

**From:** [Brunt, Larry](#)  
**To:** [Flannery, Rebecca](#)  
**Subject:** [External] RE: Alliance 51st Street Terminal  
**Date:** Monday, June 10, 2024 1:12:36 PM  
**Attachments:** [Table 1 SW VOCSVOC Results.pdf](#)  
[Table 2 SW Dye Results.pdf](#)  
[Table 4 202401 GW Cr.pdf](#)  
[Table 5 New 202405 GW Cr.pdf](#)  
[Table 6 Soil Cr.pdf](#)  
[Table 7 Soil splp.pdf](#)  
[Table3 SW Cr Results.pdf](#)  
[2024-5-29 Proposed Temporary Well Locations.pdf](#)

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Rebecca,

As we discussed Thursday, Alliance has been actively investigating the source of the discolored (yellow-green) water discovered in the surface water at the site by the Philadelphia Water Authority. The initial step was to construct soil berms across the low lying area on the eastern portion of the site to prevent any discolored water from leaving the site. This has been effective, and no discolored water has flowed off the site. The next step was to identify the type of contaminant and potential source creating the colored water. The information provided by the Philadelphia Water Department (PWD) threw us off track for a while looking for sources of synthetic dyes. As you will recall, the PWD would not provide us with their laboratory data, only a description that the water contained a synthetic dye.

Based upon the information from the PWD, we collected some samples of the water on April 29<sup>th</sup> to evaluate the potential contaminants and submitted the samples to laboratories for analysis for VOCs, SVOCs and dyes (fluorescein, eosine and rhodamine WT (RWT), sulforhodamine B (SRB) and pyranine dyes). No dyes were detected in the sample. No VOCs other than a low level of acetone were detected in the sample. Similarly, only estimated concentrations below laboratory reporting limits of bis(2-ethylhexyl)phthalate, benzo(b)fluoranthene, and benzo(k)fluoranthene were detected in the SVOC analyses. We also performed some field screening tests using field test strips. During these tests, we identified the presence of chromate. We then submitted a sample of the water (unfiltered) to a laboratory and confirmed that chromium was present in the water. The laboratory sampling results are summarized in Tables 1 - 3.

After determining the type of contaminant, we performed a thorough review of all soil boring logs from the site and identified several locations where stained soil with yellow-green color was observed. The locations appeared to be limited to the soil around former tanks TK-7550 and TK-7551 which were previously used for storage of gasoline and Fuel Oil No. 2. We also determined that monitoring wells MW-3, MW-4 and MW-7 had a yellowish tint in the water when sampled. We requested the lab to research the analyses completed for lead in January to determine if data could be obtained from the monitoring wells for total chromium. The laboratory method for metals was ICP so the lab went back to review all prior ICP results from the January 2024 sampling event and was able to provide data for all wells except MW-3, MW-4 and MW-7 due to QA/QC issues (see

attached results). Chromium was present in wells MW-1, MW-2, MW-5 and MW-8 at concentrations below the non-residential used aquifer MSCs. In MW-9, chromium was detected at a concentration greater than the non-residential used aquifer MSC but below the non-residential non-use aquifer MSC. The results are summarized in Table 4.

After receiving this data, we mobilized to the site on May 30<sup>th</sup> and collected groundwater samples from wells MW-3, MW-4, MW-7 and MW-9 for analysis for total chromium and hexavalent chromium. The results were received earlier this week and identified the presence of chromium (trivalent and hexavalent) in the groundwater. The concentrations of total chromium were below the non-residential non-use aquifer MSCs but were above the non-residential used aquifer MSCs. The results are summarized in Table 5.

