000008729-7/10/2012-5286	1.5 - 2.0 ft	20.8	20.3	06877-016	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		96.5	
108_M018W2_1	22.3	G000008729-7/10/2012-5287	2.0 - 2.5 ft	20.3	19.8	06877-017	06877	7/10/2012	REMOVED	N	N	-		-		-		-	-		133	
BS-A0	24.0	BS-A0_20190115	7.1 - 7.6 ft	16.9	16.4	JC81350-2A	JC81350A	1/15/2019	REMOVED	N	Y	< 2.3	U	18.0		16.6		< 1.2	U	25.7		
BS-A0S	21.1	BS-A0S_20190118	4.3 - 4.8 ft	16.8	16.3	JC81597-2A	JC81597A	1/18/2019	REMAIN	N	Y	< 2.3	U	26.0		18.4		< 2.3	U	43.1		
BS-A1	21.8	BS-A1_20190123	5.3 - 5.8 ft	16.5	16.0	JC81743-6A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.3	UJ-	22.3		19.8		< 1.2	U	25.1		
BS-A11	18.6	BS-A11_20190111	3.3 - 3.8 ft	15.3	14.8	JC81225-3A	JC81225A	1/11/2019	REMAIN	N	Y	< 2.3	U	14.4		11.8		< 1.1	U	21.3		
BS-A12S	17.9	BS-A12S_20190111	2.5 - 3.0 ft	15.4	14.9	JC81225-5A	JC81225A	1/11/2019	REMOVED	N	Y	< 2.2	U	24.7		16.2		< 1.1	U	21.9		
BS-A2	20.8	BS-A2_20190123	4.2 - 4.7 ft	16.6	16																	

**Table 5-3  
CCPW Metals Analytical Results for Soil Compared to NJDEP DIGWSSL and SSIWSSRS  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

Location ID (G1)	Location Elevation (ft NAVD88) (G2, G3)	Sample ID (G4)	Depth Interval (ft bgs) (G5)	Sample Start Elevation (ft NAVD88) (G3,G6)	Sample End Elevation (ft NAVD88) (G3,G7)	Lab ID (G8)	Lab SDG (G8)	Date Collected (G9)	Sample Status (G10,G11)	Sample Type (G12)	Validated (Y/N) (G13)	ANTIMONY 7440-36-0 mg/kg 6 N/A		CHROMIUM 7440-47-3 mg/kg N/A N/A		NICKEL 7440-02-0 mg/kg N/A 855 (G19)		THALLIUM 7440-28-0 mg/kg 3.0 N/A		VANADIUM 7440-62-2 mg/kg N/A N/A		Specific Notes
												Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	Result (G14, G15)	Qualifier (G16, G17)	
SW-A0 (0.0-0.5)	24.2	SW-A0(0.0-0.5)_20180109	0.4 - 0.9 ft	23.8	23.3	JC81057-2A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.2	U	16.3		13.3		< 1.1	U	20.0		
SW-A0 (2.0-2.5)	24.1	SW-A0(2.0-2.5)_20180109	2.3 - 2.8 ft	21.8	21.3	JC81057-3A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.3	U	39.5		24.8		< 1.2	U	36.9		
SW-A0 (4.0-4.5)	24.0	SW-A0(4.0-4.5)_20180109	4.2 - 4.7 ft	19.8	19.3	JC81057-4A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.4	U	25.2		28.3		< 1.2	U	43.6		
SW-A0 (6.0-6.5)	24.0	SW-A0(6.0-6.5)_20180109	6.2 - 6.7 ft	17.8	17.3	JC81057-5A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.4	U	30.9		24.2		< 1.2	U	39.3		
SW-A0 (8.0-8.5)	24.0	SW-A0(8.0-8.5)	6.7 - 7.2 ft	17.3	16.8	JC81057-6A	JC81057A	1/9/2019	REMAIN	N	Y	< 2.6	U	51.5		19.5		< 1.3	U	41.3		
SW-A0 (8.0-8.5) R	24.0	SW-A0 (8.0-8.5)_20190123	8.1 - 8.6 ft	15.9	15.4	JC81743-2A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.7	UJ-	26.0		44.1		< 1.3	U	30.6		
SW-A10 (6.0-6.5)	23.8	SW-A10 (6.0-6.5)_20190123	5.6 - 6.1 ft	18.2	17.7	JC81743-11A	JC81743A	1/23/2019	REMOVED	N	Y	< 2.3	UJ-	17.3		14.8		< 1.2	U	23.6		
SW-A10 (6.0-6.5) R	24.0	SW-A10(6.0-6.5)_20190318	7.0 - 7.5 ft	17.0	16.5	JC84633-7A	JC84633A	3/18/2019	REMAIN	N	Y	< 2.5	U	23.9		20.0		< 1.2	U	35.7		
SW-A10 (7.5-8.0)	24.0	SW-A10(7.5-8.0)_20190318	8.3 - 8.8 ft	15.7	15.2	JC84633-8A	JC84633A	3/18/2019	REMAIN	N	Y	< 2.6	U	17.7		15.1		< 1.3	U	21.1		
SW-A10 (8.0-8.5)	23.9	SW-A10 (8.0-8.5)_20190123	7.7 - 8.2 ft	16.2	15.7	JC81743-9A	JC81743A	1/23/2019	REMOVED	N	Y	< 2.2	UJ-	15.6		14.2		< 1.1	U	20.9		
SW-A11 (6.0-6.5)	24.0	SW-A11 (6.0-6.5)_20190123	5.5 - 6.0 ft	18.5	18.0	JC81743-10A	JC81743A	1/23/2019	REMOVED	N	Y	< 2.3	UJ-	17.0		14.1		< 1.1	U	27.6		
SW-A11 (8.0-8.5)	24.0	SW-A11 (8.0-8.5)_20190123	8.7 - 9.2 ft	15.3	14.8	JC81743-8A	JC81743A	1/23/2019	REMAIN	N	Y	< 2.3	UJ-	21.8		16.4		< 1.1	U	32.1		
SW-A12 (0.0-0.5)	18.6	SW-A12(0.0-0.5)_20190129	0.0 - 0.5 ft	18.6	18.1	JC81985-2A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	364		58.8		< 2.6	U	65.2		
SW-A12 (1.0-1.5)	18.0	SW-A12(1.0-1.5)_20190129	1.0 - 1.5 ft	17.0	16.5	JC81985-3A	JC81985A	1/29/2019	REMAIN	N	Y	< 3.1	U	35.7		22.0		< 1.6	U	43.9		
SW-A13 (0.0-0.5)	18.2	SW-A13(0.0-0.5)_20190129	0.0 - 0.5 ft	18.2	17.7	JC81985-4A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	24.0		16.5		< 1.3	U	42.0		
SW-A13 (2.0-2.5)	18.0	SW-A13(2.0-2.5)_20190129	1.5 - 2.0 ft	16.5	16.0	JC81985-5A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.3	U	27.1		18.8		< 1.2	U	30.9		
SW-A14 (0.0-0.5)	18.5	SW-A14(0.0-0.5)_20190129	0.3 - 0.8 ft	18.2	17.7	JC81985-6A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	60.3		25.4		< 1.3	U	42.0		
SW-A14 (2.0-2.5)	17.9	SW-A14(2.0-2.5)_20190129	1.7 - 2.2 ft	16.2	15.7	JC81985-7A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.2	U	17.3		14.9		< 1.1	U	23.2		
SW-A15 (0.0-0.5)	18.5	SW-A15(0.0-0.5)_20190129	0.2 - 0.7 ft	18.3	17.8	JC81985-8A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.4	U	58.5		29.7		< 1.2	U	35.2		
SW-A15 (2.0-2.5)	17.9	SW-A15(2.0-2.5)_20190129	1.5 - 2.0 ft	16.4	15.9	JC81985-9A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	36.1		15.6		< 1.3	U	41.0		
SW-A16 (0.0-0.5)	18.5	SW-A16(0.0-0.5)_20190129	0.2 - 0.7 ft	18.3	17.8	JC81985-10A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	43.3		37.7		< 1.3	U	38.2		
SW-A16 (2.0-2.5)	17.9	SW-A16(2.0-2.5)_20190129	1.6 - 2.1 ft	16.3	15.8	JC81985-11A	JC81985A	1/29/2019	REMAIN	N	Y	< 2.6	U	125		21.2		< 1.3	U	46.7		
SW-A17 (0.0-0.5)	18.1	SW-A17(0.0-0.5)_20190129	0.2 - 0.7 ft	17.9	17.4	JC81985-12A	JC81985A	1/29/2019	REMOVED	N	Y	< 2.5	U	180		15.7		< 1.2	U	36.6		
SW-A17 (2.0-2.5)	17.9	SW-A17(2.0-2.5)_20190129	2.0 - 2.5 ft	15.9	15.4	JC81985-13A	JC81985A	1/29/2019	REMOVED	N	Y	< 2.4	U	143		17.4		< 1.2	U	29.9		
SW-A18 (0.0-0.5)	18.5	SW-A18(0.0-0.5)_20190308	0.5 - 1.0 ft	18.0	17.5	JC84109-9A	JC84109A	3/8/2019	REMOVED	N	Y	< 2.5	U	296		36.8		< 1.3	U	58.9		
SW-A18 (2.0-2.5)	18.0	SW-A18(2.0-2.5)_20190308	2.0 - 2.5 ft	16.0	15.5	JC84109-10A	JC84109A	3/8/2019	REMOVED	N	Y	< 2.6	U	299		31.8		< 2.6	U	34.3		
SW-A19 (0.0-0.5)	18.4	SW-A19(0.0-0.5)_20190308	0.1 - 0.6 ft	18.3	17.8	JC84109-6A	JC84109A	3/8/2019	REMOVED	N	Y	< 4.9	U	815		90.6		< 2.4	U	150		
SW-A19 (2.0-2.5)	18.0	SW-A19(2.0-2.5)_20190308	1.7 - 2.2 ft	16.3	15.8	JC84109-7A	JC84109A	3/8/2019	REMOVED	N	Y	< 7.2	U	1740		139		< 3.6	U	231		S1
SW-A20 (0.0-0.5)	18.4	SW-A20(0.0-0.5)_20190308	0.0 - 0.5 ft	18.4	17.9	JC84109-4A	JC84109A	3/8/2019	REMOVED	N	Y	< 9.8	U	1730		404		< 4.9	U	778		S1
SW-A20 (2.0-2.5)	18.0	SW-A20(2.0-2.5)_20190308	1.5 - 2.0 ft	16.5	16.0	JC84109-5A	JC84109A	3/8/2019	REMOVED	N	Y	< 15	U	3540		513		< 7.7	U	884		S1
SW-A21 (0.0-0.5)	18.3	SW-A21(0.0-0.5)_20190308	0.0 - 0.5 ft	18.3	17.8	JC84109-2A	JC84109A	3/8/2019	REMOVED	N	Y	< 12	U	2400		454		< 5.9	U	802		S1
SW-A21 (2.0-2.5)	18.0	SW-A21(2.0-2.5)_20190308	1.8 - 2.3 ft	16.2	15.7	JC84109-3A	JC84109A	3/8/2019	REMOVED	N	Y	< 6.1	U	1020		170		< 3.1	U	283		S1
SW-A22 (0.0-0.5)	18.1	SW-A22(0.0-0.5)_20190227	0.3 - 0.8 ft	17.8	17.3	JC83511-2A	JC83511A	2/27/2019	REMOVED	N	Y	< 2.7	U	925		193		< 4.1	U	295		S1
SW-A22 (2.0-2.5)	17.9	SW-A22(2.0-2.5)_20190227	1.9 - 2.4 ft	16.0	15.5	JC83511-3A	JC83511A	2/27/2019	REMOVED	N	Y	< 15	U	2420		384		< 7.3	U	554		S1
SW-A23 (0.0-0.5)	18.1	SW-A23(0.0-0.5)_20190227	0.4 - 0.9 ft	17.7	17.2	JC83511-4A	JC83511A	2/27/2019	REMOVED	N	Y	< 2.3	U	214		34.7		< 1.2	U	44.9		
SW-A23 (2.0-2.5)	17.9	SW-A23(2.0-2.5)_20190227	2.2 - 2.7 ft	15.7	15.2	JC83511-5A	JC83511A	2/27/2019	REMOVED	N	Y	< 2.7	U	687		74.0		< 1.4	U	117		
SW-A24 (0.0-0.5)	18.0	SW-A24(0.0-0.5)_20190222	0.3 - 0.8 ft	17.7	17.2	JC83296-2A	JC83296A	2/22/2019	REMOVED	N	Y	< 2.3	UJ-	22.9	J	19.5		< 1.1	U	24.4		
SW-A24 (2.0-2.5)	17.9	SW-A24(2.0-2.5)_20190222	2.1 - 2.6 ft	15.8	15.3	JC83296-3A	JC83296A	2/22/2019	REMOVED	N	Y	< 2.5	UJ-	743	J	62.0		< 2.5	U	85.0		
SW-A25 (0.0-0.5)	17.9	SW-A25(0.0-0.5)_20190222	0.8 - 1.3 ft	17.1	16.6	JC83296-4A	JC83296A	2/22/2019	REMOVED	N	Y	< 2.4	UJ-	191	J	39.6		< 1.2	U	54.5		
SW-A25 (2.0-2.5)	17.9	DUP-03(20190222)RR	2.5 - 3.0 ft	15.4	14.9	JC83296-8A	JC83296A	2/22/2019	REMOVED	N	Y	< 2.7	UJ-	177	J	28.8		< 1.3	U	33.0		
SW-A25 (2.0-2.5)	17.9	SW-A25(2.0-2.5)_20190222	2.5 - 3.0 ft	15.4	14.9	JC83296-5A	JC83296A	2/22/2019	REMOVED	N	Y	3.7	J-	181	J	34.5		< 2.7	U	38.5		
SW-A26 (0.0-0.5)	17.9	SW-A26(0.0-0.5)_20190222	0.7 - 1.2 ft	17.2	16.7	JC83296-6A	JC83296A	2/22/2019	REMOVED	N	Y	< 2.2	UJ-	748	J	126		< 5.6	U	223		S1
SW-A26 (2.0-2.5)	17.9	SW-A26(2.0-2.5)_20190222	2.6 - 3.1 ft	15.3	14.8	JC83296-7A	JC83296A	2/22/2019	REMOVED	N	Y	< 2.7	UJ-	920	J	154		< 2.7	U	283		
SW-A27 (0.0-0.5)	17.9	SW-A27(0.0-0.5)_20190226	1.0 - 1.5 ft	16.9	16.4	JC83434-2A	JC83434A	2/26/2019	REMOVED	N	Y	4.5	J-	286		42.0		< 2.4	U	40.5		
SW-A28 (0.0-0.5)	17.9	SW-A28(0.0-0.5)_20190226	0.9 - 1.4 ft	17.0	16.5	JC83434-4A	JC83434A	2/26/2019	REMOVED	N	Y	< 2.3	UJ-	227		24.3		< 1.2	U	41.3		
SW-A29 (0.0-0.5)	17.9	SW-A29(0.0-0.5)_20190226	1.7 - 2.2 ft	16.2	15.7	JC83434-6A	JC83434A	2/26/2019	REMAIN	N	Y	4.1	J-	146		23.7		< 2.5	U	29.8		
SW-A30 (0.0-0.5)	17.3	SW-A30(0.0-0.5)_20190312	0.7 - 1.2 ft	16.6	16.1	JC84245-2A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.1	U	82.5		23.7		< 2.1	U	39.5		
SW-A31 (0.0-0.5)	16.5	SW-A31(0.0-0.5)_20190312	0.2 - 0.7 ft	16.3	15.8	JC84245-7A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.4	U	51.0		29.3		< 1.2	U	39.3		
SW-A32 (0.0-0.5)	16.5	SW-A32(0.0-0.5)_20190312	0.4 - 0.9 ft	16.1	15.6	JC84245-9A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.4	U	23.0		17.2		< 1.2	U	45.1		
SW-A33 (0.0-0.5)	15.8	SW-A33(0.0-0.5)_20190312	0.3 - 0.8 ft	15.5	15.0	JC84245-11A	JC84245A	3/12/2019	REMAIN	N	Y	< 2.5	U	21.3		16.0		< 1.2	U	41.2		
SW-A34 (0.0-0.5)	18.0	SW-34(0.0-0.5)	0.0 - 0.5 ft	18.0	17.5	JC89030-2A	JC89030A	5/31/2019	REMOVED	N	N	< 2.7	UJ-	122		30.0		< 1.3	U	59.3		
SW-A34 (0.0-0.5) R	18.0	SW-A34(0.0-0.5)_20190312	1.2 - 1.7 ft	16.8	16.3	JC94441-3A	JC94441A	9/5/2019	REMAIN	N	Y	< 2.1	UJ-	54.1		26.5		< 1.0	U	53.0		
SW-A34 (2.0-2.5)	18.0	SW-A34(2.0-2.5)_20190905	2.0 - 2.5 ft																			

**Table 5-3**  
**CCPW Metals Analytical Results for Soil Compared to NJDEP DIGWSSL and SSIGWSRS**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
**PPG, Jersey City, New Jersey**



**ABBREVIATIONS:**

bgs - below ground surface  
CAS RN - Chemical Abstracts Service Registry Number  
CCPW - Chromate Chemical Production Waste  
DIGWSSL - Default Impact to Groundwater Soil Screening Level  
FD - field duplicate sample type  
ft - feet  
MDL - method detection limit  
mg/kg - milligrams per kilogram  
N - normal sample type  
NAVD88 - North American Vertical Datum of 1988  
N.J.A.C. - New Jersey Administrative Code  
NJDEP - New Jersey Department of Environmental Protection  
RL - reporting limit  
Sb - antimony  
SDG - sample delivery group  
SSIGWSRS – site-specific impact to groundwater soil remediation standard  
TEE - terminal excavation elevation  
U.S. - United States

**QUALIFIERS:**

J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample. A +/- sign indicates the direction of bias.  
U - The result was not detected above either the method detection limit or sample reporting limit shown.  
UJ - The analyte was not detected above the sample reporting limit shown and the reporting limit was approximate. A +/- sign indicates the direction of bias.

**GENERAL NOTES:**

G1. "Location ID" refers to the location name where samples were collected.  
G2. "Location Elevation" refers to the pre-remediation surface elevation.  
G3. Elevation vertical datum is NAVD88, in U.S. survey ft.  
G4. "Sample ID" refers to the name of a sample collected at a given location and is unique to the depth of the sample collected. The depth listed in the "Sample ID" column may not necessarily correspond to the actual sample depth interval due to corrections made as a result of post-field work review of surveyed surface elevations and/or boring logs. In some cases, the "Sample ID" in the table is a variant of the sample ID in the laboratory report and/or data validation report. In these cases, the "Lab ID" associates the sample results to the laboratory report and/or data validation report.  
G5. "Depth Interval" is based on the "Location Elevation."  
G6. "Sample Start Elevation" refers to the start of the sample interval. There may be up to 0.1 ft variation between the listed Sample Start Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G7. "Sample End Elevation" refers to the end of the sample interval. There may be up to 0.1 ft variation between the listed Sample End Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G8. "Lab ID" refers to the identification number assigned to the sample by the analytical laboratory performing the sample analysis. "Lab SDG" refers to the delivery group number assigned to the sample by the analytical laboratory.  
G9. "Date Collected" refers to the date the soil sample was collected.  
G10. "Sample Status" indicates whether a sample is remaining or removed:  
- "Remaining" indicates the soil in that interval is outside the excavation footprint, and remains in-place at that location; and  
- "Removed" indicates the sample was removed during excavation.  
G11. Sample statuses were determined based on review of the post-excavation sample survey dated 08/07/2018, performed by Maser Consulting, and a topographic survey data 11/14/2023, performed by Borbas Surveying & Mapping, LLC.  
G12. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).  
G13. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.  
G14. "Result" refers to the analytical result which is reported in mg/kg. A "-" indicates that the sample was not tested for that analyte.  
G15. Bold or underlined text indicates that the result exceeds the NJDEP SRS. Non-bold/non-underlined text indicates that the result does not exceed the SRS.  
G16. "Qualifier" refers to the data qualifier assigned by the data validation team reviewing the data from the laboratory for validated data. For unvalidated data, it refers to the qualifier assigned by the laboratory.  
G17. Non-detect results are shown on this table using the method detection limit (MDL) or the reporting limit (RL).  
G18. The DIGWSSL and SSIGWSRS only apply to unsaturated zone soils (i.e., above the water table). Exceedances of the DIGWSSL are in bold text. The groundwater elevations (above which is the unsaturated zone) on Conrail Right-of-Way was estimated as the 50<sup>th</sup> percentile groundwater elevation from three monitoring wells located adjacent to Conrail Right-of-Way gauged between July 2021 and February 2022. The monitoring well locations and gauging data are included in Appendix C. The estimated groundwater elevation for Conrail Right-of-Way is El. 14.8 ft NAVD88.  
G19. Samples on Site 107 and post-excavation samples collected within the Conrail Right-of-Way under the Site 107 Remedial Action are subject to the SSIGWSRS of 855 mg/kg for nickel, which was approved by the NJDEP in an email dated April 25, 2019.

**SPECIFIC NOTES:**

S1. Certain analytical results are reported as less than the MDL or RL, but greater than the associated DIGWSSL, when sample dilution is required due to the presence of a significant quantity of a target or non-target analyte, or due to interference from a target or non-target analyte. The data usability discussion in the report text (Section 6.0) and the data validation reports (Appendix H) for these samples discuss the usability of these data for decision-making purposes.

S2. The antimony (Sb) result for at least one sample interval associated with this sample location exceeds the DIGWSSL and has been removed by remedial excavation. A deeper sample at this location, which does not exceed the DIGWSSL, has been removed and serves as the clean confirmation sample.



