ENGINEERING AND OPERATIONS SERVICES
NEW YORK STATE SUPERFUND STANDBY CONTRACT

MULTI-SITE PRELIMINARY SITE ASSESSMENTS

Wheelock Avenue (Site No. 1-30-090)
Burnside Avenue (Site No. 1-30-091)
Michael Drive Industrial Area (Site No. 1-30-092)
Empire Electric Company (Site No. 2-24-015)
BQE/Ansbacher Color and Dye Factory (Site No. 2-24-016)
Designers Woodcraft (Site No. 2-24-020)
Carbona Products (Site No. 2-24-023)
Public School 60/62 and Ozone Industries (Site No. 2-41-021)

DRAFT

Work Assignment No. D002676-44

HEALTH AND SAFETY PLAN

Prepared for:

New York State Department of Environmental Conservation
Division of Environmental Remediation

April 1999

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
ENVIRONMENTAL SCIENCE & ENGINEERING CONSULTANTS
One Blue Hill Plaza
Pearl River, New York 10965

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name:	Designers Woodcraft	**HASP Preparer:**	Edith Hollister
Address:	129 DeGraw Street	**City/State:**	Brooklyn, NY 11231
Job No.:	650-647, 650-648, 650-649		

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: Edith Hollister
On-Site Health and Safety Officer: Edith Hollister

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 1 April 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In soils: Lead

In groundwater: 2-butanone

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

Inhalation of dust containing lead and vapors with 2-butanone, also known as methylethyl ketone (MEK). Lead is a confirmed animal carcinogen by ACGIH. See Table 1.

Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

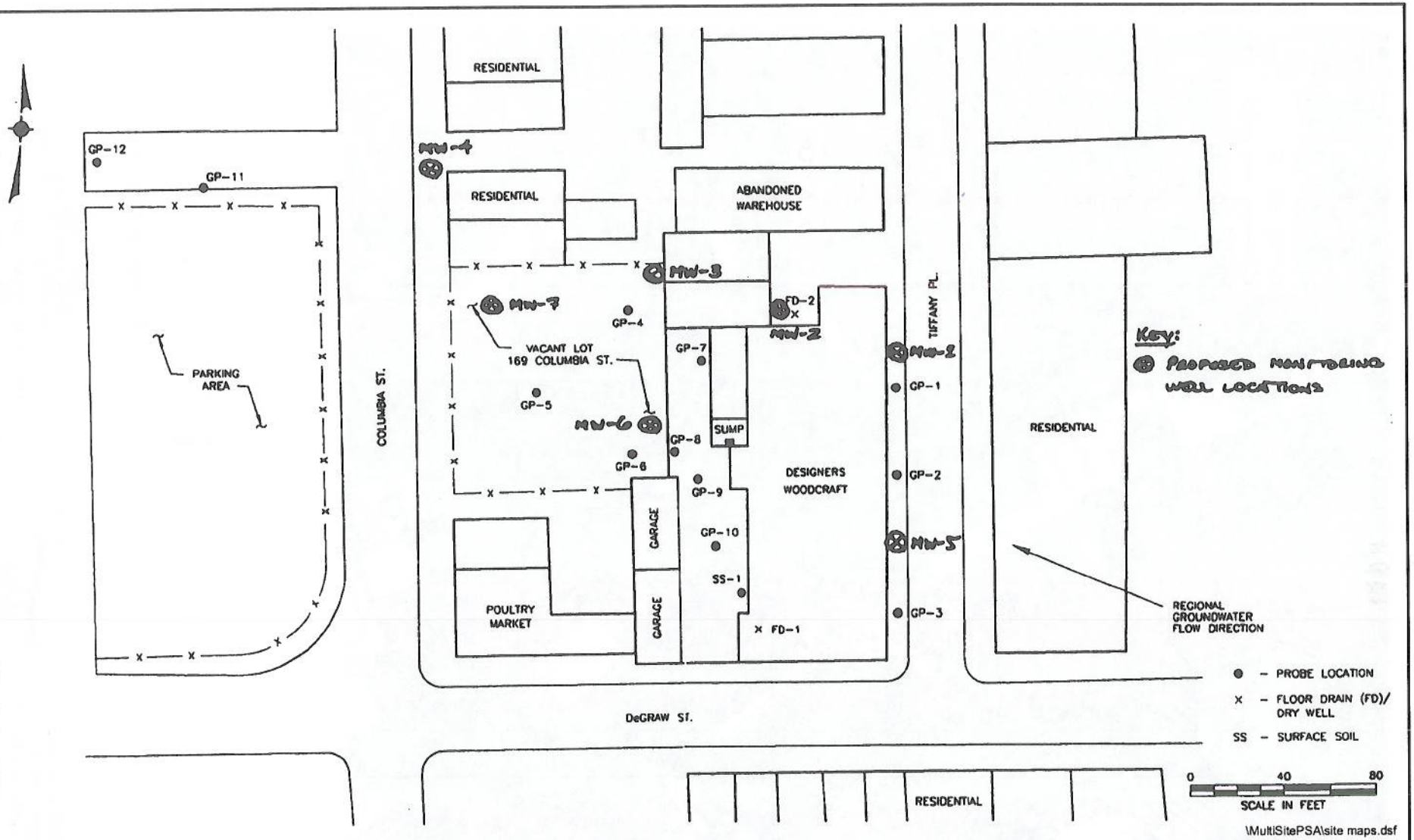
The drill rig presents a hazard with its moving parts and overhead equipment. All field personnel including drill rig operators must wear steel-toe workbooks and hard hats. All persons unrelated to the project must remain outside the exclusion zone. If persons have business in the exclusion area other than the LMS investigation, they must remain at a safe distance away from the rig as determined by the site health and safety officer.

