

**Table 6**  
**Morris Pesin Drive and Traffic Circle Delineation Soil Boring Analytical Summary Table**  
**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	Sample Location: TC_A									
						1-1.5		3-3.5		5-5.5		7-7.5		9-9.5	
Sample Depth (ft bgs):						1-1.5	3-3.5	5-5.5	7-7.5	9-9.5					
Sample Elevation (ft msl):						6.5-7	4.5-5	2.5-3	0.5-1	-1 - (-1.5)					
Client Sample ID:						TC_A_1-1.5	TC_A_3-3.5	TC_A_5-5.5	TC_A_7-7.5	TC_A_9-9.5					
Lab Sample ID:						JC7615-1	JC7615-2	JC7615-3	JC7615-4	JC7615-5					
Date Sampled:						10/27/2015	10/27/2015	10/27/2015	10/27/2015	10/27/2015					
Matrix:						Soil	Soil	Soil	Soil	Soil					
						R	Q	R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.0	<2.5	<2.2	<2.1	<2.3					
Chromium	7440-47-3	120,000	-	-	mg/kg	23.9	84.4	22.9	16.8	31.2					
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	15.7	21.1	14.6	13.6	29.8					
Thallium	7440-28-0	-	-	3	mg/kg	<1.0	<1.2	<1.1	<1.1	<2.3 <sup>a</sup>					
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	50.3	17.7	34.1	26.4	41.1					
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	0.63 NJ- / <0.42 NJ-	<0.51 NJ- / <0.51 NJ-	0.63 NJ- / <0.45 NJ-	1.5 NJ- / <0.45 NJ-	1.3 NJ- / <0.44 NJ-					
Iron, Ferrous	-	-	-	-	%	1.5 <sup>b</sup>	-	-	-	-					
pH	-	-	-	-	su	7.83	7.25	7.97	8.06	8.29					
Redox Potential Vs H2	-	-	-	-	mV	383	401	324	318	306					
Solids, Percent	-	-	-	-	%	95	79	88.2	88.8	90.2					
Sulfide Screen	-	-	-	-	-	NEGATIVE <sup>c</sup>	-	-	-	-					
Total Organic Carbon	-	-	-	-	mg/kg	24,900 <sup>d</sup> J	-	-	-	-					

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

<sup>b</sup> The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

<sup>c</sup> The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

<sup>d</sup> Analysis completed out of holding time.

ft bgs = feet below ground surface

ft msl = feet mean sea level

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

NA= Not Applicable

- = No Standard or Not Analyzed

\*Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

\*\*The use of the USEPA Regional Soil Screening Level of 390 mg/kg for vanadium is proposed as an alternative remediation standard for the site. Based on: <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2015>

The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

**Analytical Data Qualifiers:**

NJ- : Matrix spike recovery below control limits; result is an estimated value with potential low bias.

J : The result is an estimated value;

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**Morris Pesin Drive and Traffic Circle Delineation Soil Boring Analytical Summary Table**  
**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	Sample Location: TC_B											
						1-1.5		2-2.5		2-2.5		5-5.5		7-7.5		9-9.5	
Sample Depth (ft bgs):						6.5-7		5.5-6		5.5-6		2.5-3		0.5-1		-1 - (-1.5)	
Sample Elevation (ft msl):						6.5-7		5.5-6		5.5-6		2.5-3		0.5-1		-1 - (-1.5)	
Client Sample ID:						TC_B_1-1.5		TC_B_2-2.5		TC_DUP01		TC_B_5-5.5		TC_B_7-7.5		TC_B_9-9.5	
Lab Sample ID:						JC7615-6		JC7615-7		JC7615-11		JC7615-8		JC7615-9		JC7615-10	
Date Sampled:						10/27/2015		10/27/2015		10/27/2015		10/27/2015		10/27/2015		10/27/2015	
Matrix:						Soil		Soil		Soil		Soil		Soil		Soil	
						R	Q	R	Q	R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.0		<2.3		<2.3 NJ-		<2.8		<2.3		<2.0 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	109		32.9		33.2		8.6		16.9		14.7	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	30		24.1		22.5		11.2		12.9		16.8	
Thallium	7440-28-0	-	-	3	mg/kg	<2.0 <sup>a</sup>		<1.1		<1.2		<1.4		<1.1		<0.99	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	102		27.3		27.3		37.7		26		18.6	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	2.4 NJ- / 1.6 NJ-		<0.47 NJ- / <0.47 NJ-		<0.47 NJ- / <0.47 NJ-		<0.54 NJ- / <0.54 NJ-		0.6 NJ- / <0.46 NJ-		<0.60 NJ- / 0.71 NJ-	
Iron, Ferrous	-	-	-	-	%	-		-		-		-		-		-	
pH	-	-	-	-	su	8.74		7.56		7.49		7.78		7.72		6.89	
Redox Potential Vs H2	-	-	-	-	mV	337		364		304		309		365		268	
Solids, Percent	-	-	-	-	%	95.1		85.3		85.8		74.1		87.3		66.9	
Sulfide Screen	-	-	-	-	-	-		-		-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-		-		-	

