

Table 5-4
Select PAH Analytical Results for In-Place Soil Compared to Soil Remediation Standards
Halladay Street South, Garfield Avenue Group
PPG, Jersey City, New Jersey

Grid ID (G1)	Location ID (G2)	Location Elevation (ft NAVD88) (G3, G4, G5)	Sample ID (G6)	Depth Interval (ft bgs) (G7)	Sample Start Elevation (ft NAVD88) (G4, G8, G9)	Sample End Elevation (ft NAVD88) (G4, G10)	Lab ID (G11)	Lab SDG (G11)	Date Collected (G12)	Sample Status (G13, G14)	Sample Type (G15)	Validated (Y/N) (G16)	2-METHYLNAPHTHALENE		BENZO(A)ANTHRACENE		BENZO(A)PYRENE		BENZO(B)FLUORANTHENE	
													Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)
R41A	133-SI-B2P4	11.6	133-SI-B2P4-8.5-9.0	8.5 - 9.0 ft	3.1	2.6	JB92383-18	JB92383	04/14/2015	remaining	N	Y	< 0.021	U	0.0732		0.0683		0.0867	
R41A	133-SI-R41A-PB	11.7	133-SI-R41A-PB-6.5-7.0	6.5 - 7.0 ft	5.2	4.7	JB97342-2A	JB97342	06/17/2015	remaining	N	Y	< 0.034	U	< 0.028	U	< 0.034	U	< 0.042	U
S34A	P4-HAL-S34A	12.8	P4-HAL-S34A-17.5-18.0	17.5 - 18.0 ft	-4.7	-5.2	JB77632-8A	JB77632A	09/25/2014	remaining	N	Y	0.0401	J	0.393		0.355		0.438	
S34A	P4-HAL-S34A	12.8	P4-HAL-S34A-19.5-20.0	19.5 - 20.0 ft	-6.7	-7.2	JB77632-9A	JB77632A	09/25/2014	remaining	N	Y	< 0.024	U	< 0.014	U	< 0.013	U	< 0.014	U
S34A	P4-HAL-S34A	12.8	P4-HAL-S34A-20.0-20.5	20.0 - 20.5 ft	-7.2	-7.7	JB77632-10A	JB77632A	09/25/2014	remaining	N	Y	< 0.041	UJ	0.0367	J	< 0.022	UJ	0.0380	J
S39A	133-SI-S39A-PB	11.0	133-SI-S39A-PB-8.5-9.0	8.5 - 9.0 ft	2.5	2.0	JB98013-2	JB98013	06/25/2015	remaining	N	Y	0.169	J-	4.29	J-	3.15	J-	3.36	J
S40A	133-S40A-PB	11.4	133-SI-S40A-PB-7.0-7.5	7.0 - 7.5 ft	4.4	3.9	JB97664-1	JB97664	06/23/2015	remaining	N	Y	< 0.13	UJ	2.06	J-	2.32	J-	2.47	J-
S40A	133-SI-B2P7	12.0	133-SI-B2P7-8.5-9.0	8.5 - 9.0 ft	3.5	3.0	JB92383-24	JB92383	04/14/2015	remaining	N	Y	< 0.023	U	0.282		0.235		0.303	
T33A	P4-HAL-T33A	12.3	P4-HAL-T33A-17.0-17.5	17.0 - 17.5 ft	-4.7	-5.2	JB78082-10A	JB78082A	10/01/2014	remaining	N	Y	< 0.021	U	< 0.012	U	< 0.011	U	< 0.012	U
