#### WEST 34<sup>TH</sup> STREET DEVELOPMENT

New York, NY

### Final Engineering Report - Addendum NYSDEC BCP No.: C231049 Area B

#### Prepared for:

Meushar 34<sup>th</sup> Street, LLC c/o The Moinian Group 530 Fifth Avenue, Suite 1800 New York, NY 10036 FLS Project Number: 10090-001

#### Submitted to:

New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway, 12th Floor Albany, NY 12233-7016

#### **Prepared by:**

Arnold F. Fleming, P.E. 158 West 29th Street, 9th Floor New York, NY 10001

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Environmental Management & Consulting

#### Final Engineering Report West 34<sup>th</sup> Street Development BCP # C231049

#### **Final Engineering Report Certification -Addendum**

I, Arnold F. Fleming, certify that I am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the subject remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Arnold F. Fleming, of Fleming Lee Shue, Inc., 158 W. 29th Street, New York, NY, am certifying as Owner's Designated Site Representative for the site.

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11/30/12

NYS Professional Engineer #

Date

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- Appendix C Metes and Bounds Description
- Appendix D Regulatory Agency Approvals
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- Appendix F Air Monitoring Data
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- Appendix O Area B Estimated Remediation Costs

#### LIST OF ACRONYMS

Acronym	Definition
ASTM	American Society of Testing and Materials
AWQS	TOGS Ambient Water Quality standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes
CAMP	Community Air Monitoring Plan
COC	Certificate of Completion
DUSR	Data Usability Summary Report
ECs	Engineering Controls
EDD	Electronic Data Deliverable
EPA	U.S. Environmental Protection Agency
FER	Final Engineering Report
FLS	Fleming-Lee Shue, Inc.
ft bg	Feet Below Grade
GA	TOGS Drinking Water Standards
HASP	Health and Safety Plan
ICs	Institutional Controls
ID	Inner Diameter
MSL	Mean Sea Level
MTA	Metropolitan Transit Authority
MTBE	Methyl-tertiary-butyl ether
NYCRR	New York State Code of Rules & Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYCDEP	New York City Department of Environmental Protection
NYSDOH	New York State Department of Health
O&M	Operation and Maintenance
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
ppb	Parts per Billion
ppm	Parts per Million
RAWP	Remedial Action Work Plan

	Acronym	Definition
-	RE	Remedial Engineer
	RI	Remedial Investigation
	SCG	Soil Cleanup Goal
	SMP	Site Management Plan
	SoMP	Soil Management Plan
	SVOCs	Semi-volatile Organic Compounds
	TAL	Target Analyte List
	TCL	Target Compound List
	TOGS	Technical & Operational Guidance Series
	UUSCOs	6NYCRR Part 375 Unrestricted Use Soil Cleanup Objectives
	VOCs	Volatile Organic Compounds

#### **1.0 ADDENDUM - BACKGROUND**

On behalf of Meushar 34<sup>th</sup> Street LLC ("Volunteer"), Arnold F. Fleming, P.E., and Fleming-Lee Shue, Inc. and (collectively "FLS") has prepared this Final Engineering Report (FER) Addendum to document the completion of remedial activities at the West 34<sup>th</sup> Street Development Site. The remediation was completed in accordance with the FLS 2007 Remedial Action Work Plan and was implemented within the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). This FER Addendum was prepared in accordance with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation.

The West 34<sup>th</sup> Street Development Site is on the west side of Manhattan east of 11<sup>th</sup> Avenue (Figure 1). The Brownfield Cleanup Program (BCP) No. is C231049. The Site consists of two sections remediated under the Brownfield Cleanup Agreement (BCA). The first section is Area A. Area A includes the land east of the bulkhead wall between West 35<sup>th</sup> Street and West 34<sup>th</sup> Street. The area was remediated between August 2007 and April 2008. A Draft FER for Area A was submitted to the NYSDEC by FLS on August 3, 2010.

The second section is Area B. Area B includes the triangle-shaped land west of the bulkhead wall between West 35<sup>th</sup> Street and West 34<sup>th</sup> Street and 11<sup>th</sup> Avenue. An Amtrak right-of-way separates Area B into a larger portion east of the right-of-way and a smaller, triangle-shaped parcel west of the Amtrak right-of-way. Area B was not addressed in 2010 along with Area A because of access issues associated with excavating adjacent to the below grade Amtrak line as well as within the right-of-way. The remediation of Area B occurred between August 6, 2012 and September 28, 2012. The Area B cleanup goal was the same as for Area A, namely Track 1 Unrestricted Use. This report is an addendum to the 2010 FER that documents the remedial activities completed in Area A. Figure 2 is a Site Plan depicting Areas A and B as well as the Area B layout. Because of structural concerns associated with the bulkhead wall, as well as tight spatial restrictions, the Area B excavation was split into a number of small excavations. Each smaller excavation (phase) was inspected and backfilled to allow for excavation of the next phase. The phases are shown on Figure 2. Refer to Sections 1, 2, and 3 of the 2010 FER for descriptions of the Site Location and Background, and Description of the Approved Remedial Action.

A digital copy of this FER Addendum is included in Appendix A. A Brownfield Cleanup Agreement Site Boundary Map is included in Appendix B and a Site Metes and Bounds Description is included in Appendix C.

#### 2.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

The remedy consisted of excavation of contaminated fill and petroleum-impacted soils to bedrock and backfilling with approved material. A copy of the New York State Department of Environmental Conservation (NYSDEC) approval of the 2007 RAWP covering remediation of both areas A and B is included in Appendix D. The New York City Department of Environmental Protection (NYCDEP) approval to proceed is also included in Appendix D.

#### 2.1 Mobilization

Fleming-Lee Shue mobilized to the Site on August 6, 2012 and held a pre-construction meeting with NYSDEC and the remediation contractor on August 7, 2012. Mobilization incorporated modified air monitoring. Because Area B is situated beneath an overpass that yields a semi-enclosed setting with controlled access through a fenced parking lot and 24-hour security, FLS proposed a modified Community Air Monitoring Plan (CAMP). The modified CAMP called for monitoring for volatile organic compounds (VOCs) with a photo-ionization detector (PID) and particulates using a personal dust monitor, in lieu of a conventional CAMP. The NYSDEC viewed this proposal favorably in an e-mail dated July 27, 2012 (Appendix D) and FLS implemented the change.

#### 2.2 Governing Documents

Refer to sections 4.2.1 through 4.2.7 of the 2010 FER for the documents governing the remedial work in Area B. These sections discuss the following work elements:

- Health & Safety Plan
- Quality Assurance Project Plan (QAPP)
- Soil Management Plan (SMP)
- Sediment And Erosion Control Plan
- Community Air Monitoring Plan
- Site Operations Plan
- Storm-Water Management
- Equipment Access
- Groundwater Management

- Construction Dewatering
- Site Security
- Citizen Participation Plan

#### 2.3 Remedial Program Elements

Remediation of Area B consisted of excavating of contaminated fill and petroleumimpacted soils to bedrock in order to attain a Track 1 Unrestricted Use Cleanup. The excavation took place in four phases along the bulkhead wall to the property line and in the small triangle-shaped portion west of the Amtrak right-of-way. In each case the excavation extended to the property line, Amtrak right-of-way, or the bulkhead wall (Figure 2). The bulkhead wall is a continuous, massive, concrete structure that extends from the Site Boundary on West 35<sup>th</sup> Street to the Site boundary on West 34<sup>th</sup> Street.

The Remedy was conducted in accordance with the NYSDEC-approved June 2007 RAWP. A digital copy of the NYSDEC-approved RAWP is included in Appendix B of the 2010 FER.

#### 2.3.1 Involved Parties

The general construction contractor was Tishman Construction Corporation of New York, New York. EIC Associates, Inc., of Springfield, New Jersey, a subcontractor to Tishman, performed the actual construction and remedial excavation and backfilling. Fleming-Lee Shue conducted remedial oversight and modified CAMP monitoring under the direction of the Remedial Engineer, Arnold F. Fleming, P.E. Langan Engineering provided construction plans and information. Appendix E of the Addendum contains a digital copy of the March 1, 2011 FLS *Supplemental Off-Site Groundwater Investigation Report* and the Langan Engineering October 5, 2009 *Waste Characterization Letter Report*. The Langan report contained the waste characterization information for Area B (Appendix E).