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

<sup>b</sup> The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

<sup>c</sup> The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

<sup>d</sup> Analysis completed out of holding time.

ft bgs = feet below ground surface

ft msl = feet mean sea level

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su = standard unit

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\*\*The use of the USEPA Regional Soil Screening Level of 390 mg/kg for vanadium is proposed as an alternative remediation standard for the site. Based on: <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2015>

The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

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<b>Sample Location:</b>	<b>TC_C</b>				
<b>Sample Depth (ft bgs):</b>	<b>1-1.5</b>	<b>3-3.5</b>	<b>5-5.5</b>	<b>7-7.5</b>	<b>9-9.5</b>
<b>Sample Elevation (ft msl):</b>	<b>6.5-7</b>	<b>4.5-5</b>	<b>2.5-3</b>	<b>0.5-1</b>	<b>-1 - (-1.5)</b>
<b>Client Sample ID:</b>	<b>TC_C_1-1.5</b>	<b>TC_C_3-3.5</b>	<b>TC_C_5-5.5</b>	<b>TC_C_7-7.5</b>	<b>TC_C_9-9.5</b>
<b>Lab Sample ID:</b>	<b>JC7615-12</b>	<b>JC7615-13</b>	<b>JC7615-14</b>	<b>JC7615-15</b>	<b>JC7615-16</b>
<b>Date Sampled:</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>	<b>10/27/2015</b>
<b>Matrix:</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	TC_C		TC_C		TC_C		TC_C	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-	<2.3 NJ-	<2.2 NJ-	<2.2 NJ-	<2.2 NJ-	<2.2 NJ-	<2.2 NJ-	<2.2 NJ-
Chromium	7440-47-3	120,000	-	-	mg/kg	18.1	17.4	40.8	23.8	36.8	36.8	36.8	36.8
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	12.3	14	17.7	18.2	19.1	19.1	19.1	19.1
Thallium	7440-28-0	-	-	3	mg/kg	<1.0	<1.1	<1.1	<1.1	<2.2 <sup>a</sup>	<2.2 <sup>a</sup>	<2.2 <sup>a</sup>	<2.2 <sup>a</sup>
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	29.5	22.9	45.5	37.3	41.5	41.5	41.5	41.5
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	<0.42 NJ- / <0.42 NJ-	<0.47 NJ- / <0.47 NJ-	1.7 NJ- / <0.47 NJ-	0.48 NJ- / <0.46 NJ-	<0.46 NJ- / <0.46 NJ-	<0.46 NJ- / <0.46 NJ-	<0.46 NJ- / <0.46 NJ-	<0.46 NJ- / <0.46 NJ-
Iron, Ferrous	-	-	-	-	%	-	-	-	-	-	-	-	-
pH	-	-	-	-	su	8.81	7.72	6.99	7.23	7.26	7.26	7.26	7.26
Redox Potential Vs H2	-	-	-	-	mV	292	279	310	320	282	282	282	282
Solids, Percent	-	-	-	-	%	94.4	84.5	86	87.2	87.3	87.3	87.3	87.3
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	-	-	-	mg/kg	-	-	-	-	-	-	-	-

**Footnotes:**

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

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**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