We also performed test pits at three previous boring locations (SB-206, SB-209 and SB-216) where stained soil was identified. The test pits identified the presence of a distinctive layer of discolored soil (yellow-green staining) which started at approximately 3.5 to 5 feet below grade which corresponded to approximately 0-6 inches above the current water table. The stain soil is very distinctive in color and is not present in the first several feet of the soil column. Further, chromium is not related to any prior uses of the property. As such, the stained soil layer appeared to have been related to historic filling of the area. This is being further evaluated as discussed below. Samples were collected from the stained soil. The analysis of the stained soil confirmed the presence of trivalent and hexavalent chromium. The concentrations of trivalent and hexavalent chromium in the stained soil from SB-206, SB-209 and SB-216 as well as the soil collected from SB-501 and SB-502 were below the non-residential direct contact MSCs and non-residential used aquifer soil to groundwater MSCs. In SB-503 and SB-504, hexavalent chromium was not detected, and trivalent chromium was identified at 230 mg/kg and 987 mg/kg, respectively. The results are summarized in Table 6. SPLP analysis also was performed on the samples from SB-206, SB-209 and SB-216 for hexavalent chromium. The concentrations ranged from 14.4 mg/L to 58.8 mg/l. The results are summarized in Table 7. A figure illustrating the sample locations also is attached.

Based on these findings, we mobilized to the site this past Friday to collect additional groundwater and soil samples from temporary wells and borings being installed to the west of the tank containment area to fully delineate the area of the color-stained soil and along the western property boundary to determine if the colored soil/groundwater extends that far upgradient such that an offsite source could be impacting the site. We should have those results later this week.

In conjunction with the above, we also are researching historical records to determine if this area of Philadelphia was historically filled with material, since the presence of chromium is not related to the previous petroleum terminal operations or the historic operations, lumber and cardboard manufacturing, performed at the site. You mentioned that you have an associate in your office who is very good at researching historic records. Any assistance from her would be greatly appreciated.

Also, as discussed, the chromium impacts will be addressed with the Act 2 case, and we will update the NIR to reflect that. Based upon all the above data and evaluation and any information your office may be able to provide regarding historic records, we will develop a path forward for the chromium. Except for the chromium, we have completed all field work and were getting ready to submit the Act

2 Remedial Investigation Report and Cleanup Plan to you.

We will keep you informed as we receive further information and results. Any questions, let us know.

Thanks,  
Larry

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**From:** Flannery, Rebecca <rflannery@pa.gov>  
**Sent:** Tuesday, June 4, 2024 10:55 AM  
**To:** Brunt, Larry <Larry.Brunt@arcadis.com>  
**Subject:** Alliance 51st Street Terminal

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Larry,

I was wondering what type of investigation was performed regarding the green colored water? I just got another call regarding the outcome of it.

Any information would be helpful.

Thank you,

**Rebecca Flannery** | Geoscientist  
Department of Environmental Protection | Southeast Regional Office  
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**Table 1**  
**Summary of Surface Water VOC/SVOC Sampling Results- April 29, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