T33A	P4-HAL-T33A	12.3	P4-HAL-T33A-17.5-18.0	17.5 - 18.0 ft	-5.2	-5.7	JB78082-12R	JB78082R	10/01/2014	remaining	N	Y	< 0.022	U	< 0.013	U	< 0.012	U	< 0.013	U
T33A	P4-HAL-T33A	12.3	P4-HAL-T33A-18.0-18.5	18.0 - 18.5 ft	-5.7	-6.2	JB78082-11A	JB78082A	10/01/2014	remaining	N	Y	< 0.047	UJ	0.519	J	0.511	J	0.615	J
T34A	133-HSS-T34A-PB	12.1	133-HSS-T34A-PB-14.4-14.9	14.4 - 14.9 ft	-2.3	-2.8	JB99963-2	JB99963A	07/20/2015	remaining	N	Y	0.107	J	0.264		0.207		0.301	
T37A	133-P3C-T37A	11.6	133-P3C-T37A-10.0-10.5	10.0 - 10.5 ft	1.6	1.1	JB40576-2A	JB40576A	06/25/2013	remaining	N	Y	0.0260	J	0.285		0.24		0.311	
T37A	133-P3C-T37A	11.6	133-P3C-T37A-12.0-12.5	12.0 - 12.5 ft	-0.4	-0.9	JB40576-3A	JB40576A	06/25/2013	remaining	N	Y	< 0.024	U	0.0797	J	0.0917	J	0.14	J
T37A	133-P3C-T37A	11.6	133-P3C-T37A-13.7-14.2	13.7 - 14.2 ft	-2.1	-2.6	JB40576-4A	JB40576A	06/25/2013	remaining	N	Y	0.0710	J	1.53		1.3		0.438	
T37A	133-P3C-T37A	11.6	133-P3C-T37A-14.2-14.7	14.2 - 14.7 ft	-2.6	-3.1	JB40576-5A	JB40576A	06/25/2013	remaining	N	Y	< 0.029	U	0.129	J	0.125	J	0.146	J
U30A	133-U30A-SW-E2	12.5	133-U30A-SW-E-15.2-15.7	15.2 - 15.7 ft	-2.7	-3.2	JC2160-2A	JC2160A	08/21/2015	remaining	N	Y	0.0497	J	0.931		0.638		0.828	
U33A	133-SI-U33A-PB	12.2	133-SI-U33A-PB-14.0-14.5	14.0 - 14.5 ft	-1.8	-2.3	JB99799-3R	JB99799R	07/23/2015	remaining	N	Y	0.287		0.265		0.265		0.33	
U34A	133-P3C-U34A	12.6	133-P3C-U34A-16.5-17.0	16.5 - 17.0 ft	-3.9	-4.4	JB40712-3A	JB40712A	06/26/2013	remaining	N	Y	< 0.016	U	0.0901	J	0.0779	J	0.0680	J
U34A	133-P3C-U34A	12.6	133-P3C-U34A-17.0-17.5	17.0 - 17.5 ft	-4.4	-4.9	JB40712-2A	JB40712A	06/26/2013	remaining	N	Y	< 0.016	U	0.0413	J	0.0266	J	< 0.016	U
U34A	133-P3C-U34A	12.6	133-P3C-U34A-17.5-18.0	17.5 - 18.0 ft	-4.9	-5.4	JB40712-1A	JB40712A	06/26/2013	remaining	N	Y	< 0.039	UJ	< 0.038	UJ	< 0.033	UJ	< 0.038	UJ
V26A	P4-HAL-V26AR	12.1	P4-HAL-V26A-15.5-16.0R	15.5 - 16.0 ft	-3.4	-3.9	JB79531-4A	JB79531A	10/17/2014	remaining	N	Y	< 0.048	UJ	< 0.028	UJ	< 0.026	UJ	< 0.029	UJ
