JOSEPH H. LOWENSTEIN & SONS, INC. (DAR SITE ID #126)

Address:	420 Morgan Avenue, Brooklyn, New York 11211
Tax Lot Parcel(s):	Brooklyn Block 2878, Lot 6
Latitude:	40.718701
Longitude:	-73.936689
Regulatory Programs/ Numbers/Codes:	USEPA ID No. NYD068296839, IWD Permit No. P-626, USEPA FRS No. 110000323392, PBS No. 2-010790, TRI No. 11222JSHLW420MO, NYSDEC Spill Nos. 9704885, 9704884, 9707480, 9911878, and 1005972, AFS No. 36047R3781
Analytical Data Status:	☐ Electronic Data Available ☒ Hardcopies only ☐ No Data Available

1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT PATHWAYS TO THE CREEK

The current understanding of the transport mechanisms of COPCs from the upland portions of the Joseph H. Lowenstein & Sons, Inc., site (site) to Newtown Creek is summarized in this section and Table 1 and supported in the following sections.

Overland Transport

The site is 0.33 mile from Newtown Creek and associated waterways. This is not a complete current or historical pathway.

Bank Erosion

The site is not adjacent to Newtown Creek and associated waterways. This is not a complete current or historical pathway.

Groundwater

The site is located approximately 0.33 mile from English Kills and 0.63 mile from Newtown Creek. Information regarding on-site groundwater investigations was not identified in documents available for review. Four underground storage tanks (USTs) are

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present at this site, along with four documented spills. Groundwater is a potentially complete current and historical pathway.

Overwater Activities

The site is not adjacent to Newtown Creek and associated waterways. Information regarding overwater activities was not identified in documents available for review. This is not a complete current or historical pathway.

Stormwater/Wastewater Systems

Information available for review did not discuss stormwater or wastewater management practices prior to 1989. No stormwater infrastructure was identified on available site drawings or aerial photos. This site is within the Newtown Creek Water Pollution Control Plant (WPCP) sewershed. Stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged to the East River, which is outside of the Newtown Creek study area. Direct discharge of stormwater and wastewater and discharge to the sewer/CSO are not complete current or historical pathways.

Air Releases

Documents show that the site operates under an air permit (last updated November 9, 2006), Air Facility System (AFS) 36047R3781 (USEPA 2011). No other information on air permits or data has been found in the reviewed documents. There is insufficient evidence to make a current or historical pathway determination.

2 PROJECT STATUS

Records indicate the site is an active Resource Conservation and Recovery Act (RCRA) large quantity generator (EDR 2010; USEPA 2011). Waste types include batteries, lamps, pesticides, and thermostats (EDR 2010). The site also has a Toxic Release Inventory (TRI) System Identification No. 11222JSHLW420MO that was last updated on June 20, 2011 (USEPA 2011). TRI chemicals reported from 2001 through 2010 that were transferred off site include p-phenylenediamine, chromium compounds, zinc compounds, and catechol (USEPA 2011). A 2000 UST Closure Report and a 2000 Site Assessment Report were

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mentioned in the 2010 EDR report, but these documents have not been located in available documents.

3 SITE OWNERSHIP HISTORY

Respondent Member: ☐ Yes ☒ No

Owner	Years	Occupant	Type of Operation
Unknown	1930s	Criterion Chemical Company	Unknown
Joelowe Realty Corporation	1940 – 1988	Lowenstein Dyes and Cosmetics Products, Inc. Joseph H. Lowenstein & Sons, Inc.	Manufacture of dyes; tanning oils; hair and fur preparation agents; hair colors; chelating agents; and sarcosinates for the cosmetics industry
Lowenstein Dyes and Cosmetics, Inc. successor by merger	1988 – 1989	Joseph H. Lowenstein & Sons, Inc.	Manufacture of dyes, tanning oils, and hair and fur preparation agents
Joseph H. Lowenstein & Sons, Inc., successor by merger	1989 – 2002	Joseph H. Lowenstein & Sons, Inc.	
Joelowe Realty, LLC	2002 – present	Joseph H. Lowenstein & Sons, Inc.	

4 PROPERTY DESCRIPTION

The property occupies approximately 0.49 acre and is entirely covered by a building. The site is at approximately 30 feet above mean sea level and slopes gently down to the east. The site is approximately 0.33 mile from Newtown Creek and associated waterways.

The property is adjoined by Morgan Avenue to the west, Withers Street to the north, commercial/manufacturing building to the east, and Signs and Decal Corporation to the south. In 1988, the manufacturing building on the site used three addresses, 420 Morgan Avenue, as well as 400 and 410 Withers Street. The warehouse and storage building on the site used the addresses 405, 407, and 395 Withers Street (Nexus 2010; Donnelly 1988). The

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area is zoned M1-1. M1 districts are designated for areas with light industries that are typically adjacent to residential or commercial districts (NYCDCP 2012).

A 2010 aerial photograph of the site is presented as Figure 1, and the 2008 tax map is shown as Attachment 1.

5 CURRENT SITE USE

The site currently manufactures dyes, tanning oil, soaps, and other hair and fur preparation agents, including permanent and semi-permanent hair color products (NYCDEP 1998). The process includes syntheses, grinding, blending, mixing, drying, and packaging.

6 SITE USE HISTORY

Joseph H. Lowenstein & Sons, Inc., has operated at this location for more than 70 years, from at least 1938 to the present.

7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCs

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide a brief synopsis of the potential sources and COPCs at the site requiring additional discussion.

Potential areas of concern at the site include areas in which oil, soap and dye manufacturing equipment, chemical storage, and storage of petroleum products (including fuel oil and crude oil) occurred. The COPCs for these sources include volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals (aluminum, iron, copper, hexavalent chromium, lead, mercury, and zinc), and total petroleum hydrocarbon (TPH).

7.1 Uplands

While documentation concerning the details of Joseph H. Lowenstein & Sons, Inc., early operations is scarce, the available information indicates that the site used and stored petroleum products, animal fats and greases, as well as metal compounds containing copper, hexavalent chromium, lead, and zinc. The company currently manufactures dyes, tanning

oil, and other hair and fur preparation agents (NYCDEP 1998). Since at least 1979, the company has also formulated permanent and semi-permanent hair color products (State of New York 1979).