#### 2.3.2 Site Preparation

Refer to Section 4.3.2 of the 2010 FER.

#### 2.3.3 General Site Controls

Refer to Section 4.3.3 of the 2010 FER.

#### 2.3.4 Nuisance Controls

Refer to Section 4.3.4 of the 2010 FER.

#### 2.3.5 Community Air Monitoring Plan Results

Daily CAMP reports are provided in Appendix F of this addendum.

#### 2.3.6 Reporting

Daily e-mail reports were provided during the cleanup of Area B. All daily reports are included in Appendix G of this addendum.

The digital photo log required in the RAWP is included in Appendix H of the Addendum. Note that the photo log includes pictures of all the excavation grids.

#### 2.4 Contaminated Materials Removal

Between August 6, 2012 and September 28, 2012, a total of 2,392 tons [approximately 1,709 cubic yards (CY)] of soil were removed as part of remediation. Table 1 summarizes the facility, manifests, and tonnage for each load exported from the Site. Daily load summaries are provided in Appendix I.

In order to characterize the soil prior to disposal, Langan Engineering performed waste characterization sampling as previously discussed in Sections 2.6.2 and 2.6.3 of the 2010 FER. The soil in Area B was determined to be non-hazardous historic fill and non-hazardous petroleum-impacted historic fill. Appendix E contains the waste characterization results.

All soil was determined appropriate for disposal and disposed of by legal means to the proper disposal facilities as arranged by EIC. A digital copy of all manifests and bills of lading are included in Appendix I.

The following matrix summarizes the quantities sent to the two disposal facilities. Included are the number of loads per facility in addition to type of and total amount of soil disposed at the facility (in tons and cubic yards):

Soil Disposal Matrix							
Disposal Facility	Soil Type	No. of Loads	Disposed Soil (Tons)	Disposed Soil (Estimated Cubic Yards)*			
Clean Earth of Carteret 24 Middlesex Avenue Carteret, NJ	Р	35	805	575			
Lincoln Park West Landfill Duncan Avenue Jersey City, NJ	CE	69	1,587	1,134			
Total		104	2,392	1,709			
P – Non-hazardous petroleum impacted fill							

CE – Non-hazardous historic fill; \*Assumes 1.4 tons/yd<sup>3</sup>

#### 2.5 Remedial Performance – Excavation to Bedrock

As detailed in FLS's June 2007 RAWP, the remedial action selected to address soil contamination in Area B was removal of all soil to bedrock (Track 1 standards). As endpoint samples could not be collected at the base of the excavation in bedrock, the NYSDEC allowed endpoint samples to be collected in the soil wall along the property line and/or Area B boundary at the base of the excavation. The NYSDEC periodically inspected the work to determine compliance with the RAWP. A FLS representative inspected each excavation to ensure compliance with the Track 1 objectives in accordance with the RAWP. Photographs of the bedrock at the base of the excavation provide evidence that excavation complied in full with the RAWP requirements. A contour map of the post-remediation sub-grade topography, provided by EIC Associates, Inc., showing the base of the excavation, is included in Appendix J.

#### 2.6 Endpoint Sample Results

#### 2.6.1 Soils

Six endpoint soil samples were collected between August 6, 2012 and September 28, 2012. Each endpoint sample was collected from the sidewall at the property line and/or Area B boundary. The samples were collected at the property line and Area B boundary to document off-Site soil contaminants immediately adjacent to the Site or otherwise document contamination at the limit of Area B. Endpoint sample results are included in Tables 2 through 5. The list of cleanup values for Track 1 UUSCOs is included in Table 6. The endpoint soil sample locations are depicted on Figure 3. The endpoint sample results exceeding the UUSCOs are included on Figure 4. The laboratory analytical reports are included in Appendix K.

The endpoint samples were collected, immediately stored on ice, and transported to Accutest Laboratories, a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-approved laboratory for analysis of VOCs by EPA Method 8260; SVOCs by EPA Method 8270; metals by EPA Methods 6010, SW846 3060/7196 and SW846 7471A; pesticides by EPA Method 8081; and PCBs by EPA Method 8082.

Data Usability Summary Reports (DUSRs) for the endpoint sample data were prepared by New Environment Horizons of Skillman, NJ. The DUSRs indicate that all endpoint data are usable. Copies of the DUSRs are included in Appendix L.

Sample	Parameter	Units	Result	UUSCO
PX-N1	4,4'-DDD	µg/kg	21.2	3.3
	4,4'-DDE	µg/kg	6.3	3.3
	Lead	mg/kg	127	63
	Mercury	mg/kg	3.9	0.18
PX-W1	4,4'-DDD	µg/kg	28.3	3.3
	4,4'-DDE	µg/kg	5.6	3.3
	4,4'-DDT	µg/kg	41.8	3.3
	Lead	mg/kg	124	63
	Mercury	mg/kg	3.3	0.18

Endpoint sample results at the property line and/or Area B boundary above the UUSCOs include the following:

Sample	Parameter	Units	Result	UUSCO
PX-N2	4,4'-DDD	µg/kg	6.9	3.3
	4,4'-DDT	µg/kg	13.8	3.3
	Mercury	mg/kg	0.84	0.18
PX-N3	4,4'-DDD	µg/kg	23.6	3.3
	4,4'-DDT	µg/kg	24.6	3.3
	Lead	mg/kg	137	63
	Mercury	mg/kg	3.6	0.18
	Zinc	mg/kg	110	109
	Benzo(a)anthracene	µg/kg	1,020	1,000
	Benzo(b)fluoranthene	µg/kg	1,130	1,000
	Indeno(1,2,3-cd)pyrene	µg/kg	539	500
PX-W2	Nickel	mg/kg	208	30

#### 2.6.2 Groundwater

A groundwater sample was collected from monitoring well OS-1 on July 29, 2010 to document off-Site groundwater conditions. The sample was analyzed for VOCs, Method 8260, SVOCs, Method 8270, TAL metals, Methods SW846 6010 and 7470, and pesticides and PCBs, Methods 8081 and 8082. Both a filtered and unfiltered metals sample was collected.

All sample results were below Technical and Operational Guidance Series (TOGS). Ambient Water Quality Standards (AWQS) GA except for sodium, which was detected at a concentration of 103,000 micrograms per Liter ( $\mu$ g/L) (99,200  $\mu$ g/L, filtered) as compared to the TOGS GA AWQS of 20,000  $\mu$ g/L. Sodium is commonly elevated in urban water due to road salting. The sodium concentrations detected in the sample from OS-1 are similar to groundwater sodium levels found by FLS in other locations in Manhattan. Table 7 presents the groundwater sample analytical results and the TOGS GA AWQS. The laboratory report is included in Appendix K.

#### 2.7 Backfill

In accordance with the SMP, a representative of the Remedial Engineer oversaw the importing of all backfill into the Site. Backfilling was completed in stages. As each cell was excavated, and the endpoint sample results approved, clean fill was brought in to bring the excavation to grade, which this took place over 4 phases (Figure 3).

Between September 6, 2012 and October 1, 2012, approximately 2,730 tons of crushed, graded, virgin basalt bedrock were imported from the Tilcon, Inc. West Nyack, NY trap rock quarry and shipped to the Site. The actual volume used was 75 percent more than originally anticipated (1,560 tons). The backfill source was approved by NYSDEC in an e-mail dated August 6, 2012. Copies of the clean fill bills of lading are included in Appendix M. A copy of the clean fill approval is included in Appendix N.

All materials imported to the Site were screened visually and with a PID for evidence of potentially contaminated soil by the representative of the RE. No evidence of contamination above the UUSCOs was detected in the materials imported during backfilling by either visual or PID screening. Placement of screened backfill on the Site was approved by the Remedial Engineer representative.

