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August 18, 2015

Inez K. Birbiglia
Deputy Commissioner
Town of Islip Parks, Recreation and Cultural Affairs
50 Irish Lane
East Islip, NY 11730

Re: Roberto Clemente Park

Dear Ms. Birbiglia:

Introduction

On August 6, 2015, Enviroscience Consultants, Inc. obtained 15 confirmatory soil endpoint samples from the central and southern portions of the former soccer fields. This letter serves as a summary of the methods and results for the endpoint samples, which will be discussed in detail in our Removal Action Report (RAR) that will be submitted at the completion of the removal action.

Methods

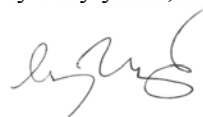
The endpoint samples were collected in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Material Removal Work Plan from the remaining surface soil after the removal of contaminated fill. The purpose of the endpoints samples is to evaluate the effectiveness of the removal action, which is currently being performed at Roberto Clemente Park by the Town's contractor. Representatives from the Town and the NYSDEC were present during this evaluation. The samples were analyzed by a certified laboratory for NYSDEC Part 375 volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) metals, pesticides, an herbicide, and PCBs, along with an inspection for asbestos containing materials.

Results & Discussion

To evaluate the effectiveness of the removal action, the confirmatory endpoint sample results were compared to the NYSDEC Part 375 Residential Use Soil Cleanup Objectives, which is intended for use at residential properties to be protective of the community and the environment. The attached Table summarizes the results. Based on this comparison, all of the results were acceptable and demonstrate that the material removal plan is effectively removing the contaminated fill from the Park.

If there are any questions, please contact me.

Very truly yours,



Greg Menegio
Department Manager/Sr. Scientist

Confirmatory Soil Endpoint Sample Results Summary
Roberto Clemente Park
400 Broadway, Brentwood, New York

Sample Location (Coordinates)	Endpoint 4 (N 40°46'18.0156" W 73°13'44.5728")	Endpoint 5 (N 40°46'18.3792" W 73°13'45.7176")	Endpoint 6 (N 40°46'18.4584" W 73°13'46.3584")	Endpoint 7 (N 40°46'18.1272" W 73°13'46.686")	NYSDEC Part 375 Residential Use Soil Cleanup Objectives
<i>Volatile Organic Compounds (in micrograms per kilogram)</i>					
Acetone	ND	ND	ND	ND	100,000
Methylene chloride	27	20	30	21	51,000
<i>Semi-Volatile Organic Compounds (in micrograms per kilogram)</i>					
Anthracene	ND	ND	ND	ND	100,000
Benzo(a)anthracene	ND	43.7 J	ND	ND	1,000
Benzo(a)pyrene	ND	ND	ND	ND	1,000
Benzo(b)fluoranthene	ND	ND	ND	ND	1,000
Benzo(k)fluoranthene	ND	ND	ND	ND	1,000
Chrysene	ND	45.7 J	ND	ND	1,000
Fluroanthene	ND	67.6 J	ND	ND	100,000
Phenanthrene	ND	ND	ND	ND	100,000
Pyrene	ND	70.3 J	ND	ND	100,000
<i>Pesticides (in micrograms per kilogram)</i>					
4,4'-DDD	ND	ND	ND	ND	2,600
4,4'-DDE	6.72	ND	ND	6.07	1,800
4,4'-DDT	15.9	ND	ND	8.46	1,700
alpha-Chlordane	11.4	14.1	23.6	5.01	910
Dieldrin	5.87	5.41	7.50	5.35	39
<i>Polychlorinated Biphenyls (in milligrams per kilogram)</i>					
Total PCBs	ND	ND	ND	ND	1
<i>Metals (in milligrams per kilogram)</i>					
Arsenic	1.95	3.47	2.44	1.30	16
Barium	13.8	15.4	13.9	15.4	350
Cadmium	ND	ND	ND	ND	2.5
Chromium, Trivalent	6.35	11.6	5.39	4.85	36
Copper	4.64	16.3	6.91	7.22	270
Lead	29.1	72.8	71.3	24.0	400
Manganese	52.4	67.7	54.8	76.6	2,000
Mercury	0.0590	0.0430	0.0379	0.0319	0.81
Nickel	3.07	6.94	3.22	3.04	140
Selenium	ND	ND	ND	ND	36
Zinc	22.0	38.1	30.5	22.4	2,200

Notes:

Only detected compounds and metals are summarized in this table.