During typical activities surfaces can be expected to become uneven and slippery, causing unsure footings and requiring additional care by personnel engaged in operations. Additional site hazards

TABLE 1

CHARACTERISTICS OF CHEMICALS FOUND ON THE SITE
DESIGNERS WOODCRAFT

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% at °F)	UEL (%)	FLASH POINT (°F)	AUTOIG. TEMP (°F)	VP (mm at °F)	VD	IP (eV)	SOLU. (%)	ODOR THRESH. (ppm)	RESP.	TOXIC EFFECTS
-Butanone	Methylethylketone; MEK; Ethylmethyl ketone; Methyl acetone	200, BEI	200	200	3000	1.4	11.4	16	759	78	2.5	9.54	28%	4.8-25	yes	Irrit eyes, skin, nose; head, dizz; vomit; derm
ead	Lead metal, Plumbum	0.05 mg/m3 A3, BEI	0.1 mg/m3	0.050 mg/m3	100 mg/m3	NA	NA	NA	NA	NA	0	-	NA	insol	yes	Weak, lass; insom; facial pallor; pal eye, anor, low-wgt; malnut; constip, abdom pain, colic; anemia; gingival lead line; tremor; para wrist, ankles; encephalopathy; kidney disease; irrit eyes; hypotension



LOCATION

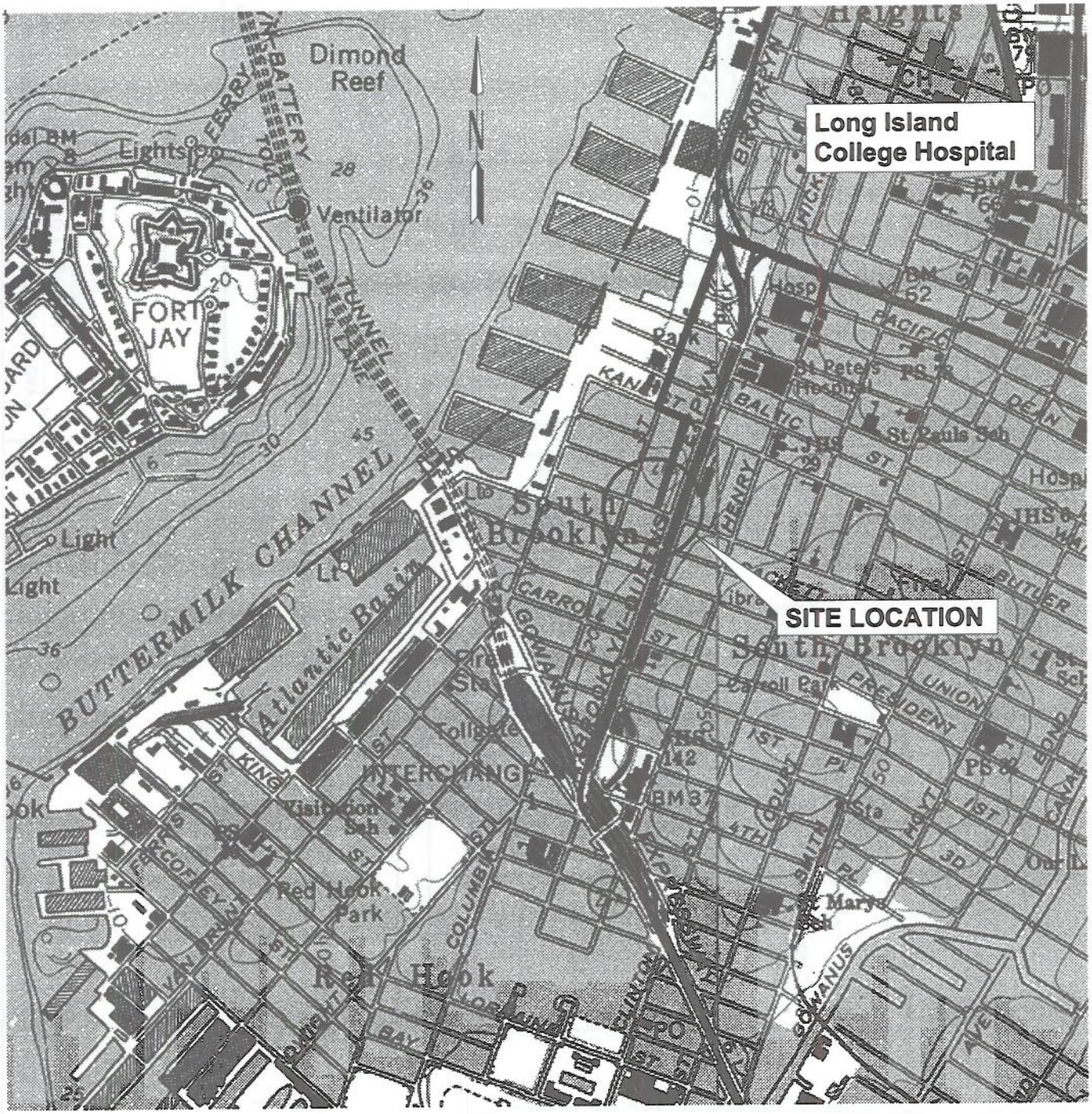
129 DeGraw Street
Brooklyn, NY 11231
(Kings County)