#### 2.8 Engineering Control Systems and Institutional Controls

All contaminated soils were removed from Area B down to bedrock and up to the property line or bulkhead wall, thereby achieving Track 1 Cleanup. As such, no institutional or engineering controls are required.

#### 2.9 Deviations from the Remedial Action Work Plan

There were no deviations from the RAWP during remediation of Area B.

#### 3.0 ESTIMATED REMEDIATION COSTS

The estimated remedial costs for Area B are included in Appendix O.

### Figures





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![](_page_22_Figure_0.jpeg)

### Tables

## Table 1 - Summary of Material Exported Off SiteArea B - W. 34th St. Development SiteBCP No. C231049

				Approximate	Manifested
Log Number	Manifest #	Date	Time	Tonnage	Facility
CE-1	535645	9/17/2012	6:30	23	Clean Earth, Carteret, NJ
CE-2	535646	9/17/2012	6:45	23	Clean Earth, Carteret, NJ
CE-3	535644	9/17/2012	8:12	23	Clean Earth, Carteret, NJ
CE-4	535643	9/17/2012	8:30	23	Clean Earth, Carteret, NJ
CE-5	535647	9/17/2012	10:29	23	Clean Earth, Carteret, NJ
CE-6	535648	9/17/2012	10:44	23	Clean Earth, Carteret, NJ
CE-7	535649	9/17/2012	12:25	23	Clean Earth, Carteret, NJ
CE-8	535650	9/17/2012	12:45	23	Clean Earth, Carteret, NJ
CE-9	535651	9/18/2012	11:17	23	Clean Earth, Carteret, NJ
CE-10	535653	9/19/2012	7:00	23	Clean Earth, Carteret, NJ
CE-11	535654	9/19/2012	7:45	23	Clean Earth, Carteret, NJ
CE-12	766315	9/19/2012	8:00	23	Clean Earth, Carteret, NJ
CE-13	535652	9/19/2012	8:45	23	Clean Earth, Carteret, NJ
CE-14	766316	9/19/2012	8:55	23	Clean Earth, Carteret, NJ
CE-15	766318	9/19/2012	10:24	23	Clean Earth, Carteret, NJ
CE-16	766317	9/19/2012	10:30	23	Clean Earth, Carteret, NJ
CE-17	766319	9/19/2012	10:45	23	Clean Earth, Carteret, NJ
CE-18	766320	9/21/2012	7:00	23	Clean Earth, Carteret, NJ
CE-19	766321	9/21/2012	7:30	23	Clean Earth, Carteret, NJ
CE-20	766322	9/24/2012	9:00	23	Clean Earth, Carteret, NJ
CE-21	766326	9/26/2012	7:00	23	Clean Earth, Carteret, NJ
CE-22	766323	9/26/2012	7:15	23	Clean Earth, Carteret, NJ
CE-23	766324	9/26/2012	7:30	23	Clean Earth, Carteret, NJ
CE-24	766325	9/26/2012	11:00	23	Clean Earth, Carteret, NJ
CE-25	766328	9/26/2012	11:15	23	Clean Earth, Carteret, NJ
CE-26	766327	9/26/2012	14:35	23	Clean Earth, Carteret, NJ
CE-27	766329	9/27/2012	7:00	23	Clean Earth, Carteret, NJ
CE-28	766330	9/27/2012	7:40	23	Clean Earth, Carteret, NJ
CE-29	766335	9/27/2012	10:00	23	Clean Earth, Carteret, NJ
CE-30	766336	9/27/2012	11:00	23	Clean Earth, Carteret, NJ
CE-31	766337	9/27/2012	13:30	23	Clean Earth, Carteret, NJ
CE-32	766338	9/27/2012	14:00	23	Clean Earth, Carteret, NJ
CE-33	766333	9/28/2012	7:00	23	Clean Earth, Carteret, NJ
CE-34	766332	9/28/2012	9:00	23	Clean Earth, Carteret, NJ
CE-35	766334	9/28/2012	11:00	23	Clean Earth, Carteret, NJ

## Table 1 - Summary of Material Exported Off SiteArea B - W. 34th St. Development SiteBCP No. C231049

				Approximate	Manifested
Log Number	Manifest #	Date	Time	Tonnage	Facility
NJ-1	67390	8/14/2012	7:15	23	Lincoln Park West, NJ
NJ-2	67391	8/14/2012	7:24	23	Lincoln Park West, NJ
NJ-3	67392	8/14/2012	7:38	23	Lincoln Park West, NJ
NJ-4	67393	8/14/2012	7:54	23	Lincoln Park West, NJ
NJ-5	67394	8/14/2012	9:20	23	Lincoln Park West, NJ
NJ-6	67395	8/14/2012	9:36	23	Lincoln Park West, NJ
NJ-7	67396	8/14/2012	9:47	23	Lincoln Park West, NJ
NJ-8	67397	8/14/2012	10:01	23	Lincoln Park West, NJ
NJ-9	67398	8/14/2012	11:16	23	Lincoln Park West, NJ
NJ-10	67399	8/14/2012	11:30	23	Lincoln Park West, NJ
NJ-11	67400	8/14/2012	11:43	23	Lincoln Park West, NJ
NJ-12	67401	8/14/2012	11:56	23	Lincoln Park West, NJ
NJ-13	67402	8/14/2012	13:19	23	Lincoln Park West, NJ
NJ-14	67403	8/14/2012	13:45	23	Lincoln Park West, NJ
NJ-15	67404	8/14/2012	14:53	23	Lincoln Park West, NJ
NJ-16	67405	8/14/2012	15:16	23	Lincoln Park West, NJ
NJ-17	67406	8/15/2012	8:00	23	Lincoln Park West, NJ
NJ-18	67407	8/15/2012	8:14	23	Lincoln Park West, NJ
NJ-19	67408	8/15/2012	8:29	23	Lincoln Park West, NJ
NJ-20	67409	8/15/2012	8:40	23	Lincoln Park West, NJ
NJ-21	67410	8/15/2012	10:07	23	Lincoln Park West, NJ
NJ-22	67411	8/15/2012	10:20	23	Lincoln Park West, NJ
NJ-23	67412	8/15/2012	10:35	23	Lincoln Park West, NJ
NJ-24	67413	8/15/2012	10:50	23	Lincoln Park West, NJ
NJ-25	67414	8/15/2012	11:45	23	Lincoln Park West, NJ
NJ-26	67415	8/15/2012	12:05	23	Lincoln Park West, NJ
NJ-27	67416	8/15/2012	12:20	23	Lincoln Park West, NJ
NJ-28	67417	8/15/2012	12:35	23	Lincoln Park West, NJ
NJ-29	67418	8/15/2012	13:30	23	Lincoln Park West, NJ
NJ-30	67419	8/15/2012	14:04	23	Lincoln Park West, NJ
NJ-31	67420	8/15/2012	14:20	23	Lincoln Park West, NJ
NJ-32	67421	8/15/2012	14:45	23	Lincoln Park West, NJ
NJ-33	67422	8/31/2012	7:45	23	Lincoln Park West, NJ
NJ-34	67423	8/31/2012	9:35	23	Lincoln Park West, NJ
NJ-35	67424	8/31/2012	11:15	23	Lincoln Park West, NJ
NJ-36	67425	8/31/2012	12:30	23	Lincoln Park West, NJ
NJ-37	67426	9/10/2012	7:15	23	Lincoln Park West, NJ
NJ-38	67429	9/10/2012	9:55	23	Lincoln Park West, NJ
NJ-39	67427	9/10/2012	11:25	23	Lincoln Park West, NJ