Site operations that generated wastewaters include a laboratory, oil and soap department, grease department, Lowenstein Dyes and Cosmetics (LD&C) manufacturing, fusion department, and dry chemical processing department. The laboratory tested dyes, oils, greases, and soaps on various substrates. The oil and soap department prepared and mixed oils and soaps used in the tanning and fur dressing industries. Raw materials used include mineral oils, triglycerides, emulsifying agents, glycols, and aliphatic amines. The grease department dehydrated animal fats and used various greases and fats. LD&C manufactured dye intermediates through the neutralization and single substitution of aromatic amines. The fusion department manufactured mixes of solid aromatic amines through fusion and cooling. The dry chemical processing department used aluminum, iron, sodium, and other dye (Donnelly 1988).

Wastewater generated from the oil department flows through a non-polar material (NPM) equalization tank, bag filters, two media filters (one clay and one carbon), and pH neutralization tanks prior to discharging to the New York City sewer system (NYCDEP 2010).

A chemical inventory of the site, prepared in February 2001, indicated that it stored raw materials and hazardous substances, including acids, caustic soda, drumming solvent, propane, ethylene glycol, copper sulfate, and several proprietary chromium compounds and proprietary copper compounds used in coloring agents (Lowenstein 2001).

Four petroleum tanks (one UST and three aboveground storage tanks [AST]) and ancillary equipment (i.e., valves and pumps) are currently located on site and are in-service. These tanks have an active permit (Petroleum Bulk Storage [PBS] ID 2-010790) that expires October 23, 2012. Petroleum product storage and capacity is summarized as follows (EDR 2010; NYSDEC 2009d; NYSDEC 2011):

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Tank ID	Date Installed	Tank Location	Capacity (Gallons)	Product
001	05/01/62	UST	3,000	No. 2 Fuel Oil
002	12/31/80	AST on saddle, legs, rack or cradle (no spill protection)	2,700	Crude Oil Fractions
003	12/31/80	AST – contact with impervious barrier	3,400	Crude Oil Fractions
004	12/31/80	AST on saddle, legs, rack or cradle (no spill protection)	4,500	Crude Oil Fractions

Notes:
AST – aboveground storage tank
UST – underground storage tank

The site generates hazardous wastes. Wastes transported off site for disposal include 1,3-benzenediol; benzenamine, 2-methyl-5-nitro-; acetamide; n-(4-ethoxyphenyl)-; benzenamine, 4-methyl-; 1, 3-isobenzofurandione; lead acetate; phthalic anhydride; resorcinol; aniline; dimethyl sulfate; nitrobenzene; acetic acid; lead salt; 1,2-benzenedicarboxylic acid; diethyl ester; formic acid; 5-nitro-o-toluidine; formaldehyde; 2,4-dinitrophenol; p-nitroaniline; benzenamine, 4-chloro-; arsenic acid H3 AsO4; acetic acid, (2,4,5-trichlorophenoxy); ignitable waste; mercury; corrosive waste; chloroform; reactive waste; and chromium (NYSDEC 2009e).

7.2 Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways. Information regarding overwater activities was not identified in documents available for review.

7.3 Spills

Documented spills at the site are summarized as follows:

- On July 24, 1997, an equipment failure (broken system line) resulted in a petroleum release (NYSDEC Spill No. 9704884), and soil at the site was affected. The Environmental Data Resources, Inc. (EDR), listing indicates that the volume of the release was minimal, corrective action was taken, and the file was closed by New York State Department of Environmental Conservation (NYSDEC) on August 16, 2003 (NYSDEC 2009a; EDR 2010).

- On July 24, 1997, a tank failure resulted in a petroleum release (NYSDEC Spill No. 9704885) to the sewer system. The NYSDEC Spill Report Form listed that water was leaking into a fuel tank, and fuel was leaking out (NYSDEC 2009a). The file was closed by NYSDEC on August 16, 2003 (NYSDEC 2009a; EDR 2010).
- On September 17, 1998, a fire at the site resulted in two types of dyes released to the storm drain (NYSDEC Spill No. 9807480). The NYSDEC Spill Report Form indicated that 525 gallons of dark brown dye and an unknown amount of sodium silicate went into the storm drain during extinguishment and cooling down of the drums (NYSDEC 2009b). The file was closed on March 3, 2003.
- On January 12, 2000, during in-place UST closure, samples taken indicated unknown hazardous material release to the soil (NYSDEC Spill No. 9911878). Additional sampling was conducted, and results are included in Section 9.1. The file was closed on March 6, 2007 (NYSDEC 2009c; EDR 2010).
- On August 30, 2010, an equipment failure caused 10 gallons of a material listed as "Other" (NYSDEC Spill No. 1005972; NYSDEC 2012). The resource affected is unknown and the spill case was closed on September 13, 2010.

8 PHYSICAL SITE SETTING

No site-specific geologic or hydrogeologic information is available for the site. The following information is based on regional conditions in the Brooklyn and Queens area.

In general, the geologic setting of the Newtown Creek area consists of Quaternary glacial deposits overlying Paleozoic gneiss and schist bedrock (Misut and Monti 1999). The contact between the glacial deposits and bedrock slopes rather steeply to the southeast, ranging in depth from less than 50 feet below ground surface (bgs) near the mouth of Newtown Creek to more than 200 feet bgs at the eastern portions of the historical data review area. The near-surface geology is of most interest relative to potential groundwater transport pathways from upland sites to the creek. In most areas, a heterogeneous anthropogenic fill unit of variable thickness (generally less than 20 feet thick) immediately underlies the surface. Beneath the fill in most areas are complex upper glacial deposits of Late Pleistocene age consisting of ablation till, outwash, and glaciolacustrine sediments. In some areas near Newtown Creek, a shell-bearing gray silt unit is present beneath the fill; this silt may

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represent post-glacial intertidal sediments deposited in wetlands adjacent to the creek prior to filling in the 1800s. An extensive sequence of regionally significant glacial units underlies the upper glacial deposits in areas where bedrock is deeper (Misut and Monti 1999).

The surface aquifer is typically contained with the upper glacial deposits and the lower portion of the anthropogenic fill layer. Depth to groundwater varies from a few feet to about 30 feet bgs in the historical data review area. Shallow groundwater generally flows towards and discharges to Newtown Creek (Misut and Monti 1999).