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-13.0-13.5	13.0 - 13.5 ft	-0.5	-1.0	JB78753-5A	JB78753A	10/08/2014	remaining	N	Y	< 0.025	U	< 0.015	U	< 0.014	U	< 0.015	U
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-15.0-15.5	15.0 - 15.5 ft	-2.5	-3.0	JB78753-6A	JB78753A	10/08/2014	remaining	N	Y	< 0.025	U	0.0206	J	< 0.014	U	< 0.015	U
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-17.0-17.5	17.0 - 17.5 ft	-4.5	-5.0	JB78753-7A	JB78753A	10/08/2014	remaining	N	Y	< 0.029	U	< 0.017	UJ	< 0.016	UJ	< 0.017	UJ
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-17.0-17.5X	17.0 - 17.5 ft	-4.5	-5.0	JB78753-9A	JB78753A	10/08/2014	remaining	FD	Y	< 0.03	U	0.102	J	0.0848	J	0.0950	J
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-17.5-18.0	17.5 - 18.0 ft	-5.0	-5.5	JB78753-8A	JB78753A	10/08/2014	remaining	N	Y	< 0.034	U	0.0498	J	0.0338	J	0.0320	J
V31A	133-SI-V31A-PB	12.3	133-SI-V31A-PB-14.1-14.6	14.1 - 14.6 ft	-1.8	-2.3	JC2416-1R	JC2416R	08/26/2015	remaining	N	Y	0.684	J-	0.724	J-	0.4	J	0.487	J
W24A	133-W24A-PB	12.0	133-W24A-PB-16.5-17.0	16.5 - 17.0 ft	-4.5	-5.0	JC6269-8A	JC6269A	10/14/2015	remaining	N	Y	< 0.011	U	< 0.011	U	< 0.012	U	< 0.012	U
W24A	133-W24A-PB	12.0	133-W24A-PB-16.5-17.0X	16.5 - 17.0 ft	-4.5	-5.0	JC6269-9A	JC6269A	10/14/2015	remaining	FD	Y	< 0.011	U	< 0.011	U	< 0.013	U	< 0.012	U
W25A	133-W25A-PB	12.0	133-W25A-PB-15.9-16.4	15.9 - 16.4 ft	-3.9	-4.4	JC2417-1	JC2417	08/26/2015	remaining	N	Y	< 0.019	UJ	< 0.016	UJ	< 0.02	UJ	< 0.016	UJ
W25A	PSEG-SB43	13.3	NJD981084668-11/17/2006-SB43_25	25.5 - 26.0 ft	-12.2	-12.7	785982	Z761	11/17/2006	remaining	N	N	< 0.44	U	< 0.044	U	< 0.044	U	< 0.044	U
W26A	133-SI-W26A-PB	12.1	133-SI-W26A-PB-14.5-15.0	14.5 - 15.0 ft	-2.4	-2.9	JC2509-1R	JC2509R	08/27/2015	remaining	N	Y	< 0.035	U	< 0.028	U	< 0.035	U	< 0.043	U
W26A	133-W26A-PB	12.1	133-W26A-PB-14.5-15.0	14.5 - 15.0 ft	-2.4	-2.9	JC2510-1	JC2510	08/27/2015	remaining	N	Y	0.0720		0.0202	J	< 0.0087	U	< 0.0071	U
W26A	P4-HAL-W26A	12.1	P4-HAL-W26A-15.0-15.5	15.0 - 15.5 ft	-2.9	-3.4	JB77366-16A	JB77366A	09/23/2014	removed	N	Y	0.204	J	1.54	J	1.1	J	0.773	J