SAMPLE ID: LAB ID: COLLECTION DATE: SAMPLE MATRIX:	Pennsylvania Non-Residential Non-Use Aquifer Groundwater MSCs Criteria	Pennsylvania Non-Residential Used Aquifer Groundwater MSCs Criteria	SW-1			
			L2423395-01			
ANALYTE	(ug/l)	(ug/l)	Conc	Q	RL	MDL
<b>VOLATILE ORGANICS BY GC/MS</b>						
1,1,1-Trichloroethane	2000	200	0.16	U	0.5	0.16
1,1,2-Trichloro-1,2,2-Trifluoroethane	170000	44000	0.15	U	2.5	0.15
1,1,2-Trichloroethane	50	5	0.14	U	0.75	0.14
1,1-Dichloroethane	1600	160	0.21	U	0.75	0.21
1,1-Dichloroethene	70	7	0.17	U	0.5	0.17
1,2,3-Trichlorobenzene	NS	NS	0.23	U	2.5	0.23
1,2,4-Trichlorobenzene	7000	70	0.22	U	2.5	0.22
1,2-Dibromo-3-chloropropane	20	0.2	0.35	U	2.5	0.35
1,2-Dibromoethane	5	0.05	0.19	U	2	0.19
1,2-Dichlorobenzene	60000	600	0.18	U	2.5	0.18
1,2-Dichloroethane	50	5	0.13	U	0.5	0.13
1,2-Dichloroethene, Total	NS	NS	0.16	U	0.5	0.16
1,2-Dichloropropane	50	5	0.14	U	1	0.14
1,3-Dichlorobenzene	60000	600	0.19	U	2.5	0.19
1,3-Dichloropropene, Total	2700	27	0.14	U	0.5	0.14
1,4-Dichlorobenzene	7500	75	0.19	U	2.5	0.19
2-Butanone	400000	4000	1.9	U	5	1.9
2-Hexanone	260	260	0.52	U	5	0.52
4-Methyl-2-pentanone	780000	7800	0.42	U	5	0.42
Acetone	880000	88000	8.6		5	1.5
Benzene	500	5	0.16	U	0.5	0.16
Bromochloromethane	90	90	0.15	U	2.5	0.15
Bromodichloromethane	80	80	0.19	U	0.5	0.19
Bromoform	8000	80	0.25	U	2	0.25
Bromomethane	1000	10	0.26	U	1	0.26
Carbon disulfide	6200	6200	0.3	U	5	0.3
Carbon tetrachloride	50	5	0.13	U	0.5	0.13
Chlorobenzene	10000	100	0.18	U	0.5	0.18
Chloroethane	5700000	88000	0.13	U	1	0.13
Chloroform	800	80	0.22	U	0.75	0.22
Chloromethane	3000	30	0.2	U	2.5	0.2
cis-1,2-Dichloroethene	700	70	0.19	U	0.5	0.19
cis-1,3-Dichloropropene	3400	34	0.14	U	0.5	0.14
Cyclohexane	53000	53000	0.27	U	10	0.27
Dibromochloromethane	8000	80	0.15	U	0.5	0.15
Dichlorodifluoromethane	100000	1000	0.24	U	5	0.24
Ethylbenzene	70000	700	0.17	U	0.5	0.17
Isopropylbenzene	50000	3500	0.19	U	0.5	0.19
Methyl Acetate	97000	97000	0.23	U	2	0.23
Methyl cyclohexane	NS	NS	0.4	U	10	0.4
Methyl tert butyl ether	200	20	0.17	U	1	0.17
Methylene chloride	500	5	0.68	U	2.5	0.68
o-Xylene	180000	10000	0.39	U	1	0.39
p/m-Xylene	180000	10000	0.33	U	1	0.33
Styrene	10000	100	0.36	U	1	0.36
Tetrachloroethene	50	5	0.18	U	0.5	0.18
Toluene	100000	1000	0.2	U	0.75	0.2
trans-1,2-Dichloroethene	1000	100	0.16	U	0.75	0.16
trans-1,3-Dichloropropene	3400	34	0.16	U	0.5	0.16
Trichloroethene	50	5	0.18	U	0.5	0.18
Trichlorofluoromethane	200000	2000	0.16	U	2.5	0.16
Vinyl chloride	20	2	0.07	U	1	0.07
Xylenes, Total	180000	10000	0.33	U	1	0.33
Total VOCs	NS	NS	21.28	-	-	-
<b>VOLATILE ORGANICS BY GC/MS-SIM</b>						
1,1,2,2-Tetrachloroethane	430	4.3	0.006	U	0.05	0.006
1,4-Dioxane	270	27	1.1	U	3	1.1
Total VOCs	NS	NS	1.106	-	-	-
<b>VOLATILE ORGANICS BY GC/MS-TIC</b>						
No Tentatively Identified Compounds	NS	NS	0	U	0	0
Total VOCs	NS	NS	-	-	-	-
<b>SEMIVOLATILE ORGANICS BY GC/MS</b>						
1,2,4,5-Tetrachlorobenzene	580	29	0.44	U	1.7	0.44
2,3,4,6-Tetrachlorophenol	180000	2900	0.84	U	5	0.84
2,4,5-Trichlorophenol	1000000	9700	0.77	U	5	0.77
2,4,6-Trichlorophenol	97000	97	0.61	U	5	0.61
2,4-Dichlorophenol	20000	20	0.41	U	5	0.41
2,4-Dimethylphenol	1900000	1900	1.8	U	5	1.8
2,4-Dinitrophenol	190000	190	6.6	U	20	6.6
2,4-Dinitrotoluene	8800	8.8	1.2	U	5	1.2
2,6-Dinitrotoluene	1800	1.8	0.93	U	5	0.93
2-Chloronaphthalene	7800	7800	0.44	U	2	0.44
2-Chlorophenol	40	40	0.48	U	2	0.48
2-Methylnaphthalene	26	26	0.45	U	2	0.45
2-Methylphenol	490000	4900	0.49	U	5	0.49
2-Nitroaniline	0.44	0.44	0.5	U	5	0.5
2-Nitrophenol	78000	780	0.85	U	5	0.85
3,3'-Dichlorobenzidine	3100	6	1.6	U	5	1.6
3-Methylphenol/4-Methylphenol	490000	490	0.48	U	5	0.48
3-Nitroaniline	NS	NS	0.81	U	5	0.81
4,6-Dinitro-o-cresol	NS	NS	1.8	U	10	1.8
4-Bromophenyl phenyl ether	NS	NS	0.38	U	2	0.38
4-Chloroaniline	14	14	1.1	U	3.7	1.1
4-Chlorophenyl phenyl ether	NS	NS	0.49	U	2	0.49
4-Nitroaniline	140	140	0.8	U	5	0.8
4-Nitrophenol	6000	60	0.67	U	10	0.67
Acenaphthene	3800	3800	0.53	U	2	0.53