Figure 1

Site Plan

MULTI-SITE PSA
Designers Woodcraft
NYSDEC I.D. No. 224020

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



Map source: USGS 7.5 minute quadrangle, Brooklyn, NY, 1967, photorevised 1979. Printed from Wildflower Productions "TOPO!"

0 1000 ft

SCALE

Figure 2

Route to Hospital

MULTI-SITE PSA
Designers Woodcraft
NYSDEC I.D. No. 224020

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name: BQE/Ansbacher Color and Dye Factory **HASP Preparer:** Edith Hollister

Address: Meeker Avenue between N 6th and N 8th Streets **City/State:** Brooklyn, NY 11220

Job No.: 650-644, 650-645, 650-646

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: John Thornburg
On-Site Health and Safety Officer: John Thornburg

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 1 April 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In soils: Arsenic and lead

In groundwater: Arsenic, lead and cyanide

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

Inhalation of arsenic and lead in dust. Inhalation of cyanide vapors. Arsenic is a potential carcinogen by NIOSH and confirmed human carcinogen by ACGIH. Lead is a confirmed animal carcinogen by ACGIH. See Table 1.

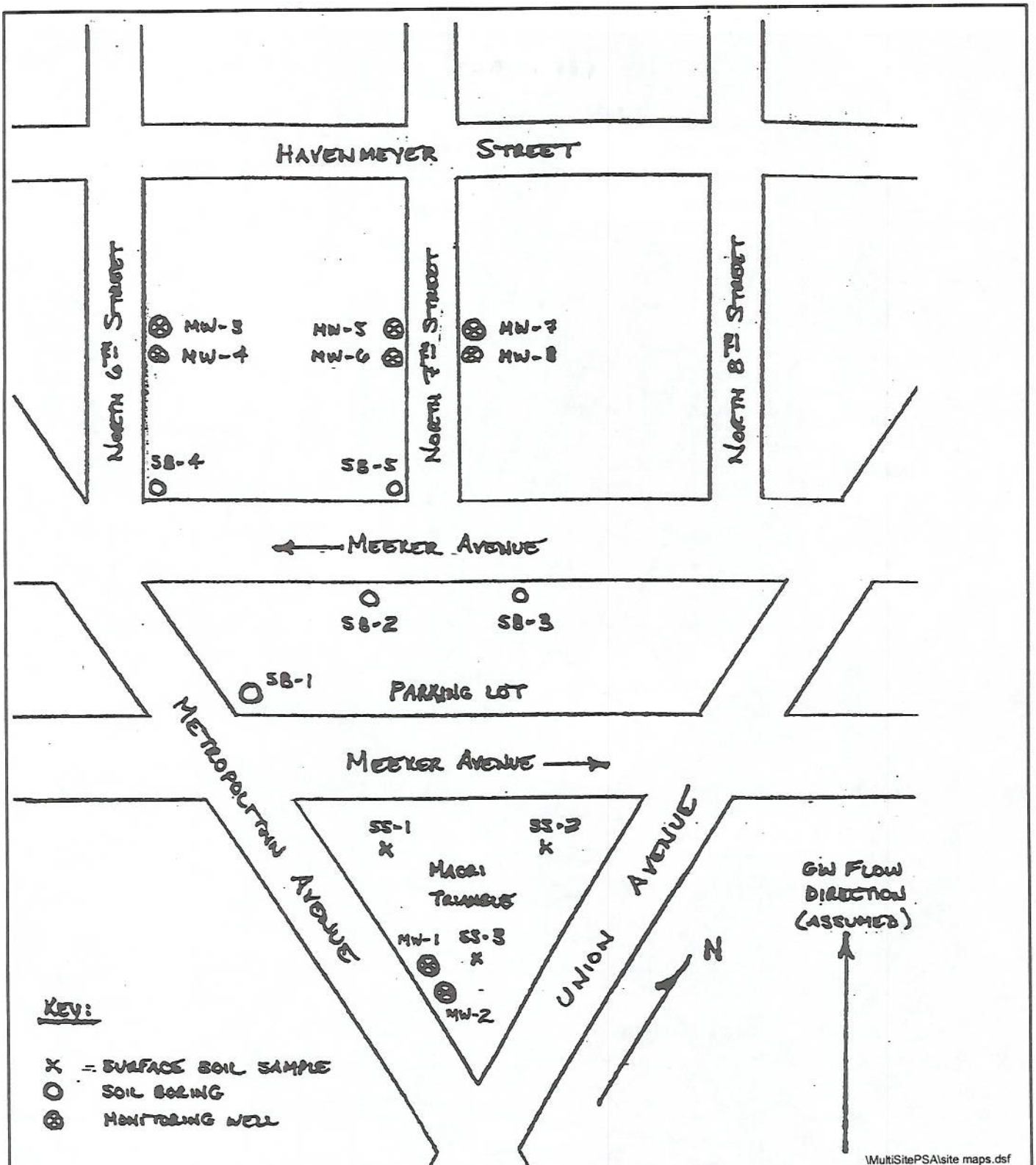
Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