W26A	P4-HAL-W26A	12.1	P4-HAL-W26A-15.0-15.5X	15.0 - 15.5 ft	-2.9	-3.4	JB77366-17A	JB77366A	09/23/2014	removed	FD	Y	0.0617	J	0.134	J	0.0955	J	0.0687	J
W26A	P4-HAL-W26A	12.1	P4-HAL-W26A-15.5-16.0	15.5 - 16.0 ft	-3.4	-3.9	JB77366-18A	JB77366A	09/23/2014	remaining	N	Y	< 0.032	U	< 0.019	U	< 0.018	U	< 0.019	U
X20A	133-X20A-PB	11.7	133-X20A-PB-17.0-17.5	17.0 - 17.5 ft	-5.3	-5.8	JC4999-3	JC4999	09/29/2015	remaining	N	Y	< 0.087	UJ	< 0.09	UJ	< 0.099	UJ	< 0.096	UJ
X21A	133-X21A-PB	11.3	133-X21A-PB-16.7-17.2	16.7 - 17.2 ft	-5.4	-5.9	JC4999-1	JC4999	09/29/2015	remaining	N	Y	< 0.11	UJ	< 0.11	UJ	< 0.13	UJ	< 0.12	UJ
X22A	133-X22A-PB	11.3	133-X22A-PB-14.0-14.5	15.9 - 16.4 ft	-4.6	-5.1	JC5740A	JC5740-1A	10/8/2015	remaining	N	Y	< 0.013	UJ	< 0.013	UJ	< 0.015	UJ	< 0.014	UJ
X24A	133-X24A-PB2	11.9	133-X24A-PB-15.2-15.7	15.2 - 15.7 ft	-3.3	-3.8	JC6344-1	JC6344	10/15/2015	remaining	N	Y	< 0.012	U	< 0.013	U	< 0.014	U	< 0.014	U
X25A	133-HSS-X25A-PB	11.5	133-HSS-X25A-PB-14.1-14.6	14.1 - 14.6 ft	-2.6	-3.1	JC6734-1	JC6734	10/21/2015	remaining	N	Y	10.2		< 0.017	U	< 0.019	U	< 0.018	U
X27A	PSEG-SB42	12.0	NJD981084668-11/17/2006-SB42_17	17.0 - 17.5 ft	-5.0	-5.5	786008	Z761	11/17/2006	remaining	N	N	< 0.64	U	< 0.064	U	< 0.064	U	< 0.064	U
X27A	PSEG-SB42	12.0	NJD981084668-11/17/2006-SB42_23	23.5 - 24.0 ft	-11.5	-12.0	785980	Z761	11/17/2006	remaining	N	N	< 0.42	U	< 0.042	U	< 0.042	U	< 0.042	U
Y23A	133-SI-Y23A-PB	11.6	133-SI-Y23A-PB-14.3-14.8	14.3 - 14.8 ft	-2.7	-3.2	JC5783-2R	JC5783	10/08/2015	remaining	N	Y	< 0.12	UJ	< 0.097	UJ	< 0.12	UJ	< 0.15	UJ
Y23A	133-Y23A-PB	11.6	133-Y23A-PB-14.3-14.8	14.3 - 14.8 ft	-2.7	-3.2	JC5740-2A	JC5740A	10/08/2015	remaining	N	Y	< 0.057	UJ	< 0.058	UJ	< 0.064	UJ	< 0.062	UJ
Y24A	PSEG-SB41	11.8	NJD981084668-11/17/2006-SB41_17	17.0 - 17.5 ft	-5.2	-5.7	785977	Z761	11/17/2006	remaining	N	N	< 0.64	U	< 0.064	U	< 0.064	U	< 0.064	U
Y24A	PSEG-SB41	11.8	NJD981084668-11/17/2006-SB41_23	23.5 - 24.0 ft	-11.7	-12.2	785978	Z761	11/17/2006	remaining	N	N	< 0.42	U	< 0.042	U	< 0.042	U	< 0.042	U