<b>Sample Location:</b>	<b>TC_C1</b>				
<b>Sample Depth (ft bgs):</b>	1-1.5	3-3.5	5-5.5	7-7.5	9-9.5
<b>Sample Elevation (ft msl):</b>	6.5-7	4.5-5	2.5-3	0.5-1	-1 - (-1.5)
<b>Client Sample ID:</b>	TC_C1_1-1.5	TC_C1_3-3.5	TC_C1_5-5.5	TC_C1_7-7.5	TC_C1_9-9.5
<b>Lab Sample ID:</b>	JC7615-22	JC7615-23	JC7615-24	JC7615-25	JC7615-26
<b>Date Sampled:</b>	10/30/2015	10/30/2015	10/30/2015	10/30/2015	10/30/2015
<b>Matrix:</b>	Soil	Soil	Soil	Soil	Soil

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-		<2.3 NJ-		<2.5 NJ-		<2.3 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	21.6		40.6		13.4		35	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	16		22.2		8.9		20.3	
Thallium	7440-28-0	-	-	3	mg/kg	<1.0		<1.1		<1.3		<2.3 <sup>a</sup>	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	54.4		33.3		15.6		49	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	<0.43 NJ- / 0.62 NJ-		1.4 NJ- / 0.57 NJ-		<0.52 NJ- / <0.52 NJ-		<0.47 NJ- / <0.47 NJ-	
Iron, Ferrous	-	-	-	-	%	-		-		-		-	
pH	-	-	-	-	su	8.66		8.03		7.36		7.17	
Redox Potential Vs H2	-	-	-	-	mV	274		312		338		208	
Solids, Percent	-	-	-	-	%	93.1		85.5		77		85.4	
Sulfide Screen	-	-	-	-	-	-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-	

**Footnotes:**

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

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<b>Sample Location:</b>	<b>TC_D</b>				
<b>Sample Depth (ft bgs):</b>	1-1.5	3-3.5	5-5.5	7-7.5	9-9.5
<b>Sample Elevation (ft msl):</b>	6.5-7	4.5-5	2.5-3	0.5-1	-1 - (-1.5)
<b>Client Sample ID:</b>	TC_D_1-1.5	TC_D_3-3.5	TC_D_5-5.5	TC_D_7-7.5	TC_D_9-9.5
<b>Lab Sample ID:</b>	JC7615-17	JC7615-18	JC7615-19	JC7615-20	JC7615-21
<b>Date Sampled:</b>	10/29/2015	10/29/2015	10/29/2015	10/29/2015	10/29/2015
<b>Matrix:</b>	Soil	Soil	Soil	Soil	Soil

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q			
						R	Q	R	Q	R	Q	R	Q		
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-	-	<2.3 NJ-	66	<2.5 NJ-	55.2	<2.4 NJ-	25.5	<2.2 NJ-	17.7
Chromium	7440-47-3	120,000	-	-	mg/kg	32.2	-	12.7	18.7	20.7	19.6	17.7	17.7	17.7	17.7
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	12.7	-	18.7	18.7	20.7	19.6	17.7	17.7	17.7	17.7
Thallium	7440-28-0	-	-	3	mg/kg	<1.0	-	<1.2	-	<1.3	<1.2	<1.1	<1.1	<1.1	<1.1
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	72.8	-	31.4	-	39.1	35	25.7	25.7	25.7	25.7
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	2 NJ- / 0.56 NJ-	-	<0.47 NJ- / <0.47 NJ-	-	<0.51 NJ- / <0.51 NJ-	-	<0.49 NJ- / <0.49 NJ-	-	<0.45 NJ- / 0.48 NJ-	-
Iron, Ferrous	-	-	-	-	%	-	-	-	-	-	-	-	-	-	-
pH	-	-	-	-	su	8.75	-	8.49	-	8.19	-	7.52	-	7.46	-
Redox Potential Vs H2	-	-	-	-	mV	266	-	322	-	247	-	210	-	271	-
Solids, Percent	-	-	-	-	%	93	-	84.7	-	77.8	-	81.7	-	89.6	-
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	-	-	-	mg/kg	-	-	-	-	-	-	-	-	-	-

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

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Sampled by APTIM (f/k/a CB&I)**