**Table 5-3**  
**CCPW Metals Analytical Results for Soil Compared to NJDEP DIGWSSL and SSIGWSRS**  
**Conrail Right-of-Way (AOC 1) Remedial Action Report**  
**PPG, Jersey City, New Jersey**



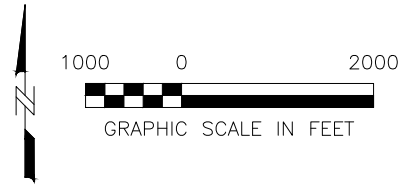
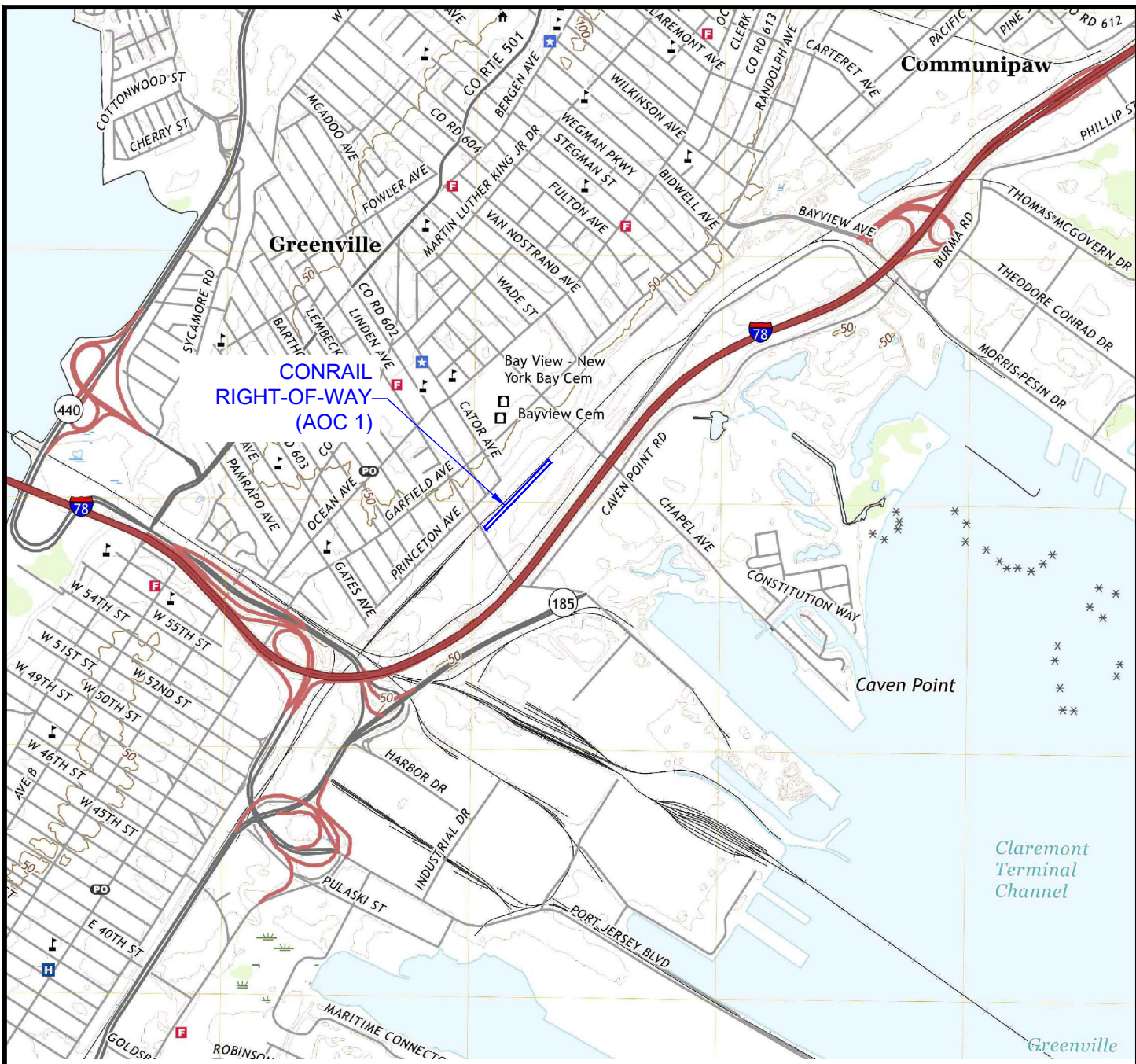
S3. Sample 107\_M032 (3.0-3.5 ft) is not located within the unsaturated zone and does not required comparison to the NJDEP DIGWSSL and SSIGWSRS. However, Sample 107\_M032 (3.0-3.5 ft) is shown on this table to demonstrate that the DIGWSSL exceedance associated with 107\_M032 (1.5-2.0 ft) has been removed.

S4. Metals concentrations in soil exceeding the DIGWSSL on Site 108, which include this location/sample, are associated with the site-wide presence of historic fill material (as defined by the NJDEP) and are not associated with CCPW-related impacts. This determination is documented in the technical memorandum entitled *Site 108 – Historic Fill Technical Memo*, dated July 20, 2012, that was included as Attachment I to the *Remedial Investigation Report; Non-Residential Chromate Chemical Production Waste Site 108*, dated December 2012, which was approved by the NJDEP in a letter dated January 14, 2013. PPG is not responsible for non-CCPW-related impacts such as historic fill-related impacts.

**Table 5-4  
Field Change Notification Tracking Sheet  
Conrail Right-of-Way (AOC 1) Remedial Action Report  
PPG, Jersey City, New Jersey**

<b>Date of Submittal</b>	<b>Description of Field Change Notification</b>
7/9/2018	Reduced frequency of geotechnical sampling for licensed quarry material.
2/13/2019	Update Discharge to Groundwater Authorization to increase volume of FerroBlack®-H to be used as backfill amendment

## Figures












- NOTES:
1. NEW JERSEY STATE PLANE NORTH AMERICAN DATUM 1983 COORDINATES, US SURVEY FEET.
  2. IMAGE SOURCE: USGS TOPOGRAPHIC QUADRANGLE: JERSEY CITY, NJ, 2019
- NJ - NEW JERSEY  
USGS - UNITED STATES GEOLOGICAL SURVEY



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		USGS AOC 1 MAP	
DATE: 10/14/24	DRWN: MDN	FIGURE 1-1	

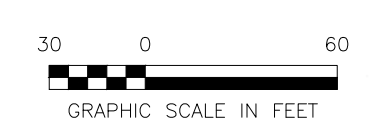
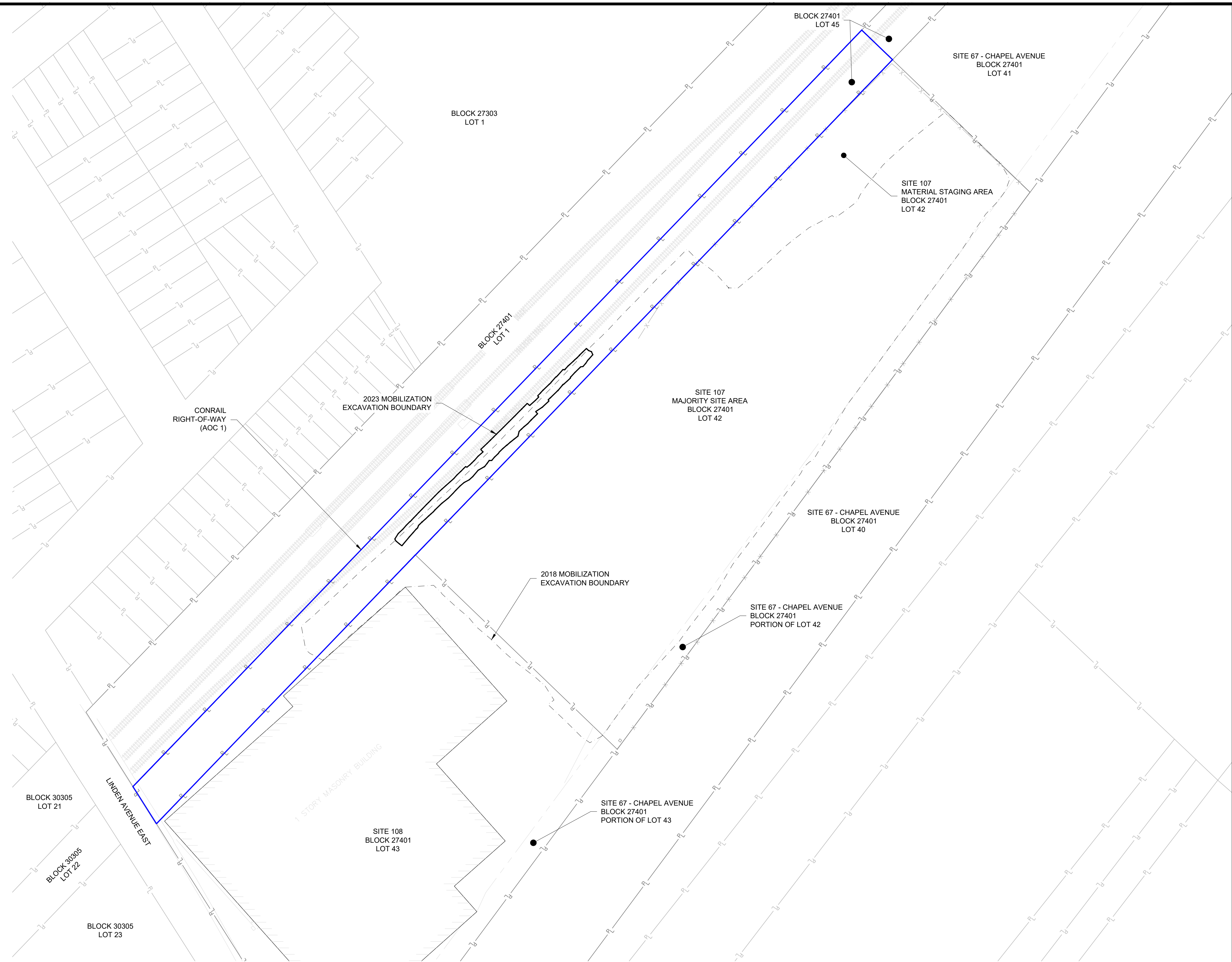


**LEGEND**

-  PROPERTY LINE
-  APPROXIMATE PROPERTY LINE (NOTE 3)
-  FENCE LINE
-  RIGHT-OF-WAY LINE
-  2018 MOBILIZATION EXCAVATION BOUNDARY
-  2023 MOBILIZATION EXCAVATION BOUNDARY
-  CONRAIL RIGHT-OF-WAY (AOC 1) BOUNDARY
-  EXISTING BUILDING
-  RAILROAD TRACKS

**NOTES:**

1. ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 IN U.S. SURVEY FEET.
2. PROPERTY LINES, BUILDING EXTENTS, UTILITIES, AND SITE FEATURES ARE SOURCED FROM A SURVEY CONDUCTED ON OCTOBER 30, 2019 BY MASER CONSULTING, P.A.
3. APPROXIMATE PROPERTY BOUNDARIES ARE SOURCED FROM THE HUDSON COUNTY PARCEL DATA AVAILABLE THROUGH THE NEW JERSEY OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS.
4. THE 2018 MOBILIZATION BOUNDARY IS SOURCED FROM SURVEYS CONDUCTED BETWEEN JUNE 2018 AND SEPTEMBER 2019 BY MASER CONSULTING, P.A.
5. THE 2023 MOBILIZATION BOUNDARY IS SOURCED FROM TOPOGRAPHIC SURVEYS CONDUCTED BETWEEN JULY AND NOVEMBER 2023 BY BORBAS SURVEYING & MAPPING.



<p>PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY</p>		<p><b>SITE MAP</b> CONRAIL RIGHT-OF-WAY (AOC 1)</p>
DATE: 10/14/2024	DRWN: MDN	FIGURE 1-2

File: C:\Users\micholm\AECOM\PPG - 0251910 CAD\00 SHEETS\BAP\Conrail Excavation BAP\Conrail BAP Figure 1-2 Site Map\_BAP.dwg Layout: 1-2 User: micholm1 Plotter: Oct 14, 2024 - 3:15pm Inr3:



**LEGEND**

- PROPERTY LINE
- APPROXIMATE PROPERTY LINE (NOTE 3)
- FENCE LINE
- RIGHT-OF-WAY LINE
- 2018 MOBILIZATION EXCAVATION BOUNDARY
- EXCAVATION AS-BUILT CONTOURS (1' INTERVAL 5' INDEX)
- PRE-CONSTRUCTION GROUND SURFACE CONTOURS (1' INTERVAL 5' INDEX)
- CONRAIL RIGHT-OF-WAY (AOC 1) BOUNDARY
- EXISTING BUILDING
- RAILROAD TRACKS
- 2023 MOBILIZATION EXCAVATION BOUNDARY
- 108\_M018N [14.6] SAMPLING LOCATION, NOT ANALYZED FOR Cr<sup>6</sup> OR NO REMAINING Cr<sup>6</sup> DATA
- 108\_M018N [14.1] SAMPLING LOCATION, REMAINING SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- CONRAIL-TP-1 [0.0] SAMPLING LOCATION, REMOVED CONFIRMATION SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M018N [14.1] Cr<sup>6</sup> RESULT LESS THAN THE CrSCC [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M028E1 [13.5] AT LEAST ONE Cr<sup>6</sup> RESULT IS GREATER THAN THE CrSCC, BUT WAS REMOVED DURING REMEDIAL EXCAVATION [AS-BUILT TERMINAL EXCAVATION ELEVATION]

**GENERAL NOTES:**

1. ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 IN U.S. SURVEY FEET.
2. PROPERTY LINES, BUILDING EXTENTS, UTILITIES, AND SITE FEATURES ARE SOURCED FROM A SURVEY CONDUCTED ON OCTOBER 30, 2019 BY MASER CONSULTING, P.A.
3. APPROXIMATE PROPERTY BOUNDARIES REFERENCE THE HUDSON COUNTY PARCEL DATA AVAILABLE THROUGH THE NEW JERSEY OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS.
4. THE SITE 107 EXCAVATION BOUNDARY IS SOURCED FROM SURVEYS CONDUCTED BETWEEN JUNE 2018 AND SEPTEMBER 2019 BY MASER CONSULTING, P.A.
5. BLOCKLOT INFORMATION WAS SOURCED FROM THE JERSEY CITY PARCEL DATA FROM THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK (NJGIN).
6. THE AS-BUILT EXCAVATION CONTOURS REPRESENT A COMPOSITE SURFACE THAT INCLUDES DATA FROM TOPOGRAPHIC SURVEYS CONDUCTED BY MASER CONSULTING, P.A. BETWEEN JUNE 2018 AND SEPTEMBER 2019, AND BY BORBAS SURVEYING AND MAPPING CONDUCTED BETWEEN JULY 2023 AND NOVEMBER 2023.
7. THIS FIGURE PRESENTS DATA FOR SAMPLE LOCATIONS WITHIN CONRAIL RIGHT-OF-WAY (AOC 1).
8. SAMPLE LOCATIONS WITHOUT ELEVATION INFORMATION ARE LOCATED OUTSIDE THE EXCAVATION FOOTPRINT.
9. DATA QUALIFIER DEFINITIONS ARE PROVIDED IN THE TABLE 5-1 NOTES.
10. SAMPLE ELEVATIONS, DEPTHS, AND ANALYTICAL RESULTS WITH "STRIKED OUT" TEXT INDICATE THAT THIS SAMPLE HAS BEEN REMOVED BY REMEDIAL EXCAVATION.

**SPECIFIC NOTES:**

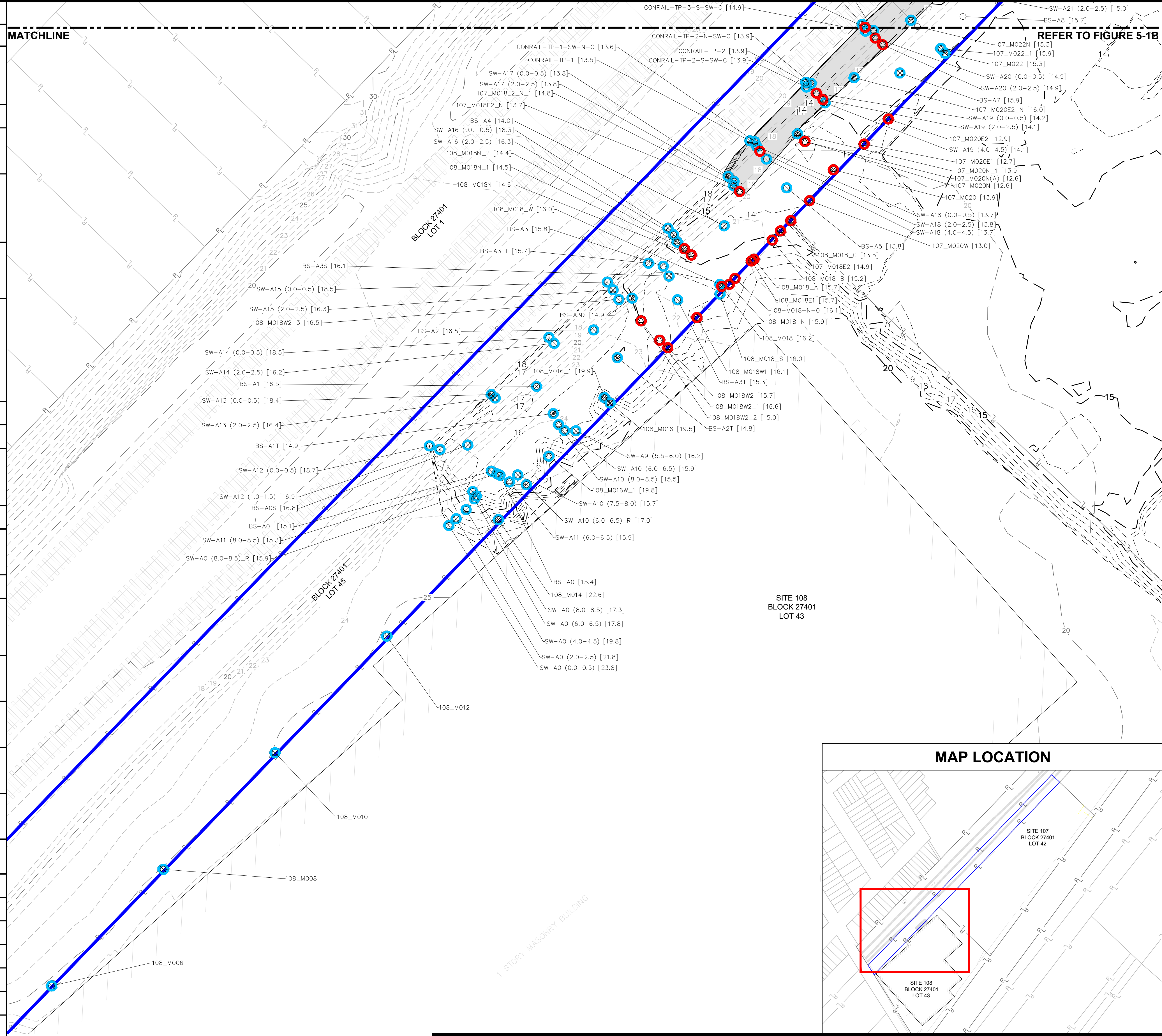
1. THE Cr<sup>6</sup> DATA ASSOCIATED WITH THE SAMPLE LOCATIONS SHOWN ON THIS FIGURE ARE PROVIDED IN TABLE 5-1.
2. SAMPLE LOCATIONS BS-A0 AND SW-A11 (8.0-8.5) ARE ADJACENT TO EACH OTHER, THEREFORE, THE SAMPLE LOCATION SYMBOLS OVERLAP ON THE FIGURE.

SOIL CLEANUP CRITERION (mg/kg)	
ANALYTE	CrSCC
CHROMIUM, HEXAVALENT	20

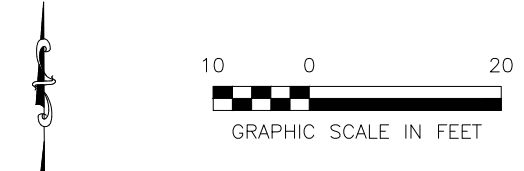
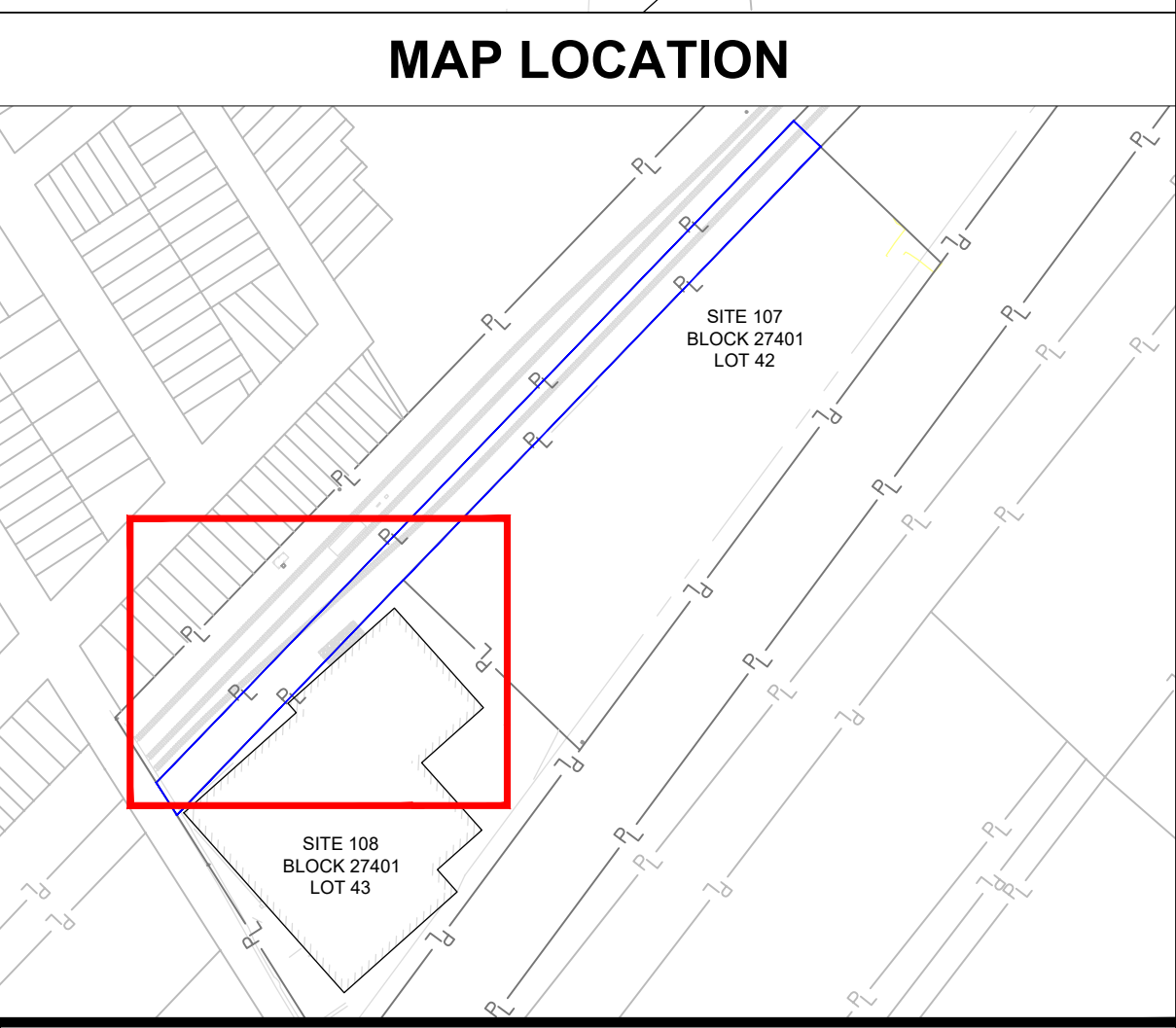
**ABBREVIATIONS:**