The drill rig presents a hazard with its moving parts and overhead equipment. All field personnel including drill rig operators must wear steel-toe workbooks and hard hats. All persons unrelated to the project must remain outside the exclusion zone. If persons have business in the exclusion area other than the LMS investigation, they must remain at a safe distance away from the rig as determined by the site health and safety officer.

TABLE 1

CHARACTERISTICS OF CHEMICALS FOUND ON THE SITE
BQE/ANSBACHER COLOR AND DYE FACTORY

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% at °F)	UEL (%)	FLASH POINT (°F)	AUTOIG. TEMP (°F)	VP (mm at °F)	VD	IP (eV)	SOLU. (%)	ODOR THRESH. (ppm)	RESP.	TOXIC EFFECTS
Arsenic	-	0.01 mg/m³ A1, BEI	C 0.002 mg/m3 CA	0.01 mg/m3	Ca 5 mg/m3	NA	NA	NA	NA	0	-	NA	insol	-	yes	Ulcerations of nas septum; derm; GI disturb; peri neur, resp irrit, hyperpigm of skin, [carc]
Hydrogen cyanide	Formonitrite, Hydrocyanic acid, Prussic acid	C4.7 skin	ST 4.7	10 skin	50	5.6	40.0	0	1000	630	0.9	13.60	misc		yes	Asphy; weak, head, conf; nau, vomit; incr rate and depth of respiration or respiration slow and gasping; thyroid, blood changes
Lead	Lead metal, Plumbum	0.05 mg/m3 A3, BEI	0.1 mg/m3	0.050 mg/m3	100 mg/m3	NA	NA	NA	NA	NA	0	-	NA	insol	yes	Weak, lass; insom; facial pallor; pal eye, anor, low-wgt; malnut; constip, abdom pain, colic; anemia; gingival lead line; tremor; para wrist, ankles; encephalopathy; kidney disease; irrit eyes; hypotension