9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

9.1 Soil

Soil Investigations ☒ Yes ☐ No
Bank Samples ☐ Yes ☐ No ☒ Not Applicable
Soil-Vapor Investigations ☐ Yes ☒ No

9.1.1 Soil Investigations

Surface and subsurface soil samples were collected in 2000 as part of a UST Closure and Site Assessment during decommissioning of two USTs conducted by Hudson Environmental. Three surface samples (T1.1, T1.2, and T1.3) were collected under the 3,000-gallon UST and three samples (T2.1, T2.2, and T2.3) were collected under the 2,800-gallon UST. The soil samples were collected at 0.5 foot below the tanks by cutting access holes along the bottom centerline of the cleaned tanks (NYSDEC 2009c; EDR 2010). Soil samples were analyzed for VOCs, SVOCs, and TPH. Selected results are summarized in the following table:

Analyte	Units	Minimum Soil Concentration	Maximum Soil Concentration	TCLP Limit
Surface (0 to 2 feet)				
TPH	ppb	2,400,000	63,000,000	--
Acenaphthene	ppb	410	2,100	400
Benzene	ppb	52	63	14
Benzo(a)anthracene	ppb	NS	100	0.04

Analyte	Units	Minimum Soil Concentration	Maximum Soil Concentration	TCLP Limit
Benzo(b)fluoranthene	ppb	NS	130	0.04
Fluorene	ppb	1,300	2,900	1,000
Naphthalene	ppb	810	8,400	200
Phenanthrene	ppb	2,500	6,100	1,000
Pyrene	ppb	NS	1,400	1,000

Notes:
-- – no limit available for this analyte
ppb – part per billion
NS – not sampled for this analyte
TCLP – toxicity characteristic leaching procedure
TPH – total petroleum hydrocarbon

The EDR report mentions that three soil borings (B1 through B3) were advanced on November 12, 1999, and from those borings, a temporary well was placed at boring B3. No groundwater was detected in the temporary well, nor was floating product observed (EDR 2010; NYSDEC 2009c). No other information or data about this investigation was found in the review documents.

9.2 Groundwater

Groundwater Investigations ☐ Yes ☒ No
NAPL Presence (Historical and Current) ☐ Yes ☒ No
Dissolved COPC Plumes ☐ Yes ☒ No
Visual Seep Sample Data ☐ Yes ☐ No ☒ Not Applicable

Information regarding on-site groundwater investigations was not identified in documents available for review.

DRAFT

9.3 Surface Water

Surface Water Investigation	☐ Yes	☒ No
SPDES Permit (Current or Past)	☐ Yes	☒ No
Industrial Wastewater Discharge (IWD) Permit (Current or Past)	☒ Yes	☐ No
Stormwater Data	☐ Yes	☒ No
Catch Basin Solids Data	☐ Yes	☒ No
Wastewater Data	☒ Yes	☐ No

9.3.1 Stormwater and Wastewater Systems

This site is within the Newtown Creek WPCP sewershed. Stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated CSOs are discharged to the East River (NYCDEP 2007).

9.3.2 Industrial Wastewater Discharge Permit

The site is permitted under IWD Permit No. P-626. The site has obtained approximately five IWD permits in the past, as summarized in the following table:

Permit Number	Effective Date	Expiration Date
97-P626-1 (NYCDEP 1997a)	05/09/97	05/08/02
98-P626-1 (NYCDEP 1998)	05/29/98	05/28/03
02-P626-1 (NYCDEP 2002)	12/20/02	12/19/03
03-P626-1 (NYCDEP 2003)	11/28/03	11/27/08
05-P626-2	unknown	unknown

Note:
NYCDEP – New York City Department of Environmental Protection

IWD Permit No. 03-P626-1 (NYCDEP 2003) identified three permitted discharge points located at the site. The locations of the discharge points are shown on Attachment 2. The treatment system and process flow diagram are shown on Attachments 3 and 4, respectively.

DRAFT

Permitted discharge points at the site are within the Newtown Creek WPCP sewershed and discharge into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated CSOs are discharged to the East River.

Wastewater is discharged via three locations at the site: 1) at discharge point E3, a 0.5-inch spigot on an effluent pipe; 2) at discharge point E4, a 4-inch-diameter U-shaped trap with a 2-inch-diameter sampling point; and 3) at discharge point M1, a 4-inch-diameter main housetrap located in the men's locker room.

The most recent permit is described at length in the following table:

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Permit Type	Permit Number	Effective Date	Discharge Point	Frequency-Parameters
IWD Permit	05-P626-1	11/28/03	E3 and E4	The process wastewater discharge from points E3 and E4 are covered by the Federal Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category, 40 CFR Part 414, and shall not exceed the following mass-based standards:

Federal Categorical Standards (40 CFR § 414.85)

Pollutant	Daily Maximum Concentration (µg/L)	Maximum Quantity for Any 1 Day (lbs/day)	Maximum Monthly Average Concentration (µg/L)	Maximum Quantity for Monthly Average (lbs/day)
VOCs:				
Benzene	134	0.00545	57	0.00232
Carbon Tetrachloride	380	0.01547	142	0.00578
Chlorobenzene	380	0.01547	142	0.00578
Chloroethane	295	0.01201	110	0.00448
Chloroform	325	0.01323	111	0.00452
1,1-Dichloroethane	59	0.00240	22	0.00090
1,2-Dichloroethane	574	0.02336	180	0.00733
1,1-Dichloroethylene	60	0.00244	22	0.00090
1,2-Trans-Dichloroethlyene	66	0.00269	25	0.00102
1,2-Dichloroptopane	794	0.03232	196	0.00798
1,3-Dichloropropylene	794	0.03232	196	0.00798
Ethylbenzene	380	0.01547	142	0.00578
Methyl Chloride	295	0.01201	110	0.00448
Methylene Chloride	170	0.00692	36	0.00147
Tetrachloroethylene	164	0.00668	52	0.00212
Toluene	74	0.00301	28	0.00114
1,1,1-Trichloroethane	59	0.00240	22	0.00090