- AOC AREA OF CONCERN
- bgs BELOW PRE-CONSTRUCTION GROUND SURFACE
- Cr<sup>6</sup> HEXAVALENT CHROMIUM
- CrSCC CHROMIUM SOIL CLEANUP CRITERION
- FD FIELD DUPLICATE
- ft FEET
- mg/kg MILLIGRAMS PER KILOGRAM
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988

SAMPLE LOCATIONS WHERE Cr <sup>6</sup> RESULTS ARE GREATER THAN THE CrSCC		
Elevation (ft)	Depth (ft bgs)	Cr <sup>6</sup> (mg/kg)
<b>107_M018E2</b> 12/14/2011		
18.8-18.3 ft	1.0-1.5 ft	99.0
16.8-16.3 ft	3.0-3.5 ft	53.9
16.8-16.3 ft	3.0-3.5 ft	FD 25.0
16.3-15.8 ft	3.5-4.0 ft	194
<b>107_M018E2_N</b> 7/10/2012		
18.8-18.3 ft	1.0-1.5 ft	24.0
<b>107_M020</b> 2/11/2011		
18.8-18.3 ft	1.0-1.5 ft	416
17.3-16.8 ft	2.5-3.0 ft	239
16.8-16.3 ft	3.0-3.5 ft	158
<b>107_M020E1</b> 12/14/2011		
18.5-18.0 ft	1.0-1.5 ft	3010
18.0-17.5 ft	1.5-2.0 ft	7950
17.0-16.5 ft	2.5-3.0 ft	11700
16.5-16.0 ft	3.0-3.5 ft	11700
16.0-15.5 ft	3.5-4.0 ft	65.7
<b>107_M020E2</b> 12/13/2011		
18.3-17.8 ft	1.0-1.5 ft	9040
17.8-17.3 ft	1.5-2.0 ft	8880
16.8-16.3 ft	2.5-3.0 ft	2170
16.3-15.8 ft	3.0-3.5 ft	62.8
<b>107_M020N</b> 12/13/2011, 18/2019		
18.1-17.6 ft	1.0-1.5 ft	583
17.6-17.1 ft	1.5-2.0 ft	126
17.6-17.1 ft	1.5-2.0 ft	FD 106 JJ
16.6-16.1 ft	2.5-3.0 ft	25.4
16.1-15.6 ft	3.0-3.5 ft	28.4 JJ
15.6-15.1 ft	3.5-4.0 ft	28.4 JJ
15.1-14.6 ft	4.0-4.5 ft	26.2 JJ
13.8-13.3 ft	5.3-5.8 ft	41.5
<b>107_M020W</b> 12/14/2011		
17.8-17.3 ft	1.0-1.5 ft	1060
<b>108_M018</b> 2/23/2011		
18.1-17.6 ft	3.5-4.0 ft	20.2
<b>108_M018_A</b> 8/16/2011		
19.1-18.6 ft	2.0-2.5 ft	3220
18.6-18.1 ft	2.5-3.0 ft	9140
18.1-17.6 ft	3.0-3.5 ft	7320
17.6-17.1 ft	3.5-4.0 ft	1300
<b>108_M018_B</b> 8/16/2011		
20.0-19.5 ft	1.0-1.5 ft	57.7
<b>108_M018_C</b> 8/16/2011		
20.5-20.0 ft	0.0-0.5 ft	20.4
19.5-19.0 ft	1.0-1.5 ft	171
18.5-18.0 ft	2.0-2.5 ft	398
<b>108_M018_N</b> 6/21/2011		
19.5-19.0 ft	2.0-2.5 ft	20.8
<b>108_M018E1</b> 12/14/2011		
20.2-19.7 ft	1.0-1.5 ft	50.8
18.2-17.7 ft	3.0-3.5 ft	9290
18.2-17.7 ft	3.0-3.5 ft	FD 12000
17.7-17.2 ft	3.5-4.0 ft	623
<b>108_M018N</b> 12/14/2011		
20.2-19.7 ft	1.0-1.5 ft	58.7
19.7-19.2 ft	1.5-2.0 ft	60.7
19.2-18.7 ft	2.0-2.5 ft	52.6
<b>108_M018N_1</b> 7/10/2012		
18.6-18.1 ft	1.5-2.0 ft	81.6
18.1-17.6 ft	2.0-2.5 ft	72.3
17.1-16.6 ft	3.0-3.5 ft	90.6
<b>108_M018W1</b> 12/14/2011		
20.9-20.4 ft	1.0-1.5 ft	27.0
20.4-19.9 ft	1.5-2.0 ft	33.3
19.9-19.4 ft	2.0-2.5 ft	25.4
<b>108_M018W2</b> 12/14/2011		
21.2-20.7 ft	1.0-1.5 ft	1100
19.2-18.7 ft	3.0-3.5 ft	3800
18.2-17.7 ft	4.0-4.5 ft	57.5
<b>108_M018W2_1</b> 7/10/2012		
20.3-19.8 ft	2.0-2.5 ft	25.0
19.3-18.8 ft	3.0-3.5 ft	556
<b>108_M018W2_2</b> 11/29/2012		
20.3-19.8 ft	2.0-2.5 ft	106
<b>108_M018-N-0</b> 7/1/2011		
19.5-19.0 ft	2.0-2.5 ft	306
<b>SW-A18(2.0-2.5)</b> 3/8/2019		
16.0-15.5 ft	2.0-2.5 ft	25.9 J
<b>SW-A19(0.0-0.5)</b> 3/8/2019		
18.3-17.8 ft	0.1-0.6 ft	24.6 J
<b>SW-A19(2.0-2.5)</b> 3/8/2019		
16.3-15.8 ft	1.7-2.2 ft	102 J
<b>SW-A20(0.0-0.5)</b> 3/8/2019		
18.4-17.9 ft	0.0-0.5 ft	52.3 J
<b>SW-A20(2.0-2.5)</b> 3/8/2019		
16.5-16.0 ft	1.5-2.0 ft	138 J



REFER TO FIGURE 5-1B



PPG  
CONRAIL RIGHT-OF-WAY (AOC 1)  
JERSEY CITY, NEW JERSEY

DATE: 10/14/2024 DRWN: MDN

SOIL SAMPLE LOCATIONS AND RESULTS  
FOR HEXAVALENT CHROMIUM  
COMPARED TO CrSCC

FIGURE 5-1A

Fig. C:\Users\micholm1\ACCOM\PPG - 02519102 CAD\20 SHEETS\BAP\Conrail Excavation BAP\Conrail BAP Figure 5-1 CrSCC Rev4.dwg Layout: 5-1A User: micholm1 Plotfile: Oct 14, 2024 - 3:10pm Prof's



**LEGEND**

- PROPERTY LINE
- APPROXIMATE PROPERTY LINE (NOTE 3)
- FENCE LINE
- RIGHT-OF-WAY LINE
- 2018 MOBILIZATION EXCAVATION BOUNDARY
- EXCAVATION AS-BUILT CONTOURS (1' INTERVAL 5' INDEX)
- PRE-CONSTRUCTION GROUND SURFACE CONTOURS (1' INTERVAL 5' INDEX)
- CONRAIL RIGHT-OF-WAY (AOC 1) BOUNDARY
- EXISTING BUILDING
- RAILROAD TRACKS
- 2023 MOBILIZATION EXCAVATION BOUNDARY
- 108\_M018N [14.6] SAMPLING LOCATION, NOT ANALYZED FOR Cr<sup>6</sup> OR NO REMAINING Cr<sup>6</sup> DATA
- 108\_M018N [14.1] SAMPLING LOCATION, REMAINING SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- CONRAIL-TP-1 [0.0] SAMPLING LOCATION, REMOVED CONFIRMATION SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M018N [14.1] Cr<sup>6</sup> RESULT LESS THAN THE CrSCC [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M028E1 [13.5] AT LEAST ONE Cr<sup>6</sup> RESULT IS GREATER THAN THE CrSCC, BUT WAS REMOVED DURING REMEDIAL EXCAVATION [AS-BUILT TERMINAL EXCAVATION ELEVATION]

**GENERAL NOTES:**

1. ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 IN U.S. SURVEY FEET.
2. PROPERTY LINES, BUILDING EXTENTS, UTILITIES, AND SITE FEATURES ARE SOURCED FROM A SURVEY CONDUCTED ON OCTOBER 30, 2019 BY MASER CONSULTING, P.A.
3. APPROXIMATE PROPERTY BOUNDARIES REFERENCE THE HUDSON COUNTY PARCEL DATA AVAILABLE THROUGH THE NEW JERSEY OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS.
4. THE SITE 107 EXCAVATION BOUNDARY IS SOURCED FROM SURVEYS CONDUCTED BETWEEN JUNE 2018 AND SEPTEMBER 2019 BY MASER CONSULTING, P.A.
5. BLOCK/LOT INFORMATION WAS SOURCED FROM THE JERSEY CITY PARCEL DATA FROM THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK (NJGIN).
6. THE AS-BUILT EXCAVATION CONTOURS REPRESENT A COMPOSITE SURFACE THAT INCLUDES DATA FROM TOPOGRAPHIC SURVEYS CONDUCTED BY MASER CONSULTING, P.A. BETWEEN JUNE 2018 AND SEPTEMBER 2019, AND BY BORBAS SURVEYING AND MAPPING CONDUCTED BETWEEN JULY 2023 AND NOVEMBER 2023.
7. THIS FIGURE PRESENTS DATA FOR SAMPLE LOCATIONS WITHIN CONRAIL RIGHT-OF-WAY (AOC 1).
8. SAMPLE LOCATIONS WITHOUT ELEVATION INFORMATION ARE LOCATED OUTSIDE THE EXCAVATION FOOTPRINT.
9. DATA QUALIFIER DEFINITIONS ARE PROVIDED IN THE TABLE 5-1 NOTES.
10. SAMPLE ELEVATIONS, DEPTHS, AND ANALYTICAL RESULTS WITH "STRIKED OUT" TEXT INDICATE THAT THIS SAMPLE HAS BEEN REMOVED BY REMEDIAL EXCAVATION.

**SPECIFIC NOTES:**

1. THE Cr<sup>6</sup> DATA ASSOCIATED WITH THE SAMPLE LOCATIONS SHOWN ON THIS FIGURE ARE PROVIDED IN TABLE 5-1.
2. SAMPLE LOCATIONS SW-A34 (0.0-0.5)\_R AND SW-A34 (2.0-2.5) ARE ADJACENT TO EACH OTHER. THEREFORE, THE SAMPLE LOCATION SYMBOLS OVERLAP ON THE FIGURE.

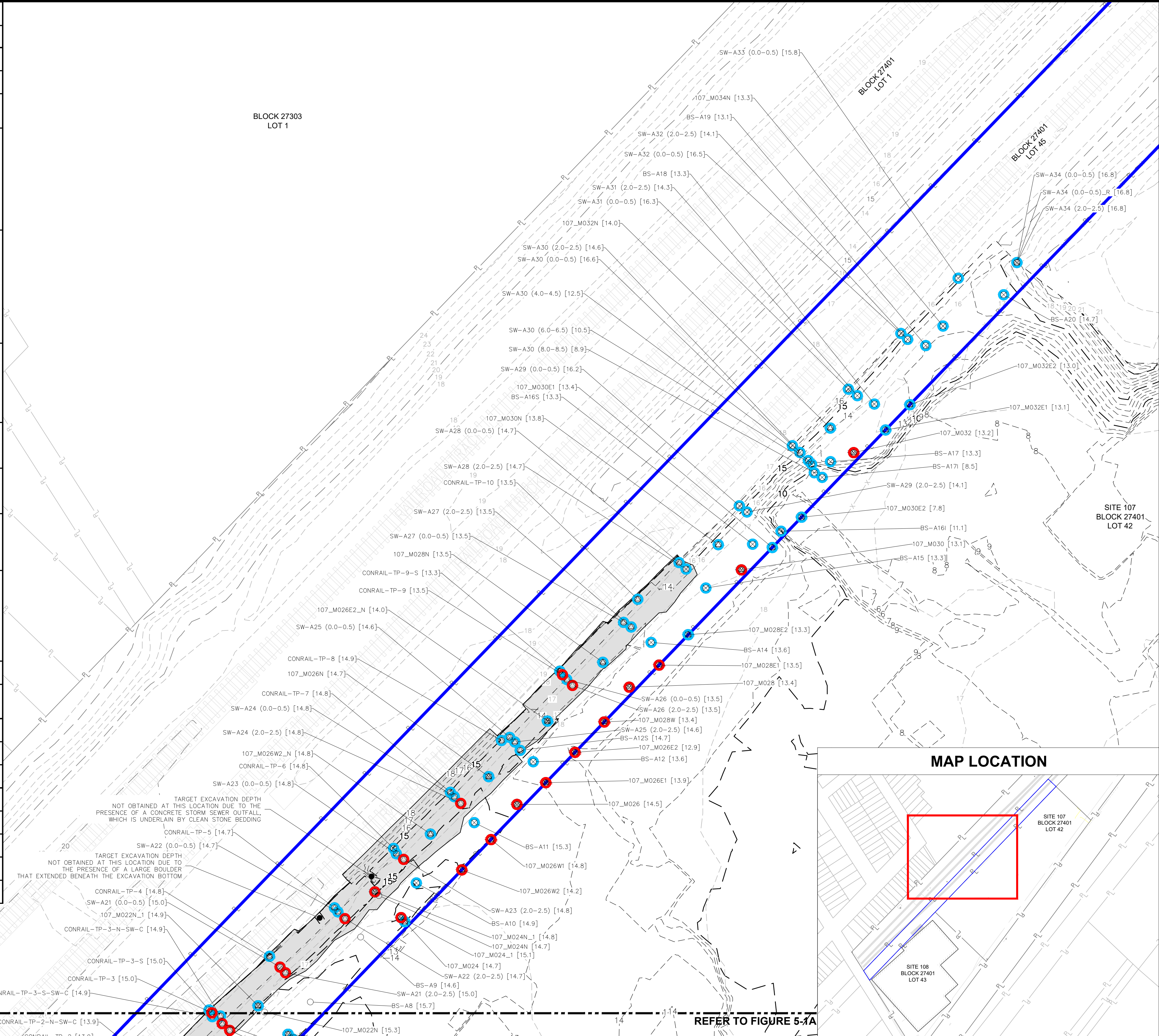
SOIL CLEANUP CRITERION (mg/kg)	
ANALYTE	CrSCC
CHROMIUM, HEXAVALENT	20

**ABBREVIATIONS:**

- AOC AREA OF CONCERN
- bgs BELOW PRE-CONSTRUCTION GROUND SURFACE
- Cr<sup>6</sup> HEXAVALENT CHROMIUM
- CrSCC CHROMIUM SOIL CLEANUP CRITERION
- FD FIELD DUPLICATE
- ft FEET
- mg/kg MILLIGRAMS PER KILOGRAM
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988

SAMPLE LOCATIONS WHERE Cr <sup>6</sup> RESULTS ARE GREATER THAN THE CrSCC		
Elevation (ft)	Depth (ft bgs)	Cr <sup>6</sup> (mg/kg)
107_M024_1	7/10/2012	
18.0-17.5 ft	1.0-1.5 ft	189
107_M024N_1	2/27/2019	
15.4-14.9 ft	2.5-3.0 ft	47.7 J
107_M026	2/10/2011	
18.5-16.0 ft	0.5-3.0 ft	223
16.0-15.5 ft	3.0-3.5 ft	58.2
107_M026E1	12/12/2011	
18.0-17.5 ft	1.0-1.5 ft	226
17.5-17.0 ft	1.5-2.0 ft	782
17.0-16.5 ft	2.0-2.5 ft	4240
17.0-16.5 ft	2.0-2.5 ft	FD 4340
16.5-16.0 ft	2.5-3.0 ft	1000
16.0-15.5 ft	3.0-3.5 ft	81.9
15.5-15.0 ft	3.5-4.0 ft	29.8
15.0-14.5 ft	4.0-4.5 ft	52.6
107_M026E2	12/12/2011	
18.5-18.0 ft	0.5-1.0 ft	225
18.0-17.5 ft	1.0-1.5 ft	5670
18.0-17.5 ft	1.0-1.5 ft	FD 5790
17.5-17.0 ft	1.5-2.0 ft	7020
17.0-16.5 ft	2.0-2.5 ft	2210
16.5-16.0 ft	2.5-3.0 ft	1070
16.0-15.5 ft	3.0-3.5 ft	259
15.5-15.0 ft	3.5-4.0 ft	32.1
14.0-13.5 ft	5.0-5.5 ft	147
107_M026W1	12/12/2011	
18.5-18.0 ft	0.5-1.0 ft	154
18.0-17.5 ft	1.0-1.5 ft	4920
17.5-17.0 ft	1.5-2.0 ft	6760
17.5-17.0 ft	1.5-2.0 ft	FD 90.3
17.0-16.5 ft	2.0-2.5 ft	907
16.5-16.0 ft	2.5-3.0 ft	111
107_M026W2	12/13/2011	
17.5-17.0 ft	1.5-2.0 ft	27600
17.0-16.5 ft	2.0-2.5 ft	2320
16.5-16.0 ft	2.5-3.0 ft	78.9
107_M028	2/10/2011	
19.0-18.5 ft	0.0-0.5 ft	80.4
18.5-18.0 ft	0.5-1.0 ft	225
18.0-17.5 ft	1.0-1.5 ft	160
107_M028E1	12/12/2011	
18.5-18.0 ft	0.5-1.0 ft	41.6
18.0-17.5 ft	1.0-1.5 ft	107
17.5-17.0 ft	1.5-2.0 ft	24.2
17.0-16.5 ft	2.0-2.5 ft	22.4
107_M028W	12/12/2011	
18.5-18.0 ft	0.5-1.0 ft	3390
18.0-17.5 ft	1.0-1.5 ft	9270
17.5-17.0 ft	1.5-2.0 ft	7860
17.5-17.0 ft	1.5-2.0 ft	FD 6340
17.0-16.5 ft	2.0-2.5 ft	5710
16.5-16.0 ft	2.5-3.0 ft	1170
16.0-15.5 ft	3.0-3.5 ft	278
107_M030	2/10/2011	
17.9-16.4 ft	0.5-2.0 ft	77.6
107_M032	2/10/2011	
16.9-15.9 ft	0.5-1.5 ft	189
15.9-15.4 ft	1.5-2.0 ft	263
CONRAIL-TP-3	9/11/2022	
16.0-15.5 ft	3.0-3.5 ft	23.3 J
CONRAIL-TP-9	9/11/2022	
14.7-14.2 ft	2.8-3.3 ft	23.7 J
SW-A21(0.0-0.5)	3/8/2019	
18.3-17.8 ft	0.0-0.5 ft	39.1 J
SW-A21(2.0-2.5)	3/8/2019	
16.2-15.7 ft	1.8-2.3 ft	34.0 J
SW-A22(2.0-2.5)	2/27/2019	
16.0-15.5 ft	1.9-2.4 ft	45.4 J
SW-A23(2.0-2.5)	2/27/2019	
15.7-15.2 ft	2.2-2.7 ft	46.1 J
SW-A24(2.0-2.5)	2/22/2019	
15.8-15.3 ft	2.1-2.6 ft	44.5 J-
SW-A26(2.0-2.5)	2/22/2019	
15.3-14.8 ft	2.6-3.1 ft	43.4 J-

MATCHLINE



TARGET EXCAVATION DEPTH NOT OBTAINED AT THIS LOCATION DUE TO THE PRESENCE OF A CONCRETE STORM SEWER OUTFALL WHICH IS UNDERLAIN BY CLEAN STONE BEDDING

TARGET EXCAVATION DEPTH NOT OBTAINED AT THIS LOCATION DUE TO THE PRESENCE OF A LARGE BOULDER THAT EXTENDED BENEATH THE EXCAVATION BOTTOM

REFER TO FIGURE 5-1A



**PPG  
CONRAIL RIGHT-OF-WAY (AOC 1)  
JERSEY CITY, NEW JERSEY**

**SOIL SAMPLE LOCATIONS AND RESULTS  
FOR HEXAVALENT CHROMIUM  
COMPARED TO CrSCC**

**FIGURE 5-1B**

DATE: 10/14/2024      DRWN: MDN

File: C:\Users\MichaelM\OneDrive\Documents\PPG - 0251910 CAD\20 SHEETS\BAP\Conrail Excavation BAP\Conrail Excavation BAP Figure 5-1 CrSCC Rev.dwg    Layout: 5-1B (3)    User: MichaelM    PlotDate: Oct 14, 2024    3:17pm    xref:5



**LEGEND**

- PROPERTY LINE
- APPROXIMATE PROPERTY LINE (NOTE 3)
- FENCE LINE
- RIGHT-OF-WAY LINE
- 2018 MOBILIZATION EXCAVATION BOUNDARY
- EXCAVATION AS-BUILT CONTOURS (1' INTERVAL 5' INDEX)
- PRE-CONSTRUCTION GROUND SURFACE CONTOURS (1' INTERVAL 5' INDEX)
- CONRAIL RIGHT-OF-WAY (AOC 1) BOUNDARY
- EXISTING BUILDING
- RAILROAD TRACKS
- 2023 MOBILIZATION REMEDIAL EXCAVATION BOUNDARY
- 108\_M018N [14.1] SAMPLING LOCATION, REMAINING SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M018N [0.0] SAMPLING LOCATION, REMOVED CONFIRMATION SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M018N [14.1] SAMPLING LOCATION, CCPW METALS RESULTS LESS THAN SRS
- 108\_M008 [20.0] SAMPLING LOCATION, AT LEAST ONE ANTIMONY RESULT EXCEEDS THE SRS, BUT IS IN COMPLIANCE WITH THE REMEDIATION OBJECTIVES
- SW-A34 (2.0-2.5) [15.5] SAMPLING LOCATION, AT LEAST ONE VANADIUM RESULT EXCEEDS THE SRS, BUT WAS REMOVED DURING REMEDIAL EXCAVATION

**GENERAL NOTES:**

1. ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 IN U.S. SURVEY FEET.
2. PROPERTY LINES, BUILDING EXTENTS, UTILITIES, AND SITE FEATURES ARE SOURCED FROM A SURVEY CONDUCTED ON OCTOBER 30, 2019 BY MASER CONSULTING, P.A.
3. APPROXIMATE PROPERTY BOUNDARIES REFERENCE THE HUDSON COUNTY PARCEL DATA AVAILABLE THROUGH THE NEW JERSEY OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS.
4. THE SITE 107 EXCAVATION BOUNDARY IS SOURCED FROM SURVEYS CONDUCTED BETWEEN JUNE 2018 AND SEPTEMBER 2019 BY MASER CONSULTING, P.A.
5. BLOCK/LOT INFORMATION WAS SOURCED FROM THE JERSEY CITY PARCEL DATA FROM THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK (NJGIN).
6. THE AS-BUILT EXCAVATION CONTOURS REPRESENT A COMPOSITE SURFACE THAT INCLUDES DATA FROM TOPOGRAPHIC SURVEYS CONDUCTED BY MASER CONSULTING, P.A. BETWEEN JUNE 2018 AND SEPTEMBER 2019, AND BY BORBAS SURVEYING AND MAPPING CONDUCTED BETWEEN JULY 2023 AND NOVEMBER 2023.
7. THIS FIGURE PRESENTS CCPW METALS DATA FOR SAMPLE LOCATIONS WITHIN CONRAIL RIGHT-OF-WAY (AOC 1).
8. SAMPLE ELEVATIONS, DEPTHS, AND ANALYTICAL RESULTS WITH "STRIKED OUT" TEXT INDICATE THAT THIS SAMPLE HAS BEEN REMOVED BY REMEDIAL EXCAVATION.