LOCATION

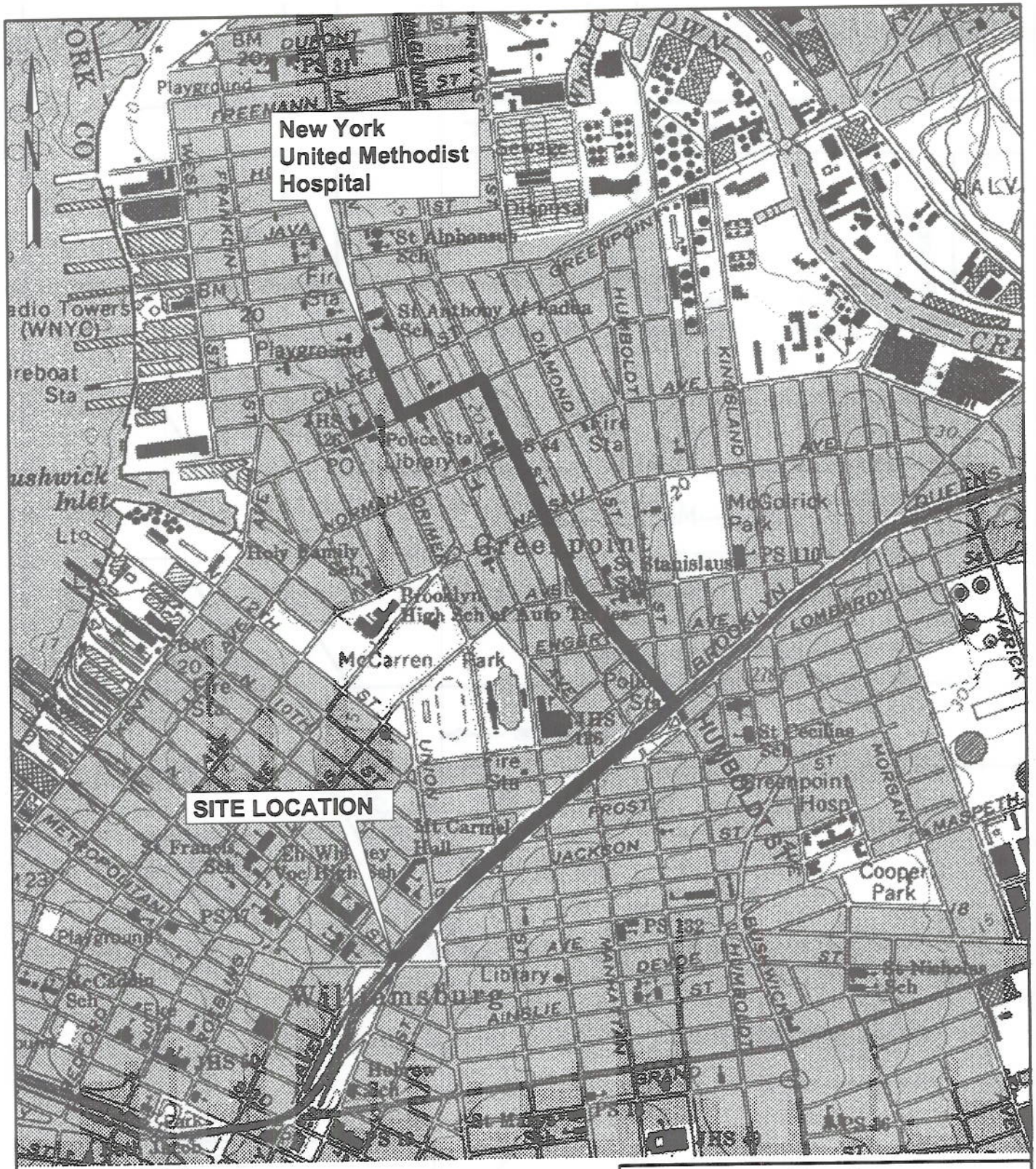
Meeker Avenue between North 6th and North 8th Streets
Brooklyn, NY 11211
(Kings County)

Figure 1

Site Plan

MULTI-SITE PSA
BQE/Ansbacher Color and Dye Factory
NYSDEC I.D. No. 224016

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



0 1000 ft

SCALE

Map source: USGS 7.5 minute quadrangle, Brooklyn, NY, 1967, photorevised 1979. Printed from Wildflower Productions "TOPO!"

Figure 2

Route to Hospital

MULTI-SITE PSA
BQE/Ansbacher Color and Dye Factory
NYSDEC I.D. No. 224016

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name: Empire Electric Company **HASP Preparer:** Edith Hollister

Address: 5200 1st Avenue **City/State:** Brooklyn, NY 11220

Job No.: 650-641, 650-642, 650-643

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: John Thornburg

On-Site Health and Safety Officer: John Thornburg

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 31 March 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In soils: Polychlorinated biphenyls (PCBs) (Arochlor 1260) . The primary areas of concern on the site are the red brick building and the vacant lot behind the building. The site was used to warehouse and re-condition electrical apparatus (including PCB-containing transformers). Various functions included welding, painting, and degreasing. Empire ceased operations in 1986.

Wipe samples collected during November 1986 prior to "cleanup" contained total PCBs ranging from 2,500 to 520,000 $\mu g/100\ cm^2$. Wipe samples collected during December 1986 after "cleanup" contained total PCBs ranging from 5.71 to 8,000 $\mu g/100\ cm^2$. (The EPA cleanup standard is 10 $\mu g/100\ cm^2$.) Based on these wipe sample results, the site was added to the Registry as a Class 2 site in February 1989.

In July 1993, Bureau of Hazardous Site Control staff collected four surficial soil samples along 52nd Street from beneath the asphalt. Laboratory analysis indicated concentrations of PCBs (Arochlor-1260) ranging from 3.5 to 16 mg/kg. (The TAGM #4046 cleanup guideline for PCBs in surficial soil is 1 mg/kg.)

On November 18, 1997 NYSDEC Division of Environmental Remediation (DER) staff from Region 2 and Central Office visited the site. Further investigation of this property revealed the presence of stained soil in the vacant lot, and large amounts of old, miscellaneous electrical equipment in the basement of the abandoned building.