		Sample Location: MPD_A											
		1.5-2		3-3.5		4-4.5		6-6.5		9-9.5			
		7-7.5		5.5-6		4.5-5		2.5-3		0 - (-0.5)			
		MPD_A_1.5-2		MPD_A_3-3.5		MPD_A_4-4.5		MPD_A_6-6.5		MPD_A_9-9.5			
		JC7615-27		JC7615-28		JC7615-29		JC7615-30		JC7615-31			
		10/27/2015		10/27/2015		10/27/2015		10/27/2015		10/27/2015			
		Soil		Soil		Soil		Soil		Soil			
Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.3 NJ-		<2.2 NJ-		<2.0 NJ-		<2.2 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	26		145		24.6		34.4	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	19.5		26.7		17.3		21.9	
Thallium	7440-28-0	-	-	3	mg/kg	<2.3 <sup>a</sup>		<1.1		<1.0		<2.2 <sup>a</sup>	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	118		37.6		15.9		38.4	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	<0.47 NJ- / 0.5 NJ-		<0.46 NJ- / 1.3 NJ-		<0.52 NJ- / <0.52 NJ-		<0.44 NJ- / <0.44 NJ-	
Iron, Ferrous	-	-	-	-	%	-		-		0.59 <sup>b</sup>		-	
pH	-	-	-	-	su	8.63		7.78		6.39		7.29	
Redox Potential Vs H2	-	-	-	-	mV	296		327		364		346	
Solids, Percent	-	-	-	-	%	85		87.4		77.6		90.4	
Sulfide Screen	-	-	-	-	-	-		-		NEGATIVE <sup>c</sup>		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		340,000 <sup>d</sup> J		-	

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

<sup>b</sup> The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

<sup>c</sup> The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

<sup>d</sup> Analysis completed out of holding time.

ft bgs = feet below ground surface

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mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

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\*\*The use of the USEPA Regional Soil Screening Level of 390 mg/kg for vanadium is proposed as an alternative remediation standard for the site. Based on: <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2015>

The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

**Analytical Data Qualifiers:**

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**Table 6**  
**Morris Pesin Drive and Traffic Circle Delineation Soil Boring Analytical Summary Table**  
**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

<b>Sample Location:</b>	<b>MPD_A1</b>				
<b>Sample Depth (ft bgs):</b>	<b>1-1.5</b>	<b>2.5-3</b>	<b>4.5-5</b>	<b>9-9.5</b>	<b>9-9.5</b>
<b>Sample Elevation (ft msl):</b>	<b>7.5-8</b>	<b>6-6.5</b>	<b>4-4.5</b>	<b>0 - (-0.5)</b>	<b>0 - (-0.5)</b>
<b>Client Sample ID:</b>	<b>MPD_A1_1-1.5</b>	<b>MPD_A1_2.5-3</b>	<b>MPD_A1_4.5-5</b>	<b>MPD_A1_9-9.5</b>	<b>MPD_DUP04</b>
<b>Lab Sample ID:</b>	<b>JC7615-63</b>	<b>JC7615-64</b>	<b>JC7615-65</b>	<b>JC7615-66</b>	<b>JC7615-67</b>
<b>Date Sampled:</b>	<b>10/30/2015</b>	<b>10/30/2015</b>	<b>10/30/2015</b>	<b>10/30/2015</b>	<b>10/30/2015</b>
<b>Matrix:</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-		<2.3 NJ-		<2.4 NJ-		<2.4 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	25.8		21.1		17.5		24.4	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	16.9		14.4		12.2		14.9	
Thallium	7440-28-0	-	-	3	mg/kg	<1.1		<1.2		<1.2		<1.2	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	93		18.6		24.9		29.3	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	1.5		0.65		<0.48		<0.46	
Iron, Ferrous	-	-	-	-	%	-		-		-		-	
pH	-	-	-	-	su	8.59		7.15		7.36		7.26	
Redox Potential Vs H2	-	-	-	-	mV	262		296		299		292	
Solids, Percent	-	-	-	-	%	94.6		88.8		83.7		87.3	
Sulfide Screen	-	-	-	-	-	-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-	

**Footnotes:**

- <sup>a</sup> Elevated detection limit due to dilution required for high interfering element.
- <sup>b</sup> The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- <sup>c</sup> The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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\*Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods;  
 SPLP = Synthetic Precipitation Leaching Procedure.