Soil Cleanup Criterion and Soil Remediation Standards (mg/kg)			
Analyte	RDCSRS	NRDCSRS	ARS
ANTIMONY	31	450	N/A
CHROMIUM	120000	N/A	N/A
NICKEL	1600	23000	N/A
THALLIUM	N/A	N/A	N/A
VANADIUM	N/A	1100	390

**ABBREVIATIONS:**

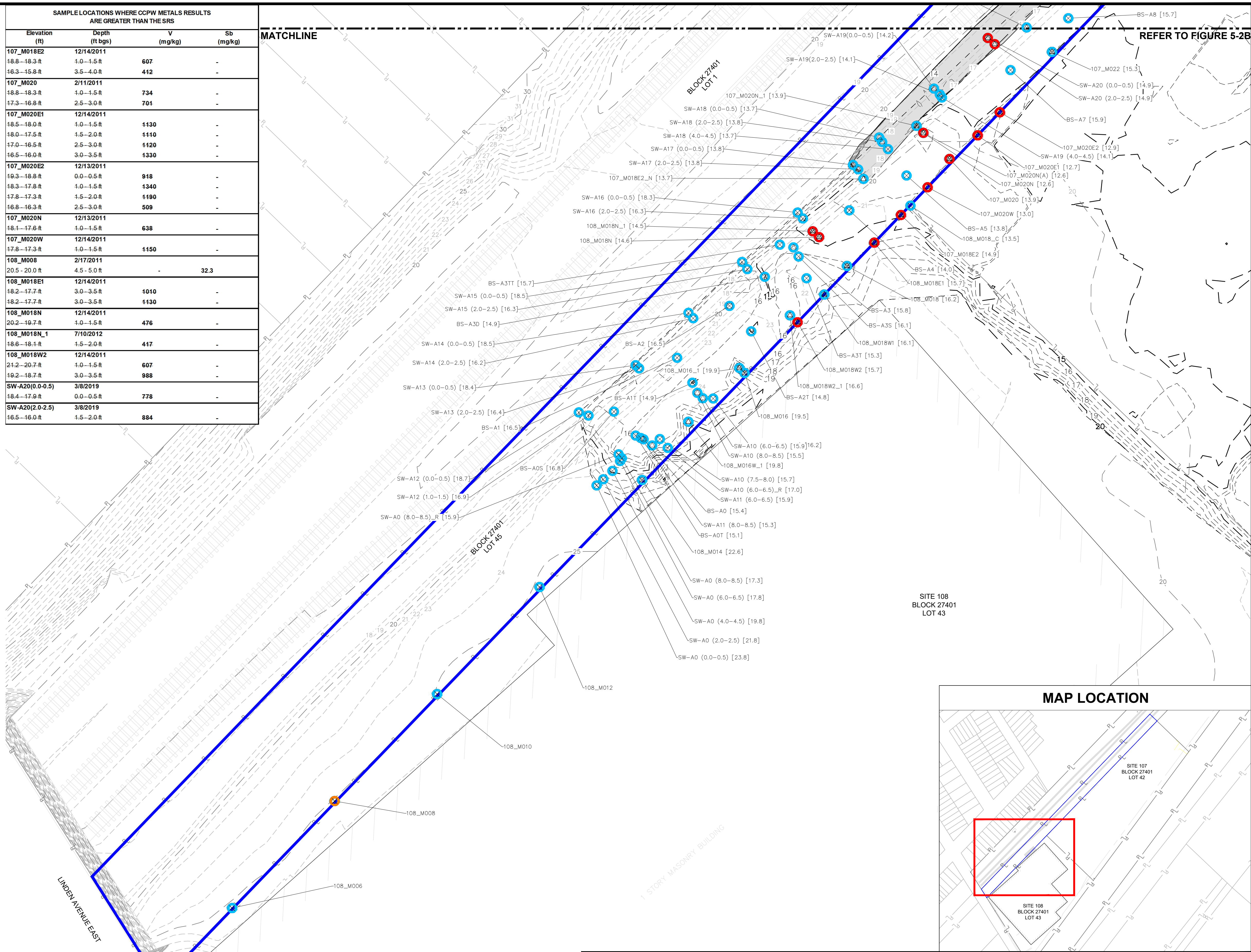
- ARS ALTERNATIVE REMEDIATION STANDARD
- AOC AREA OF CONCERN
- bgs BELOW PRE-CONSTRUCTION GROUND SURFACE
- CCPW CHROMATE CHEMICAL PRODUCTION WASTE
- ft FEET
- mg/kg MILLIGRAMS PER KILOGRAM
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988
- NJDEP NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
- NRDCSRS NJDEP NON-RESIDENTIAL DIRECT CONTACT SOIL REMEDIATION STANDARD
- RDCSRS NJDEP RESIDENTIAL DIRECT CONTACT SOIL REMEDIATION STANDARD
- Sb ANTIMONY
- SRS SOIL REMEDIATION STANDARDS
- V VANADIUM

SAMPLE LOCATIONS WHERE CCPW METALS RESULTS ARE GREATER THAN THE SRS			
Elevation (ft)	Depth (ft bgs)	V (mg/kg)	Sb (mg/kg)
<b>107_M018E2</b>	<b>12/14/2011</b>		
18.8-18.3 ft	1.0-1.5 ft	607	-
16.3-15.8 ft	3.5-4.0 ft	412	-
<b>107_M020</b>	<b>2/11/2011</b>		
18.8-18.3 ft	1.0-1.5 ft	734	-
17.3-16.8 ft	2.5-3.0 ft	701	-
<b>107_M020E1</b>	<b>12/14/2011</b>		
18.5-18.0 ft	1.0-1.5 ft	1130	-
18.0-17.5 ft	1.5-2.0 ft	1110	-
17.0-16.5 ft	2.5-3.0 ft	1120	-
16.5-16.0 ft	3.0-3.5 ft	1330	-
<b>107_M020E2</b>	<b>12/13/2011</b>		
19.3-18.8 ft	0.0-0.5 ft	918	-
18.3-17.8 ft	1.0-1.5 ft	1340	-
17.8-17.3 ft	1.5-2.0 ft	1190	-
16.8-16.3 ft	2.5-3.0 ft	509	-
<b>107_M020N</b>	<b>12/13/2011</b>		
18.1-17.6 ft	1.0-1.5 ft	638	-
<b>107_M020W</b>	<b>12/14/2011</b>		
17.8-17.3 ft	1.0-1.5 ft	1150	-
<b>108_M008</b>	<b>2/17/2011</b>		
20.5-20.0 ft	4.5-5.0 ft	-	32.3
<b>108_M018E1</b>	<b>12/14/2011</b>		
18.2-17.7 ft	3.0-3.5 ft	1010	-
18.2-17.7 ft	3.0-3.5 ft	1130	-
<b>108_M018N</b>	<b>12/14/2011</b>		
20.2-19.7 ft	1.0-1.5 ft	476	-
<b>108_M018N_1</b>	<b>7/10/2012</b>		
18.6-18.1 ft	1.5-2.0 ft	417	-
<b>108_M018W2</b>	<b>12/14/2011</b>		
21.2-20.7 ft	1.0-1.5 ft	607	-
19.2-18.7 ft	3.0-3.5 ft	988	-
<b>SW-A20(0.0-0.5)</b>	<b>3/8/2019</b>		
18.4-17.9 ft	0.0-0.5 ft	778	-
<b>SW-A20(2.0-2.5)</b>	<b>3/8/2019</b>		
16.5-16.0 ft	1.5-2.0 ft	884	-

**SPECIFIC NOTES:**

1. THE CCPW METALS DATA ASSOCIATED WITH THE SAMPLE LOCATIONS SHOWN ON THIS FIGURE ARE PROVIDED IN TABLE 5-2.
2. SAMPLE LOCATIONS 107\_M020N(A) AND 107\_M020N, AND SW-A19 (2.0-2.5) AND SW-A19 (4.0-4.5) ARE ADJACENT TO EACH OTHER. THEREFORE, THE SAMPLE LOCATION SYMBOLS OVERLAP ON THE FIGURE.

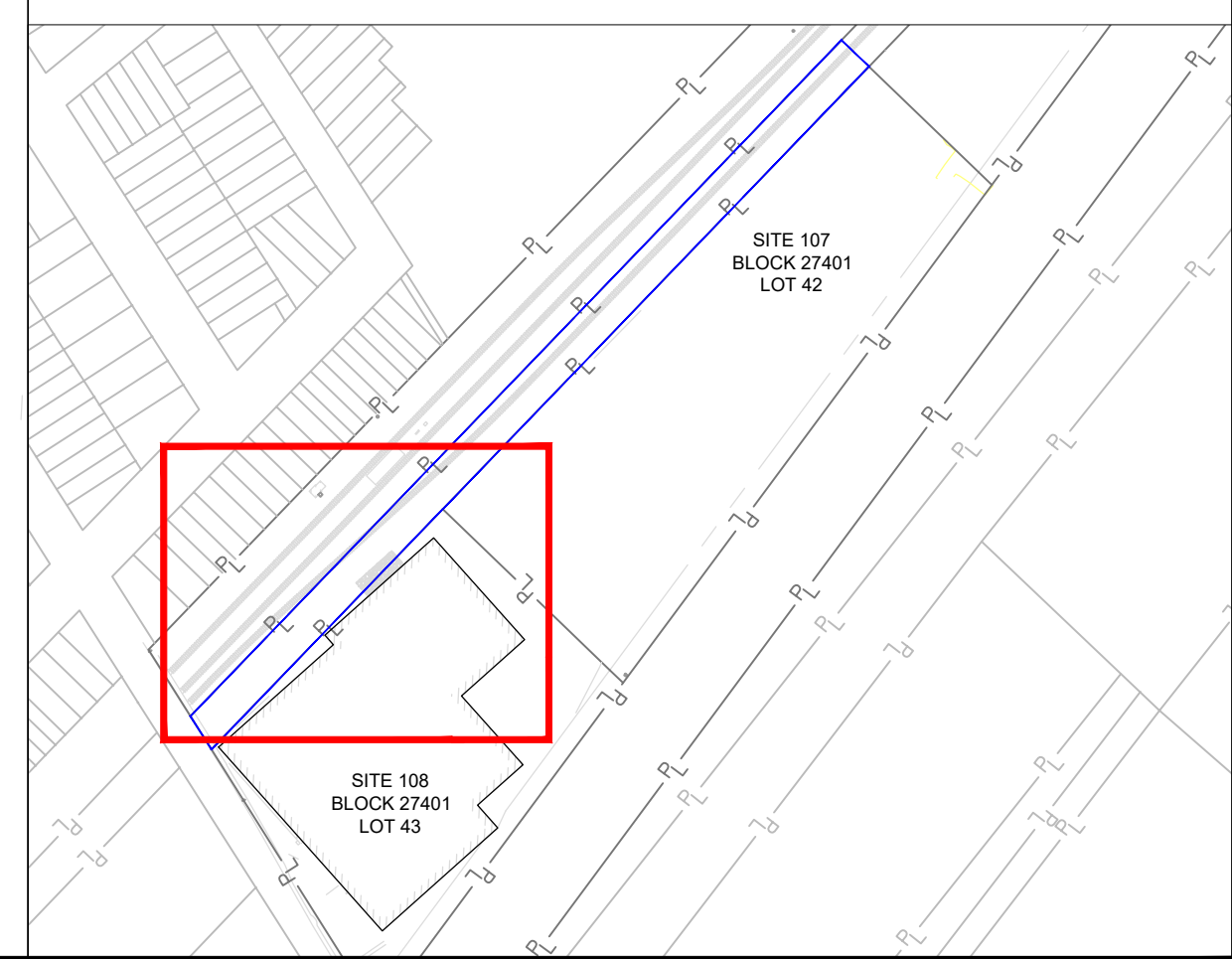
**MATCHLINE**



REFER TO FIGURE 5-2B

SITE 108  
BLOCK 27401  
LOT 43

**MAP LOCATION**



PPG  
CONRAIL RIGHT-OF-WAY (AOC 1)  
JERSEY CITY, NEW JERSEY

**SOIL SAMPLE LOCATIONS AND RESULTS  
COMPARED TO SOIL REMEDIATION STANDARDS**

FIGURE 5-2A

DATE: 10/14/2024

DRWN: MDN













**LEGEND**

- PROPERTY LINE
- APPROXIMATE PROPERTY LINE (NOTE 3)
- FENCE LINE
- RIGHT-OF-WAY LINE
- 2018 MOBILIZATION EXCAVATION BOUNDARY
- EXCAVATION AS-BUILT CONTOURS (1' INTERVAL 5' INDEX)
- PRE-CONSTRUCTION GROUND SURFACE CONTOURS (1' INTERVAL 5' INDEX)
- CONRAIL RIGHT-OF-WAY (AOC 1) BOUNDARY
- EXISTING BUILDING
- RAILROAD TRACKS
- 2023 MOBILIZATION EXCAVATION BOUNDARY
- 108\_M018N [14.1] SAMPLING LOCATION, REMAINING SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M018N [0.0] SAMPLING LOCATION, REMOVED CONFIRMATION SAMPLES [AS-BUILT TERMINAL EXCAVATION ELEVATION]
- 108\_M018N [14.1] SAMPLING LOCATION, CCPW METALS RESULTS LESS THAN DIGWSSL AND SSIWSSRS
- 107-M028 [13.4] SAMPLING LOCATION, AT LEAST ONE ANTIMONY RESULT EXCEEDS THE DIGWSSL, BUT WAS REMOVED DURING REMEDIAL EXCAVATION

SAMPLE LOCATIONS WHERE CCPW METALS RESULTS ARE GREATER THAN THE SSIWSSRS/DIGWSSL		
Elevation (ft)	Depth (ft bgs)	Sb (mg/kg)
107_M028	2/10/2011	
18.0 - 17.5 ft	1.0 - 1.5 ft	21.2
107_M032	2/10/2011	
15.9 - 15.4 ft	1.5 - 2.0 ft	8.7

**GENERAL NOTES:**

- ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 IN U.S. SURVEY FEET.
- PROPERTY LINES, BUILDING EXTENTS, UTILITIES, AND SITE FEATURES ARE SOURCED FROM A SURVEY CONDUCTED ON OCTOBER 30, 2019 BY MASER CONSULTING, P.A.
- APPROXIMATE PROPERTY BOUNDARIES REFERENCE THE HUDSON COUNTY PARCEL DATA AVAILABLE THROUGH THE NEW JERSEY OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS.
- THE SITE 107 EXCAVATION BOUNDARY IS SOURCED FROM SURVEYS CONDUCTED BETWEEN JUNE 2018 AND SEPTEMBER 2019 BY MASER CONSULTING, P.A.
- BLOCK/LOT INFORMATION WAS SOURCED FROM THE JERSEY CITY PARCEL DATA FROM THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK (NJGIN).
- THE AS-BUILT EXCAVATION CONTOURS REPRESENT A COMPOSITE SURFACE THAT INCLUDES DATA FROM TOPOGRAPHIC SURVEYS CONDUCTED BY MASER CONSULTING, P.A. BETWEEN JUNE 2018 AND SEPTEMBER 2019, AND BY BORBAS SURVEYING AND MAPPING CONDUCTED BETWEEN JULY 2023 AND NOVEMBER 2023.
- THIS FIGURE PRESENTS DATA FOR LOCATIONS WITHIN THE SITE BOUNDARY THAT HAVE SAMPLES REMAINING IN-PLACE OR THAT HAVE REMOVED SAMPLES THAT SERVE AS CONFIRMATION SAMPLES.
- THE DIGWSSL AND SSIWSSRS ONLY APPLY TO UNSATURATED ZONE SOILS (I.E., ABOVE THE WATER TABLE). THE GROUNDWATER ELEVATIONS (ABOVE WHICH IS THE UNSATURATED ZONE) ON CONRAIL RIGHT-OF-WAY WAS ESTIMATED AS THE 50TH PERCENTILE GROUNDWATER ELEVATION FROM THREE MONITORING WELLS LOCATED ADJACENT TO CONRAIL RIGHT-OF-WAY GAUGED BETWEEN JULY 2021 AND FEBRUARY 2022. THE MONITORING WELL LOCATIONS AND GAUGING DATA ARE INCLUDED IN APPENDIX B. THE ESTIMATED GROUNDWATER ELEVATION FOR CONRAIL RIGHT-OF-WAY IS EL. 14.8FT NAVD88.
- THIS FIGURE PRESENTS CCPW METALS DATA FOR SAMPLE LOCATIONS WITHIN CONRAIL RIGHT-OF-WAY (AOC 1) THAT ARE WITHIN THE UNSATURATED ZONE. SAMPLE ELEVATIONS, DEPTHS, AND ANALYTICAL RESULTS WITH "STRIKED OUT" TEXT INDICATE THAT THIS SAMPLE HAS BEEN REMOVED BY REMEDIAL EXCAVATION.

Analyte	Impact to Groundwater Standards (mg/kg)	
	DIGWSSL	SSIWSSRS
ANTIMONY	6	N/A
CHROMIUM	N/A	N/A
NICKEL	N/A	855
THALLIUM	3	N/A
VANADIUM	N/A	N/A

**ABBREVIATIONS:**

- AOC AREA OF CONCERN
- bgs BELOW PRE-CONSTRUCTION GROUND SURFACE
- CCPW CHROMATE CHEMICAL PRODUCTION WASTE
- Cr<sup>6</sup> HEXAVALENT CHROMIUM
- DIGWSSL DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL
- ft FEET
- SSIWSSRS SITE-SPECIFIC IMPACT TO GROUNDWATER SOIL REMEDIATION STANDARD
- mg/kg MILLIGRAMS PER KILOGRAM
- NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988
- NJDEP NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
- RAR REMEDIAL ACTION REPORT

**MATCHLINE**

SW-A18 (0.0-0.5) [13.7]	SW-A19 (0.0-0.5) [14.2]
SW-A18 (2.0-2.5) [13.8]	SW-A19 (2.0-2.5) [14.1]

**SPECIFIC NOTES:**

- THE CCPW METALS DATA ASSOCIATED WITH THE SAMPLE LOCATIONS SHOWN ON THIS FIGURE ARE PROVIDED IN TABLE 5-3.
- SAMPLE LOCATIONS SW-A34 (0.0-0.5) R AND SW-A34 (2.0-2.5) ARE ADJACENT TO EACH OTHER. THEREFORE, THE SAMPLE LOCATION SYMBOLS OVERLAP ON THE FIGURE.

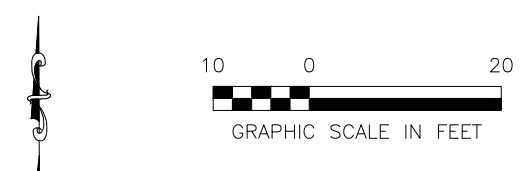
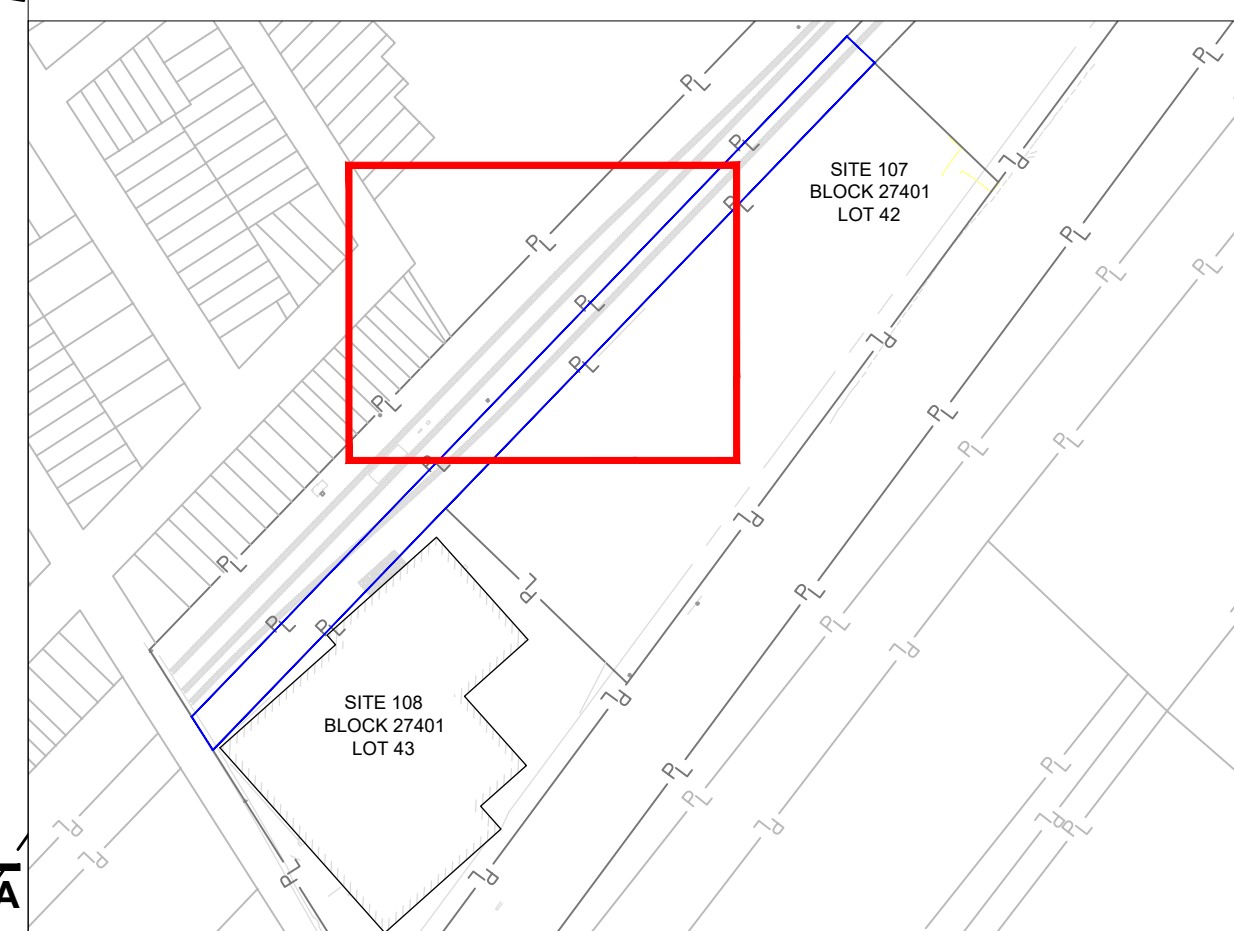
BLOCK 27303  
LOT 1