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PPG, Jersey City, New Jersey

Grid ID (G1)	Location ID (G2)	Location Elevation (ft NAVD88) (G3, G4, G5)	Sample ID (G6)	Depth Interval (ft bgs) (G7)	Sample Start Elevation (ft NAVD88) (G4, G8, G9)	Sample End Elevation (ft NAVD88) (G4, G10)	Lab ID (G11)	Lab SDG (G11)	Date Collected (G12)	Sample Status (G13, G14)	Sample Type (G15)	Validated (Y/N) (G16)	DIBENZO(A,H)ANTHRACENE 53-70-3 mg/kg 0.5 2		INDENO(1,2,3-CD)PYRENE 193-39-5 mg/kg 5 17		NAPHTHALENE 91-20-3 mg/kg 6 17		Specific Notes
													Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	Result (G17, G18)	Qualifier (G19, G20)	
R41A	133-SI-B2P4	11.6	133-SI-B2P4-8.5-9.0	8.5 - 9.0 ft	3.1	2.6	JB92383-18	JB92383	04/14/2015	remaining	N	Y	< 0.013	U	0.0347	J	0.0190	J	
R41A	133-SI-R41A-PB	11.7	133-SI-R41A-PB-6.5-7.0	6.5 - 7.0 ft	5.2	4.7	JB97342-2A	JB97342	06/17/2015	remaining	N	Y	< 0.034	U	< 0.051	U	< 0.02	UJ	
S34A	P4-HAL-S34A	12.8	P4-HAL-S34A-17.5-18.0	17.5 - 18.0 ft	-4.7	-5.2	JB77632-8A	JB77632A	09/25/2014	remaining	N	Y	0.223						
S34A	P4-HAL-S34A	12.8	P4-HAL-S34A-19.5-20.0	19.5 - 20.0 ft	-6.7	-7.2	JB77632-9A	JB77632A	09/25/2014	remaining	N	Y	< 0.014	U	< 0.015	U	< 0.012	U	
S34A	P4-HAL-S34A	12.8	P4-HAL-S34A-20.0-20.5	20.0 - 20.5 ft	-7.2	-7.7	JB77632-10A	JB77632A	09/25/2014	remaining	N	Y	< 0.025	UJ	< 0.025	UJ	0.0614	J	
S39A	133-SI-S39A-PB	11.0	133-SI-S39A-PB-8.5-9.0	8.5 - 9.0 ft	2.5	2.0	JB98013-2	JB98013	06/25/2015	remaining	N	Y	0.576		1.88	J	0.194	J	S1
S40A	133-S40A-PB	11.4	133-SI-S40A-PB-7.0-7.5	7.0 - 7.5 ft	4.4	3.9	JB97664-1	JB97664	06/23/2015	remaining	N	Y	0.418	J-	1.48	J-	0.295	J-	S1
S40A	133-SI-B2P7	12.0	133-SI-B2P7-8.5-9.0	8.5 - 9.0 ft	3.5	3.0	JB92383-24	JB92383	04/14/2015	remaining	N	Y	0.0439		0.137		0.0313	J	
T33A	P4-HAL-T33A	12.3	P4-HAL-T33A-17.0-17.5	17.0 - 17.5 ft	-4.7	-5.2	JB78082-10A	JB78082A	10/01/2014	remaining	N	Y	< 0.013	U	< 0.013	U	< 0.01	U	
T33A	P4-HAL-T33A	12.3	P4-HAL-T33A-17.5-18.0	17.5 - 18.0 ft	-5.2	-5.7	JB78082-12R	JB78082R	10/01/2014	remaining	N	Y	< 0.014	U	< 0.014	U	< 0.011	U	
T33A	P4-HAL-T33A	12.3	P4-HAL-T33A-18.0-18.5	18.0 - 18.5 ft	-5.7	-6.2	JB78082-11A	JB78082A	10/01/2014	remaining	N	Y	0.0847	J	0.427	J	< 0.023	UJ	S1
T34A	133-HSS-T34A-PB	12.1	133-HSS-T34A-PB-14.4-14.9	14.4 - 14.9 ft	-2.3	-2.8	JB99963-2	JB99963A	07/20/2015	remaining	N	Y	0.0432	J	0.126		0.614		
T37A	133-P3C-T37A	11.6	133-P3C-T37A-10.0-10.5	10.0 - 10.5 ft	1.6	1.1	JB40576-2A	JB40576A	06/25/2013	remaining	N	Y	0.0377	J	0.149	J	< 0.02	U	