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

**Analytical Data Qualifiers:**

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**Table 6**  
**Morris Pesin Drive and Traffic Circle Delineation Soil Boring Analytical Summary Table**  
**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

		MPD_B												
		1-1.5		1-1.5		3-3.5		5-5.5		7-7.5		9-9.5		
		8.5-9		8.5-9		6.5-7		4.5-5		2.5-3		0.5-1		
		MPD_B_1-1.5		MPD_DUP01		MPD_B_3-3.5		MPD_B_5-5.5		MPD_B_7-7.5		MPD_B_9-9.5		
		JC7615-32		JC7615-37		JC7615-33		JC7615-34		JC7615-35		JC7615-36		
		10/27/2015		10/27/2015		10/27/2015		10/27/2015		10/27/2015		10/27/2015		
		Soil		Soil		Soil		Soil		Soil		Soil		
Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q		
						R	Q	R	Q	R	Q	R	Q	
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-		<4.1 <sup>a</sup> NJ-		<2.3 NJ-		<2.4 NJ-		<2.5 NJ-
Chromium	7440-47-3	120,000	-	-	mg/kg	9.3 J		20 J		21.1		23.8		15.4
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	14.6		17.8		12.4		17.2		13.2
Thallium	7440-28-0	-	-	3	mg/kg	<2.1 <sup>a</sup>		<2.0 <sup>a</sup>		<1.2		<1.2		<1.3
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	132		99.1		23.1		71.6		23.8
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	<0.42 NJ- / 0.44 NJ-		<0.42 NJ- / <0.42 NJ-		0.7 NJ- / 0.58 NJ-		<0.51 NJ- / 0.75 NJ-		<0.48 NJ- / 0.76 NJ- / 1.1 NJ-
Iron, Ferrous	-	-	-	-	%	-		-		-		-		-
pH	-	-	-	-	su	9.18		8.8		7.6		6.88		7.15
Redox Potential Vs H2	-	-	-	-	mV	313		310		343		275		360
Solids, Percent	-	-	-	-	%	95.5		94.7		82.9		78.8		83.6
Sulfide Screen	-	-	-	-	-	-		-		-		-		-
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-		-

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

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**Table 6**  
**Morris Pesin Drive and Traffic Circle Delineation Soil Boring Analytical Summary Table**  
**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

		MPD_C												
		1-1.5		3-3.5		3-3.5		5-5.5		7-7.5		9-9.5		
		9.5-10		7.5-8		7.5-8		5.5-6		3.5-4		1.5-2		
		MPD_C_1-1.5		MPD_C_3-3.5		MPD_DUP02		MPD_C_5-5.5		MPD_C_7-7.5		MPD_C_9-9.5		
		JC7615-38		JC7615-39		JC7615-43		JC7615-40		JC7615-41		JC7615-42		
		10/28/2015		10/28/2015		10/28/2015		10/28/2015		10/28/2015		10/28/2015		
		Soil		Soil		Soil		Soil		Soil		Soil		
Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q		
						R	Q	R	Q	R	Q	R	Q	
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-		3.5 NJ-		3.1 NJ-		<2.3 NJ-		<3.0 NJ-
Chromium	7440-47-3	120,000	-	-	mg/kg	72.3		13.3		11.8		18		20.8
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	17.5		20.1		24.7		13.3		16.4
Thallium	7440-28-0	-	-	3	mg/kg	<1.1		<1.1		<1.1		<1.2		<1.5
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	30.7		17		18.4		25.2		29
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	0.78 NJ- / 0.8 NJ-		<0.44 NJ- / <0.44 NJ-		<0.44		<0.48 NJ- / <0.48 NJ-		0.84
Iron, Ferrous	-	-	-	-	%	-		-		-		-		-
pH	-	-	-	-	su	8.56		8.33		8.28		7.49		6.16
Redox Potential Vs H2	-	-	-	-	mV	330		338		385		344		367
Solids, Percent	-	-	-	-	%	93.2		91.2		90.2		83.4		62.6
Sulfide Screen	-	-	-	-	-	-		-		-		-		-
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-		-