BLOCK 27401  
LOT 1

BLOCK 27401  
LOT 45

SITE 107  
BLOCK 27401  
LOT 42

**MAP LOCATION**



**PPG  
CONRAIL RIGHT-OF-WAY (AOC 1)  
JERSEY CITY, NEW JERSEY**

DATE: 10/14/2024      DRWN: MDN

**SOIL SAMPLE LOCATIONS AND RESULTS  
FOR CCPW METALS  
COMPARED TO DIGWSSL AND SSIWSSRS**

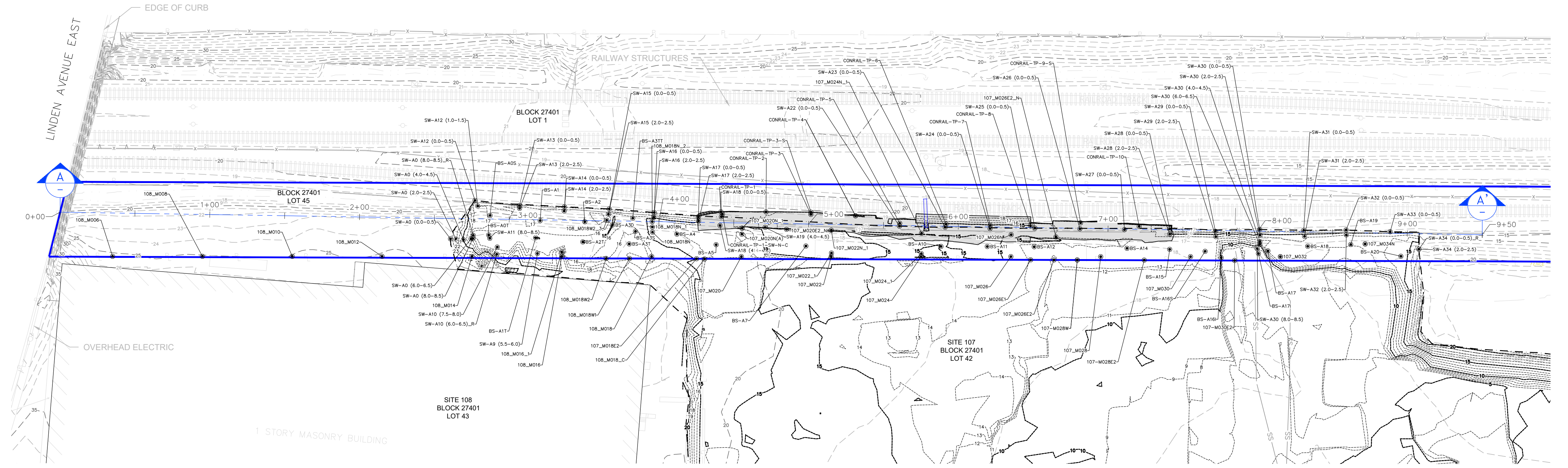
**FIGURE 5-3B**

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**PLAN VIEW LEGEND**

- CONRAIL RIGHT-OF-WAY (AOC 1) BOUNDARY
- PROPERTY LINE (SURVEYED)
- EDGE OF CURB
- PROPERTY LINE (APPROXIMATE)
- EXISTING GROUND SURFACE ELEVATION CONTOURS 1' INTERVAL 5' INDEX
- EXCAVATION AS-BUILT SURFACE ELEVATION CONTOURS 1' INTERVAL 5' INDEX
- RAILROAD TRACKS
- EXISTING FENCE LINE
- SANITARY SEWER LINE
- STORM SEWER PIPE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING RETAINING WALL
- 2023 MOBILIZATION EXCAVATION BOUNDARY
- 2018 MOBILIZATION EXCAVATION BOUNDARY
- CROSS-SECTION LINE & STATION LABEL
- EXISTING BUILDING
- EXISTING UTILITY POLE
- EXISTING RAILWAY EQUIPMENT
- EXISTING UTILITY VAULT/VALVE
- MISCELLANEOUS RAILWAY STRUCTURES
- EXISTING SIGN
- EXISTING GUY WIRE



**CONRAIL RIGHT-OF-WAY (AOC 1): PLAN VIEW**



**CROSS-SECTION LEGEND**

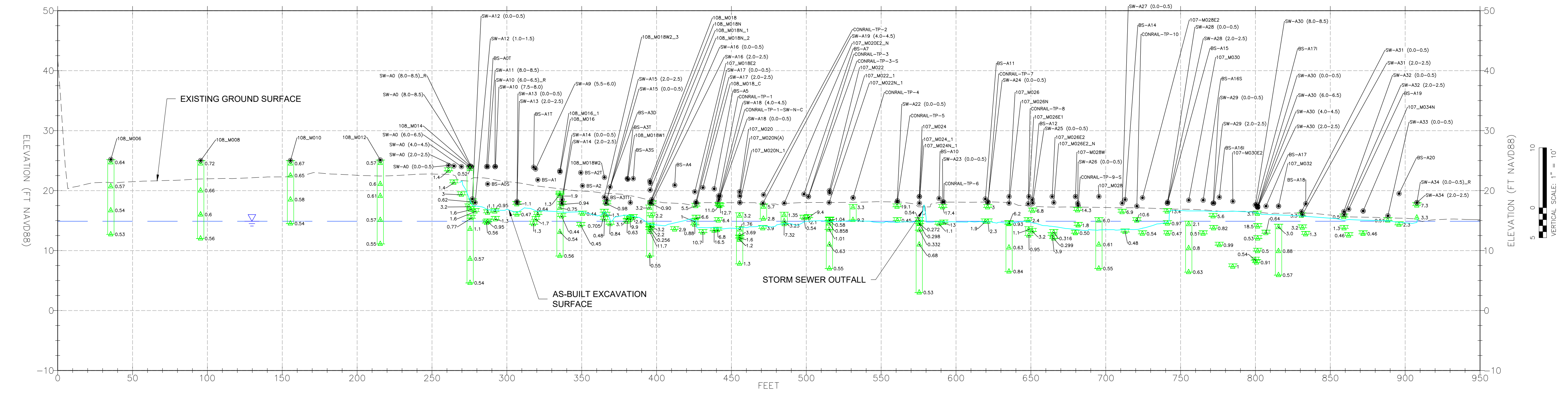
- SOIL ANALYTICAL RESULT < 20 MG/KG Cr<sup>6</sup>
- AS-BUILT BORING AND/OR MONITORING WELL LOCATION (SEE SPECIFIC NOTE 1)
- Cr<sup>6</sup> SOIL CONCENTRATION <20 MG/KG (SEE SPECIFIC NOTE 2)
- APPROXIMATE GROUNDWATER ELEVATION (SEE SPECIFIC NOTE 3)
- EXISTING GROUND SURFACE
- AS-BUILT EXCAVATION SURFACE
- STORM SEWER OUTFALL

**GENERAL NOTES:**

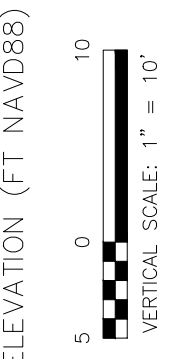
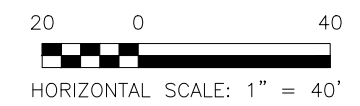
1. ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 IN U.S. SURVEY FEET.
2. PROPERTY LINES, BUILDING EXTENTS, UTILITIES, AND SITE FEATURES ARE SOURCED FROM A SURVEY CONDUCTED ON OCTOBER 30, 2019 BY MASER CONSULTING, P.A.
3. APPROXIMATE PROPERTY BOUNDARIES REFERENCE THE HUDSON COUNTY PARCEL DATA AVAILABLE THROUGH THE NEW JERSEY OFFICE OF GEOGRAPHIC INFORMATION SYSTEMS.
4. THE SITE 107 EXCAVATION BOUNDARY IS SOURCED FROM SURVEYS CONDUCTED BETWEEN JUNE 2018 AND SEPTEMBER 2019 BY MASER CONSULTING, P.A.
5. BLOCK/LOT INFORMATION WAS SOURCED FROM THE JERSEY CITY PARCEL DATA FROM THE NEW JERSEY GEOGRAPHIC INFORMATION NETWORK (NJGIN).
6. AS-BUILT CONRAIL EXCAVATION ELEVATIONS WERE OBTAINED FROM SURVEYS CONDUCTED BY BORBAS SURVEYING AND MAPPING BETWEEN JULY 2023 AND NOVEMBER 2023.

**SPECIFIC NOTES:**

1. THE AS-BUILT BORING AND/OR MONITORING WELL SYMBOLS PRESENTED ON THE SECTION VIEW REPRESENT THE PRE-REMEDIATION GROUND SURFACE ELEVATION AT THESE LOCATIONS.
2. DATA QUALIFIERS FOR THE Cr<sup>6</sup> ANALYTICAL RESULTS ARE NOT DEPICTED ON THIS DRAWING, BUT ARE PROVIDED ON TABLE 5-1.
3. THE GROUNDWATER ELEVATION FOR CONRAIL RIGHT-OF-WAY WAS ESTIMATED AS THE 50TH PERCENTILE GROUNDWATER ELEVATION FROM THREE MONITORING WELLS LOCATED IN THE VICINITY OF AOC 1. THE WELLS WERE GAUGED BETWEEN JULY 2021 AND FEBRUARY 2022. THE ESTIMATED GROUNDWATER ELEVATION FOR CONRAIL RIGHT-OF-WAY IS 14.8 FT NAVD88.

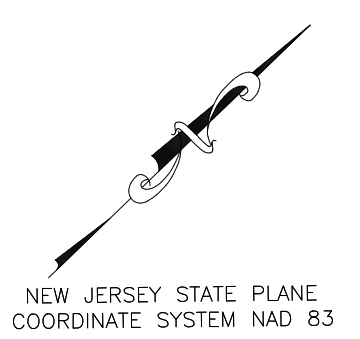


**CONRAIL RIGHT-OF-WAY (AOC 1): SECTION VIEW**



**ABBREVIATIONS:**

AOC	AREA OF CONCERN
Cr <sup>6</sup>	HEXAVALENT CHROMIUM
FT NAVD88	FEET IN THE NORTH AMERICAN VERTICAL DATUM OF 1988
MG/KG	MILLIGRAMS PER KILOGRAM
NAD 83	NORTH AMERICAN DATUM OF 1983
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988



PPG <b>CONRAIL RIGHT-OF-WAY (AOC 1)</b> JERSEY CITY, NEW JERSEY	<b>CONRAIL RIGHT-OF-WAY (AOC 1)</b> <b>CROSS-SECTION</b>
DATE: 10/14/2024	DRWN: TEB
FIGURE 5-4	

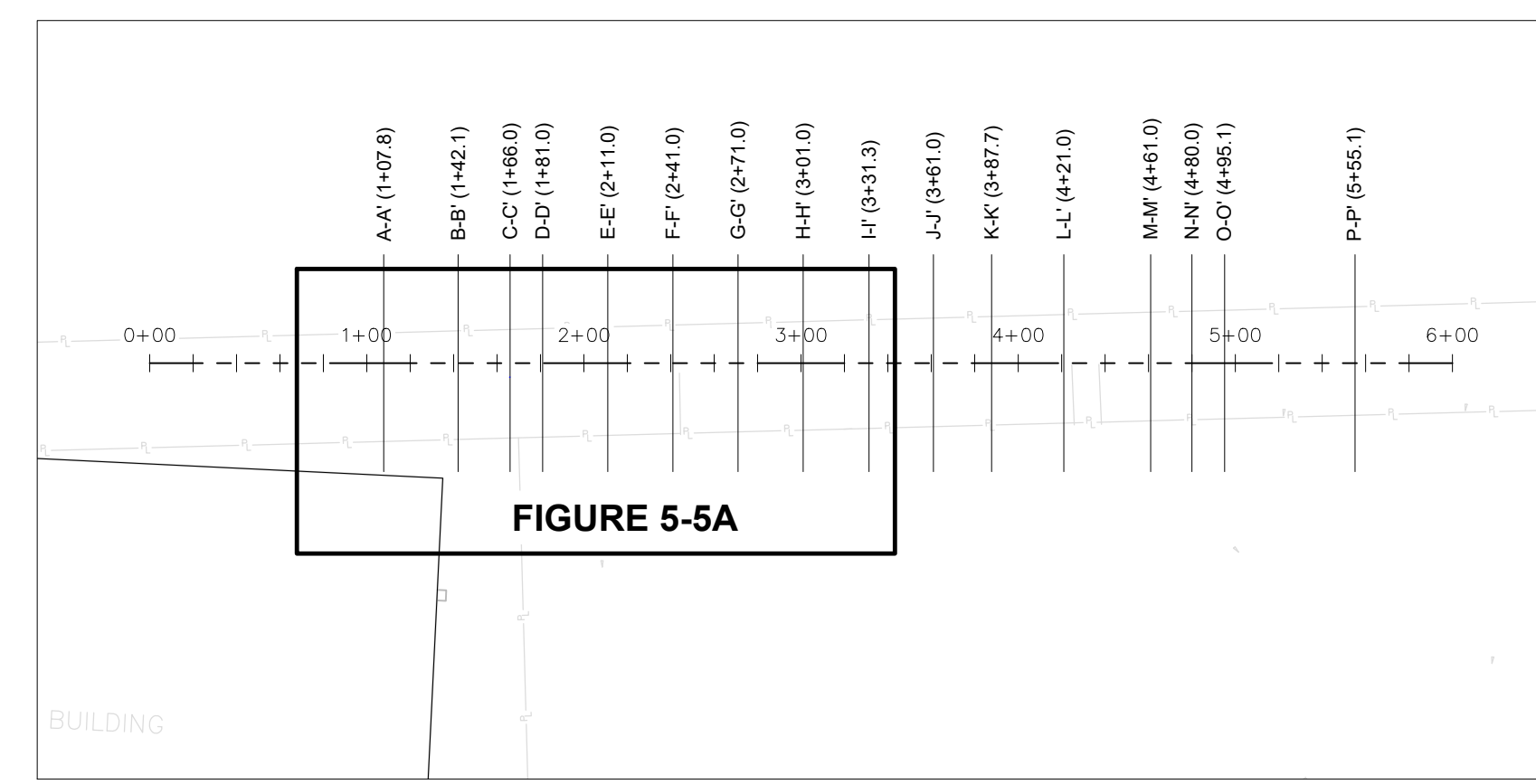
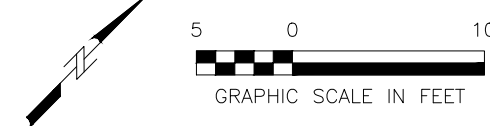
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**PLAN VIEW**



**KEY MAP**



**LEGEND**

- BUILDING
- FENCE
- PROPERTY LINE
- SEWER UTILITY
- STICK-UP MONITORING WELL
- RAIL LINE
- 14- EXISTING GROUND SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- 15- AS-BUILT EXCAVATION SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL > C/SCC - REMOVED
- HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL < C/SCC - REMAINING
- 2022 SAMPLE LOCATIONS WITH Cr<sup>6</sup> RESULTS LESS THAN THE C/SCC
- 2022 SAMPLE LOCATIONS WITH Cr<sup>6</sup> RESULTS LESS THAN THE C/SCC AND WITH VISUAL COPR NODULES - REMOVED
- 2022 SAMPLE LOCATION WITH Cr<sup>6</sup> RESULTS EXCEEDING THE C/SCC - REMOVED
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 1)
- HISTORICAL VISUAL COPR SEAM OBSERVATION - REMOVED (NOTE 1)

**ABBREVIATIONS:**

- COPR CHROMITE ORE PROCESSING RESIDUE
- C/SCC NIJDEP CHROMIUM SOIL CLEANUP CRITERIA
- Cr<sup>6</sup> HEXAVALENT CHROMIUM
- FT FEET
- NAVD88 THE NORTH AMERICAN VERTICAL DATUM OF 1988
- bgs BELOW GROUND SURFACE

**NOTES:**

1. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION, EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.
2. EXISTING SURFACE CONTOURS ARE SOURCED FROM THE SURVEY CONDUCTED ON 10-30-2019 BY MASER CONSULTING, P.A. FOR SITE 107.



PPG  
 CONRAIL RIGHT-OF-WAY (AOC 1)  
 JERSEY CITY, NEW JERSEY

CONRAIL RIGHT-OF-WAY (AOC 1)  
 EXCAVATION CROSS-SECTIONS  
 PLAN VIEW

DATE: 10/14/2024

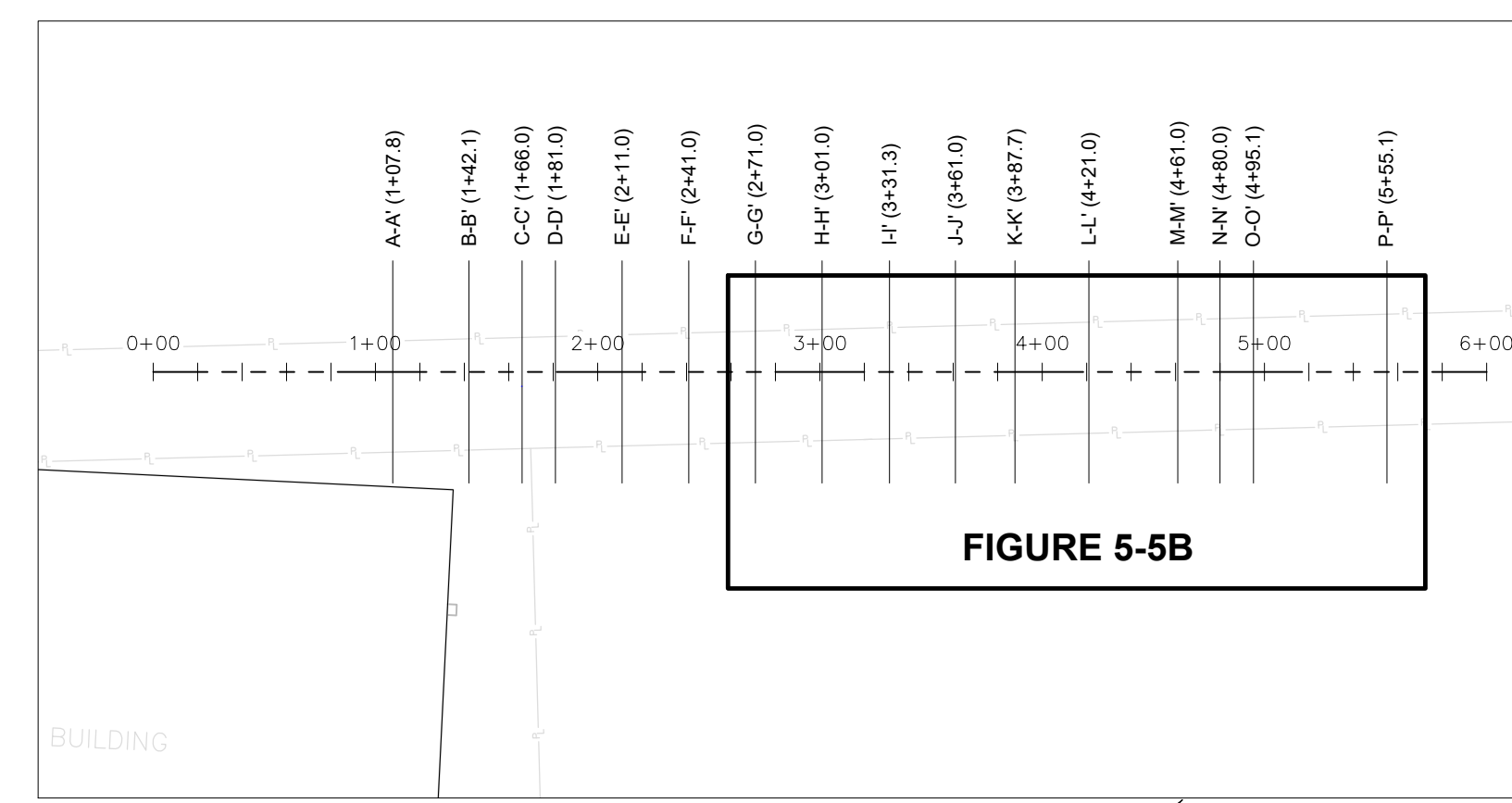
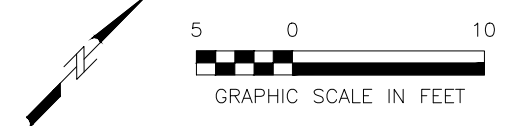
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FIGURE 5-5A

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**PLAN VIEW**



**LEGEND**

- FENCE
- PROPERTY LINE
- STORM SEWER
- RAIL LINE
- 14— EXISTING GROUND SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- 15— EXISTING GROUND SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- 14— AS-BUILT EXCAVATION SURFACE CONTOUR (1' INTERVAL, 5' INDEX)
- 15— AS-BUILT EXCAVATION SURFACE CONTOUR (1' INTERVAL, 5' INDEX)

- HISTORICAL C<sub>1</sub> ANALYTICAL RESULTS-SOIL > C<sub>1</sub>SCC - REMOVED
- HISTORICAL C<sub>1</sub> ANALYTICAL RESULTS-SOIL < C<sub>1</sub>SCC - REMAINING
- 2022 SAMPLE LOCATIONS WITH C<sub>1</sub> RESULTS LESS THAN THE C<sub>1</sub>SCC
- 2022 SAMPLE LOCATIONS WITH C<sub>1</sub> RESULTS LESS THAN THE C<sub>1</sub>SCC AND WITH VISUAL COPR NODULES - REMOVED
- 2022 SAMPLE LOCATION WITH C<sub>1</sub> RESULTS EXCEEDING THE C<sub>1</sub>SCC - REMOVED
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 1)
- HISTORICAL VISUAL COPR SEAM OBSERVATION - REMOVED (NOTE 1)

**ABBREVIATIONS:**

- COPR CHROMITE ORE PROCESSING RESIDUE
- C<sub>1</sub>SCC NIJDEP CHROMIUM SOIL CLEANUP CRITERIA
- C<sub>1</sub> HEXAVALENT CHROMIUM
- FT FEET
- NAVD88 THE NORTH AMERICAN VERTICAL DATUM OF 1988
- bgs BELOW GROUND SURFACE

**NOTES:**

1. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN PLACE.
2. EXISTING SURFACE CONTOURS ARE SOURCED FROM THE SURVEY CONDUCTED ON 10-30-2019 BY MASER CONSULTING, P.A. FOR SITE 107.

