

**Table 5-3
CCPW Metals Analytical Results in the Unsaturated Soil Zone Compared to IGW Soil Screening Level and Soil Remediation Standards
AI Smith Moving, Garfield Avenue Group
PPG, Jersey City, New Jersey**

Grid ID (G1)	Location ID (G2)	Location Elevation (ft NAVD88) (G3, G4, G5)	Sample ID (G6, G7)	Depth Interval (ft bgs) (G8)	Sample Start Elevation (ft NAVD88) (G4, G7, G9, G10)	Sample End Elevation (ft NAVD88) (G4, G11)	Lab ID (G12)	Lab SDG (G12)	Date Collected (G13)	Sample Status (G14, G15)	Sample Type (G16)	Validated (Y/N) (G17)	Analyte CAS-RN Units DIGWSSL IGWSRS-GAG		ANTIMONY 7440-36-0 mg/kg N/A 62.7		CHROMIUM 7440-47-3 mg/kg N/A N/A		NICKEL 7440-02-0 mg/kg N/A 170		THALLIUM 7440-28-0 mg/kg 3 N/A		VANADIUM 7440-62-2 mg/kg N/A N/A		Specific Notes
													Result (G18, G19)	Qualifier (G20, G21)	Result (G18, G19)	Qualifier (G20, G21)	Result (G18, G19)	Qualifier (G20, G21)	Result (G18, G19)	Qualifier (G20, G21)	Result (G18, G19)	Qualifier (G20, G21)			
T49A	ASM-T48A-SW-S1	10.4	ASM-T48A-SW-S-1.4-1.9	1.4 - 1.9 ft	9.0	8.5	JC53600-12A	JC53600A	10/20/2017	remaining	N	Y	2.5	J-	63.2	J	22.3		< 0.45	U	32.9		S1		
T49A	ASM-T48A-SW-S2	10.4	ASM-T48A-SW-S-3.4-3.9	3.4 - 3.9 ft	7.0	6.5	JC53600-11A	JC53600A	10/20/2017	remaining	N	Y	1.6	J	64.3	J	17.8		< 0.48	U	24.9		S1		
T49A	ASM-T49AR	14.1	ASM-T49AR-7.5-8.0	7.5 - 8.0 ft	6.6	6.1	JC28463-9A	JC28463A	09/27/2016	remaining	N	Y	21.1	J	2620	J	80.7	J	1.3	J	50.0	J	S1		
U47A	ASM-V47A-SW-W1	14.4	ASM-V47A-SW-W-6.9-7.4	6.9 - 7.4 ft	7.5	7.0	JC52320-16A	JC52320A	10/03/2017	remaining	N	Y	< 0.45	UJ	36.9	J	24.2		< 0.48	U	27.3				
U48A	ASM-T48A-SW-E1	10.4	ASM-T48A-SW-E-3.4-3.9	3.4 - 3.9 ft	7.0	6.5	JC53600-14A	JC53600A	10/20/2017	remaining	N	Y	4.7	J-	271	J	26.5		< 1.1	U	33.4				
U49A	ASM-U49AR	14.1	ASM-U49AR-6.0-6.5	6.0 - 6.5 ft	8.1	7.6	JC28463-18A	JC28463A	09/27/2016	remaining	N	Y	1.3	J	17.4	J	25.8	J	< 0.80	U	22.0	J			
V48A	ASM-V47A-SW-S1	14.4	ASM-V47A-SW-S-6.9-7.4	6.9 - 7.4 ft	7.5	7.0	JC52320-10A	JC52320A	10/03/2017	remaining	N	Y	1.0	J	34.7	J	42.2		< 0.45	U	24.0				
V49A	ASM-W49A-SW-W1	14.2	ASM-W49A-SW-W-5.5-6.0	5.5 - 6.0 ft	8.7	8.2	JC56973-5	JC56973	12/08/2017	remaining	N	Y	< 0.47	UJ											
W48A	ASM-W48A	14.0	ASM-W48A-6.0-6.5	6.0 - 6.5 ft	8.0	7.5	JC26186-9AR	JC26186AR	08/19/2016	remaining	N	Y	0.45	J	18.7	J	19.0	J	< 0.45	U	16.7				
W48A	ASM-W48A	14.0	ASM-W48A-6.0-6.5X	6.0 - 6.5 ft	8.0	7.5	JC26186-10AR	JC26186AR	08/19/2016	remaining	FD	Y	1.3	J	27.5	J	27.8	J	< 0.48	U	26.0				
W48A	ASM-W49A-SW-N1R	14.2	ASM-W49A-SW-N-5.5-6.0R	5.5 - 6.0 ft	8.7	8.2	JC57275-2	JC57275	12/13/2017	remaining	N	Y	10.5												
W49A	ASM-W49AR	14.2	ASM-W49AR-7.5-8.0	7.5 - 8.0 ft	6.7	6.2	JC28559-9A	JC28559A	09/28/2016	remaining	N	Y	4.9	J	307		31.1		< 1.7	U	30.6	J			
W49A	ASM-W49A-SW-E1	14.2	ASM-W49A-SW-E-5.5-6.0	5.5 - 6.0 ft	8.7	8.2	JC56973-3	JC56973	12/08/2017	remaining	N	Y	2.3	J-									S2		
W49A	ASM-W49A-SW-E1	14.2	ASM-W49A-SW-E-5.5-6.0X	5.5 - 6.0 ft	8.7	8.2	JC56973-4	JC56973	12/08/2017	remaining	FD	Y	2.6	J-									S2		
X45A	ASM-X45A-SW-E1	14.3	ASM-X45A-SW-E-6.3-6.8	6.3 - 6.8 ft	8.0	7.5	JC53724-12A	JC53724A	10/23/2017	remaining	N	Y	0.98	J	21.9	J	22.5		< 0.48	U	27.0		S2		
X45A	ASM-X45A-SW-E1	14.3	ASM-X45A-SW-E-6.3-6.8X	6.3 - 6.8 ft	8.0	7.5	JC53724-15A	JC53724A	10/23/2017	remaining	FD	Y	< 0.44	UJ	38.9	J	18.3		< 0.47	U	28.5		S2		