## Table 1 - Summary of Material Exported Off SiteArea B - W. 34th St. Development SiteBCP No. C231049

				Approximate	Manifested
Log Number	Manifest #	Date	Time	Tonnage	Facility
NJ-40	67428	9/10/2012	12:45	23	Lincoln Park West, NJ
NJ-41	67430	9/11/2012	7:00	23	Lincoln Park West, NJ
NJ-42	67431	9/11/2012	9:30	23	Lincoln Park West, NJ
NJ-43	67432	9/13/2012	7:00	23	Lincoln Park West, NJ
NJ-44	67433	9/13/2012	7:24	23	Lincoln Park West, NJ
NJ-45	67435	9/13/2012	9:00	23	Lincoln Park West, NJ
NJ-46	67434	9/13/2012	10:00	23	Lincoln Park West, NJ
NJ-47	67436	9/13/2012	11:05	23	Lincoln Park West, NJ
NJ-48	67437	9/13/2012	12:00	23	Lincoln Park West, NJ
NJ-49	67438	9/13/2012	13:39	23	Lincoln Park West, NJ
NJ-50	67445	9/18/2012	7:00	23	Lincoln Park West, NJ
NJ-51	67439	9/18/2012	9:22	23	Lincoln Park West, NJ
NJ-52	67440	9/18/2012	11:30	23	Lincoln Park West, NJ
NJ-53	67442	9/19/2012	12:50	23	Lincoln Park West, NJ
NJ-54	67443	9/19/2012	13:15	23	Lincoln Park West, NJ
NJ-55	67444	9/19/2012	13:30	23	Lincoln Park West, NJ
NJ-56	67446	9/19/2012	13:45	23	Lincoln Park West, NJ
NJ-57	67447	9/19/2012	14:15	23	Lincoln Park West, NJ
NJ-58	67448	9/19/2012	14:30	23	Lincoln Park West, NJ
NJ-59	67449	9/19/2012	14:45	23	Lincoln Park West, NJ
NJ-60	67450	9/19/2012	15:00	23	Lincoln Park West, NJ
NJ-61	67451	9/21/2012	8:00	23	Lincoln Park West, NJ
NJ-62	67452	9/21/2012	8:30	23	Lincoln Park West, NJ
NJ-63	67453	9/24/2012	9:30	23	Lincoln Park West, NJ
NJ-64	67454	9/24/2012	10:00	23	Lincoln Park West, NJ
NJ-65	67455	9/24/2012	10:30	23	Lincoln Park West, NJ
NJ-66	67459	9/26/2012	7:45	23	Lincoln Park West, NJ
NJ-67	67456	9/26/2012	8:00	23	Lincoln Park West, NJ
NJ-68	67458	9/26/2012	10:00	23	Lincoln Park West, NJ
NJ-69	67465	9/26/2012	12:00	23	Lincoln Park West, NJ

## Table 2 - Summary of Volatile Organic Compounds in Endpoint Samples Compared to Track 1 - Unrestricted UseW. 34th Street DevelopmentBCP No. C231049

Sample ID	UUSCO -	PX-N1	PX-W1	PX-N2	PX-N3	PX-W1	PX-W2	PX-W3	
Date	Unrestricted Use	9/6/2012	9/6/2012	9/13/2012	9/13/2012	9/20/2012	9/25/2012	9/20/2012	
Volatile Organic Compounds - ug/kg									
Acetone	50	ND	14.1	8.9 J	12.2 J	17.1	ND	17.1	
Benzene	60	0.38 J	0.69 J	ND	ND	ND	ND	ND	
Bromochloromethane	-	ND	ND	ND	ND	ND	ND	ND	
Bromodichloromethane	-	ND	ND	ND	ND	ND	ND	ND	
Bromoform	-	ND	ND	ND	ND	ND	ND	ND	
Bromomethane	-	ND	ND	ND	ND	ND	ND	ND	
2-Butanone (MEK)	120	ND	ND	ND	ND	ND	ND	ND	
Carbon disulfide	-	ND	ND	ND	ND	ND	ND	ND	
Carbon tetrachloride	760	ND	ND	ND	ND	ND	ND	ND	
Chlorobenzene	1100	ND	ND	ND	ND	ND	ND	ND	
Chloroethane	-	ND	ND	ND	ND	ND	ND	ND	
Chloroform	370	ND	ND	ND	ND	ND	ND	ND	
Chloromethane	-	ND	ND	ND	ND	ND	ND	ND	
Cyclohexane	-	ND	ND	ND	ND	ND	ND	ND	
1,2-Dibromo-3-chloropropane	-	ND	ND	ND	ND	ND	ND	ND	
Dibromochloromethane	-	ND	ND	ND	ND	ND	ND	ND	
1,2-Dibromoethane	-	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	1100	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	2400	ND	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	1800	ND	ND	ND	ND	ND	ND	ND	
Dichlorodifluoromethane	-	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	270	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	20	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethene	330	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	250	ND	ND	ND	ND	ND	ND	ND	
trans-1,2-Dichloroethene	190	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropane	-	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropene	-	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-Dichloropropene	-	ND	ND	ND	ND	ND	ND	ND	
1,4-Dioxane	100	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	1000	ND	ND	ND	ND	ND	ND	ND	
Freon 113	-	ND	ND	ND	ND	ND	ND	ND	
2-Hexanone	-	ND	ND	ND	ND	ND	ND	ND	
Isopropylbenzene	-	ND	ND	ND	ND	ND	ND	ND	
Methyl Acetate	-	ND	ND	ND	ND	ND	ND	ND	
Methylcyclohexane	-	ND	ND	ND	ND	ND	ND	ND	
Methyl Tert Butyl Ether	930	ND	ND	ND	ND	ND	ND	ND	
4-Methyl-2-pentanone(MIBK)	-	ND	ND	ND	ND	ND	ND	ND	
Methylene chloride	50	ND	ND	3.7 J	ND	8.3	ND	8.3	
Styrene	-	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	-	ND	ND	ND	ND	ND	ND	ND	
Tetrachloroethene	1300	ND	ND	ND	ND	ND	ND	ND	
Toluene	700	0.41 J	0.78 J	ND	ND	0.80 J	ND	0.80 J	
1,2,3-Trichlorobenzene	-	ND	ND	ND	ND	ND	ND	ND	
1,2,4-Trichlorobenzene	-	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	680	ND	ND	ND	ND	ND	ND	ND	
1,1,2-Trichloroethane	-	ND	ND	ND	ND	ND	ND	ND	
Trichloroethene	470	ND	ND	ND	ND	ND	ND	ND	
Trichlorofluoromethane	-	ND	ND	ND	ND	ND	ND	ND	
Vinyl chloride	20	ND	ND	ND	ND	ND	ND	ND	
m,p-Xylene	260	ND	0.68 J	ND	ND	ND	ND	ND	
o-Xylene	260	ND	0.27 J	ND	ND	ND	ND	ND	
Xylene (total)	260	ND	0.95 J	ND	ND	ND	ND	ND	

Parameters above UUSCO are shaded

J = Estimated value

ND = Non-Detect

#### Table 3 - Summary of Semivolatile Organic Compounds in Endpoint Samples Compared to Track 1 - Unrestricted Use W. 34th Street Development BCP No. C231049