Permit Type	Permit Number	Effective Date	Discharge Point	Frequency-Parameters				
				1,1,2-Trichloroethane	127	0.00517	32	0.00130
				Trichloroethylene	69	0.00281	26	0.00106
				Vinyl Chloride	172	0.00700	97	0.00395
				SVOCs:				
				Acenaphthene	47	0.00191	19	0.00077
				Anthracene	47	0.00191	19	0.00077
				Bis(2-ethylhexyl) phthalate	258	0.01050	95	0.00387
				Di-n-butyl phthalate	43	0.00175	20	0.00081
				1,2-Dichlorobenzene	794	0.03232	196	0.00798
				1,3-Dichlorobenzene	380	0.01547	142	0.00578
				1,4-Dichlorobenzene	380	0.01547	142	0.00578
				Diethyl phthalate	113	0.00460	46	0.00187
				Dimethyl phthalate	47	0.00191	19	0.00077
				4,6-Dinitro-o-cresol	277	0.01127	78	0.00317
				Fluoranthene	54	0.00220	22	0.00090
				Fluorene	47	0.00191	19	0.00077
				Hexachlorobenzene	794	0.03232	196	0.00798
				Hexachlorobutadiene	380	0.01547	142	0.00578
				Hexachloroethane	794	0.03232	196	0.00798
				Naphthalene	47	0.00191	19	0.00077
				Nitrobenzene	6,402	0.26057	2,237	0.09105
				2-Nitrophenol	231	0.00940	65	0.00265
				4-Nitrophenol	576	0.02344	162	0.00659
				Phenanthrene	47	0.00191	19	0.00077
				Pyrene	48	0.00195	20	0.00081
				1,2,4-Trichlorobenzene	794	0.03232	196	0.00798

Permit Type	Permit Number	Effective Date	Discharge Point	Frequency-Parameters
				Other Pollutants:
				Total Lead: 690, 0.02808, 320, 0.01302
				Total Zinc: 2,610, 0.10623, 1,050, 0.04274
				Total Cyanide: 1,200, 0.04884, 420, 0.01709
IWD Permit	05-P626-1	11/28/03	M1	The discharge from point M1 shall not exceed the following New York City Sewer Use Limits:

Sewer Use Limits (15 RCNY Chapter 19)

Pollutant	Permissible Maximum Concentration For Any Given Time (mg/L)	Daily Average Maximum Concentration (mg/L)
pH	5.0 - 11.0 SU	--
Cadmium	2.0	0.69
Chromium (Hexavalent)	5.0	--
Copper	5.0	--
Lead	2.0	--
Mercury	0.05	--
Nickel	3.0	--
Zinc	5.0	--
Cyanide (Amenable to Chlorination)	0.2	--
NPM	50.0	--

Notes:
-- – no daily average maximum concentration for pollutant
µg/L – microgram per liter
CFR – Code of Federal Regulations
IWD – Industrial Waste Discharge
lbs/day – pounds per day
mg/L – milligram per liter
NPM – non-polar material
RCNY – Rules of the City of New York
SU – standard unit
SVOC – semi-volatile organic compound
VOC – volatile organic compound

9.3.3 Sampling Data

Since the original permit was issued in 1997, the site has violated the provisions of its IWD permit and received notices of violation (NOVs) from the City of New York Environmental Control Board (NYCECB) and orders from the New York City Department of Environmental Protection (NYCDEP) for non-compliances, such as exceeding permit limits, failure to sample wastewater discharge and submit results, failure to submit 90-day compliance report (NYCECB 1991), and failure to submit accidental spill containment plan (NYCDEP 1996c). Permit exceedances identified in available documentation are summarized as follows:

Violation Code	Report Date	Constituent	Result	Unit	Limit	Source
P23	12/12/90	pH	3.13	SU	5.0 – 9.5	NYCECB 1990
		pH	1.91	SU	5.0 – 9.5	
		pH	3.40	SU	5.0 – 9.5	
	12/13/90	pH	2.82	SU	5.0 – 9.5	
P23	02/20/91	TPH	96	mg/L	50	NYCECB 1991
P05	05/28/92	Chloroform	1,405	ppb	325	NYCECB 1992
	05/31/92	Chloroform	726	ppb	325	
	06/01/92	Chloroform	1,230	ppb	325	
	06/30/92	Chloroform	619	ppb	325	
P36	10/21/94	TPH	4,600	mg/L	50	NYCECB 1994
P38	07/11/95	pH	< 5	SU	5.0 – 11.0	NYCECB 1995b
P38	07/12/95	pH	< 5	SU	5.0 – 11.0	
P38	07/13/95	pH	< 5	SU	5.0 – 11.0	
P36	07/20/95	TPH	7,000	mg/L	50	
--	07/21/95	pH	< 5	SU	5.0 – 11.0	
P36		TPH	83	mg/L	50	
P38	07/24/95	pH	< 5	SU	5.0 – 11.0	
P36		TPH	150	mg/L	50	
P36	07/28/95	TPH	140	mg/L	50	
--	08/09/95	Copper	5.3	mg/L	5.0	NYCDEP 1996a
--		Copper	6.9	mg/L	5.0	
P38	03/28/95	pH	< 5	SU	5.0 – 11.0	NYCECB 1995a
P38	10/12/95	pH	< 5	SU	5.0 – 11.0	NYCECB 1995b
--	10/14/95	TPH	220	mg/L	50	NYCDEP 1996b

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Violation Code	Report Date	Constituent	Result	Unit	Limit	Source
--	10/19/95	TPH	810	mg/L	50	
P38	10/25/95	pH	< 5	SU	5.0 – 11.0	NYCECB 1996
P38	11/03/95	pH	< 5	SU	5.0 – 11.0	
P59	12/13/96	Mercury	0.50	mg/L	0.05	NYCECB 1997a
P36	12/19/96	TPH	600	mg/L	50	
P36	12/20/96	TPH	83	mg/L	50	
P36	01/17/97	TPH	580	mg/L	50	
--	02/02/97	pH	< 5	SU	5.0 – 11.0	NYCDEP 1997b
P36	12/08/97	TPH	9400	mg/L	50	NYCECB 1997b
		TPH	220	mg/L	50	
P36	02/08/98	TPH	58	mg/L	50	NYCECB 1998a
P36	04/06/98	TPH	90.0	mg/L	50	NYCECB 1998b
--	01/25/99	Zinc	4.18	mg/L	2.61	NYCDEP 1999
P56	07/19/99	Amenable Cyanide	0.425	mg/L	0.2	NYCECB 1999
P38	10/24/00	pH	< 5	SU	5.0 – 11.0	NYCECB 2000
P38	10/25/00	pH	< 5	SU	5.0 – 11.0	
P58	09/05/03	Di-n-butyl phthalate	0.00491	lbs/day	0.00072	NYCECB 2003
P37	07/09/04	NPM	139	mg/L	50	NYCECB 2004
--	08/12/04	NPM	214	mg/L	50	NYCDEP 2004
--	08/13/04	NPM	70	mg/L	50	
P83	03/15/05	Methylene Chloride	0.0193	lbs/day	0.00692	NYCECB 2005
P58	11/30/07	Di-n-butyl phthalate	0.0033	lbs/day	0.00101	NYCECB 2007
--	03/11/08	Di-n-butyl phthalate	0.00707	lbs/day	0.00217	NYCECB 2008
P58	08/31/08	Bis(2-ethylhexyl) phthalate	0.00499	lbs/day	0.00478	NYCECB 2008
P59	02/23/10	Methylene Chloride	0.343	lbs/day	0.00856	NYCECB 2010
P58	02/22/10	Dimethyl phthalate	0.00313	lbs/day	0.00237	