**Table 1**  
**Summary of Surface Water VOC/SVOC Sampling Results- April 29, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

SAMPLE ID:	Pennsylvania Non-Residential Non-Use Aquifer Groundwater MSCs Criteria	Pennsylvania Non-Residential Used Aquifer Groundwater MSCs Criteria	SW-1			
LAB ID:			L2423395-01			
COLLECTION DATE:			4/29/2024			
SAMPLE MATRIX:			WATER			
ANALYTE	(ug/l)	(ug/l)	Conc	Q	RL	MDL
Acenaphthylene	16000	5800	0.46	U	2	0.46
Acetophenone	9700	9700	0.53	U	5	0.53
Anthracene	66	66	0.33	U	2	0.33
Atrazine	3	3	0.76	U	3	0.76
Benzaldehyde	NS	NS	0.53	U	5	0.53
Biphenyl	350	3.5	0.46	U	2	0.46
Bis(2-chloroethoxy)methane	290	290	0.5	U	5	0.5
Bis(2-chloroisopropyl)ether	30000	300	0.53	U	2	0.53
Butyl benzyl phthalate	2700	1400	1.2	U	5	1.2
Caprolactam	NS	NS	3.3	U	10	3.3
Carbazole	140	140	0.49	U	2	0.49
Chrysene	1.9	1.9	0.34	U	1.4	0.34
Di-n-butylphthalate	400000	9700	0.39	U	5	0.39
Di-n-octylphthalate	3000	970	1.3	U	5	1.3
Dibenzofuran	4500	97	0.5	U	2	0.5
Diethyl phthalate	1100000	78000	0.38	U	5	0.38
Dimethyl phthalate	NS	NS	1.8	U	5	1.8
Fluoranthene	260	260	0.26	U	2	0.26
Fluorene	1900	1900	0.41	U	2	0.41
Hexachlorobutadiene	2900	35	0.66	U	2	0.66
Hexachlorocyclopentadiene	1800	50	0.69	U	20	0.69
Isophorone	100000	100	1.2	U	5	1.2
Naphthalene	10000	100	0.46	U	2	0.46
NDPA/DPA	9600	96	0.42	U	2	0.42
Nitrobenzene	630	6.3	0.77	U	1.4	0.77
p-Chloro-m-cresol	9700	9700	0.35	U	2	0.35
Phenanthrene	1100	1100	0.33	U	2	0.33
Phenol	200000	2000	0.57	U	5	0.57
Pyrene	130	130	0.28	U	2	0.28
Total SVOCs	NS	NS	45.67	-	-	-
<b>SEMIVOLATILE ORGANICS BY GC/MS-SIM</b>						
Benzo(a)anthracene	11	3.9	0.02	U	0.05	0.02
Benzo(a)pyrene	3.8	0.2	0.02	U	0.1	0.02
Benzo(b)fluoranthene	1.2	1.2	0.01	J	0.05	0.01
Benzo(ghi)perylene	0.26	0.26	0.01	U	0.1	0.01
Benzo(k)fluoranthene	0.55	0.55	0.01	J	0.1	0.01
Bis(2-chloroethyl)ether	76	0.76	0.02	U	0.1	0.02
Bis(2-ethylhexyl)phthalate	290	6	0.56	J	1	0.51
Dibenzo(a,h)anthracene	0.6	0.6	0.01	U	0.05	0.01
Hexachlorobenzene	6	1	0.01	U	0.02	0.01
Hexachloroethane	100	1	0.06	U	0.2	0.06
Indeno(1,2,3-cd)pyrene	62	2.3	0.01	U	0.1	0.01
n-Nitrosodi-n-propylamine	NS	NS	0.01	U	0.1	0.01
Pentachlorophenol	1000	1	0.01	U	0.1	0.01
Total SVOCs	NS	NS	0.76	-	-	-