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, re..ctivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

Exposure pathways (dermal contact and inhalation) are minimal. Although contamination has been identified, it does not appear to be a threat to the groundwater resources in the area.

PCBs are the compound of highest concern. Inhalation of PCBs absorbed onto airborne dust particles will be a significant concern at this site if pavement is being removed. Physical contact with the contaminated pavement/soil/building is also a hazard. The major route of exposure to potential contaminants will be respiratory. Inhalation of contaminated dusts would provide the mechanism for exposure. The program will use engineering controls and personnel protective equipment to reduce the amount of potential exposure. Continuous air monitoring and personnel protection devises will serve to prevent exposure from chemicals. See Table 1.

Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

The drill rig presents a hazard with its moving parts and overhead equipment. All field personnel including drill rig operators must wear steel-toe workbooks and hard hats. All persons unrelated to the project must remain outside the exclusion zone. If persons have business in the exclusion area other than the LMS investigation, they must remain at a safe distance away from the rig as determined by the site health and safety officer.

During typical activities surfaces can be expected to become uneven and slippery, causing unsure footings and requiring additional care by personnel engaged in operations. Additional site hazards are presented by the possibility of airborne and waterborne transport of hazardous materials and the presence of contaminated soils, vessels and equipment.

SITE WORK ZONES: **(designate exclusion zone, contamination reduction zone and support zone)**

The work zone will be divided into three areas: a support zone, a contaminant reduction zone, and an exclusion zone. To the extent possible, the support and contaminant reduction zones will be established upwind of the exclusion zone. The areas will be defined and marked with traffic cones and/or safety tape prior to each days activities.

Support Zone: The support zone will be located up-wind of the exclusion zone. Personnel allowed in this area include all site personnel, visitors, representatives of regulatory agencies and observers. No particular training or personal protection devices are needed in the clean area.

Contaminant Reduction Zone: The contaminant reduction zone will be located between the support zone and the designated exclusion zone. In this area authorized personnel will don protective equipment, as necessary, needed in the exclusion zone. Also when exiting the restricted area, personnel will remove contaminated coveralls, boots, gloves, etc.

Exclusion Zone: The exclusion zone is in the immediate work area and that adjacent area defined by the safety coordinator. Attempts will be made so that equipment and site activities taking place in the exclusion zone are situated so that personnel are upwind of sources.

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name: Michael Drive Industrial Area **HASP Preparer:** Edith Hollister

Address: Robbins Lane, Aerial Way, and Michael Drive **City/State:** Syosset, NY 11791

Job No.: 650-447, 650-448, 650-449

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: Scott Englert
On-Site Health and Safety Officer: Scott Englert

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 24 March 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In groundwater: Chlorinated solvents present in the groundwater are reported to be tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), and trichloroethene (TCE).

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

The major route of exposure to potential contaminants will be respiratory. Inhalation of vapors and contaminated dusts would provide the mechanism for exposure. PCE is the compound of highest concern both from the point of view of its suspected carcinogenicity and its high vapor pressure. TCE has also been identified as a compound of concern because of its abundance in groundwater and soil samples. The international Agency for Research on Cancer (IARC) has classified TCE as a probable human carcinogen. The program will use engineering controls and personnel protective equipment to reduce the amount of potential exposure. Continuous air monitoring and personnel protection devises will serve to prevent exposure from chemicals. See Table 1.