Notes:
-- – no violation code given in source documentation
lbs/day – pounds per day
mg/L – milligram per liter

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NPM – non-polar material
NYCDEP – New York City Department of Environmental Protection
NYCECB – New York City Environmental Control Board
ppb – parts per billion
SU – standard unit
TPH – total petroleum hydrocarbon

9.3.4 Surface Water Summary

This site is within the Newtown Creek WPCP sewershed. According to New York City records, stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated CSOs are discharged to the East River at Outfall NC-006. Available documents contain historical and current citations and NOVs, including numerous discharge exceedances.

9.4 Sediment

Creek Sediment Data ☐ Yes ☐ No ☒ Not Applicable

Sediment investigation information was not found in reviewed documents.

9.5 Air

Air Permit ☒ Yes ☐ No
Air Data ☐ Yes ☒ No

9.5.1 Air Permit

Documents show that the site operates under an air permit (last updated November 9, 2006), AFS No. 36047R3781 (USEPA 2011). There is no additional information on the AFS in the reviewed documents.

10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

Information from the EDR report and the NYSDEC Spill Report From (2009c) indicate that two USTs were decommissioned in 2000. During the decommissioning assessment, soil

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samples were collected 0.5 foot below each tank by cutting access holes along the bottom centerline of the cleaned tanks (EDR 2010; NYSDEC 2009c). The concentrations of the soil samples showed TCLP exceedances for VOCs, SVOCs, and TPH. No other information related to remediation was found in reviewed documents.

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12 ATTACHMENTS

Figures

Figure 1 Site Vicinity Map: Joseph H. Lowenstein & Sons, Inc.

Tables

Table 1 Potential Areas of Concern and Transport Pathways Assessment

Supplemental Attachments

Attachment 1 2008 Tax Map (Nexus 2010)

Attachment 2 Wastewater Discharge Locations (NYCDEP 2003)

Attachment 3 Treatment System and Piping Layout (NYCDEP 2003)

Attachment 4 Process Flow Diagram (NYCDEP 2003)

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Table 1

Potential Areas of Concern and Transport Pathways Assessment – Joseph H. Lowenstein & Sons, Inc.

Potential Areas of Concern	Media Impacted					COPCs														Potential Complete Pathway						
						TPH			VOCs																	
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	Gasoline-Range	Diesel – Range	Heavier – Range	Petroleum Related (e.g., BTEX)	VOCs	Chlorinated VOCs	SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases
UST/ASTs	?	?	?	?	?	√	√	√	√	?	?	?	√	?	?	?	?	?	?	--	?	--	--	?	--	?
Chemical Storage Area	?	?	?	?	?	?	?	?	?	√	?	√	?	?	?	√	?	?	?	--	?	--	--	?	--	?
Facility Operations	?	?	?	?	?	√	√	√	√	√	?	√	?	?	?	?	?	?	?	--	?	--	--	√	--	√

Notes:
√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.
? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.
-- – Current or historical pathway has been investigated and shown to be not present or incomplete.

AST – aboveground storage tank
BTEX – benzene, toluene, ethylbenzene, and xylene
COPC – constituent of potential concern
CSO – combined sewer overflow
PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
SVOC – semi-volatile organic compound
TPH – total petroleum hydrocarbon
UST – underground storage tank
VOC – volatile organic compound

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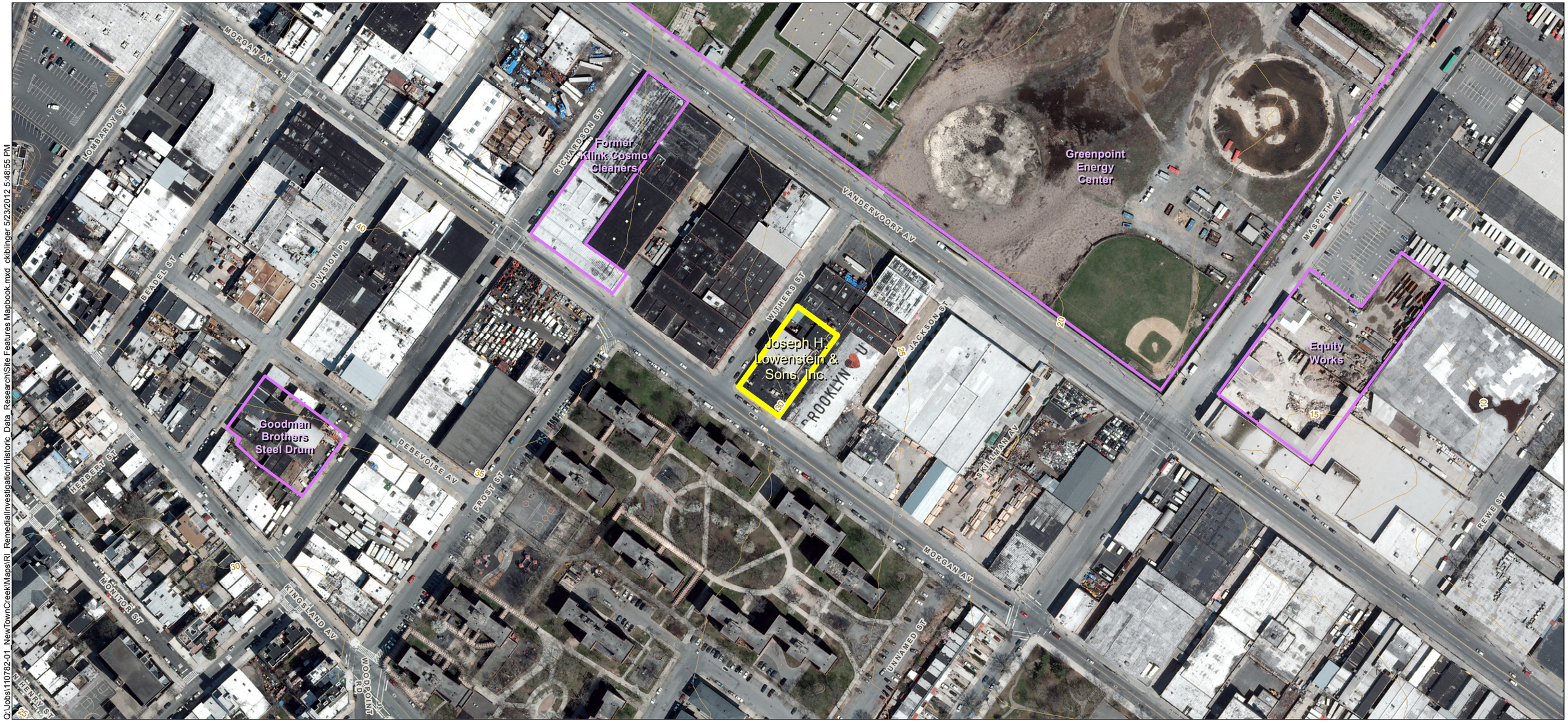