**NOTES:**

GC/MS - Gas Chromatography / Mass Spectrometry

J - The compound was detected; however, the concentration is below the laboratory method detection limit. Accordingly, this concentration is estimated.

MSC - Medium Specific Concentration

NS - No PADEP Groundwater Quality Standard established for this criteria

PADEP - Pennsylvania Department of Environmental Protection

Qual - Qualifier

SHS - Statewide Health Standard

SIM - Selected Ion Monitoring

U - Compound was undetected at the listed laboratory method detection limit.

ug/l - micrograms per liter

Italicized results are reporting limits that exceed the corresponding standard

**Table 2**  
**Summary of Surface Water Dye Sampling Results- April 29, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

<b>SAMPLE ID:</b>	SW-1
<b>LAB ID:</b>	H1531
<b>COLLECTION DATE:</b>	4/29/2024
<b>SAMPLE MATRIX:</b>	WATER
<b>DYE</b>	
Fluorescein	ND
Eosine	ND
Rhodamine WT	ND
Sulforhodamine B	ND
Pyranine	ND

Notes:

ND- No dye detected

**Table 4**  
**Summary of Groundwater Sampling Results- January 21, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

SAMPLE ID:			MW-1				MW-2				MW-5			
LAB ID:	Pennsylvania Non-Residential Non-Use Aquifer Groundwater MSCs Criteria	Pennsylvania Non-Residential Used Aquifer Groundwater MSCs Criteria	L2403900-05				L2403900-06				L2403900-01			
COLLECTION DATE:			1/23/2024				1/23/2024				1/23/2024			
SAMPLE MATRIX:			WATER				WATER				WATER			
ANALYTE	(ug/l)	(ug/l)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
<b>DISSOLVED METALS</b>														
Chromium, Dissolved	100000	100	3.518		2	0.178	5.794		2	0.178	5.28		2	0.178

SAMPLE ID:			MW-8				MW-9				FB (01232024)			
LAB ID:	Pennsylvania Non-Residential Non-Use Aquifer Groundwater MSCs Criteria	Pennsylvania Non-Residential Used Aquifer Groundwater MSCs Criteria	L2403900-02				L2403900-03				L2403900-10			
COLLECTION DATE:			1/23/2024				1/23/2024				1/23/2024			
SAMPLE MATRIX:			WATER				WATER				WATER			
ANALYTE	(ug/l)	(ug/l)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
<b>DISSOLVED METALS</b>														
Chromium, Dissolved	100000	100	1.222		1	0.178	923.5		2	0.178	1.731	J	2	0.178

NOTES:  
 MSC - Medium Specific Concentration  
 PADEP - Pennsylvania Department of Environmental Protection  
 Q - Qualifier  
 Conc - Concentration  
 RL - Reporting Limit  
 MDL - Minimum Detection Limit  
 Concentrations exceed the Non-Residential Used aquifer MSC