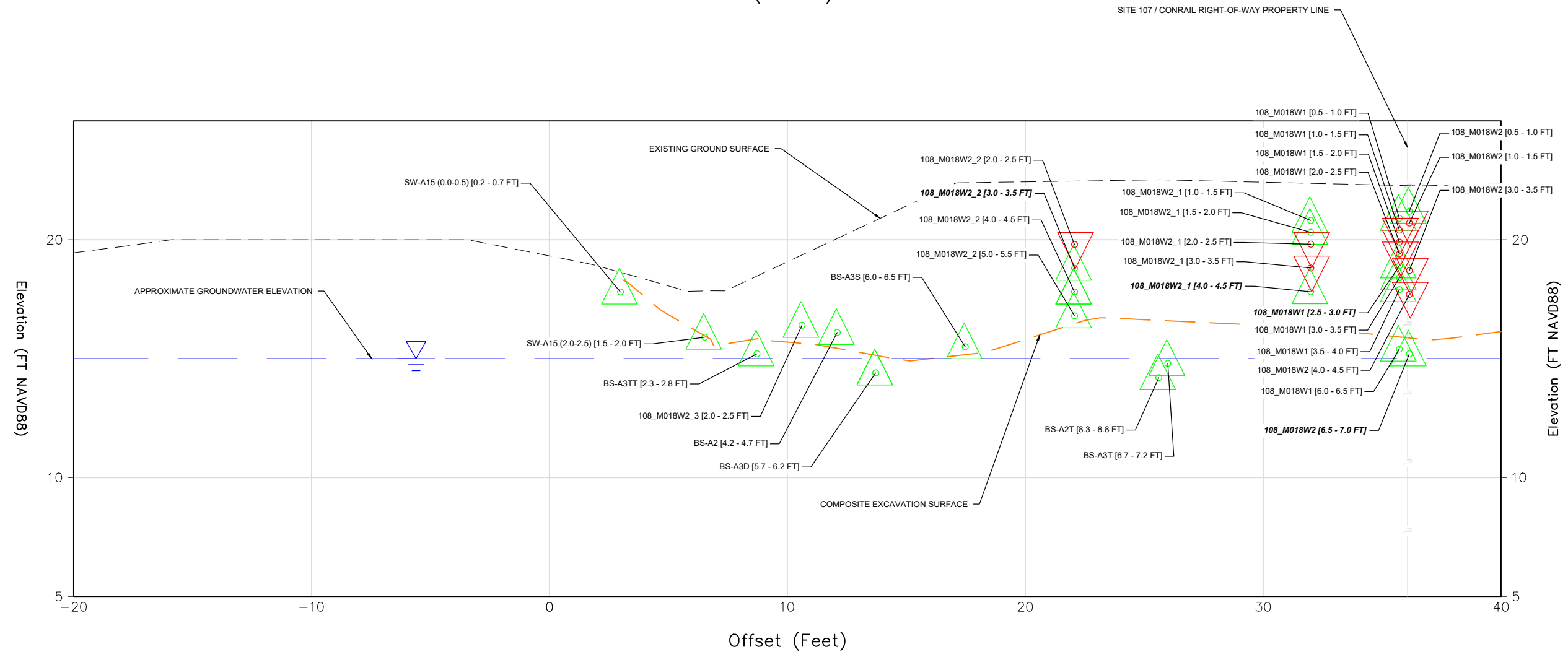


<p>PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY</p>		<p>CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS PLAN VIEW</p>	
DATE: 10/14/2024	DRWN: MDN		FIGURE 5-5B



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### CROSS-SECTION A-A' (1+07.8)



**LEGEND:**

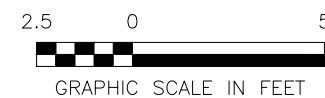
- |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—▽—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: grey;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">— — —</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: grey;">— —</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **108\_M018W2\_2 [3.0 - 3.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION 108\_M018W2\_2 [2.0 - 2.5 FT].
5. **108\_M018W2\_1 [4.0 - 4.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 108\_M018W2\_1.
6. **108\_M018W1 [2.5 - 3.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 108\_M018W1.
7. **108\_M018W2 [6.5 - 7.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 108\_M018W2.

**ABBREVIATIONS:**

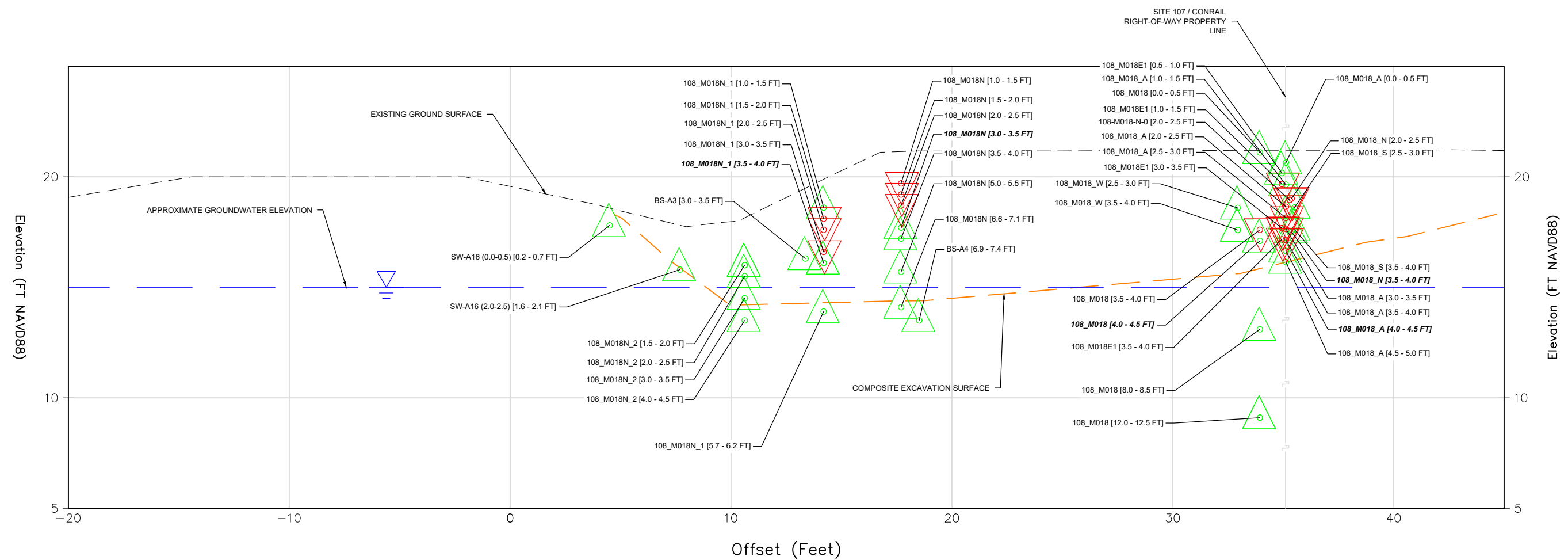
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		<b>CONRAIL RIGHT-OF-WAY (AOC 1)          EXCAVATION CROSS-SECTIONS          SECTION VIEW</b>
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5C

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### CROSS-SECTION B-B' (1+42.1)



**LEGEND:**

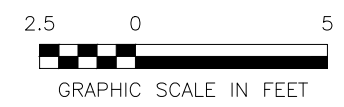
- ▽ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL > CrSCC [SAMPLE DEPTH] - REMOVED
- △ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]
- ▽— APPROXIMATE GROUNDWATER ELEVATION
- - - EXISTING GROUND SURFACE
- — — 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE
- · - · - SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **108\_M018N [3.0 - 3.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 108\_M018N.
5. **108\_M018N\_1 [3.5 - 4.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 108\_M018N\_1.
6. **108\_M018 [4.0 - 4.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION 108\_M018.
7. **108\_M018\_N [3.5 - 4.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS 108\_M018\_N AND 108-M018-N-0.
8. **108\_M018\_A [4.0 - 4.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS 108\_M018\_A AND 108\_M018E1.

**ABBREVIATIONS:**

CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988

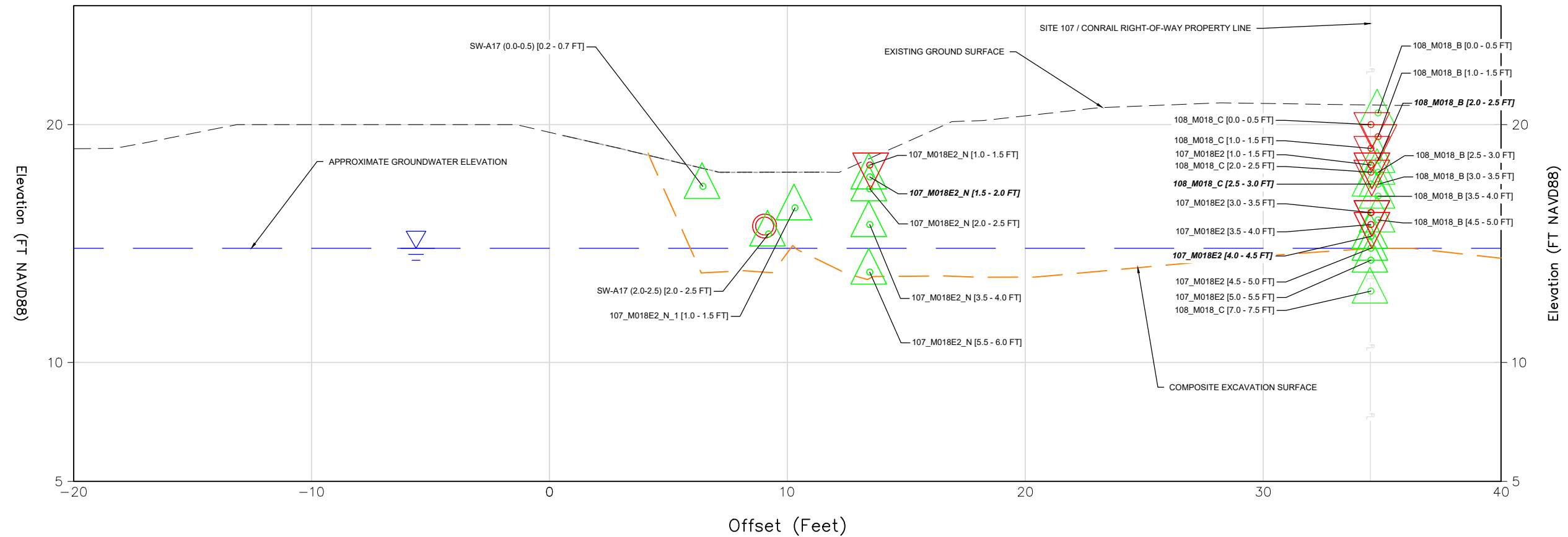


PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5D



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### CROSS-SECTION C-C' (1+66.0)



**LEGEND:**

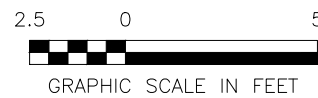
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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">○</span> HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 8)</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—▽—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: grey;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">- - -</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: grey;"> </span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **107\_M018E2\_N [1.5 - 2.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION 107\_M018E2\_N [1.0-1.5 FT].
5. **108\_M018\_B [2.0 - 2.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION 108\_M018\_B\_1.0 [1.0 - 1.5 FT].
6. **108\_M018\_C [2.5 - 3.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 108\_M018\_C.
7. **107\_M018E2 [4.0 - 4.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M018E2.
8. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.

**ABBREVIATIONS:**

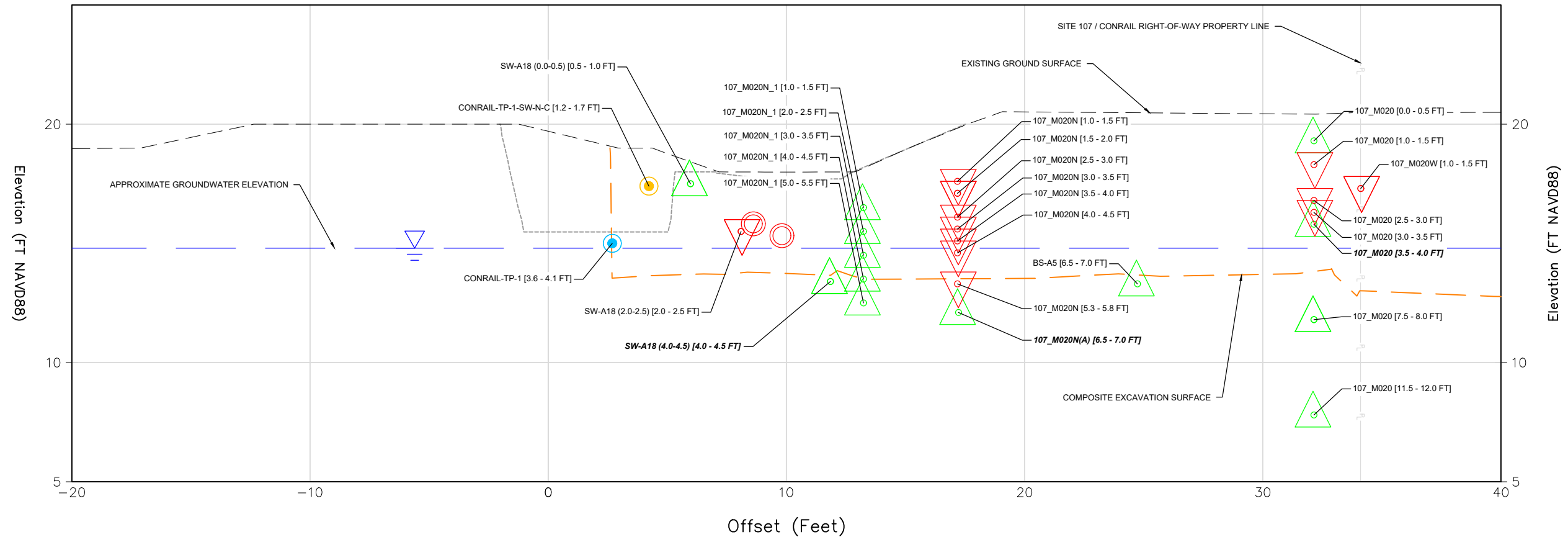
COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		<b>CONRAIL RIGHT-OF-WAY (AOC 1)          EXCAVATION CROSS-SECTIONS          SECTION VIEW</b>
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5E

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### CROSS-SECTION D-D' (1+81.0)



**LEGEND:**

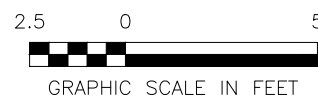
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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 2022 SAMPLE LOCATIONS WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]</li> <li><span style="color: orange;">●</span> 2022 SAMPLE LOCATION WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC AND WITH VISUAL COPR NODULES [SAMPLE DEPTH] - REMOVED (NOTE 7)</li> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">○</span> HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 8)</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: black;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">—</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: black;">- - -</span> SUPPLEMENTAL PDI TEST PIT SURFACE</li> <li><span style="color: grey;">—</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. SW-A18(4.0-4.5) [4.0 - 4.5 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION SW-A18(2.0-2.5) [2.0 - 2.5 FT].
5. 107\_M020N(A) [6.5 - 7.0 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M020N.
6. 107\_M020 [3.5 - 4.0 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS 107\_M020 AND 107\_M020W.
7. THE SAMPLED MATERIAL ASSOCIATED WITH CONRAIL-TP-1-SW-N-C CONSISTS OF A HOMOGENIZED MIXTURE OF SOIL AND CRUSHED COPR NODULES. CONRAIL-TP-1-SW-N-C WAS ANALYZED FOR Cr<sup>+6</sup> AND THE CONCENTRATIONS WERE LESS THAN THE CrSCC. DUE TO THE PRESENCE OF COPR NODULES IN THE SAMPLED MATERIAL, THE ANALYTICAL RESULTS FOR THIS SAMPLE ARE CONSIDERED TO BE BIASED HIGH. BECAUSE CCPW OR COPR NODULES WERE NOT OBSERVED IN THE EXCAVATION SIDEWALL AT THIS LOCATION DURING THE 2023 MOBILIZATION AND THE ANALYTICAL RESULTS DO NOT EXCEED THE CrSCC, THIS SAMPLE SERVES AS A Cr<sup>+6</sup> CONFIRMATION SIDEWALL SAMPLE.
8. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.

**ABBREVIATIONS:**

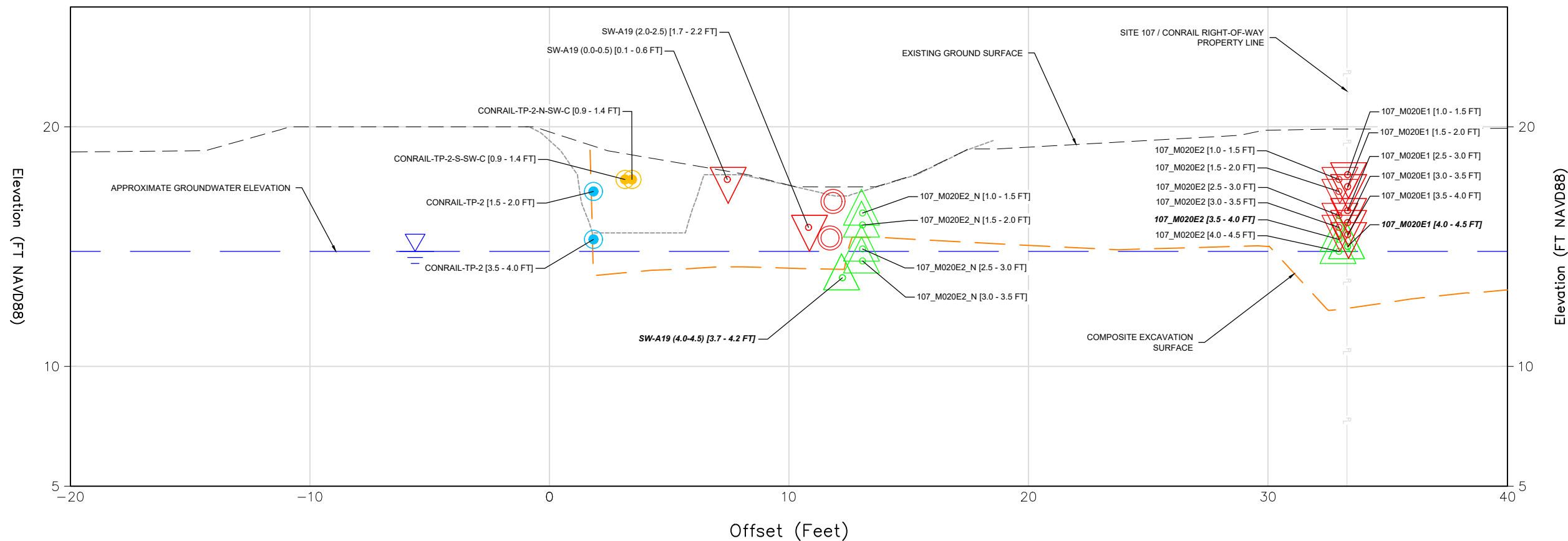
COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		<b>CONRAIL RIGHT-OF-WAY (AOC 1)          EXCAVATION CROSS-SECTIONS          SECTION VIEW</b>
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5F

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### CROSS-SECTION E-E' (2+11.0)



**LEGEND:**

- 2022 SAMPLE LOCATIONS WITH Cr<sup>6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]
- 2022 SAMPLE LOCATION WITH Cr<sup>6</sup> RESULTS LESS THAN THE CrSCC AND WITH VISUAL COPR NODULES [SAMPLE DEPTH] - REMOVED
- ▽ HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL > CrSCC [SAMPLE DEPTH] - REMOVED
- △ HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 7)

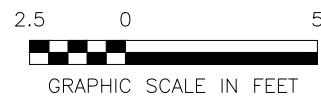
- APPROXIMATE GROUNDWATER ELEVATION
- - - EXISTING GROUND SURFACE
- - - 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE
- - - SUPPLEMENTAL PDI TEST PIT SURFACE
- SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. SW-A19(4.0-4.5) [3.7 - 4.2 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS SW-A19(0.0-0.5) [0.1 - 0.6 FT] AND SW-A19(2.0-2.5) [1.7 - 2.2 FT].
5. **107\_M020E2 [3.5 - 4.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M020E2.
6. **107\_M020E1 [4.0 - 4.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M020E1.
7. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.

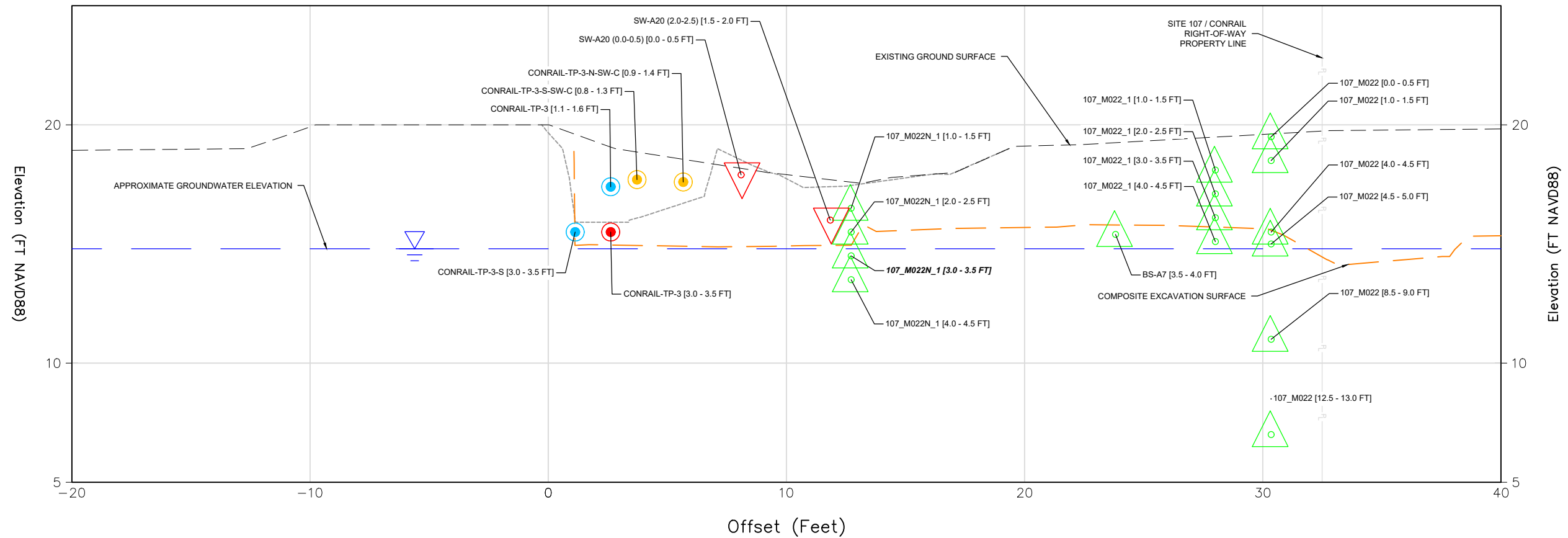
**ABBREVIATIONS:**

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5G

### CROSS-SECTION F-F' (2+41.0)



**LEGEND:**

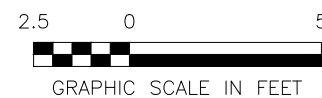
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| <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 2022 SAMPLE LOCATIONS WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]</li> <li><span style="color: yellow;">●</span> 2022 SAMPLE LOCATION WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC AND WITH VISUAL COPR NODULES [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: red;">●</span> 2022 SAMPLE LOCATION WITH RESULTS EXCEEDING THE CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—▽—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: black;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">— — —</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: grey;">- · - · -</span> SUPPLEMENTAL PDI TEST PIT SURFACE</li> <li><span style="color: grey;">— —</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. ***107\_M022N\_1 [3.0 - 3.5 FT]*** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS CONRAIL-TP-3 [3.0 - 3.5 FT], SW-A20(0.0-0.5) [0.0 - 0.5 FT], AND SW-A20(2.0-2.5) [1.5 - 2.0 FT].