USEPA Sample Locations (Surface and Subsurface)
Shoreline (NYC Dept. of Information Technology, 2006)
USGS Nat'l Elev. Dataset 5-foot Contours
Selected Site Property Boundary
Neighboring Site Property Boundary

Outfall Class
- Direct Discharge
- General
- Highway Drain
- Major Stormwater Outfall
- SPDES
- Storm Drain

NOTES:
1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.
2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.
3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.
4. Site Boundaries are based on New York City parcels data.
5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.

Feet
0 100 200 300 400

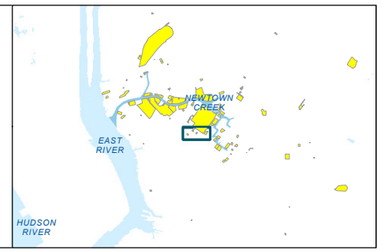

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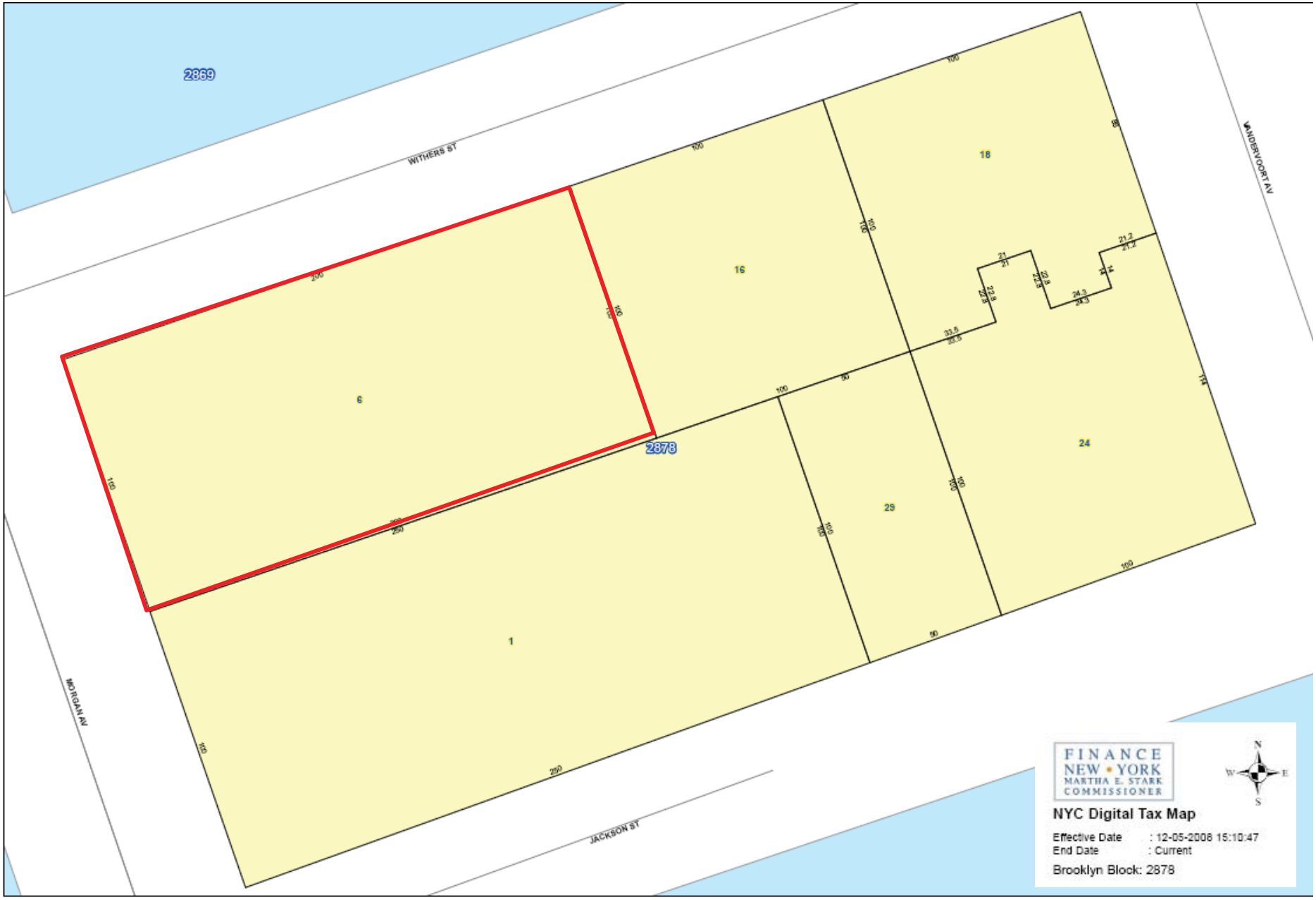
Figure 1
Site Vicinity Map
Draft Upland Site Summary: Joseph H. Lowenstein & Sons, Inc.
Newtown Creek RI/FS

Q:\Jobs\110782-01_NewTownCreek\Maps\RI_Remedial\Investigation\Historic_Data_Research\Site Features.Mapbook.mxd ckiblinger 5/23/2012 5:48:55 PM