Sample ID	UUSCO -	PX-N1	PX-W1	PX-N2	PX-N3	PX-W1	PX-W2	PX-W3
Date	Unrestricted Use	9/6/2012	9/6/2012	9/13/2012	9/13/2012	9/20/2012	9/25/2012	9/20/2012
Semi-Volatile Organic Compour	nds - ug/kg							
2-Chlorophenol	-	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methyl phenol	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	-	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	-	ND	ND	ND	ND	ND	ND	ND
4,6-DINITro-o-cresol	-		ND	ND				
3&4-Methylphenol	-	ND	ND	ND		ND		ND
2-Nitrophenol	-	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	-	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	800	ND	ND	ND	ND	ND	ND	ND
Phenol	330	ND	ND	ND	ND	ND	ND	ND
2,3,4,6-Tetrachlorophenol	-	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	-	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	-	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20000	ND	ND	14.1 J	104	ND	15.6 J	ND
Acenaphthylene	100000	ND	52.5	19.0 J	194	ND	40.5	ND
Acetophenone	-	ND	ND	ND	ND	ND	ND	ND
Anthracene	100000	43.4	96.2	38.9	373	ND	92.8	ND
Atrazine	-	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1000	102	197	110	1020	24.3 J	190	24.3 J
Benzo(a)pyrene	1000	97.7	178	106	960	ND	178	ND
Benzo(b)fluoranthene	1000	85.1	169	101	1130	ND	136	ND
Benzo(g,h,i)perylene	100000	62.7	114	58.3	545	ND	105	ND
Benzo(k)fluoranthene	800	70.9	116	80.2	500	ND	145	ND
4-Bromophenyl phenyl ether	-	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate	-	ND	ND	ND	ND	ND	ND	ND
1,1'-Biphenyl	-	ND	ND	ND	17.0 J	ND	ND	ND
Benzaldehyde	-	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	-	ND	ND	ND	ND	ND	ND	ND
4-Chioroaniline	-	ND		ND	NU 04.7	ND	ND 17.0 J	
Carbazole	-	ND	50.7 J	ND	94.7		17.9 J	ND
Capitolaciam	-	100	184	101	883	23.2.1	101	23.2.1
bis(2-Chloroethoxy)methane	1000				003 ND	23.2 J		23.2 J
bis(2-Chloroethyl)ether	-	ND	ND	ND	ND	ND	ND	ND
his(2-Chloroisopropyl)ether	-	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	-	ND	ND	ND	ND	ND	ND	ND
2.4-Dinitrotoluene	-	ND	ND	ND	ND	ND	ND	ND
2.6-Dinitrotoluene	-	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	-	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	330	ND	ND	15.1 J	238	ND	42.8	ND
Dibenzofuran	7000	ND	69.8	ND	88	ND	13.3 J	ND
Di-n-butyl phthalate	-	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	-	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	-	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	-	ND	ND	42.6 J	ND	ND	123	ND
bis(2-Ethylhexyl)phthalate	-	ND	ND	93.3	45.4 J	ND	ND	ND
Fluoranthene	100000	218	407	191	1740	34.6 J	328	34.6 J
Fluorene	30000	ND	106	18.4 J	127	ND	ND	ND
Hexachlorobenzene	330	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	-	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	-	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	-	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	63.2	97.2	59	539	ND	109	ND
Isophorone	-	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	-	ND	126	23.2 J	46.2 J	ND	ND	ND
2-Nitroaniline	-	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	-	ND	ND	ND	ND	ND	ND	ND
4-INITOANIIINE	-	ND	ND				ND 100	ND
Naphtnalene	12000		380	24.5 J	89.3		180	ND
NILTODENZENE	-		ND		ND			ND
IN-INITroso-al-n-propylamine	-		ND	ND	ND			ND
Phononthrono	-	144		109	025	17 7 I		17 7 I
Pyrene	100000	178	335	178	920 1600	35.7.1	365	35.7.1
1.2.4.5-Tetrachlorobenzene	-	ND	ND	ND	ND	ND	ND	ND

Parameters above UUSCO are shaded

J = Estimated value

ND = Non-Detect

#### Table 4 - Summary of Metals in Endpoint Samples Compared to Track 1 - Unrestricted Use W. 34th Street Development BCP No. C231049

Sample ID	UUSCO -	PX-N1	PX-W1	PX-N2	PX-N3	PX-W1	PX-W2	PX-W3
Date	Unrestricted Use	9/6/2012	9/6/2012	9/13/2012	9/13/2012	9/20/2012	9/25/2012	9/20/2012
Metals - mg/kg	000							
Aluminum	-	6590	7820	9110	9360	6820	6400	6820
Antimony	-	<2.2	<2.2	<2.4	<2.5	<2.2	<2.1	<2.2
Arsenic	13	3.4	3.2	3.1	4.9	<2.2	2.3	<2.2
Barium	350	80.1	103	123	132	87.6	85.2	87.6
Beryllium	7.2	0.35	0.45	0.59	0.64	0.47	0.54	0.47
Cadmium	2.5	<0.55	<0.55	<0.59	<0.62	<0.56	<0.52	<0.56
Calcium	-	12500	10600	7480	8550	7580	2810	7580
Chromium	-	19.8	23.3	21.3	29	19.5	56	19.5
Cobalt	-	<5.5	6.7	6	6.8	<5.6	8.9	<5.6
Copper	50	30	30.7	24.2	37.6	10.4	15.6	10.4
Iron	-	15200	17500	17300	19700	12600	17700	12600
Lead	63	127	124	56.1	137	11.6	30.8	11.6
Magnesium	-	4530	5400	4050	3800	4230	3130	4230
Manganese	1600	256	350	407	351	376	350	376
Mercury	0.18	3.9	3.3	0.84	3.6	0.069	0.12	0.069
Nickel	30	16	23.5	24.9	24.9	30	208	30
Potassium	-	2170	2850	2670	2930	2350	1990	2350
Selenium	3.9	<2.2	<2.2	<2.4	<2.5	<2.2	<2.1	<2.2
Silver	2	0.65	0.65	1	0.89	<0.56	<0.52	<0.56
Sodium	-	<1100	<1100	<1200	<1200	<1100	<1000	<1100
Thallium	-	<1.1	<1.1	<1.2	<1.2	<1.1	<1.0	<1.1
Vanadium	-	24	27.3	25.7	34	19.7	19.4	19.7
Zinc	109	77.1	76.6	52.4	110	38.3	31.8	38.3

Parameters above UUSCO are shaded

J = Estimated value

ND = Non-Detect

- = Not Applicable

#### 1

#### Table 5 - Summary of Pesticides and Polychlorinated Biphenyls in Endpoint Samples Compared to Track 1 - Unrestricted Use W. 34th Street Development BCP No. C231049

Sample ID Date	UUSCO - Unrestricted Use	PX-N1 9/6/2012	PX-W1 9/6/2012	PX-N2 9/13/2012	PX-N3 9/13/2012	PX-W1 9/20/2012	PX-W2 9/25/2012	PX-W3 9/20/2012
Pesticides - ug/kg								
Aldrin	5	ND	0.78	ND	ND	ND	ND	ND
alpha-BHC	20	ND	ND	ND	ND	ND	ND	ND
beta-BHC	36	ND	ND	ND	ND	ND	ND	ND
delta-BHC	40	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	100	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	94	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	-	ND	ND	ND	ND	ND	ND	ND
Dieldrin	5	2.4	0.82	ND	ND	ND	ND	ND
4,4'-DDD	3.3	21.2	28.3	6.9	23.6	ND	ND	ND
4,4'-DDE	3.3	6.3	5.6	1.3	3.3	ND	ND	ND
4,4'-DDT	3.3	2.8	41.8	13.8	24.6	ND	ND	ND
Endrin	14	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	2400	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	-	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	2400	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	2400	ND	ND	ND	ND	ND	ND	ND
Heptachlor	42	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	-	1.4	ND	ND	ND	ND	ND	ND
Methoxychlor	-	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	-	ND	ND	ND	ND	ND	ND	ND
Toxaphene	-	ND	ND	ND	ND	ND	ND	ND
Parameter: PCBs - ug/kg								
Aroclor 1016	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1268	100	ND	ND	ND	ND	ND	ND	ND
Aroclor 1262	100	ND	ND	ND	ND	ND	ND	ND