**ABBREVIATIONS:**

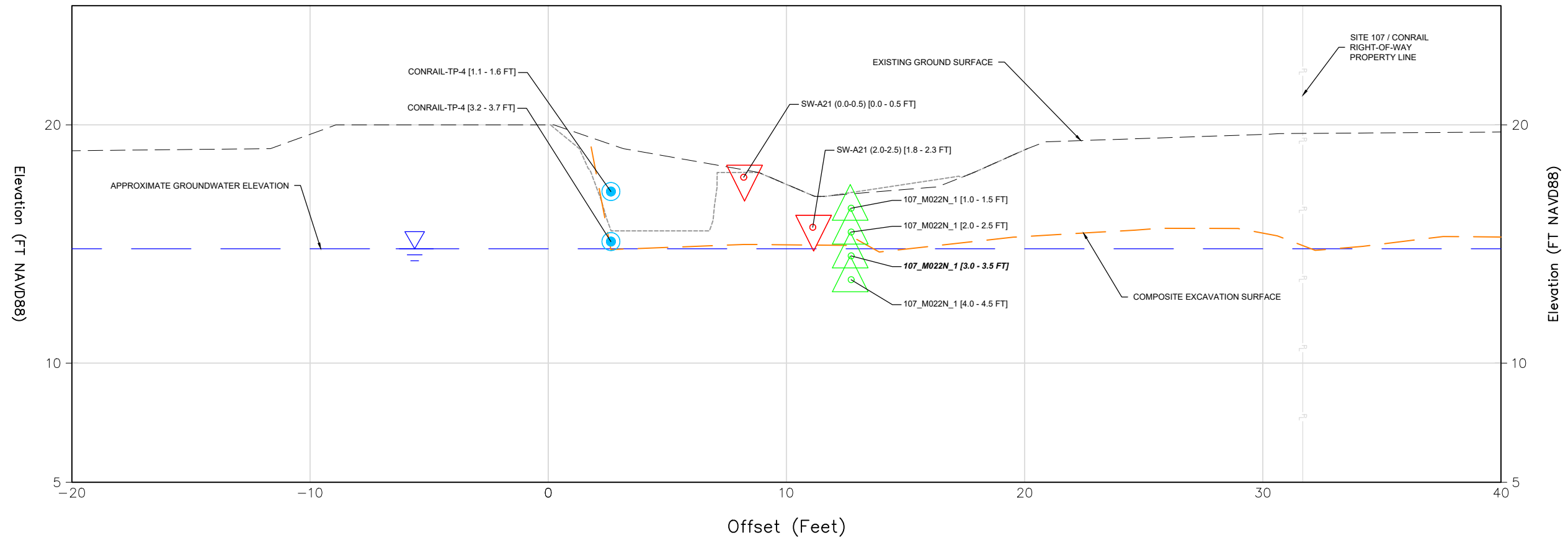
COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5H

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### CROSS-SECTION G-G' (2+71.0)



**LEGEND:**

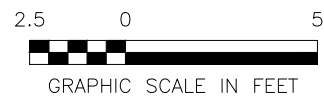
- 2022 SAMPLE LOCATIONS WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]
- ▽ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL > CrSCC [SAMPLE DEPTH] - REMOVED
- △ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]
- APPROXIMATE GROUNDWATER ELEVATION
- - - EXISTING GROUND SURFACE
- - - 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE
- . . . SUPPLEMENTAL PDI TEST PIT SURFACE
- | SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. 107\_M022N\_1 [3.0 - 3.5 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS SW-A21(2.0-2.5) [1.8 - 2.3 FT] AND SW-A21(0.0-0.5) [0.0 - 0.5 FT].

**ABBREVIATIONS:**

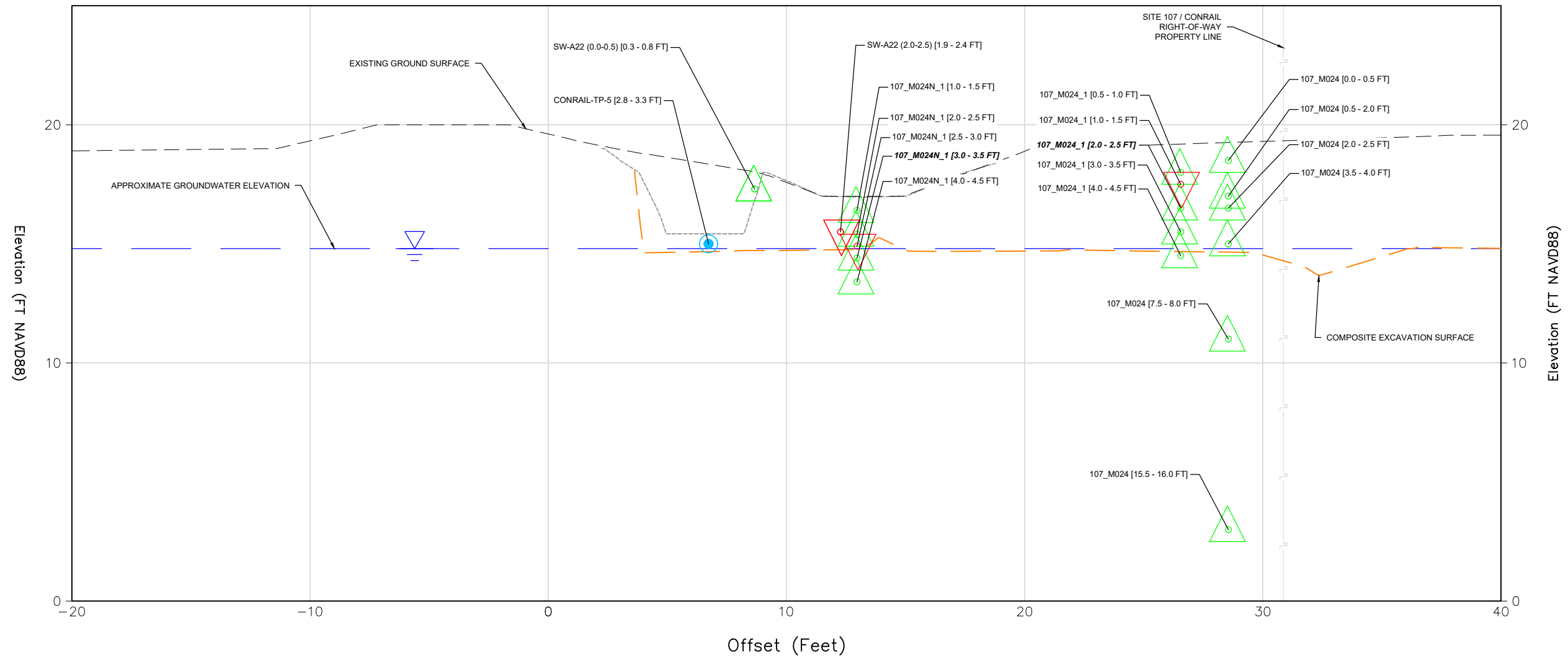
CrSCC NJDEP CHROMIUM SOIL CLEANUP CRITERIA  
 Cr<sup>+6</sup> HEXAVALENT CHROMIUM  
 FT FEET  
 NAVD88 THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		<b>CONRAIL RIGHT-OF-WAY (AOC 1)          EXCAVATION CROSS-SECTIONS          SECTION VIEW</b>
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5I

Last saved by: NICHOLSM1(2024-10-14) Last Plotted: 2011-05-25  
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### CROSS-SECTION H-H' (3+01.0)



**LEGEND:**

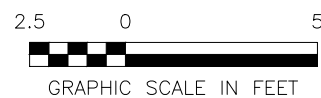
- 2022 SAMPLE LOCATIONS WITH Cr<sup>6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]
- ▽ HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL > CrSCC [SAMPLE DEPTH] - REMOVED
- △ HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]
- APPROXIMATE GROUNDWATER ELEVATION
- - - EXISTING GROUND SURFACE
- - - 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE
- - - - - SUPPLEMENTAL PDI TEST PIT SURFACE
- SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **107\_M024N\_1 [3.0 - 3.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS SW-A22(2.0-2.5) [1.9 - 2.4 FT] AND 107\_M024N\_1 [2.5 - 3.0 FT].
5. **107\_M024\_1 [2.0 - 2.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION 107\_M024\_1 [1.0 - 1.5 FT].

**ABBREVIATIONS:**

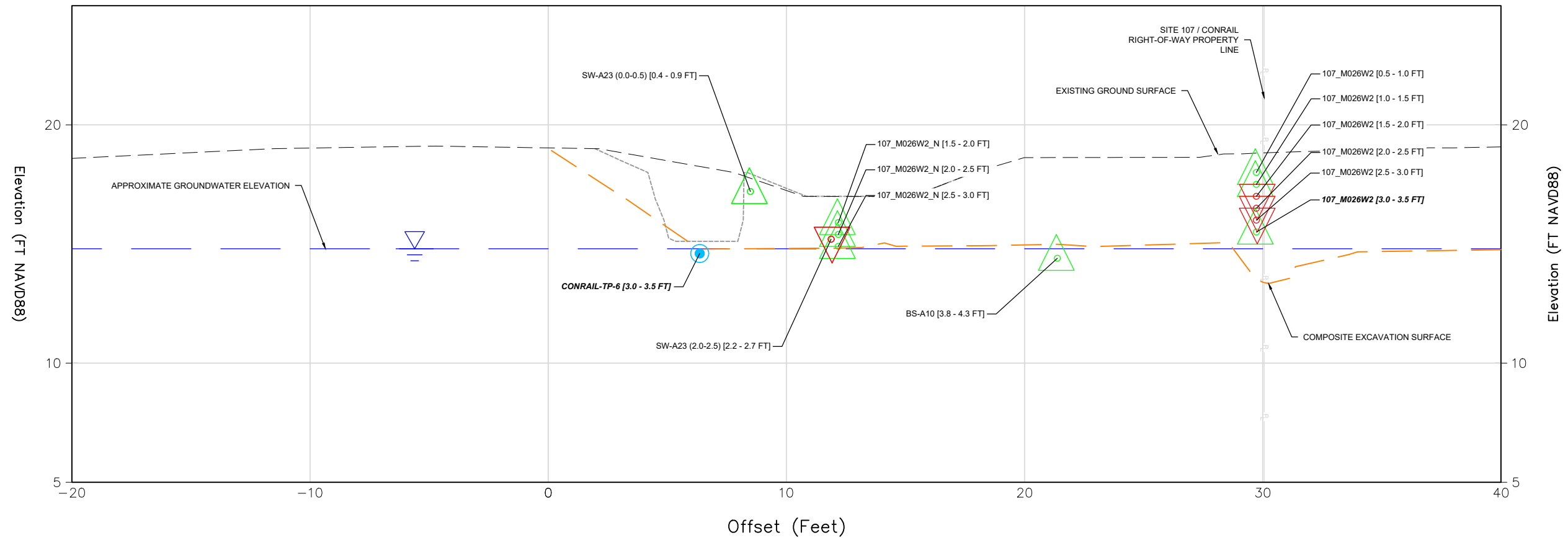
CrSCC NJDEP CHROMIUM SOIL CLEANUP CRITERIA  
 Cr<sup>6</sup> HEXAVALENT CHROMIUM  
 FT FEET  
 NAVD88 THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5J



### CROSS-SECTION I-I' (3+31.3)



**LEGEND:**

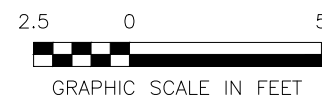
- |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 2022 SAMPLE LOCATIONS WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: black;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">—</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: black;">· · ·</span> SUPPLEMENTAL PDI TEST PIT SURFACE</li> <li><span style="color: grey;">—</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. CONRAIL-TP-6 [3.0 - 3.5 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION SW-A23 (2.0-2.5) [2.2 - 2.7 FT].
5. 107\_M026W2 [3.0 - 3.5 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M026W2.

**ABBREVIATIONS:**

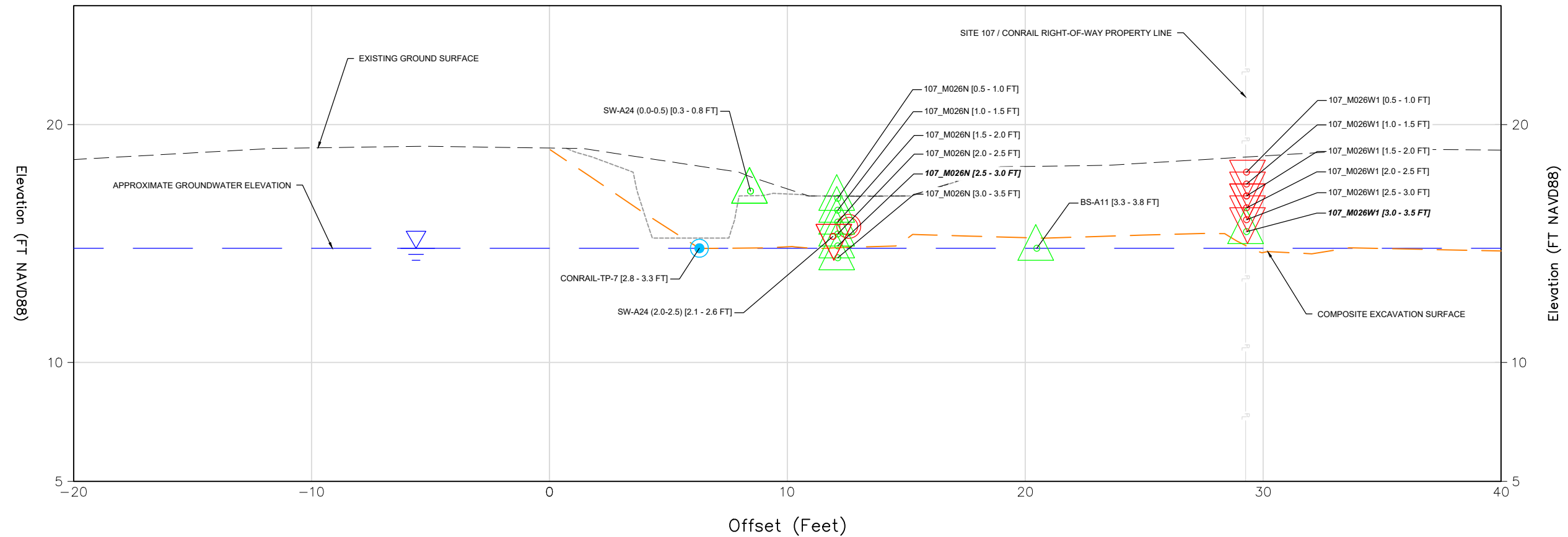
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5K

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### CROSS-SECTION J-J' (3+61.0)



**LEGEND:**

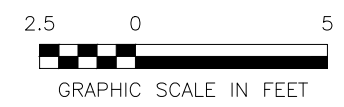
- 2022 SAMPLE LOCATIONS WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]
- ▽ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL > CrSCC [SAMPLE DEPTH] - REMOVED
- △ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]
- HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 6)
- APPROXIMATE GROUNDWATER ELEVATION
- - - EXISTING GROUND SURFACE
- - - 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE
- - - SUPPLEMENTAL PDI TEST PIT SURFACE
- SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **107\_M026N [2.5 - 3.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH SAMPLE LOCATION SW-A24(2.0-2.5) [2.1 - 2.6 FT].
5. **107\_M026W1 [3.0 - 3.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M026W1.
6. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.

**ABBREVIATIONS:**

COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988

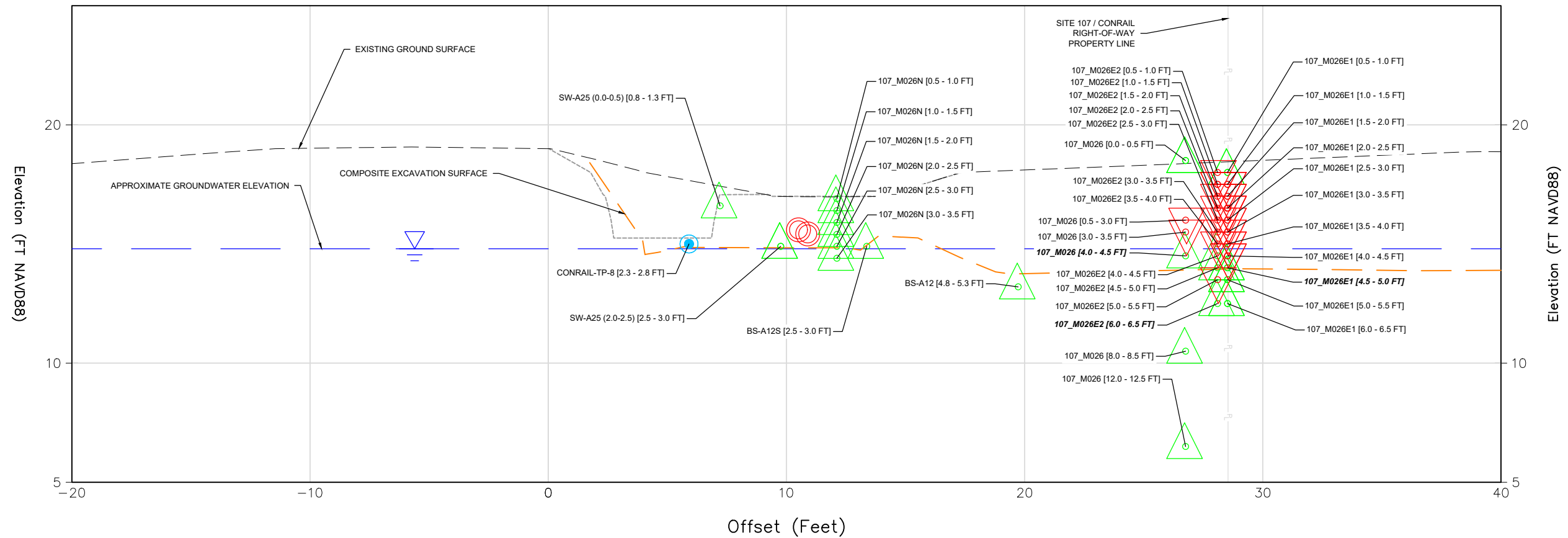


PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		<b>CONRAIL RIGHT-OF-WAY (AOC 1)          EXCAVATION CROSS-SECTIONS          SECTION VIEW</b>
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5L



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## CROSS-SECTION K-K' (3+87.7)



### LEGEND:

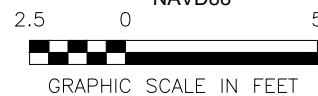
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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 2022 SAMPLE LOCATIONS WITH Cr<sup>6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">○</span> HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 7)</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—▽—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: black;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">— — —</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: black;">- · - · -</span> SUPPLEMENTAL PDI TEST PIT SURFACE</li> <li><span style="color: grey;">— —</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
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### NOTES:

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. 107\_M026E2 [6.0 - 6.5 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M026E2.
5. 107\_M026E1 [4.5 - 5.0 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M026E1.
6. 107\_M026 [4.0 - 4.5 FT] SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M026.
7. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.

### ABBREVIATIONS:

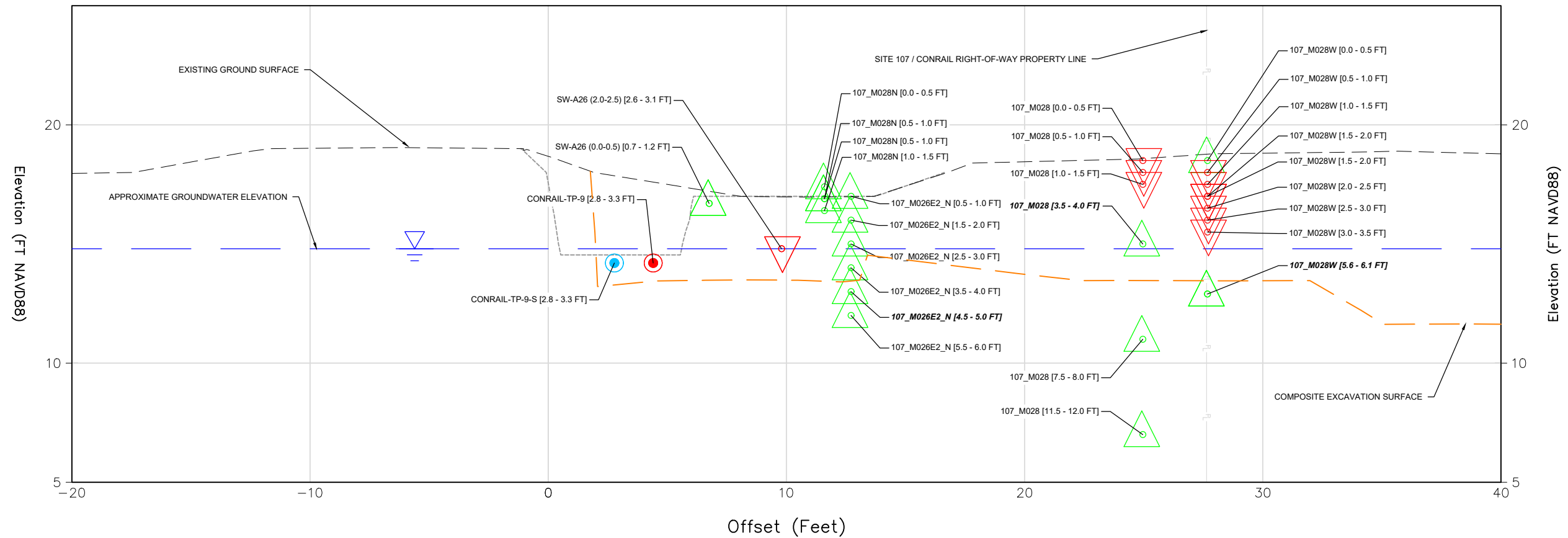
COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



<b>CONRAIL RIGHT-OF-WAY (AOC 1)</b> EXCAVATION CROSS-SECTIONS SECTION VIEW		<b>CONRAIL RIGHT-OF-WAY (AOC 1)</b> EXCAVATION CROSS-SECTIONS SECTION VIEW <b>FIGURE 5-5M</b>
DATE: 10/14/2024	DRWN: MDN	

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### CROSS-SECTION L-L' (4+21.0)



**LEGEND:**

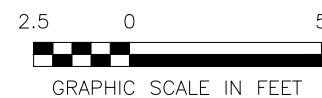
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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 2022 SAMPLE LOCATIONS WITH Cr<sup>6+</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">●</span> 2022 SAMPLE LOCATION WITH RESULTS EXCEEDING THE CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>6+</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>6+</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: black;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">- - -</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: grey;">- - -</span> SUPPLEMENTAL PDI TEST PIT SURFACE</li> <li><span style="color: grey;">—</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
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**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLDED AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **107\_M026E2\_N [4.5 - 5.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATIONS CONRAIL-TP-9 [2.8 - 3.3 FT] AND SW-A26 (2.0-2.5) [2.6 - 3.1 FT].
5. **107\_M028 [3.5 - 4.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M028.
6. **107\_M028W [5.6 - 6.1 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M028W.