SUPPLEMENTAL ATTACHMENTS

Attachment 1

Figure 1: Tax Map, 2008

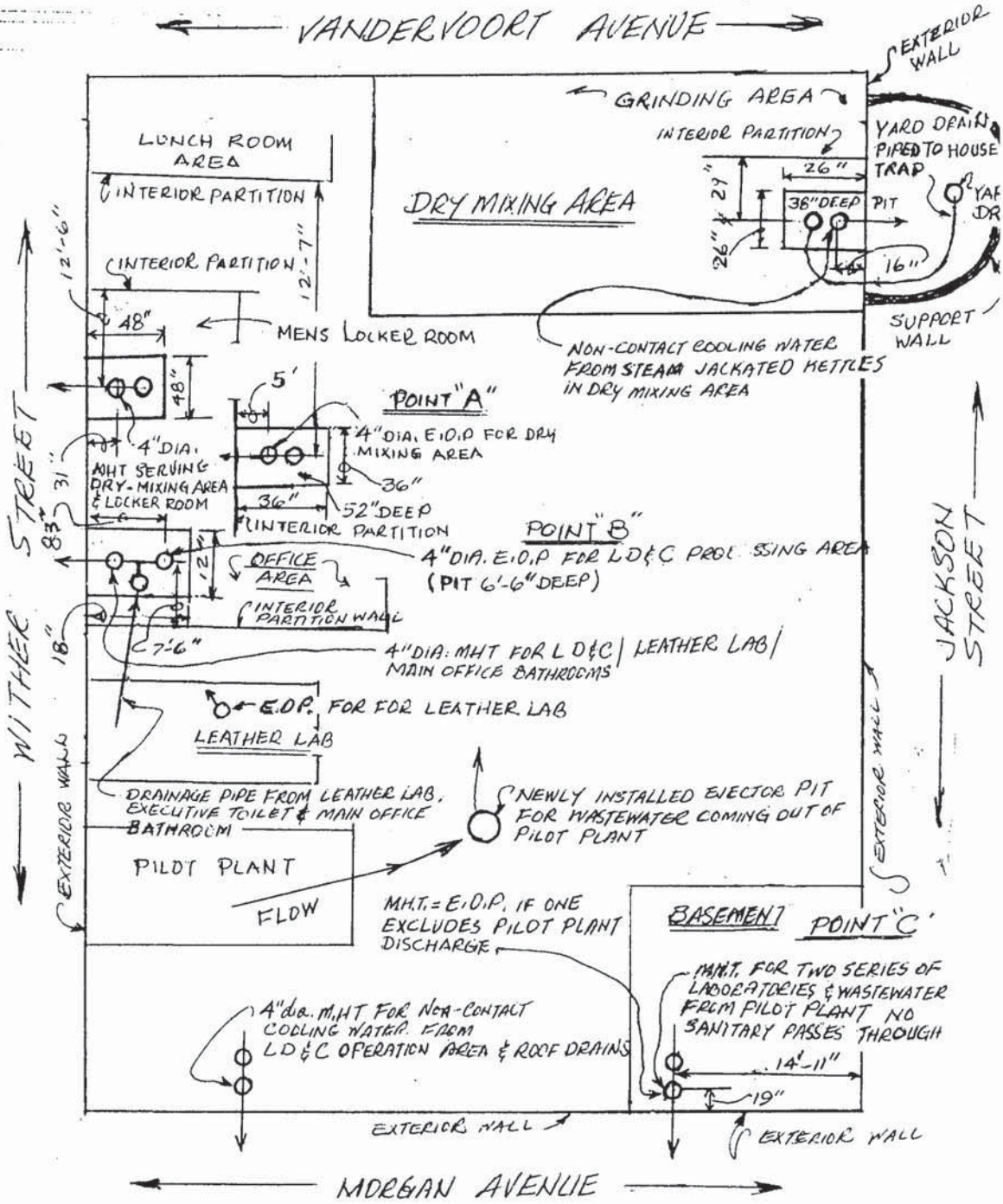


Attachment 2

THE CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
DRAINAGE BASIN MONITORING