Parameters above UUSCO are shaded

J = Estimated value

ND = Non-Detect

- = Not Applicable

1

## Table 6 List of Track 1 SCOs NYCRR Part 375-6.8(a) Units in mg/kg

Aluminum	-	2-CI
Antimony	-	4-CI
Arsenic	13	2,4-
Barium	350	2,4-
Beryllium	7.2	2,4-
Cadmium	2.5	4,6-
Calcium	-	2-M
Chromium	-	3&4
Cobalt	-	2-N
Copper	50	4-N
Iron	-	Per
Lead	63	Phe
Magnesium	-	2,3,
Manganese	1600	2,4,
Mercury	0.18	2,4,
Nickel	30	Ace
Potassium	-	Ace
Selenium	3.9	Ace
Silver	2	Anti
Sodium	-	Atra
Thallium		Ben
Vanadium	-	Ber
Zinc	109	Ben
		Ben
		Ben
PCBs/Pesticides		4-B
Aldrin	0.005	But
alpha-BHC	0.02	1,1'
beta-BHC	0.036	Ben
delta-BHC	0.04	2-C
		4-C
alpha-Chlordane	0.094	Car
		Car
Dieldrin	0.005	Chr
		bis(
4,4'-DDD	0.0033	
4,4'-DDD 4.4'-DDE	0.0033	bis(
4,4'-DDD 4,4'-DDE 4,4'-DDT	0.0033 0.0033 0.0033	bis(
4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin	0.0033 0.0033 0.0033 0.014	bis( bis( 4-C
4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin Endosulfan sulfate	0.0033 0.0033 0.0033 0.014 2.4	bis( bis( 4-C 2.4-
4,4'-DDD 4,4'-DDE 4,4'-DDT Endrsi Endosulfan sulfate Endosulfan-I	0.0033 0.0033 0.0033 0.014 2.4 2.4	bis( bis( 4-C 2,4- 2.6-
4.4-DDD 4.4-DDE Endrin Endosulfan sulfate Endosulfan-II Endosulfan-II	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4	bis( bis( 4-C 2,4- 2,6- 3.3'
4,4'-DDD 4,4'-DDT Endrin Endosulfan sulfate Endosulfan-I Endosulfan-I Heptachlor	0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.042	bis( bis( 4-C 2,4- 2,6- 3,3' Dib
4,4'-DDD 4,4'-DDE 4,4'-DDT Endrin Endosulfan sulfate Endosulfan-I Heptachior Lindane	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.042 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dib
4,4'-DDD 4,4'-DDT Endrin Endosulfan-ul Endosulfan-ul Endosulfan-ul Heptachlor Lindane Methoxochlor	0.0033 0.0033 0.014 2.4 2.4 2.4 0.042 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dib Dib Dib
4,4'-DDD 4,4'-DDE 4,4'-DDT Endosulfan sulfate Endosulfan-I Endosulfan-I Heptachlor Lindane Methoxychlor Polychlorinated bibnervis	0.0033 0.0033 0.013 0.014 2.4 2.4 2.4 0.042 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dib Dib Dib Dir Dib Dir
4,4-DDD 4,4-DDD 4,4-DDT Endosulfan sulfate Endosulfan-I Endosulfan-I Heptachlor Lindane Methoxychlor Polychlorinated biphenyls Endrin kolnow	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.042 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dib Dib Dib Dib Dib Di-r Di-r Di-r Di-r
4.4-DDD 4.4-DDD Endosulfan sulfate Endosulfan l Endosulfan-II Hegtachfor Lindane Methoxychlor Polychlorinated biphenyls Endrin ketone 2.4 5-TP Acid (Silver)	0.0033 0.0033 0.014 2.4 2.4 2.4 0.042 0.1 - 0.1 - 3.8	bis( bis( 4-C 2,4- 2,6- 3,3' Dib Dibr Dibr Di-r Di-r Dier Dier Dier
4.4-DDD 4.4-DDT Endrin Endrin Endosulfan-I Endosulfan-I Endosulfan-I Hoptachlor Lindane Methoxychlor Polychlorinated biphenyls Endrin ketore 2.4.5-TP Acid (Silvex) Toxanbere	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.1 - 0.1 - 3.8	bis( bis( 4-C 2,4- 2,6- 3,3' Dib Dib Dib Di-r Di-r Di-r Diel Dim bie/
4.4-DDD 4.4-DDD Endrin Endosulfan sulfate Endosulfan-II Endosulfan-II Heptachlor Lindane Methoxychlor Polychlorinated biphenyls Endrin ketone 2.4.5-TP Acid (Sivex) Toxaphene Arector 1016	0.0033 0.0033 0.014 2.4 2.4 2.4 0.042 0.1 - 0.1 - 3.8 -	bis() bis() 4-C 2,4- 2,6- 3,3' Dibe Dibe Dibe Di-n Di-n Di-n Diet Dim bis() Elux
4.4-DDD 4.4-DDT Endon Endon Endosufan-I Endosufan-I Endosufan-I Hoptachlor Lindane Methoxychlor Polychlorianted biphanyls Polychlorianted biphanyls Polychlorianted biphanyls Polychlorianted biphanyls AdsTP Acid (Slwax) Toxophane Ancier 121	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.042 0.1 - - 3.8 - 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dibr Dibr Dibr Dibr Dibr Dibr Dist Dist Dist Elus
4.4-DDD 4.4-DDT Endosulfan sulfate Endosulfan-I Endosulfan-I Heptachfor Lindane Methoxychfor Polychlorinated biphenyls Endrin ketone 2.4.5-TP Acid (Silvet) Toxaphene Anocior 1016 Anocior 1221	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.042 0.1 - - 3.8 - 0.1 0.1 0.1 0.1 0.1	bis() bis() 4-C 2,4- 2,6- 3,3' Dibe Dibe Di-n Di-n Di-n Di-n Di-n Di-n Di-n Di-n
4.4-DDD 4.4-DDT Endon Endon Endon Endosufan-I Endosufan-I Hoppachlor Hoppachlor Hoppachlor Endosufan-I Endosufan-I Endosufan-I Hoppachlor Polychlorinated biphenyls Polychlorinated biphenyls Enddri ketone 2.4,5-TR Acid (Slvex) Tosophene Anocir 1016 Anocir 1221 Anocir 1221	0.0033 0.0033 0.0014 2.4 2.4 2.4 2.4 2.4 0.42 0.1 - 0.1 0.1 0.1 0.1 0.1 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dib Dir Dir Dir Dir Dir Dir Dir Dir Dir Dir
4.4-DDD 4.4-DDT Endral nsulfae Endral nsulfae Endral nsulfae Endral nsulfae Endral nsulfae Heptachtor Lindane Methoxychkor Polychkorinated biphenyls Endrin ketone 2.4.5.TP Acid (Slwar) Toxaphene Anoclor 1016 Anoclor 1221 Anoclor 1221 Anoclor 1242	0.0033 0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.1 - - - - - - - - - - - - - - - - - - -	bis( bis( 4-C 2,4- 2,6- 3,3' Dibi Dibi Dir Dir Dir Dir Dir Dir Dir Dir Dir Di
4.4-DDD 4.4-DDT Endos Endon Endosufan-I Endosufan-I Endosufan-I Hoptachlor Lindane Adhtoxychor Polychlorianted biphonyls Polychlorianted biphonyls Polychlorianted biphonyls Ads.TP Acid (Slwax) Toxophone Ancoir 1016 Ancoir 1221 Ancoir 1222 Ancoir 1224 Ancoir 1242	0.0033 0.0033 0.014 2.4 2.4 2.4 2.4 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dibi Dirt Dirt Dirt Dirt Dirt Dirt Dirt Dir
4.4-DDD 4.4-DDT Endosulfan sulfate Endosulfan-I Endosulfan-I Endosulfan-I Heptachtor Lindane Mathoxychtor Polychicinated biphenyls Endrin katone Z.4,5-TP Acid (Steva) Toxaphene Ancolor 11016 Ancolor 1221 Ancolor 1221 Ancolor 1222 Ancolor 1224 Ancolor 1248	0.0033 0.0033 0.0014 2.4 2.4 2.4 0.042 0.1 - - 0.1 - 0.1 0.1 0.1 0.1 0.1 0.1 0.1	bis(; bis(; 4-C 2,4- 2,6- 3,3'3 Dibr Dibr Dibr Dibr Dibr Dibr Dibr Dibr
4.4-DDD 4.4-DDT Endos Endon Endosultan-I Endosultan-I Endosultan-I Heptachlor Lindane Methoxychlor Polychlorinated bipenyls Polychlorinated bipenyls Polychlorinated bipenyls Acader 121 Aracter 121 Aracter 1221 Aracter 1221 Aracter 1222 Aracter 1224 Aracter 1254 Aracter 1254	0.0033 0.0033 0.0014 2.4 2.4 2.4 2.4 2.4 0.1	bis( bis( 4-C 2,4- 2,6- 3,3' Dibi Di-n Di-n Di-n Di-n Di-n Di-n Di-n Di-
4.4-DDD 4.4-DDT Endosuffan-suffate Endosuffan-I Endosuffan-I Heptachtor Lindane Methoxychtor Polychiorinated biphenyls Endrin ketone Z.4,5-TP Acid (Steve) Toxaphene Aractor 1016 Aractor 1221 Aractor 1222 Aractor 1242 Aractor 1248 Aractor 1248 Aractor 1248	0.0033 0.0033 0.0014 2.4 2.4 2.4 2.4 0.1 - - 0.1 - - 3.8 - - 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	bis( bis( 4-C 2,4- 2,6- 3,3'3 Dibib Dirit