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

<sup>b</sup> The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

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**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

		MPD_D											
		1-1.5		2-2.5		4-4.5		6-6.5		9-9.5			
		10.5-11		9.5-10		7.5-8		5.5-6		2.5-3			
		MPD_D_1-1.5		MPD_D_2-2.5		MPD_D_4-4.5		MPD_D_6-6.5		MPD_D_9-9.5			
		JC7615-44		JC7615-45		JC7615-46		JC7615-47		JC7615-48			
		10/28/2015		10/28/2015		10/28/2015		10/28/2015		10/28/2015			
		Soil		Soil		Soil		Soil		Soil			
Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
Antimony	7440-36-0	450	31	6	mg/kg	<2.2 NJ-		<2.1 NJ-		<2.1 NJ-		<2.7 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	24.9		18.8		13.9		15.3	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	18.5		25.4		15.5		10.9	
Thallium	7440-28-0	-	-	3	mg/kg	<1.1		<1.0		<1.1		<1.4	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	42.9		17.2		22.2		21.2	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	<0.44		0.5		<0.43		<0.55	
Iron, Ferrous	-	-	-	-	%	-		-		-		-	
pH	-	-	-	-	su	8.53		8.1		8.49		6.82	
Redox Potential Vs H2	-	-	-	-	mV	348		400		363		392	
Solids, Percent	-	-	-	-	%	91.2		94.2		92.5		72.7	
Sulfide Screen	-	-	-	-	-	-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-	

**Footnotes:**

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**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

Sample Location:	MPD_E			
Sample Depth (ft bgs):	1.7-2.2	4.5-5	5.5-6	7.5-8
Sample Elevation (ft msl):	11.8-12.3	9-9.5	8-8.5	6-6.5
Client Sample ID:	MPD_E_1.7-2.3	MPD_E_4.5-5	MPD_E_5.5-6	MPD_E_7.5-8
Lab Sample ID:	JC7615-49	JC7615-50	JC7615-51	JC7615-52
Date Sampled:	10/29/2015	10/29/2015	10/29/2015	10/29/2015
Matrix:	Soil	Soil	Soil	Soil

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q	
						R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<4.3 <sup>a</sup> NJ-		<2.1 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	23.0 <sup>a</sup>		17.1	28.1
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	15.6		16.1	16.4
Thallium	7440-28-0	-	-	3	mg/kg	<2.1 <sup>a</sup>		<1.1	<1.1
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	101		22.3	36.3
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	1.1		0.43	<0.42
Iron, Ferrous	-	-	-	-	%	-		-	-
pH	-	-	-	-	su	8.77		7.99	8.04
Redox Potential Vs H2	-	-	-	-	mV	353		386	395
Solids, Percent	-	-	-	-	%	92.1		93.7	94.7
Sulfide Screen	-	-	-	-	-	-		-	-
Total Organic Carbon	-	-	-	-	mg/kg	-		-	-

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

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Site 65, Burma Road, Jersey City, NJ  
Sampled by APTIM (f/k/a CB&I)**

		Sample Location: MPD_E1											
		1-1.5		2-2.5		4.5-5		7-7.5		9-9.5			
		12.5-13		11.5-12		9-9.5		6.5-7		4.5-5			
		MPD_E1_1-1.5		MPD_E1_2-2.5		MPD_E1_4.5-5		MPD_E1_7-7.5		MPD_E1_9-9.5			
		JC7615-78		JC7615-79		JC7615-80		JC7615-81		JC7615-82			
		10/30/2015		10/30/2015		10/30/2015		10/30/2015		10/30/2015			
		Soil		Soil		Soil		Soil		Soil			
Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-		<2.2 NJ-		<2.0 NJ-		<2.3 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	34.5		23.7		27.2		28.7	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	16.1		15.6		8.8		34.2	
Thallium	7440-28-0	-	-	3	mg/kg	<1.0		<1.1		<1.0		<1.1	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	77.8		37.3		11.1		41.4	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	0.6		<0.43		<0.42		<0.48	
Iron, Ferrous	-	-	-	-	%	-		-		-		-	
pH	-	-	-	-	su	8.55		8.53		8.39		7.05	
Redox Potential Vs H2	-	-	-	-	mV	310		297		278		308	
Solids, Percent	-	-	-	-	%	92.2		93.1		95.8		84.1	
Sulfide Screen	-	-	-	-	-	-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-	