T37A	133-P3C-T37A	11.6	133-P3C-T37A-12.0-12.5	12.0 - 12.5 ft	-0.4	-0.9	JB40576-3A	JB40576A	06/25/2013	remaining	N	Y	< 0.021	U	0.0669	J	< 0.021	U	
T37A	133-P3C-T37A	11.6	133-P3C-T37A-13.7-14.2	13.7 - 14.2 ft	-2.1	-2.6	JB40576-4A	JB40576A	06/25/2013	remaining	N	Y	0.159	J	0.703		2.78		S1
T37A	133-P3C-T37A	11.6	133-P3C-T37A-14.2-14.7	14.2 - 14.7 ft	-2.6	-3.1	JB40576-5A	JB40576A	06/25/2013	remaining	N	Y	< 0.025	U	0.0834	J	0.0932	J	
U30A	133-U30A-SW-E2	12.5	133-U30A-SW-E-15.2-15.7	15.2 - 15.7 ft	-2.7	-3.2	JC2160-2A	JC2160A	08/21/2015	remaining	N	Y	0.0878		0.27		0.217		S1
U33A	133-SI-U33A-PB	12.2	133-SI-U33A-PB-14.0-14.5	14.0 - 14.5 ft	-1.8	-2.3	JB99799-3R	JB99799R	07/23/2015	remaining	N	Y	< 0.062	U	0.127	J	0.394		
U34A	133-P3C-U34A	12.6	133-P3C-U34A-16.5-17.0	16.5 - 17.0 ft	-3.9	-4.4	JB40712-3A	JB40712A	06/26/2013	remaining	N	Y	< 0.0216	J	0.0400	J	0.0534	J	
U34A	133-P3C-U34A	12.6	133-P3C-U34A-17.0-17.5	17.0 - 17.5 ft	-4.4	-4.9	JB40712-2A	JB40712A	06/26/2013	remaining	N	Y	< 0.015	U	0.0144	J	0.0471	J	
U34A	133-P3C-U34A	12.6	133-P3C-U34A-17.5-18.0	17.5 - 18.0 ft	-4.9	-5.4	JB40712-1A	JB40712A	06/26/2013	remaining	N	Y	< 0.036	UJ	< 0.034	UJ	< 0.049	UJ	
V26A	P4-HAL-V26AR	12.1	P4-HAL-V26A-15.5-16.0R	15.5 - 16.0 ft	-3.4	-3.9	JB79531-4A	JB79531A	10/17/2014	remaining	N	Y	< 0.029	UJ	< 0.03	UJ	< 0.023	UJ	
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-13.0-13.5	13.0 - 13.5 ft	-0.5	-1.0	JB78753-5A	JB78753A	10/08/2014	remaining	N	Y	< 0.015	U	< 0.015	U	< 0.012	U	
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-15.0-15.5	15.0 - 15.5 ft	-2.5	-3.0	JB78753-6A	JB78753A	10/08/2014	remaining	N	Y	< 0.015	U	< 0.016	U	< 0.012	U	
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-17.0-17.5	17.0 - 17.5 ft	-4.5	-5.0	JB78753-7A	JB78753A	10/08/2014	remaining	N	Y	< 0.017	U	< 0.018	U	< 0.014	U	
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-17.0-17.5X	17.0 - 17.5 ft	-4.5	-5.0	JB78753-9A	JB78753A	10/08/2014	remaining	FD	Y	< 0.018	U	0.0525	J	< 0.015	U	
V30A	P4-HAL-V30A	12.5	P4-HAL-V30A-17.5-18.0	17.5 - 18.0 ft	-5.0	-5.5	JB78753-8A	JB78753A	10/08/2014	remaining	N	Y	< 0.021	U	< 0.021	U	< 0.017	U	
V31A	133-SI-V31A-PB	12.3	133-SI-V31A-PB-14.1-14.6	14.1 - 14.6 ft	-1.8	-2.3	JC2416-1R	JC2416R	08/26/2015	remaining	N	Y	0.0954	J	0.22	J	1.05	J-	
W24A	133-W24A-PB	12.0	133-W24A-PB-16.5-17.0	16.5 - 17.0 ft	-4.5	-5.0	JC6269-8A	JC6269A	10/14/2015	remaining	N	Y	< 0.021	U	< 0.03	U	< 0.0093	U	
W24A	133-W24A-PB	12.0	133-W24A-PB-16.5-17.0X	16.5 - 17.0 ft	-4.5	-5.0	JC6269-9A	JC6269A	10/14/2015	remaining	FD	Y	< 0.021	U	< 0.03	U	< 0.0094	U	