Semivolatile Organic Compounds		Volatile Organic Compounds	
2-Chlorophenol	-	Acetone	0.05
4-Chloro-3-methyl phenol	-	Benzene	0.06
2,4-Dichlorophenol	-	Bromochloromethane	-
2,4-Dimethylphenol	-	Bromodichloromethane	-
2,4-Dinitrophenol	-	Bromoform	-
4,6-Dinitro-o-cresol	-	Bromomethane	-
2-Methylphenol	0.33	2-Butanone (MEK)	0.12
3&4-Methylphenol	-	Carbon disulfide	-
2-Nitrophenol	-	Carbon tetrachloride	0.76
4-Nitrophenol	-	Chlorobenzene	1.1
Pentachlorophenol	0.8	Chloroethane	-
Phenol	0.33	Chloroform	0.37
2,3,4,6-Tetrachlorophenol	-	Chloromethane	-
2,4,5-Trichlorophenol	-	Cyclohexane	-
2,4,6-Trichlorophenol	-	1,2-Dibromo-3-chloropropane	-
Acenaphthene	20	Dibromochloromethane	-
Acenaphthylene	100	1,2-Dibromoethane	-
Acetophenone	-	1,2-Dichlorobenzene	1.1
Anthracene	100	1,3-Dichlorobenzene	2.4
Atrazine	-	1,4-Dichlorobenzene	1.8
Benzo(a)anthracene	1	Dichlorodifluoromethane	-
Benzo(a)pyrene	1	1,1-Dichloroethane	0.27
Benzo(b)fluoranthene	1	1,2-Dichloroethane	0.02
Benzo(g,h,i)perylene	100	1,1-Dichloroethene	0.33
Benzo(k)fluoranthene	0.8	cis-1,2-Dichloroethene	0.25
4-Bromophenyl phenyl ether	-	trans-1,2-Dichloroethene	0.19
Butyl benzyl phthalate	-	1,2-Dichloropropane	-
1,1'-Biphenyl	-	cis-1,3-Dichloropropene	-
Benzaldehyde	-	trans-1,3-Dichloropropene	-
2-Chloronaphthalene	-	1,4-Dioxane	0.1
4-Chloroaniline	-	Ethylbenzene	1
Carbazole	-	Freon 113	-
Caprolactam	-	2-Hexanone	-
Chrysene	1	Isopropylbenzene	-
bis(2-Chloroethoxy)methane	-	Methyl Acetate	-
bis(2-Chloroethyl)ether	-	Methylcyclohexane	-
bis(2-Chloroisopropyl)ether	-	Methyl Tert Butyl Ether	0.93
4-Chlorophenyl phenyl ether	-	4-Methyl-2-pentanone(MIBK)	-
2,4-Dinitrotoluene	-	Methylene chloride	0.05
2,6-Dinitrotoluene	-	Styrene	-
3,3'-Dichlorobenzidine	-	1,1,2,2-Tetrachloroethane	-
Dibenzo(a,h)anthracene	0.33	Tetrachloroethene	1.3
Dibenzofuran	7	Toluene	0.7
Di-n-butyl phthalate	-	1,2,3-Trichlorobenzene	-
Di-n-octyl phthalate	-	1,2,4-Trichlorobenzene	-
Diethyl phthalate	-	1,1,1-Trichloroethane	0.68
Dimethyl phthalate	-	1,1,2-Trichloroethane	-
bis(2-Ethylhexyl)phthalate	-	Trichloroethene	0.47
Fluoranthene	100	Trichlorofluoromethane	-
Fluorene	30	Vinyl chloride	0.02
Hexachlorobenzene	0.33	m,p-Xylene	0.26
Hexachlorobutadiene	-	o-Xylene	0.26
Hexachlorocyclopentadiene	-	Xylene (total)	0.26
Hexachloroethane	-		
Indeno(1,2,3-cd)pyrene	0.5		
Isophorone	-		
2-Methylnaphthalene	-		
2-Nitroaniline	-		
3-Nitroaniline	-		
4-Nitroaniline	-		
Naphthalene	12		
Nitrobenzene	-		
N-Nitroso-di-n-propylamine	-		
N-Nitrosodiphenylamine	-		
Phenanthrene	100		
Pyrene	100		
1,2,4,5-Tetrachlorobenzene	-		

Pyrene 1,2,4,5-Tetrachlorobenzene

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#### Table 7A - Summary of Groundwater Sampling Results for Off-Site Monitoring Well OS-1 Volatile Organic Compounds W. 34th Street Development BCP No. C231049

Sample ID Date	NY TOGS Class GA GW	FB072910 7/29/2010 Field Blank	OS-1 7/29/2010 Ground	OS-1 7/29/2010 Groundwater	TB 7/29/2010 Trip Blank
Matrix	Standards	Water	Water	Filtered	Water
Volatile Organic Compounds	- ug/L				
Acetone	-	ND	ND	-	ND
Benzene	1	ND	ND	-	ND
Bromodichloromethane	-	ND	ND	-	ND
Bromoform	-	ND	ND	-	ND
Bromomethane	5	ND	ND	-	ND
2-Butanone (MEK)	-	ND	ND	-	ND
Carbon disulfide	60	ND	ND	-	ND
Carbon tetrachloride	5	ND	ND	-	ND
Chlorobenzene	5	ND	ND	-	ND
Chloroethane	5	ND	ND	-	ND
Chloroform	7	ND	2.1	-	ND
Chloromethane	5	ND	ND	-	ND
Dibromochloromethane	-	ND	ND	-	ND
1,1-Dichloroethane	5	ND	ND	-	ND
1,2-Dichloroethane	0.6	ND	ND	-	ND
1,1-Dichloroethene	5	ND	ND	-	ND
cis-1,2-Dichloroethene	5	ND	ND	-	ND
trans-1,2-Dichloroethene	5	ND	ND	-	ND
1,2-Dichloroethene (total)	-	ND	ND	-	ND
1,2-Dichloropropane	1	ND	ND	-	ND
cis-1,3-Dichloropropene	-	ND	ND	-	ND
trans-1,3-Dichloropropene	-	ND	ND	-	ND
Ethylbenzene	5	ND	ND	-	ND
2-Hexanone	-	ND	ND	-	ND
Methyl Tert Butyl Ether	10	ND	ND	-	ND
4-Methyl-2-pentanone(MIBK)	-	ND	ND	-	ND
Methylene chloride	5	ND	ND	-	ND
Styrene	5	ND	ND	-	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	-	ND
Tetrachloroethene	5	ND	ND	-	ND
Toluene	5	ND	ND	-	ND
1,1,1-Trichloroethane	5	ND	ND	-	ND
1,1,2-Trichloroethane	1	ND	ND	-	ND
Trichloroethene	5	ND	ND	-	ND
Vinyl chloride	2	ND	ND	-	ND
Xylene (total)	5	ND	ND	-	ND

Parameters above TOGS GA are shaded

J = Estimated value

ND = Non-Detect

# Table 7B - Summary of Groundwater Sampling Results for<br/>Off-Site Monitoring Well OS-1<br/>Semivolatile Organic Compounds<br/>W. 34th Street Development<br/>BCP No. C231049