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The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

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		MPD_F											
		1-1.5		1-1.5		2-2.5		5-5.5		7-7.5		9-9.5	
		14.5-15		14.5-15		13.5-14		10.5-11		8.5-9		6.5-7	
		MPD_F_1-1.5		MPD_DUP03		MPD_F_2-2.5		MPD_F_5-5.5		MPD_F_7-7.5		MPD_F_9-9.5	
		JC7615-54		JC7615-53		JC7615-55		JC7615-56		JC7615-57		JC7615-58	
		10/29/2015		10/29/2015		10/29/2015		10/29/2015		10/29/2015		10/29/2015	
		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<4.2 <sup>a</sup> NJ-	<4.2 <sup>a</sup> NJ-	<2.1 NJ-	<2.3 NJ-	<2.3 NJ-	<2.2 NJ-		
Chromium	7440-47-3	120,000	-	-	mg/kg	28.8	26.9	27.3	53.2	19.6	27.7		
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	19.3	17.5	18.1	17.8	14.6	15.4		
Thallium	7440-28-0	-	-	3	mg/kg	<2.1 <sup>a</sup>	<2.1 <sup>a</sup>	<1.1	<1.1	<1.1	<1.1		
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	42.5	41.5	39.8	33.3	26.1	36.5		
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	0.46	<0.43	0.62	3.7	<0.46	0.94		
Iron, Ferrous	-	-	-	-	%	-	-	-	-	-	-		
pH	-	-	-	-	su	7.69	8.09	8.2	8.28	8.03	7.99		
Redox Potential Vs H2	-	-	-	-	mV	341	405	360	333	342	344		
Solids, Percent	-	-	-	-	%	91.1	92.8	91.5	90.3	87	88.1		
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-		
Total Organic Carbon	-	-	-	-	mg/kg	-	-	-	-	-	-		

**Footnotes:**

<sup>a</sup> Elevated detection limit due to dilution required for high interfering element.

<sup>b</sup> The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

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\*\*The use of the USEPA Regional Soil Screening Level of 390 mg/kg for vanadium is proposed as an alternative remediation standard for the site. Based on: <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2015>

The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

**Result exceeded criteria**

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**Site 65, Burma Road, Jersey City, NJ**  
**Sampled by APTIM (f/k/a CB&I)**

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	Sample Location: MPD_F1									
						1-1.5		3-3.5		5-5.5		7-7.5		9-9.5	
Sample Depth (ft bgs):						14.5-15	12.5-13	10.5-11	8.5-9	6.5-7					
Sample Elevation (ft msl):						14.5-15	12.5-13	10.5-11	8.5-9	6.5-7					
Client Sample ID:						MPD_F1_1-1.5	MPD_F1_3-3.5	MPD_F1_5-5.5	MPD_F1_7-7.5	MPD_F1_9-9.5					
Lab Sample ID:						JC7615-73	JC7615-74	JC7615-75	JC7615-76	JC7615-77					
Date Sampled:						10/30/2015	10/30/2015	10/30/2015	10/30/2015	10/30/2015					
Matrix:						Soil	Soil	Soil	Soil	Soil					
						R	Q	R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.2 NJ-		<2.3 NJ-		<4.1 <sup>a</sup> NJ-		<2.3 NJ-		<2.4 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	23.1		26.8		28.6		16.5		19.8	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	15.7		17		18.4		13.1		16.5	
Thallium	7440-28-0	-	-	3	mg/kg	<1.1		<1.1		<2.1 <sup>a</sup>		<1.2		<1.2	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	65.8		41		40.7		25		31	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	0.55		<0.44		<0.43		0.51		0.6	
Iron, Ferrous	-	-	-	-	%	-		-		-		-		-	
pH	-	-	-	-	su	8.92		8.36		7.76		7.39		7.45	
Redox Potential Vs H2	-	-	-	-	mV	329		324		326		335		338	
Solids, Percent	-	-	-	-	%	90.5		91		92.7		89.5		89	
Sulfide Screen	-	-	-	-	-	-		-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-		-	