W25A	133-W25A-PB	12.0	133-W25A-PB-15.9-16.4	15.9 - 16.4 ft	-3.9	-4.4	JC2417-1	JC2417	08/26/2015	remaining	N	Y	< 0.02	UJ	< 0.026	UJ	< 0.012	UJ	
W25A	PSEG-SB43	13.3	NJD981084668-11/17/2006-SB43_25	25.5 - 26.0 ft	-12.2	-12.7	785982	Z761	11/17/2006	remaining	N	N	< 0.044	U	< 0.044	U	< 0.44	U	S2
W26A	133-SI-W26A-PB	12.1	133-SI-W26A-PB-14.5-15.0	14.5 - 15.0 ft	-2.4	-2.9	JC2509-1R	JC2509R	08/27/2015	remaining	N	Y	< 0.035	UJ	< 0.052	UJ	< 0.02	UJ	
W26A	133-W26A-PB	12.1	133-W26A-PB-14.5-15.0	14.5 - 15.0 ft	-2.4	-2.9	JC2510-1	JC2510	08/27/2015	remaining	N	Y	< 0.0087	U	< 0.012	U	0.0595		S3
W26A	P4-HAL-W26A	12.1	P4-HAL-W26A-15.0-15.5	15.0 - 15.5 ft	-2.9	-3.4	JB77366-16A	JB77366A	09/23/2014	removed	N	Y	0.118	J	0.365	J	0.178	J	S3
W26A	P4-HAL-W26A	12.1	P4-HAL-W26A-15.0-15.5X	15.0 - 15.5 ft	-2.9	-3.4	JB77366-17A	JB77366A	09/23/2014	removed	FD	Y	< 0.011	UJ	0.0490	J	0.0665	J	S3
W26A	P4-HAL-W26A	12.1	P4-HAL-W26A-15.5-16.0	15.5 - 16.0 ft	-3.4	-3.9	JB77366-18A	JB77366A	09/23/2014	remaining	N	Y	< 0.02	U	< 0.02	U	< 0.016	U	
X20A	133-X20A-PB	11.7	133-X20A-PB-17.0-17.5	17.0 - 17.5 ft	-5.3	-5.8	JC4999-3	JC4999	09/29/2015	remaining	N	Y	< 0.17	UJ	< 0.24	UJ	< 0.074	UJ	
X21A	133-X21A-PB	11.3	133-X21A-PB-16.7-17.2	16.7 - 17.2 ft	-5.4	-5.9	JC4999-1	JC4999	09/29/2015	remaining	N	Y	< 0.21	UJ	< 0.31	UJ	8.9	J	S4
X22A	133-X22A-PB	11.3	133-X22A-PB-14.0-14.5	15.9 - 16.4 ft	-4.6	-5.1	JC5740A	JC5740-1A	10/8/2015	remaining	N	Y	< 0.025	UJ	< 0.036	UJ	< 0.011	UJ	S5
X24A	133-X24A-PB2	11.9	133-X24A-PB-15.2-15.7	15.2 - 15.7 ft	-3.3	-3.8	JC6344-1	JC6344	10/15/2015	remaining	N	Y	< 0.024	U	< 0.034	U	< 0.011	U	
X25A	133-HSS-X25A-PB	11.5	133-HSS-X25A-PB-14.1-14.6	14.1 - 14.6 ft	-2.6	-3.1	JC6734-1	JC6734	10/21/2015	remaining	N	Y	< 0.032	U	< 0.046	U	59.7		S4
X27A	PSEG-SB42	12.0	NJD981084668-11/17/2006-SB42_17	17.0 - 17.5 ft	-5.0	-5.5	786008	Z761	11/17/2006	remaining	N	N	< 0.064	U	< 0.064	U	< 0.64	U	S2
X27A	PSEG-SB42	12.0	NJD981084668-11/17/2006-SB42_23	23.5 - 24.0 ft	-11.5	-12.0	785980	Z761	11/17/2006	remaining	N	N	< 0.042	U	< 0.042	U	< 0.42	U	S2
Y23A	133-SI-Y23A-PB	11.6	133-SI-Y23A-PB-14.3-14.8	14.3 - 14.8 ft	-2.7	-3.2	JC5783-2R	JC5783	10/08/2015	remaining	N	Y	< 0.12	UJ	< 0.18	UJ	0.202	J	
Y23A	133-Y23A-PB	11.6	133-Y23A-PB-14.3-14.8	14.3 - 14.8 ft	-2.7	-3.2	JC5740-2A	JC5740A	10/08/2015	remaining	N	Y	< 0.11	UJ	< 0.16	UJ	< 0.048	UJ	
Y24A	PSEG-SB41	11.8	NJD981084668-11/17/2006-SB41_17	17.0 - 17.5 ft	-5.2	-5.7	785977	Z761	11/17/2006	remaining	N	N	< 0.064	U	< 0.064	U	< 0.64	U	S2
Y24A	PSEG-SB41	11.8	NJD981084668-11/17/2006-SB41_23	23.5 - 24.0 ft	-11.7	-12.2	785978	Z761	11/17/2006	remaining	N	N	< 0.042	U	< 0.042	U	< 0.42	U	S2