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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
El. - elevation
FD - field duplicate sample type
ft - feet
IGW - Impact to Groundwater
IGWSRS-GAG - Impact to Groundwater Soil Remediation Standard - Garfield Avenue Group (site-specific alternative remediation standard as proposed in the *Supplemental Soil Remedial Investigation Report, Final Revision 1*, dated 08/30/18 and approved by NJDEP on 10/22/18)
mg/kg - milligrams per kilogram
N - normal sample type
NAVD88 - North American Vertical Datum of 1988
N/A - not applicable
PDI - Pre-Design Investigation
SDG - sample delivery group
TEE - terminal excavation elevation

QUALIFIERS:

J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample.
J- - The analyte was positively identified; the associated numerical value is an estimated quantity with a potential low bias.
U - The analyte was not detected above the sample reporting limit shown.
UJ - The analyte was not detected above the sample reporting limit shown and the reporting limit was approximate.

GENERAL NOTES:

G1. "Grid ID" refers to an area, typically 30 ft by 30 ft, identified as Grid Row S through Y (extending west to east) and Grid Column 49A through 41A (extending from south to north).
G2. "Location ID" refers to the location name where samples were collected.
G3. "Location Elevation" refers to the pre-remediation surface elevation for samples collected from the pit bottom, and the surface elevation of the sample location when the sample was collected via boring or test pit. Post-excavation location elevations were assigned location elevations based on the elevation of the PDI sample for which they are named.
G4. Elevation vertical datum is NAVD88, in U.S. survey ft.
G5. For some borings, the Location Elevations presented in this table were revised compared to the Location Elevations used in the proposed TEE Technical Memoranda. The revisions were based on a review of available survey data for individual locations, site-wide topographical surveys, and field notes to provide the most accurate and representative ground surface elevations. In addition, ground surface elevations for borings advanced prior to 2011 were reviewed and, if necessary, converted from the site-specific vertical datum used prior to 2011 into NAVD88.
G6. "Sample ID" refers to the name of a sample collected at a given location and is unique to the depth of the sample collected.
G7. This table compares sample results from the unsaturated zone to the DIGWSSLs. The groundwater elevation (above which is the unsaturated zone) on this Site was estimated as the 50th percentile groundwater elevation from 13 monitoring wells located on or adjacent to Al Smith Moving gauged between February 2007 and December 2016. The monitoring well locations and data are included in Appendix B of this Remedial Action Report. The estimated groundwater elevation for this Site is El. 6.2 ft NAVD88.
G8. "Depth Interval" is based on the "Location Elevation."
G9. "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.
G10. In some grids, there may be up to 0.1 ft variation between the sample start elevation of the pit bottom or sidewall sample and the post-excavation elevation survey point due to rounding of the numbers.
G11. "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.
G12. "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.
G13. "Date Collected" refers to the date the soil sample was collected.
G14. "Sample Status" of "remaining" indicates the soil in that interval is outside the excavation footprint, and remains in-place at that location.
G15. The post-excavation survey points and 1-ft post-excavation contours representing the as-built terminal excavation elevations are provided on Figures 5-3.
G16. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).
G17. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.
G18. "Result" refers to the analytical result which is reported in mg/kg.
G19. Bold text indicates that the result exceeds the DIGWSSL or IGWSRS-GAG. Non-bold text indicates that the result does not exceed the DIGWSSL or IGWSRS-GAG.
G20. "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.
G21. Non-detect results are shown on this table using the Method Detection Limit, if available; otherwise they are shown at the Reporting Limit.

SPECIFIC NOTES:

S1. In Grid T49A, the location elevations of two or more locations situated inside the area of the former building slab and in the same grid vary by more than two feet. The higher location elevation represents the measured pre-remediation surface elevation of a PDI boring installed within the concrete slab. As explained in General Note G3, the location elevation of the post-excavation samples were assigned in the field based on the location elevation of the PDI boring for which the sample is named. In Grid T49A, the PDI boring used to estimate the pre-remediation elevation of the post-excavation samples fall outside the building slab while the post-excavation samples fall inside the footprint of the building slab.

S2. In Grids W49A and X45A, sidewall samples collected from Pacific Avenue were used in the evaluation of compliance for the portion of these grids located within Al Smith Moving.