ND = not detected.

J&E = estimated concentration.

Confirmatory Soil Endpoint Sample Results Summary
Roberto Clemente Park
400 Broadway, Brentwood, New York

Sample Location (Coordinates)	Endpoint 8 (N 40°46'17.5692" W 73°13'45.2244")	Endpoint 9 (N 40°46'17.3964" W 73°13'44.49")	Endpoint 10 (N 40°46'16.554" W 73°13'44.2092")	Endpoint 11 (N 40°46'16.4496" W 73°13'45.1776")	NYSDEC Part 375 Residential Use Soil Cleanup Objectives
<i>Volatile Organic Compounds (in micrograms per kilogram)</i>					
Acetone	15 E	9.4 J	6.6 J	12 E	100,000
Methylene chloride	28	20	18	21	51,000
<i>Semi-Volatile Organic Compounds (in micrograms per kilogram)</i>					
Anthracene	ND	ND	ND	ND	100,000
Benzo(a)anthracene	ND	ND	ND	ND	1,000
Benzo(a)pyrene	ND	ND	ND	ND	1,000
Benzo(b)fluoranthene	ND	ND	ND	ND	1,000
Benzo(k)fluoranthene	ND	ND	ND	ND	1,000
Chrysene	ND	ND	ND	ND	1,000
Fluroanthene	ND	ND	ND	ND	100,000
Phenanthrene	ND	ND	ND	ND	100,000
Pyrene	ND	ND	ND	ND	100,000
<i>Pesticides (in micrograms per kilogram)</i>					
4,4'-DDD	10.4	12.4	6.36	ND	2,600
4,4'-DDE	15.4	13.8	13.1	ND	1,800
4,4'-DDT	32.7	20.6	18.6	2.68	1,700
alpha-Chlordane	12.1	11.4	12.4	2.21	910
Dieldrin	6.38	6.71	23.3	ND	39
<i>Polychlorinated Biphenyls (in milligrams per kilogram)</i>					
Total PCBs	ND	ND	0.0977	ND	1
<i>Metals (in milligrams per kilogram)</i>					
Arsenic	2.45	3.00	3.42	2.33	16
Barium	22.7	25.6	56.7	11.2	350
Cadmium	0.440	0.484	0.513	ND	2.5
Chromium, Trivalent	10.0	10.2	12.1	6.70	36
Copper	11.3	13.0	26.7	5.12	270
Lead	96.6	71.9	262	23.9	400
Manganese	74.3	81.4	111	72.1	2,000
Mercury	0.0566	0.0713	0.200	ND	0.81
Nickel	6.83	12.6	6.35	2.78	140
Selenium	ND	ND	1.44	ND	36
Zinc	57.7	63.3	188	22.2	2,200

Notes:

Only detected compounds and metals are summarized in this table.

ND = not detected.

J&E = estimated concentration.

Confirmatory Soil Endpoint Sample Results Summary
Roberto Clemente Park
400 Broadway, Brentwood, New York