JOS. H. LOWENSTEIN SON INC.
420 MORGAN AVENUE
BROOKLYN NEW YORK, 11222

P-626
BLDG. FL. 1
ESTAB. FL. 1

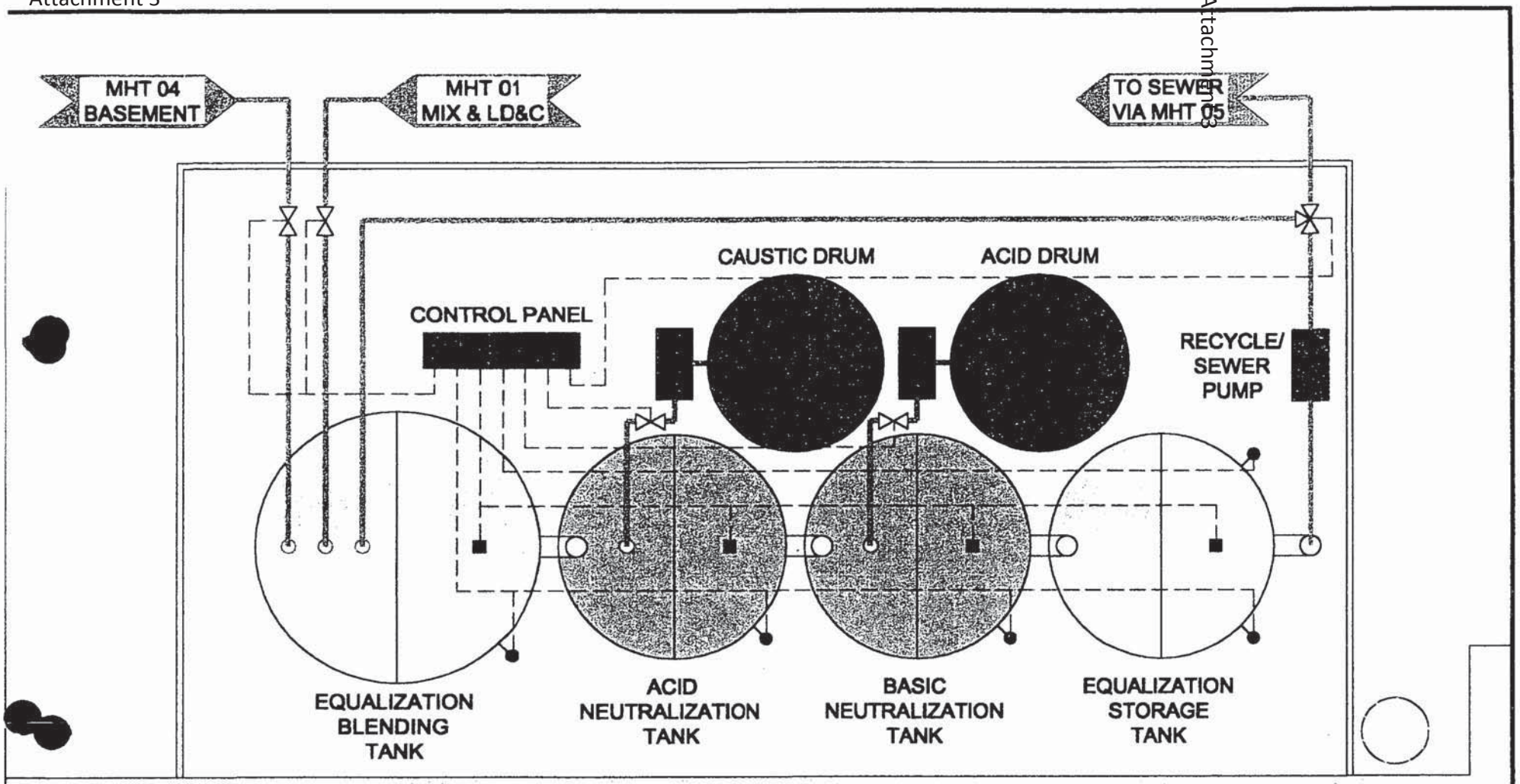


SKETCH SHOWING M.H.T & E.O.P. LOCATIONS

11/31/95

NEWT-0147591

Attachment 3



LEGEND:

Railing	Level/Temp Gauges	Control Valve
pH Probes	Equalization Tanks	Control Panel
Roof Drain	Neutralization Tanks	Pump
Piping	Sodium Hydroxide Drum	Overflow Pipe
Instrument line	Sulfuric Acid Drum	Existing Wall

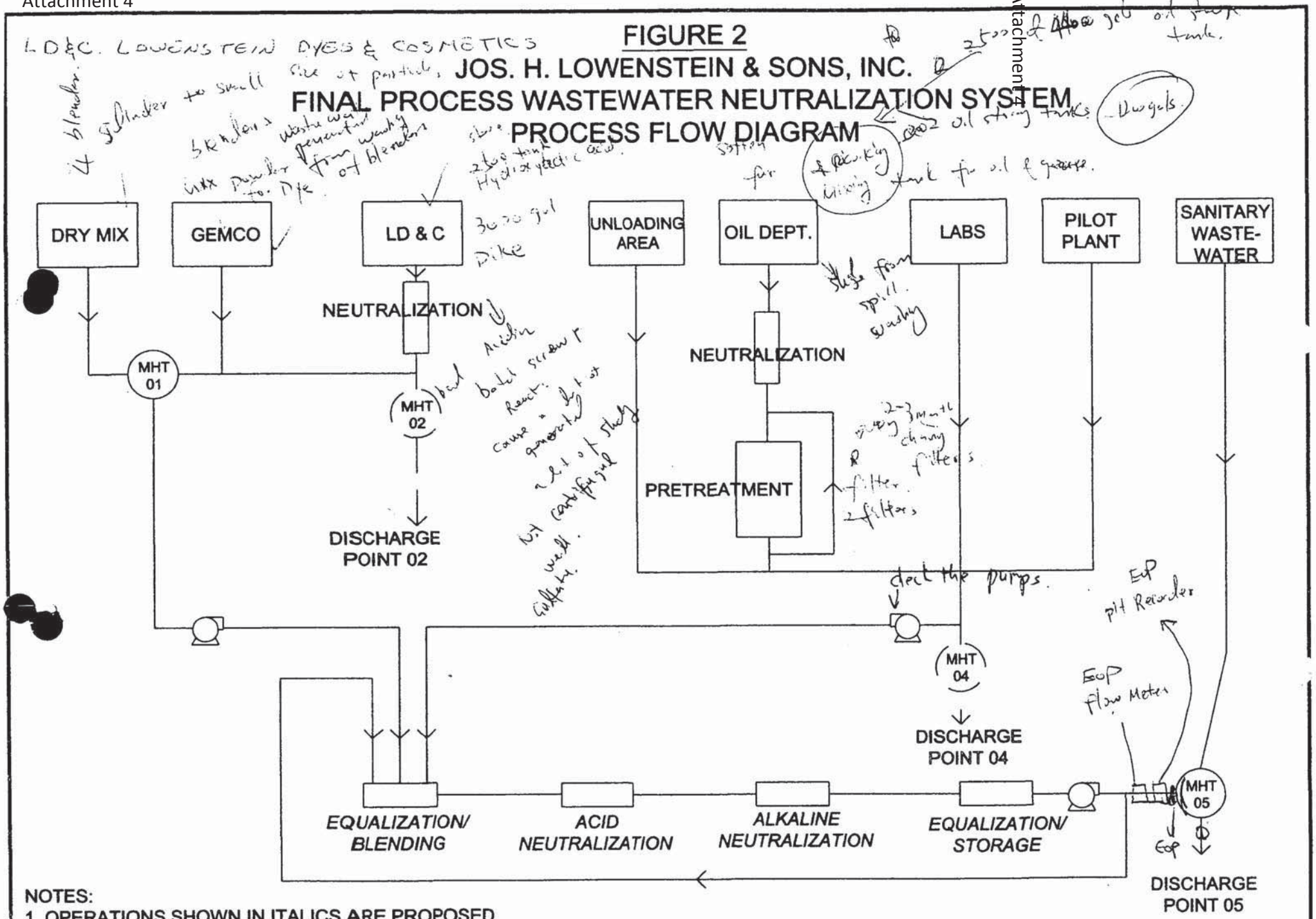
FIGURE 3	TREATMENT SYSTEM AND PIPING LAYOUT	
JOS. H. LOWENSTEIN & SON, INC. 420 MORGAN AVENUE, BROOKLYN, NY		
HUDSON ENVIRONMENTAL SERVICES, INC. 4 MARK ROAD, SUITE C, KENILWORTH, NJ		
DATE: 07/25/01	DRAWN BY: LL	CHECKED BY: BM
REVISIONS		
DATE:	DRAWN BY:	CHECKED BY:
DATE:	DRAWN BY:	CHECKED BY:

FIGURE 2

JOS. H. LOWENSTEIN & SONS, INC.

FINAL PROCESS WASTEWATER NEUTRALIZATION SYSTEM

PROCESS FLOW DIAGRAM



NOTES:
1. OPERATIONS SHOWN IN ITALICS ARE PROPOSED
2. DISCHARGE POINT 02 ELIMINATED AS OF 6/19/01

HUDSON ENVIRONMENTAL SERVICES, INC., 07/25/2001. MJM