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<b>Sample Location:</b>	<b>MPD_G</b>			
<b>Sample Depth (ft bgs):</b>	1.5-2	3.5-4	5-5.5	7-7.5
<b>Sample Elevation (ft msl):</b>	7-7.5	5-5.5	3.5-4	1.5-2
<b>Client Sample ID:</b>	MPD_G_1.5-2	MPD_G_3.5-4	MPD_G_5-5.5	MPD_G_7-7.5
<b>Lab Sample ID:</b>	JC7615-59	JC7615-60	JC7615-61	JC7615-62
<b>Date Sampled:</b>	10/29/2015	10/29/2015	10/29/2015	10/29/2015
<b>Matrix:</b>	Soil	Soil	Soil	Soil

Analyte	CAS#	Non-Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Residential Direct Contact Soil Remediation Standard (NJAC 7:26D 9/17)	Default Impact to Groundwater Soil Screening Level (11/13)	Units	R		Q		R		Q	
						R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.0 NJ-		<2.4 NJ-		<2.6 NJ-		<2.3 NJ-	
Chromium	7440-47-3	120,000	-	-	mg/kg	21.6		18.8		20.2		22.6	
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	13.3		18.8		14.6		15.4	
Thallium	7440-28-0	-	-	3	mg/kg	<1.0		<1.2		<1.3		<1.2	
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	60.4		25.8		29.7		41.1	
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	1.3		<0.45		<0.50		<0.46	
Iron, Ferrous	-	-	-	-	%	-		-		-		-	
pH	-	-	-	-	su	8.78		7.19		7.34		7.35	
Redox Potential Vs H2	-	-	-	-	mV	325		358		218		240	
Solids, Percent	-	-	-	-	%	93.3		88.1		79.9		87.5	
Sulfide Screen	-	-	-	-	-	-		-		-		-	
Total Organic Carbon	-	-	-	-	mg/kg	-		-		-		-	

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						1-1.5		3-3.5		5-5.5		7-7.5		9-9.5	
Sample Depth (ft bgs):						15.5-16	13.5-14	11.5-12	9.5-10	7.5-8					
Sample Elevation (ft msl):															
Client Sample ID:						MPD_H_1-1.5	MPD_H_3-3.5	MPD_H_5-5.5	MPD_H_7-7.5	MPD_H_9-9.5					
Lab Sample ID:						JC7615-68	JC7615-69	JC7615-70	JC7615-71	JC7615-72					
Date Sampled:						10/30/2015	10/30/2015	10/30/2015	10/30/2015	10/30/2015					
Matrix:						Soil	Soil	Soil	Soil	Soil					
						R	Q	R	Q	R	Q	R	Q	R	Q
Antimony	7440-36-0	450	31	6	mg/kg	<2.1 NJ-	<2.1 NJ-	<2.7 NJ-	<2.2 NJ-	<2.2 NJ-					
Chromium	7440-47-3	120,000	-	-	mg/kg	12.7	21.7	25.2	14	23.5					
Nickel	7440-02-0	23,000	1,600	205*	mg/kg	12.5	14.9	13	9.9	14.6					
Thallium	7440-28-0	-	-	3	mg/kg	<1.1	<1.1	<1.3	<1.1	<1.1					
Vanadium	7440-62-2	1,100	390**	NA	mg/kg	113	35.1	27.7	14	31.9					
Chromium, Hexavalent	18540-29-9	20	-	-	mg/kg	0.43	0.57	1	1.3	<0.43					
Iron, Ferrous	-	-	-	-	%	-	-	-	-	-					
pH	-	-	-	-	su	9.25	8.45	8.52	7.74	7.49					
Redox Potential Vs H2	-	-	-	-	mV	268	295	333	348	341					
Solids, Percent	-	-	-	-	%	93.8	92.3	77.6	87.3	93.6					
Sulfide Screen	-	-	-	-	-	-	-	-	-	-					
Total Organic Carbon	-	-	-	-	mg/kg	-	-	-	-	-					

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