Sample Location (Coordinates)	Endpoint 12 (N 40°46'16.0968" W 73°13'46.6356")	Endpoint 13 (N 40°46'16.3632" W 73°13'46.9452")	Endpoint 14 (N 40°46'15.7044" W 73°13'45.5124")	Endpoint 15 (N 40°46'15.618" W 73°13'44.3784")	NYSDEC Part 375 Residential Use Soil Cleanup Objectives
<i>Volatile Organic Compounds (in micrograms per kilogram)</i>					
Acetone	12 J	ND	30 E	ND	100,000
Methylene chloride	20	18	21	18	51,000
<i>Semi-Volatile Organic Compounds (in micrograms per kilogram)</i>					
Anthracene	ND	ND	ND	ND	100,000
Benzo(a)anthracene	ND	ND	ND	ND	1,000
Benzo(a)pyrene	ND	ND	ND	ND	1,000
Benzo(b)fluoranthene	ND	ND	ND	ND	1,000
Benzo(k)fluoranthene	ND	ND	ND	ND	1,000
Chrysene	ND	ND	ND	ND	1,000
Fluroanthene	58.4 J	ND	ND	ND	100,000
Phenanthrene	ND	ND	ND	ND	100,000
Pyrene	58.4 J	ND	ND	ND	100,000
<i>Pesticides (in micrograms per kilogram)</i>					
4,4'-DDD	13.0	ND	6.50	89.8	2,600
4,4'-DDE	50.0	ND	4.75	73.6	1,800
4,4'-DDT	44.6	2.78	6.58	14.1	1,700
alpha-Chlordane	5.40	ND	4.39	10.1	910
Dieldrin	16.9	ND	ND	ND	39
<i>Polychlorinated Biphenyls (in milligrams per kilogram)</i>					
Total PCBs	ND	ND	ND	0.0576	1
<i>Metals (in milligrams per kilogram)</i>					
Arsenic	2.37	ND	1.13	3.17	16
Barium	30.5	23.7	15.0	18.3	350
Cadmium	0.405	ND	ND	0.324	2.5
Chromium, Trivalent	17.4	12.8	5.77	5.59	36
Copper	16.1	7.84	4.92	8.20	270
Lead	42.9	6.03	17.4	90.5	400
Manganese	169	132	82.5	45.8	2,000
Mercury	0.121	ND	ND	0.0502	0.81
Nickel	7.95	5.77	3.51	4.30	140
Selenium	2.72	ND	ND	ND	36
Zinc	39.4	16.8	18.7	159	2,200

Notes:

Only detected compounds and metals are summarized in this table.

ND = not detected.

J&E = estimated concentration.

Confirmatory Soil Endpoint Sample Results Summary
Roberto Clemente Park
400 Broadway, Brentwood, New York

Sample Location (Coordinates)	Endpoint 16 (N 40°46'15.1536" W 73°13'44.5548")	Endpoint 17 (N 40°46'15.1752" W 73°13'45.2424")	Endpoint 18 (N 40°46'15.2112" W 73°13'46.3728")	NYSDEC Part 375 Residential Use Soil Cleanup Objectives
<i>Volatile Organic Compounds (in micrograms per kilogram)</i>				
Acetone	ND	15 E	ND	100,000
Methylene chloride	16	24	21	51,000
<i>Semi-Volatile Organic Compounds (in micrograms per kilogram)</i>				
Anthracene	ND	ND	53.4 J	100,000
Benzo(a)anthracene	ND	ND	259	1,000
Benzo(a)pyrene	ND	ND	113	1,000
Benzo(b)fluoranthene	ND	ND	149	1,000
Benzo(k)fluoranthene	ND	ND	182	1,000
Chrysene	ND	ND	482	1,000
Fluoranthene	128	ND	1,680	100,000
Phenanthrene	65.5 J	ND	373	100,000
Pyrene	ND	ND	1,260	100,000
<i>Pesticides (in micrograms per kilogram)</i>				
4,4'-DDD	51.5	ND	4.05	2,600
4,4'-DDE	87.3	2.39	4.77	1,800
4,4'-DDT	30.1	4.13	12.1	1,700
alpha-Chlordane	12.6	3.69	4.09	910
Dieldrin	7.46	ND	ND	39
<i>Polychlorinated Biphenyls (in milligrams per kilogram)</i>				
Total PCBs	0.110	0.0327	ND	1
<i>Metals (in milligrams per kilogram)</i>				
Arsenic	2.69	1.46	2.12	16
Barium	34.1	19.0	38.9	350
Cadmium	0.632	ND	ND	2.5
Chromium, Trivalent	9.92	7.33	8.80	36
Copper	15.7	8.01	11.3	270
Lead	70.1	19.0	38.9	400
Manganese	140	101	141	2,000
Mercury	0.0693	0.0435	0.0623	0.81
Nickel	6.76	4.56	5.39	140
Selenium	1.16	1.42	ND	36
Zinc	94.5	22.8	34.6	2,200

Notes:

Only detected compounds and metals are summarized in this table.

ND = not detected.

J&E = estimated concentration.