**ABBREVIATIONS:**

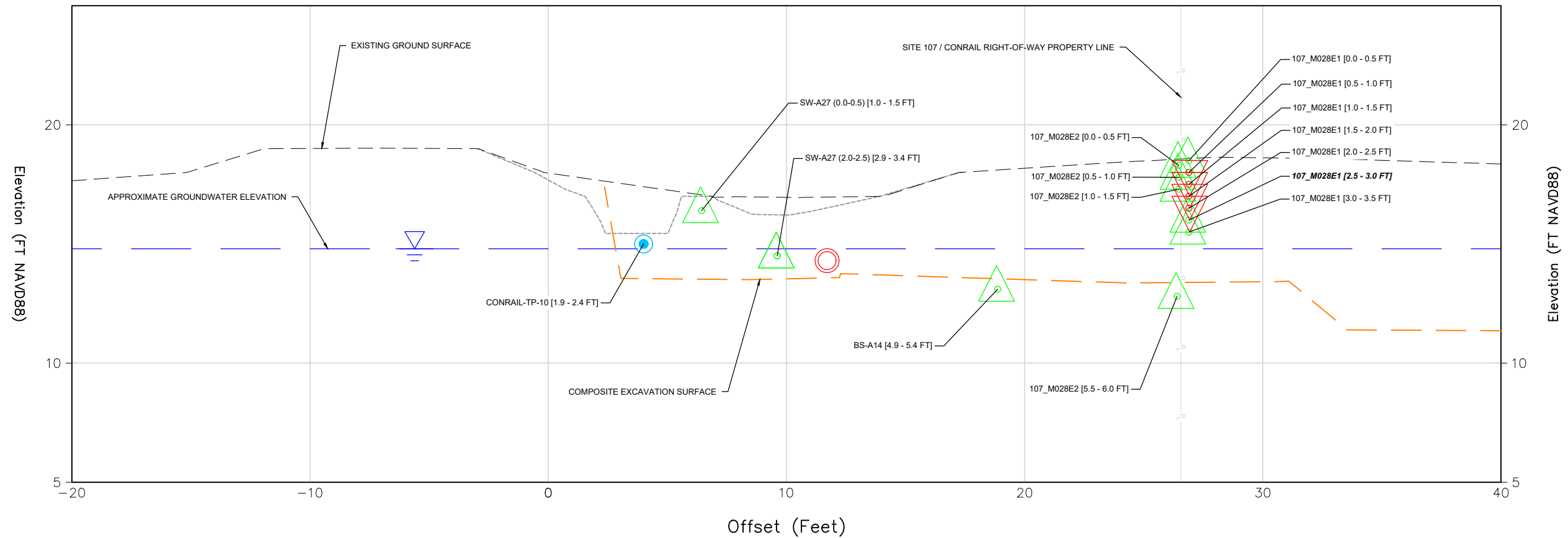
COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>6+</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5N

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### CROSS-SECTION M-M' (4+61.0)



**LEGEND:**

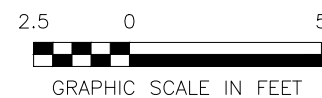
- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: blue;">●</span> 2022 SAMPLE LOCATIONS WITH Cr<sup>+6</sup> RESULTS LESS THAN THE CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">△</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> <li><span style="color: red;">○</span> HISTORICAL LOCATION OF VISUAL COPR OBSERVATION - REMOVED (NOTE 5)</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: black;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">- - -</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: grey;">- - -</span> SUPPLEMENTAL PDI TEST PIT SURFACE</li> <li><span style="color: grey;">—</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **107\_M028E1 [2.5 - 3.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M028E1.
5. HISTORICAL LOCATIONS OF VISUAL COPR REFERENCE FIELD OBSERVATIONS FROM THE 2018 MOBILIZATION. EXCAVATION SIDEWALLS AND PIT BOTTOMS WERE INSPECTED BY AN AECOM GEOLOGIST DURING THE 2023 MOBILIZATION. NO VISUAL COPR WAS OBSERVED TO BE REMAINING IN-PLACE.

**ABBREVIATIONS:**

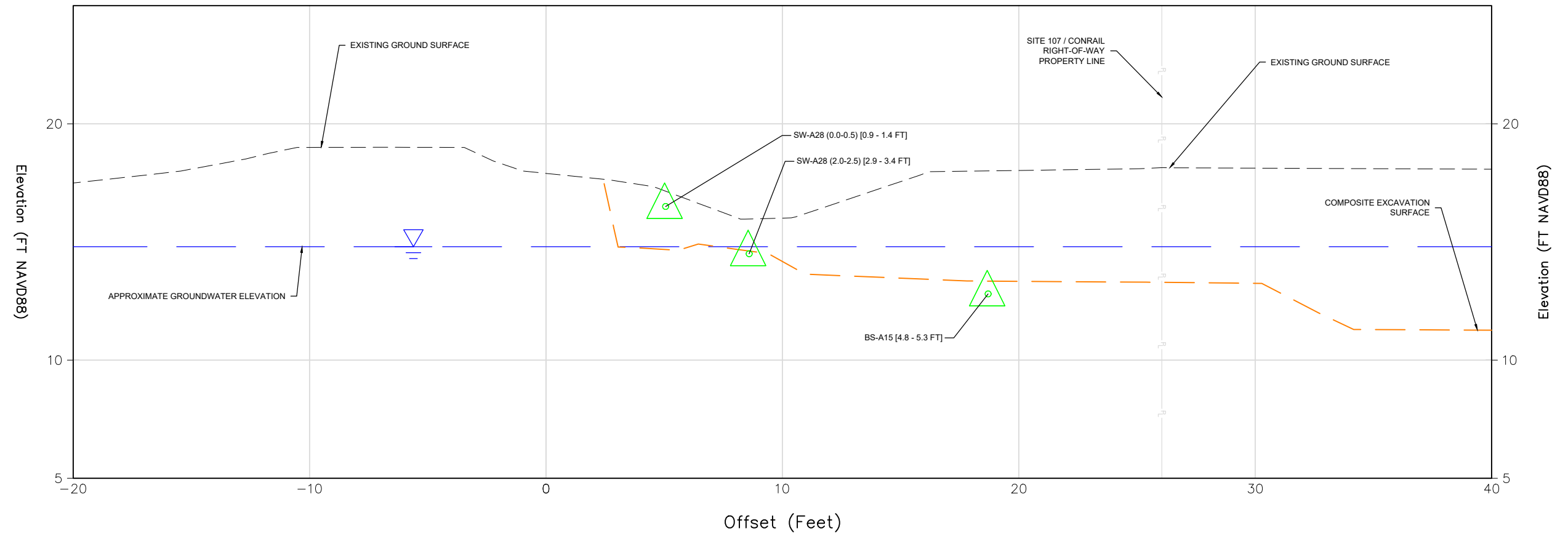
COPR	CHROMITE ORE PROCESSING RESIDUE
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-50

Last saved by: NICHOLSM1(2024-10-14) Last Plotted: 2011-05-25  
 Filename: C:\USERS\NICHOLSM1\AECOM\PPG - GDS\910 CAD\20 SHEETS\RAR\CONRAIL EXCAVATION RAR\2024-10-14\_RAR\_CROSS-SECTIONS.DWG

### CROSS-SECTION N-N' (4+80.0)



**LEGEND:**

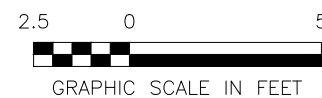
- △ HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]
- ▽— APPROXIMATE GROUNDWATER ELEVATION
- - - - - EXISTING GROUND SURFACE
- - - - - 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE
- |— SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.

**ABBREVIATIONS:**

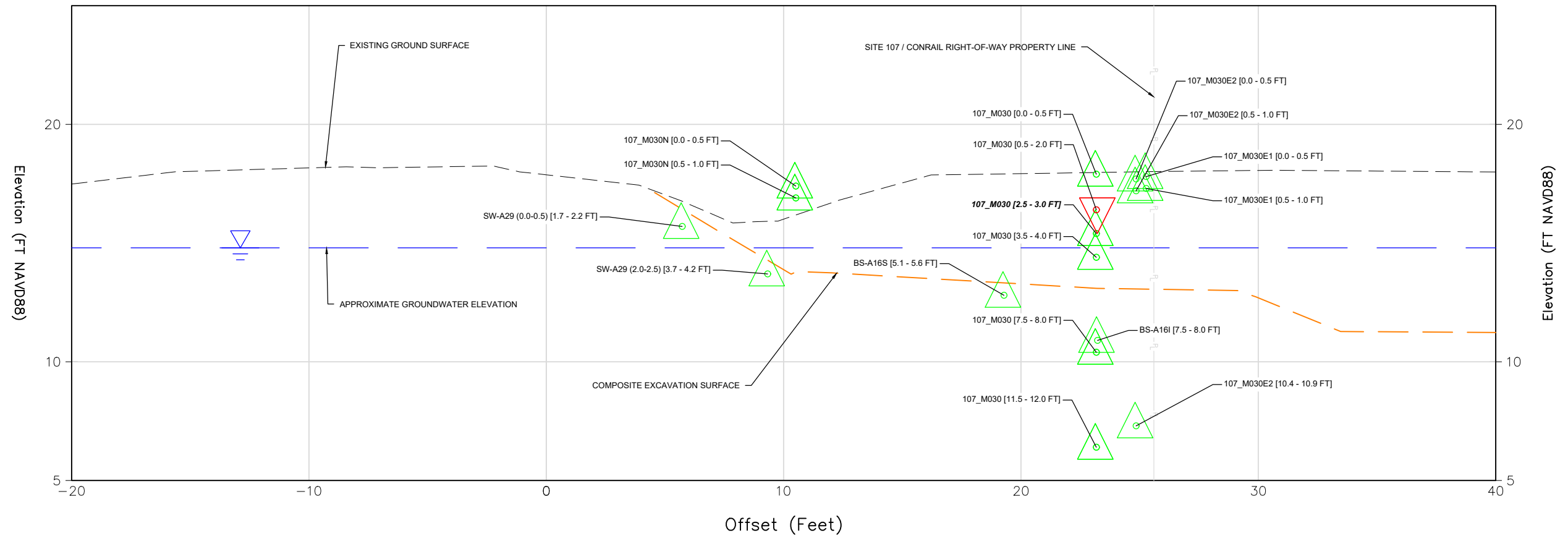
- CrSCC NJDEP CHROMIUM SOIL CLEANUP CRITERIA
- Cr<sup>+6</sup> HEXAVALENT CHROMIUM
- FT FEET
- NAVD88 THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5P

Last saved by: NICHOLSM1(2024-10-14) Last Plotted: 2011-05-25  
 Filename: C:\USERS\NICHOLSM1\AECOM\PPG - GDS\910 CAD\20 SHEETS\RAR\CONRAIL EXCAVATION RAR\2024-10-14\_RAR\_CROSS-SECTIONS.DWG

### CROSS-SECTION O-O' (4+95.1)



**LEGEND:**

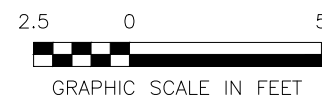
- |  |                                                                                      |  |                                                                   |
|--|--------------------------------------------------------------------------------------|--|-------------------------------------------------------------------|
|  | HISTORICAL Cr <sup>+6</sup> ANALYTICAL RESULTS-SOIL > CrSCC [SAMPLE DEPTH] - REMOVED |  | APPROXIMATE GROUNDWATER ELEVATION                                 |
|  | HISTORICAL Cr <sup>+6</sup> ANALYTICAL RESULTS-SOIL < CrSCC [SAMPLE DEPTH]           |  | EXISTING GROUND SURFACE                                           |
|  |                                                                                      |  | 2018 MOBILIZATION & 2023 MOBILIZATION COMBINED EXCAVATION SURFACE |
|  |                                                                                      |  | SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE                       |

**NOTES:**

- THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDIATION GROUND SURFACE ELEVATION.
- THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
- SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
- 107\_M030 [2.5 - 3.0 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCE ASSOCIATED WITH 107\_M030 [0.5 - 2.0 FT].

**ABBREVIATIONS:**

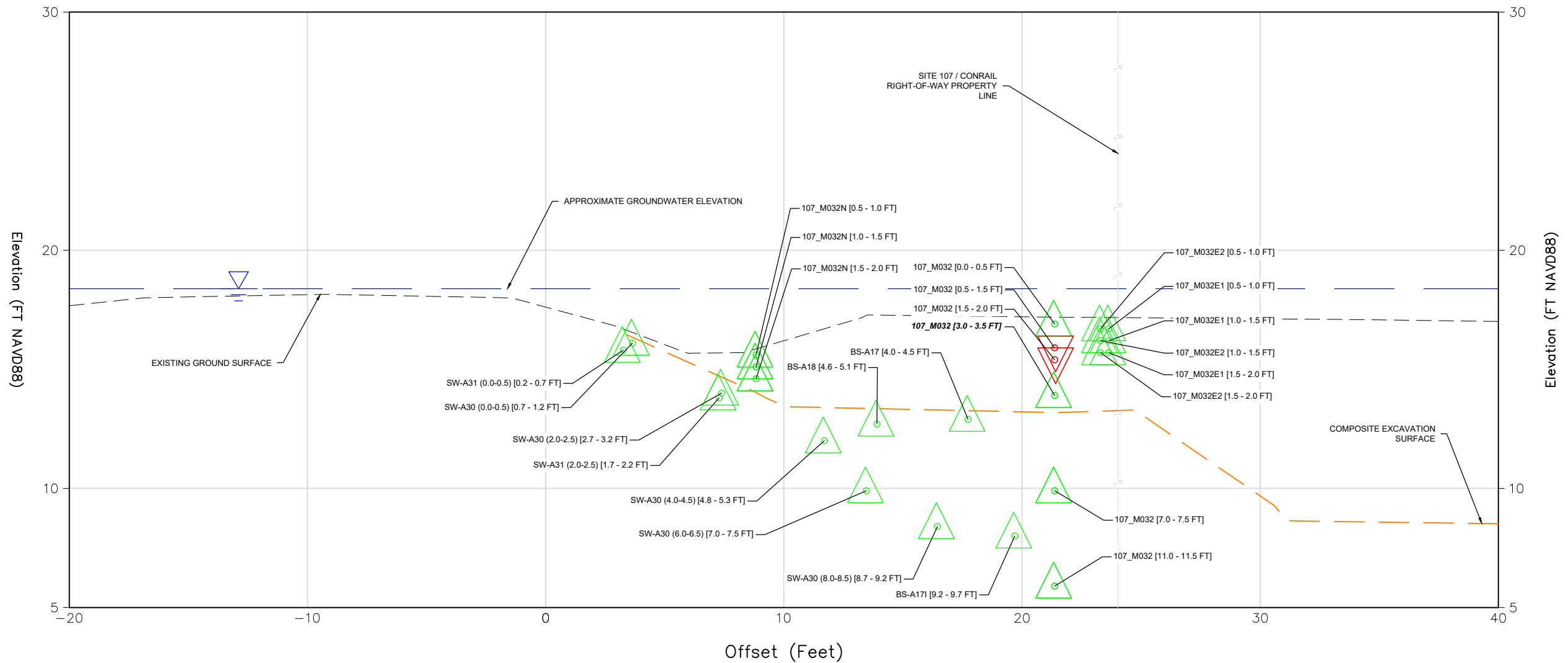
CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		CONRAIL RIGHT-OF-WAY (AOC 1) EXCAVATION CROSS-SECTIONS SECTION VIEW
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5Q

Last saved by: NICHOLSM1(2024-10-14) Last Plotted: 2011-05-25  
 Filename: C:\USERS\NICHOLSM1\AECOM\PPG - GDS\910 CAD\20 SHEETS\RAR\CONRAIL EXCAVATION RAR\2024-10-14\_RAR\_CROSS-SECTIONS.DWG

### CROSS-SECTION P-P' (5+55.1)



**LEGEND:**

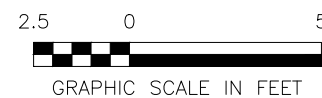
- |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><span style="color: red;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &gt; CrSCC [SAMPLE DEPTH] - REMOVED</li> <li><span style="color: green;">▽</span> HISTORICAL Cr<sup>+6</sup> ANALYTICAL RESULTS-SOIL &lt; CrSCC [SAMPLE DEPTH]</li> </ul> | <ul style="list-style-type: none"> <li><span style="color: blue;">—▽—</span> APPROXIMATE GROUNDWATER ELEVATION</li> <li><span style="color: grey;">- - -</span> EXISTING GROUND SURFACE</li> <li><span style="color: orange;">- - -</span> 2018 MOBILIZATION &amp; 2023 MOBILIZATION COMBINED EXCAVATION SURFACE</li> <li><span style="color: grey;">— —</span> SITE 107/CONRAIL RIGHT-OF-WAY PROPERTY LINE</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**NOTES:**

1. THE SAMPLE DEPTHS PROVIDED ON THIS DRAWING ARE IN REFERENCE TO THE PRE-REMEDATION GROUND SURFACE ELEVATION.
2. THE SAMPLE LOCATIONS DEPICTED ON THIS CROSS-SECTION REFERENCE THE BOTTOM ELEVATION OF THE SAMPLED INTERVAL. AS A RESULT, THE SAMPLE LOCATIONS MAY APPEAR BELOW THE COMBINED EXCAVATION SURFACE.
3. SAMPLE LOCATIONS WITH BOLD AND ITALICIZED LABELS SERVE AS CLEAN CONFIRMATION SAMPLES.
4. **107\_M032 [3.0 - 3.5 FT]** SERVES AS THE CLEAN CONFIRMATION SAMPLE TO DOCUMENT REMOVAL OF THE CrSCC EXCEEDANCES ASSOCIATED WITH SAMPLE LOCATION 107\_M032.

**ABBREVIATIONS:**

CrSCC	NJDEP CHROMIUM SOIL CLEANUP CRITERIA
Cr <sup>+6</sup>	HEXAVALENT CHROMIUM
FT	FEET
NAVD88	THE NORTH AMERICAN VERTICAL DATUM OF 1988



PPG CONRAIL RIGHT-OF-WAY (AOC 1) JERSEY CITY, NEW JERSEY		<b>CONRAIL RIGHT-OF-WAY (AOC 1)          EXCAVATION CROSS-SECTIONS          SECTION VIEW</b>
DATE: 10/14/2024	DRWN: MDN	FIGURE 5-5R

## **Appendix A**

### **Boring Logs**

Boring logs for the remaining sample locations collected via soil core are included in this Appendix. Sample locations with “SW” or “BS” in their identification are excavation confirmation samples collected during the Site 107 Remedial Action and do not have a corresponding boring log.

## **Appendix B**

### **Supplemental Pre-Design Investigation Results**



## **Appendix C**

### **Historical Water Table Elevations**

## **Appendix D**

### **Permits and Approvals**

## **Appendix E**

### **As-Built Diagrams**

## **Appendix F**

### **2023 Mobilization Air Monitoring Data**

## **Appendix G**

### **Laboratory Analytical Reports**

Laboratory analytical reports and data validation reports are provided for sample locations that are remaining in place and other specific locations that were removed by the RA that are required to document compliance with the remediation goals.

#### **G-1 Laboratory Analytical Reports**

(Provided Separately)

#### **G-2 Documentation of EDD Submittals**



## **Appendix G-1**

### **Laboratory Analytical Reports**

(Provided Separately)

## **Appendix G-2**

### **Documentation of EDD Submittals**

## **Appendix H**

### **Data Validation Reports**

(Provided Separately)

Laboratory analytical reports and data validation reports are provided for sample locations that are remaining in place and other specific locations that were removed by the RA that are required to document compliance with the remediation goals.

## **Appendix I**

### **Compliance Averaging Memorandum for Vanadium in Soil**

## **Appendix J**

### **Waste Disposal Documentation**

- J-1 2018 Mobilization Hazardous Waste Disposal Documentation**  
(Provided Separately)
- J-2 2018 Mobilization Non-Hazardous Waste Disposal Documentation**
- J-3 2023 Mobilization Non-Hazardous Waste Disposal Documentation**
- J-4 2023 Mobilization Non-Hazardous Water Disposal Documentation**



## **Appendix J-1**

### **2018 Mobilization Hazardous Waste Disposal Documentation**

(Provided Separately)

## **Appendix J-2**

### **2018 Mobilization Non-Hazardous Waste Disposal Documentation**

## **Appendix J-3**

### **2023 Mobilization Non-Hazardous Waste Disposal Documentation**

## **Appendix J-4**

### **2023 Mobilization Non-Hazardous Water Disposal Documentation**

## **Appendix K**

### **Clean Fill Documentation**

**K-1 Clean Fill Documentation - Dense-Graded Aggregate, 3/4" Stone, and Ballast Stone Load Reports**

**K-2 Quarry Information and Analytical Data Reports**



## **Appendix K-1**

### **Clean Fill Documentation - Dense-Graded Aggregate and Open Grade Stone, 3/4” Stone, and Ballast Stone Load Reports**

## **Appendix K-2**

### **Quarry Certification Information**

The licensed quarry/mine material placed in Conrail Right-of-Way (AOC 1) was certified by Weldon Materials, Inc., the licensed quarry (certification also included in this Appendix), as from a virgin source. Per the 2015 Fill Material Guidance for SRP Sites (NJDEP, 2015), “Whenever licensed quarry/mine material, certified as such by the quarry/mine operator, is delivered to a property undergoing remediation, the investigator may rely on the certification for the purpose of issuing a remedial action outcome (RAO) without sampling the delivered licensed quarry/mine material.”