**Table 5**  
**Summary of Groundwater Sampling Results- May 30, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

SAMPLE ID:	Pennsylvania Non-Residential Non-Use Aquifer Groundwater MSCs Criteria	Pennsylvania Non-Residential Used Aquifer Groundwater MSCs Criteria	MW-3			MW-4			MW-7			MW-9			DUP-GW			FIELD BLANK									
LAB ID:			L2429997-03	L2429997-04	L2429997-01	L2429997-02	L2429997-05	L2429997-06																			
COLLECTION DATE:			5/30/2024			5/30/2024			5/30/2024			5/30/2024			5/30/2024												
SAMPLE MATRIX:			WATER			WATER			WATER			WATER			WATER												
ANALYTE	(ug/l)	(ug/l)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL					
<b>DISSOLVED METALS</b>																											
Chromium, Dissolved	100000	100	22700		20	3.56	21100		20	3.56	20600		10	1.78	646.8		1	0.178	19090		20	3.56	-		-		-
<b>TOTAL METALS</b>																											
Chromium, Total	100000	100	23140		20	3.56	24060		20	3.56	19380		20	3.56	44200		40	7.12	22230		20	3.56	0.178	U		1	0.178
<b>GENERAL CHEMISTRY</b>																											
Chromium, Hexavalent			21900		2000	600	23500		2000	600	18300		2000	600	1960		500	150	19200		2000	600	3	U		10	3
Chromium, Hexavalent (Unfiltered)			24800		2000	600	30800		2000	600	23100		2000	600	1140		1000	300	22900		2000	600	-		-		-

NOTES:  
 MSC - Medium Specific Concentration  
 PADEP - Pennsylvania Department of Environmental Protection  
 Q - Qualifier  
 Conc - Concentration  
 RL - Reporting Limit  
 MDL - Minimum Detection Limit  
 U - Compound was undetected at the listed laboratory method detection limit.  
 Concentrations reported in milligrams per kilogram (mg/kg)  
 Concentrations exceed the Non-Residential Used aquifer MSC



Table 6  
 Summary of Soil Sampling Results- May 30, 2024  
 Alliance 51st Street LLC  
 1646 South 51st Street  
 Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Use Aquifers Non-Residential Generic Soil to Groundwater MSCs Criteria	Pennsylvania Non-Use Aquifers Non-Residential Generic Soil to Groundwater MSCs Criteria	Pennsylvania Non- Residential Direct Contact Surface Soil (0- 2') MSCs Criteria	Pennsylvania Non- Residential Direct Contact Subsurface Soil (2-15')	SB-206 (3-3.5)			DUP-1			SB-209 (4.5-5)			SB-216 (4.5-5)						
LAB ID:					L2429996-01			L2429996-08			L2429996-02			L2429996-03						
COLLECTION DATE:					5/30/2024			5/30/2024			5/30/2024			5/30/2024						
SAMPLE DEPTH:					3-3.5			3-3.5			4.5-5			4.5-5						
SAMPLE MATRIX:					SOIL			SOIL			SOIL			SOIL						
ANALYTE	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
<b>TOTAL METALS</b>																				
Chromium, Trivalent*	190000	190000	190000	190000		U			18240				11400				8100			
Chromium, Total					27100		6.2	0.595	27300		6.54	0.628	22700		7.5	0.72	23100		7.03	0.675
<b>GENERAL CHEMISTRY</b>																				
Chromium, Hexavalent	190	190000	180	140000	27900		1310	262	9060		1320	264	11300		1540	309	15000		1440	288
Solids, Total					61		0.1	NA	60.6		0.1	NA	51.8		0.1	NA	55.6		0.1	NA