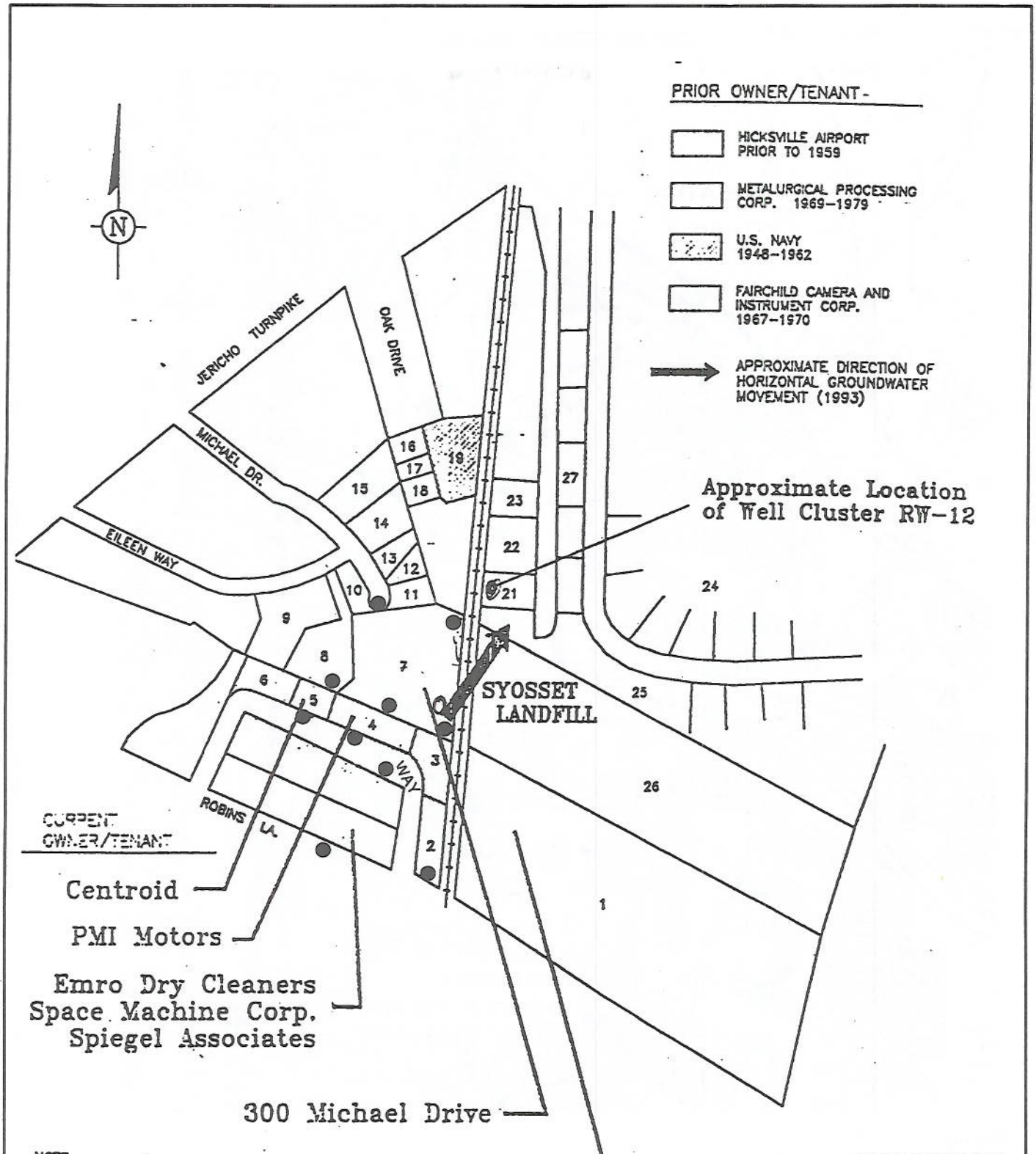
Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

The drill rig presents a hazard with its moving parts and overhead equipment. using a PID for the MEK, and a RAM-1 for the lead All field personnel including drill rig operators must wear

TABLE 1

CHARACTERISTICS OF CHEMICALS FOUND ON THE SITE
MICHAEL DRIVE INDUSTRIAL AREA

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% at °F)	UEL (%)	FLASH POINT (°F)	AUTOIG. TEMP (°F)	VP (mm at °F)	VD	IP (eV)	SOLU. (%)	ODOR THRESH. (ppm)	RESP.	TOXIC EFFECTS
1,1-Dichloroethane	Ethylidene chloride; 1,1-Ethylidene dichloride; Asymmetrical dichloroethane	100 A4	100	100	3000	5.4	11.4	2	824	182	3.42	11.06	0.6%	120	yes	Irrit skin; CNS depres; liver, kidney, lung damage
1,1-Dichloroethylene	Vinylidene chloride; Vinylidene dichloride; 1,1-DCE; 1,1-Dichloroethene	5 (A3)	Ca	-	Ca	6.5	15.5	-2	1058	500	3.4	10.00	0.04%	-	yes	Irrit eyes, skin, throat; dizz, head, nau; dysp; liver, kidney dysfunc; pneuitis; [carc]
Tetrachloroethylene	Perchlorethylene, Perchloroethylene, Perk, Tetrachloroethene	25 A3, BEI	Ca	100	Ca 150	NA	NA	NA	-	14	5.8	9.32	0.02%	4.7-50	yes	Irrit eyes, nose, throat; nau; flush face, neck; vertigo, dizz, inco; head; som; skin eryt; liver damage; [carc]
1,1,1-Trichloroethane	Methyl chloroform; 1,1,1-TCA	350 A4, BEI	C 350	350	700	7.5	12.5	?	-	100	4.55	11.00	0.4%	20-400	yes	Irrit eyes, skin; head; lass; CNS depres; poor equi; derm; card arrhy; liver damage
Trichloroethylene	Ethylene trichloride, TCE, Trichloroethene; Trilene	50 A5, BEI	25	100	Ca 1000	8	10.5	?	788	58	4.5	9.45	0.0001 %	21.4-400	yes	Irrit eyes, skin; head, vertigo; vis dist, ftg, gidd; tremor; som, nau, vomit; derm; card arrhy; pares; liver inj; [carc]



NOTE:
DRAWING NOT TO SCALE.
ALL LOCATIONS AND CONFIGURATIONS ARE APPROXIMATE.