Table 5-4
Select PAH Analytical Results for In-Place Soil Compared to Soil Remediation Standards
Halladay Street South, Garfield Avenue Group
PPG, Jersey City, New Jersey

ABBREVIATIONS:

ACO - Administrative Consent Order
bgs - below ground surface
CAS RN - Chemical Abstracts Service Registry Number
El. - elevation
FD - field duplicate sample type
ft - feet
JCO - Judicial Consent Order
mg/kg - milligrams per kilogram
MGP - manufactured gas plant
MM - meadow mat
N - normal sample type
NAVD88 - North American Vertical Datum of 1988
NJDEP - New Jersey Department of Environmental Protection
NRDCSRS - Non-Residential Direct Contact Soil Remediation Standard
PAHs - polycyclic aromatic hydrocarbons
PDI - Pre-Design Investigation
PSEG - Public Service Electric and Gas Company
RDCSRS - Residential Direct Contact Soil Remediation Standard
SDG - sample delivery group
SRS - Soil Remediation Standard
TEE - terminal excavation elevation
UND - undisturbed native deposit

QUALIFIERS:

J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample.
J- - The result was an estimated value with low bias; the associated numerical value was an approximate concentration of the analyte in the sample.
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 Q through Z (extending west to east) and Grid Column 20A through 41A (extending from north to south).
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.
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. The depth listed in the Sample ID 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.
G7. "Depth Interval" is based on the "Location Elevation."
G8. "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.
G9. 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.
G10. "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.
G11. "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.
G12. "Date Collected" refers to the date the soil sample was collected.
G13. "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.
G14. The post-excavation survey points and 1-ft post-excavation contours representing the as-built terminal excavation elevations are provided on Figures 5-4A, 5-4B, and 5-4C.
G15. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).
G16. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.
G17. "Result" refers to the analytical result which is reported in mg/kg.
G18. Bold text indicates that the result exceeds the RDCSRS. Bold and italicized text indicates that the result exceeds the NRDCSRS. Non-bold and non-italicized text indicates that the result does not exceed the most stringent SRS.
G19. "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.
G20. Non-detect results are shown on this table using the Method Detection Limit, if available; otherwise they are shown at the Reporting Limit.

Table 5-4
Select PAH Analytical Results for In-Place Soil Compared to Soil Remediation Standards
Halladay Street South, Garfield Avenue Group
PPG, Jersey City, New Jersey

SPECIFIC NOTES:

S1. In Grids S39A, S40A, T33A, T37A, and U30A, benzo(a)pyrene and/or dibenzo(a,h)anthracene remain in place at concentrations greater than the RDCSRS or NRDCSRS. As described in the September 3, 2015 *Halladay Street South Emanating from Site 114 Evaluation* technical memorandum (AECOM, 2015), the presence of PAHs may be attributable to historic fill, site operations, or MGP operations. The exceedances of benzo(a)pyrene and/or dibenzo(a,h)anthracene remaining in place in Halladay Street South are attributed to historic fill and not MGP or site operations because: 1) the soil boring logs and NJDEP Historic Fill Map for the Jersey City Quadrangle (NJDEP, 2009) establish that Halladay Street South is within an area of historic fill; 2) the samples were collected within historic fill; 3) concentrations of these compounds fall within the range of concentrations presented in the NJDEP historic fill database (NJDEP, 2009); 4) no visible MGP material was encountered during sample collection; 5) the exceedances of PAHs are not co-located with elevated concentrations of naphthalene or benzene; and 6) the concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene at sample locations located between the area of known MGP impacts at the northern end of Halladay Street South and the exceedances located in Grids S39A, S40A, T33A, T37A, and U30A are less than the RDCSRS and NRDCSRS. As these exceedances are associated with historic fill and not MGP operations, they do not fall under the purview of the ACO and JCO and are the responsibility of the property owner.

S2. This sample was collected by another party. A data validation memorandum has not been identified.

S3. In Grid W26A, a portion of the PDI sample P4-HAL-W26A-15.0-15.5 and its field duplicate P4-HAL-W26A-15.0-15.5X appear to be remaining in place based on the sample elevation (EI. -2.9 to -3.4 ft NAVD88) as compared to the as-built TEE (shown on Figure 5-4C). However, based on field observations, these samples were actually removed during excavation. These samples were collected from fill above MM. The excavation field notes indicate that the fill material was removed, MM was not encountered, and this grid was excavated to visually clean UND. In addition, a pit bottom sample 133-W26A-PB-14.5-15.0 was collected at EI. -2.4 to -2.9 ft NAVD88.

S4. Naphthalene exceedances are limited to the northern portion of Halladay Street South. Naphthalene is identified as emanating from the former Halladay Street Gas Works Plant located within Site 114. The September 3, 2015 *Halladay Street South Emanating from Site 114 Evaluation* (AECOM) technical memorandum describes the identification of naphthalene as a compound emanating from Site 114 into the northern portion of Halladay Street South. Per the October 2015 *Interim Remedial Action Report for On-Site Soils – Area A and Area B* (AMEC), engineering controls (clean fill) and institutional controls via notice will be implemented to prevent exposure to soils with contaminant concentrations that remain at the Site in excess of direct contact criteria. Per the ACO and JCO, PPG and/or PSEG are jointly responsible for remediation of the MGP impacts emanating from Site 114.

S5. In Grid X22A, the depth interval included in the Sample ID 133-X22A-PB-14.0-14.5 does not correspond to the actual depth interval where the sample was collected. The depth interval in the sample ID was estimated in the field. The actual depth interval was updated following review of the GPS-measured pre-construction location elevation and GPS-measured sample start elevation and is provided in the "Depth Interval" column on this table.