SAMPLE ID:	Pennsylvania Use Aquifers Non-Residential Generic Soil to Groundwater MSCs Criteria	Pennsylvania Non-Use Aquifers Non-Residential Generic Soil to Groundwater MSCs Criteria	Pennsylvania Non- Residential Direct Contact Surface Soil (0- 2') MSCs Criteria	Pennsylvania Non- Residential Direct Contact Subsurface Soil (2-15')	SB-501 (4.5-5)			SB-502 (4.5-5)			SB-503 (6-6.5)			SB-504 (8-8.5)						
LAB ID:					L2429996-04			L2429996-05			L2429996-06			L2429996-07						
COLLECTION DATE:					5/30/2024			5/30/2024			5/30/2024			5/30/2024						
SAMPLE DEPTH:					4.5-5			4.5-5			6-6.5			8-8.5						
SAMPLE MATRIX:					SOIL			SOIL			SOIL			SOIL						
ANALYTE	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
<b>TOTAL METALS</b>																				
Calc Cr3	190000	190000	190000	190000	12490				15800				229.8				986.8			
Chromium, Total					17500		6.9	0.662	28100		6.89	0.662	230		1.05	0.1	987		1.02	0.098
<b>GENERAL CHEMISTRY</b>																				
Chromium, Hexavalent	190	190000	180	140000	5010		1410	283	12300		1380	277	0.216	U	1.08	0.22	0.213	U	1.06	0.213
Solids, Total					56.6		0.1	NA	57.8		0.1	NA	74		0.1	NA	75.1		0.1	NA

NOTES:  
 MSC - Medium Specific Concentration  
 PADEP - Pennsylvania Department of Environmental Protection  
 Q - Qualifier  
 Conc - Concentration  
 RL - Reporting Limit  
 MDL - Minimum Detection Limit  
 GW - Groundwater  
 \* calculated based on the difference between detected total chromium and hexavalent chromium concentrations  
 U - Compound was undetected at the listed laboratory method detection limit.  
 Concentrations reported in milligrams per kilogram (mg/kg)

**Table 7**  
**Summary of SPLP Soil Sampling Results- May 30, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

SAMPLE ID:	SB-206 (3-3.5)			DUP-1			SB-209 (4.5-5)			SB-216 (4.5-5)						
LAB ID:	L2429996-01			L2429996-08			L2429996-02			L2429996-03						
COLLECTION DATE:	5/30/2024			5/30/2024			5/30/2024			5/30/2024						
SAMPLE DEPTH:	3-3.5			3-3.5			4.5-5			4.5-5						
SAMPLE MATRIX:	SOIL			SOIL			SOIL			SOIL						
ANALYTE	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
<b>GENERAL CHEMISTRY</b>																
Chromium, Hexavalent	58.8		5	1.5	55.9		5	1.5	14.4		2	0.6	38.3		5	1.5

NOTES:  
 MSC - Medium Specific Concentration  
 PADEP - Pennsylvania Department of Environmental Protection  
 Q - Qualifier  
 Conc - Concentration  
 RL - Reporting Limit  
 MDL - Minimum Detection Limit  
 Concentrations reported in miligrams per liter (mg/L)

**Table 3**  
**Summary of Surface Water Chromium Sampling Results- April 29, 2024**  
**Alliance 51st Street LLC**  
**1646 South 51st Street**  
**Philadelphia, Pennsylvania**

<b>SAMPLE ID:</b>	Pennsylvania Non-Residential Non-Use Aquifer Groundwater MSC	Pennsylvania Non-Residential Used Aquifer Groundwater MSC	SW-1			
<b>LAB ID:</b>			L2425154-01			
<b>COLLECTION DATE:</b>			4/29/2024			
<b>SAMPLE MATRIX:</b>			WATER			
<b>ANALYTE</b>	(ug/l)	(ug/l)	Conc	Q	RL	MDL
<b>TOTAL METALS</b>						
Chromium, Total	100000	100	21560		500	89

NOTES:  
 MSC - Medium Specific Concentration  
 PADEP - Pennsylvania Department of Environmental Protection  
 Q - Qualifier  
 Conc - Concentration  
 RL - Reporting Limit  
 MDL - Minimum Detection Limit  
 Concentrations exceed the Non-Residential Used aquifer MSC