Sample ID		FB072910	OS-1	OS-1	тв
Date	NY TOGS Class	7/29/2010	7/29/2010	7/29/2010	7/29/2010
Matrix	GA GW Standards	Water	Ground Water	Filtered	Water
Semi-Volatile Organic Compoun	ds - ug/L	Water	Water	Titteled	Water
2-Chlorophenol	-	ND	ND	-	-
4-Chloro-3-methyl phenol	-	ND	ND	-	-
2,4-Dichlorophenol	1	ND	ND	-	-
2,4-Dimethylphenol	1	ND	ND	-	-
2,4-Dinitrophenol	1	ND	ND	-	-
4,6-Dinitro-o-cresol	-	ND	ND	-	-
2-Methylphenol	-	ND	ND	-	-
3&4-Methylphenol	-	ND	ND	-	-
2-Nitrophenol	-	ND	ND	-	-
4-Nitrophenol	-	ND	ND	-	-
Pentachlorophenol	1	ND	ND	-	-
Phenol	1	ND	ND	-	-
2,4,5-Trichlorophenol	-	ND	ND	-	-
2,4,6-Trichlorophenol	-	ND	ND	-	-
Acenaphthene	-	ND	ND	-	-
Acenaphthylene	-	ND	ND	-	-
Anthracene	-	ND	ND	-	-
Benzo(a)anthracene	-	ND	ND	-	-
Benzo(a)pyrene	ND	ND	ND	-	-
Benzo(b)fluoranthene	-	ND	ND	-	-
Benzo(g,h,i)perylene	-	ND	ND	-	-
Benzo(k)fluoranthene	-	ND	ND	-	-
4-Bromophenyl phenyl ether	-	ND	ND	-	-
Butyl benzyl phthalate	-	ND	ND	-	-
2-Chloronaphthalene	-	ND	ND	-	-
4-Chloroaniline	5	ND	ND	-	-
Carbazole	-	ND	ND	-	-
Chrysene	-	ND	ND	-	-
bis(2-Chloroethoxy)methane	5	ND	ND	-	-
bis(2-Chloroethyl)ether	1	ND	ND	-	-
bis(2-Chloroisopropyl)ether	5	ND	ND	-	-
4-Chlorophenyl phenyl ether	-	ND	ND	-	-
1,2-Dichlorobenzene	3	ND	ND	-	-
1,3-Dichlorobenzene	3	ND	ND	-	-
1,4-Dichlorobenzene	3	ND	ND	-	-
2,4-Dinitrotoluene	5	ND	ND	-	-
2,6-Dinitrotoluene	5	ND	ND	-	-
	5	ND	ND	-	-
Dibenzo(a,n)animacene	-	ND		-	-
Dipenzoluran Di a butul abthalata	-	ND		-	-
Di-n-bulyi phinalate	50	ND		-	-
Di-n-octyl phinalate	-	ND		-	-
Directly phinalate	-	ND		-	-
bic/2 Ethylhovyd)phthalata	-	ND	ND	-	-
Elucrophono	5	ND	ND	-	-
Fluoropo	-	ND	ND	-	-
Heyachlorobenzene	0.04	ND	ND	_	
Hexachlorobutadiene	0.04	ND	ND	_	
Hexachlorocyclopentadiene	5			-	-
Hexachloroethane	5	ND	ND	_	-
Indeno(1 2 3-cd)pyrene	-	ND	ND	_	-
Isophorone	_	ND	ND	_	-
2-Methylnaphthalene	_	ND	ND	_	-
2-Nitroaniline	5	ND	ND	-	-
3-Nitroaniline	5	ND	ND	-	-
4-Nitroaniline	5	ND	ND	_	-
Naphthalene	-	ND	ND	-	-
Nitrobenzene	0.4	ND	ND	-	-
N-Nitroso-di-n-propylamine	-	ND	ND	-	-
N-Nitrosodiphenvlamine	-	ND	ND	-	-
Phenanthrene	-	ND	ND	-	-
Pyrene	-	ND	ND	-	-
1,2,4-Trichlorobenzene	5	ND	ND	-	-

Parameters above TOGS GA are shaded

J = Estimated value

ND = Non-Detect

#### Table 7C - Summary of Groundwater Sampling Results for Off-Site Monitoring Well OS-1 Metals W. 34th Street Development BCP No. C231049

Sample ID		FB072910	OS-1	OS-1	тв
Date	NY TOGS	7/29/2010	7/29/2010	7/29/2010	7/29/2010
Matrix	GA GW	Field Blank	Ground	Groundwater	Trip Blank
Parameter: Motolo ug/l	Standards	water	water	Fillered	water
Aluminum	_	<200	<200	<200	_
Antimony	-	<200	<200	<200	-
Arconio	3	<0.0	<0.0	<0.0	-
Alsenic	20	<3.0	<3.0	<3.0	-
Banum Banum	1000	<200	<200	<200	-
Beryllium	-	<1.0	<1.0	<1.0	-
Cadmium	5	<3.0	<3.0	<3.0	-
Calcium	-	<5000	81000	76100	-
Chromium	50	<10	<10	<10	-
Cobalt	-	<50	<50	<50	-
Copper	200	<10	<10	<10	-
Iron	300	<100	161	<100	-
Lead	25	<3.0	4.8	<3.0	-
Magnesium	-	<5000	26700	25200	-
Manganese	300	<15	39.7	<15	-
Mercury	0.7	<0.20	<0.20	<0.20	-
Nickel	100	<10	<10	<10	-
Potassium	-	<10000	<10000	<10000	-
Selenium	10	<10	<10	<10	-
Silver	50	<10	<10	<10	-
Sodium	20000	<10000	103000	99200	-
Thallium	-	<2.0	<2.0	<2.0	-
Vanadium	-	<50	<50	<50	-
Zinc	-	<20	<20	<20	-

Parameters above TOGS GA are shaded

J = Estimated value

ND = Non-Detect

#### Table 7D - Summary of Groundwater Sampling Results for Off-Site Monitoring Well OS-1 Pesticides and PCBs W. 34th Street Development BCP No. C231049

Sample ID Date	NY TOGS Class	FB072910 7/29/2010	OS-1 7/29/2010	OS-1 7/29/2010	TB 7/29/2010
Matrix	GA GW	Field Blank	Ground	Groundwater	Trip Blank
Parameter: Pesticides - ug/l	Standards	water	vvaler	Fillered	water
Aldrin	ND	ND	ND	_	_
alpha-BHC	0.01	ND	ND	_	_
beta-BHC	0.04	ND	ND	-	_
delta-BHC	0.04	ND	ND	-	_
gamma-BHC (Lindane)	0.05	ND	ND	-	-
alpha-Chlordane	-	ND	ND	-	-
gamma-Chlordane	-	ND	ND	-	-
Dieldrin	0.004	ND	ND	-	-
4,4'-DDD	0.3	ND	ND	-	-
4,4'-DDE	0.2	ND	ND	-	-
4,4'-DDT	0.2	ND	ND	-	-
Endrin	ND	ND	ND	-	-
Endosulfan sulfate	-	ND	ND	-	-
Endrin aldehyde	5	ND	ND	-	-
Endrin ketone	5	ND	ND	-	-
Endosulfan-I	-	ND	ND	-	-
Endosulfan-II	-	ND	ND	-	-
Heptachlor	0.04	ND	ND	-	-
Heptachlor epoxide	0.03	ND	ND	-	-
Methoxychlor	35	ND	ND	-	-
Toxaphene	0.06	ND	ND	-	-
Parameter: PCBs - ug/L					
Aroclor 1016	0.09	ND	ND	-	-
Aroclor 1221	0.09	ND	ND	-	-
Aroclor 1232	0.09	ND	ND	-	-
Aroclor 1242	0.09	ND	ND	-	-
Aroclor 1248	0.09	ND	ND	-	-
Aroclor 1254	0.09	ND	ND	-	-
Aroclor 1260	0.09	ND	ND	-	-

Parameters above TOGS GA are shaded

J = Estimated value

ND = Non-Detect