● Hydropunch locations

\MultiSitePSA\site maps.dsf

LOCATION

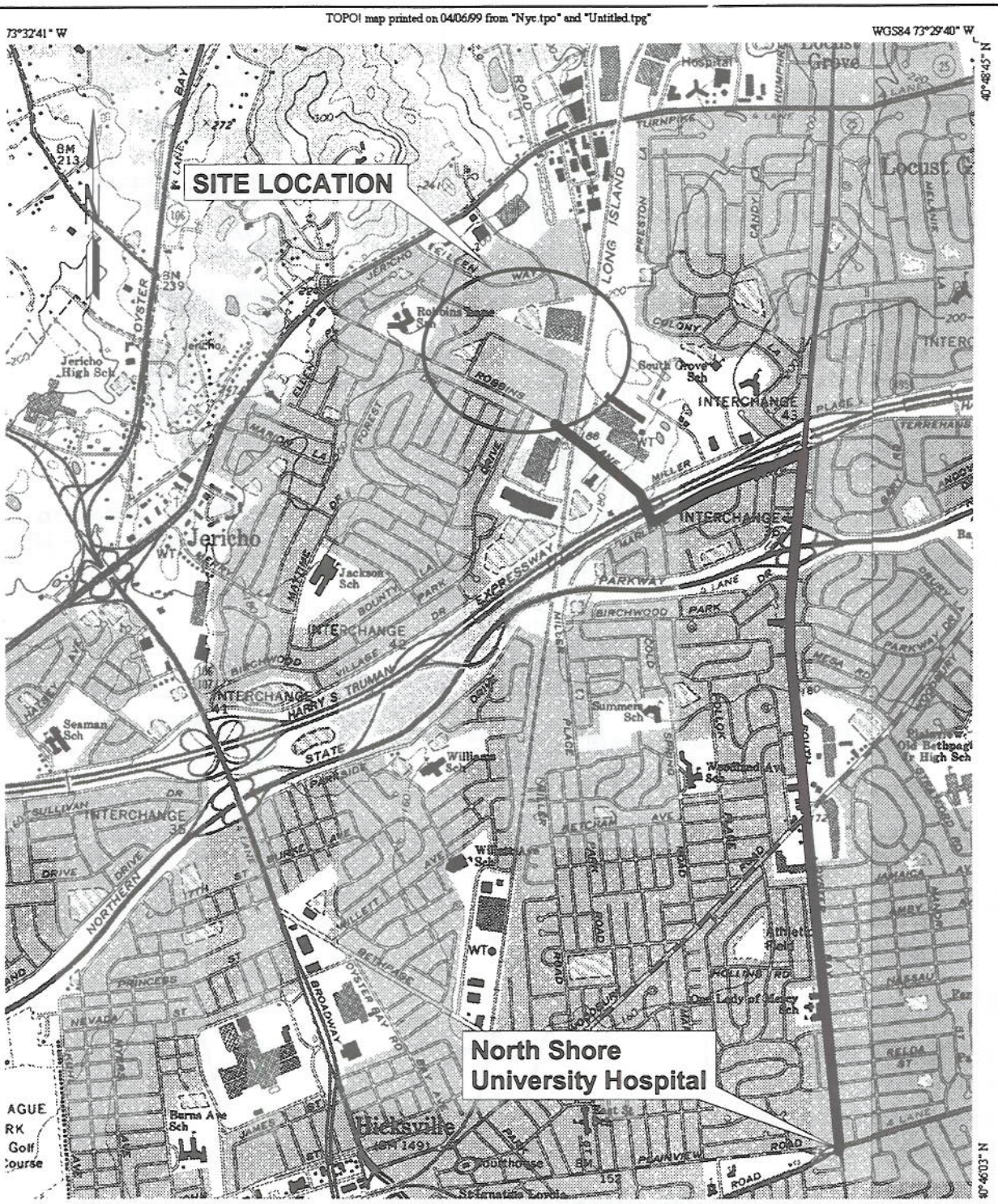
Robbins Lane, Aerial Way, and Michael Drive
Syosset, NY 11791
(Nassau County)

Figure 1

Site Plan

MULTI-SITE PSA
Michael Drive Industrial Area
NYSDEC I.D. No. 130092

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York



Map source:
USGS 7.5-minute Quadrangle Map,
Hicksville, NY, 1967, photorevised 1979
Huntington, NY, 1967, photorevised 1989.
Printed from Wildflower Productions "Topo".

Figure 2

Route to Hospital

MULTI-SITE PSA
Michael Drive Industrial Area
NYSDEC I.D. No. 130092

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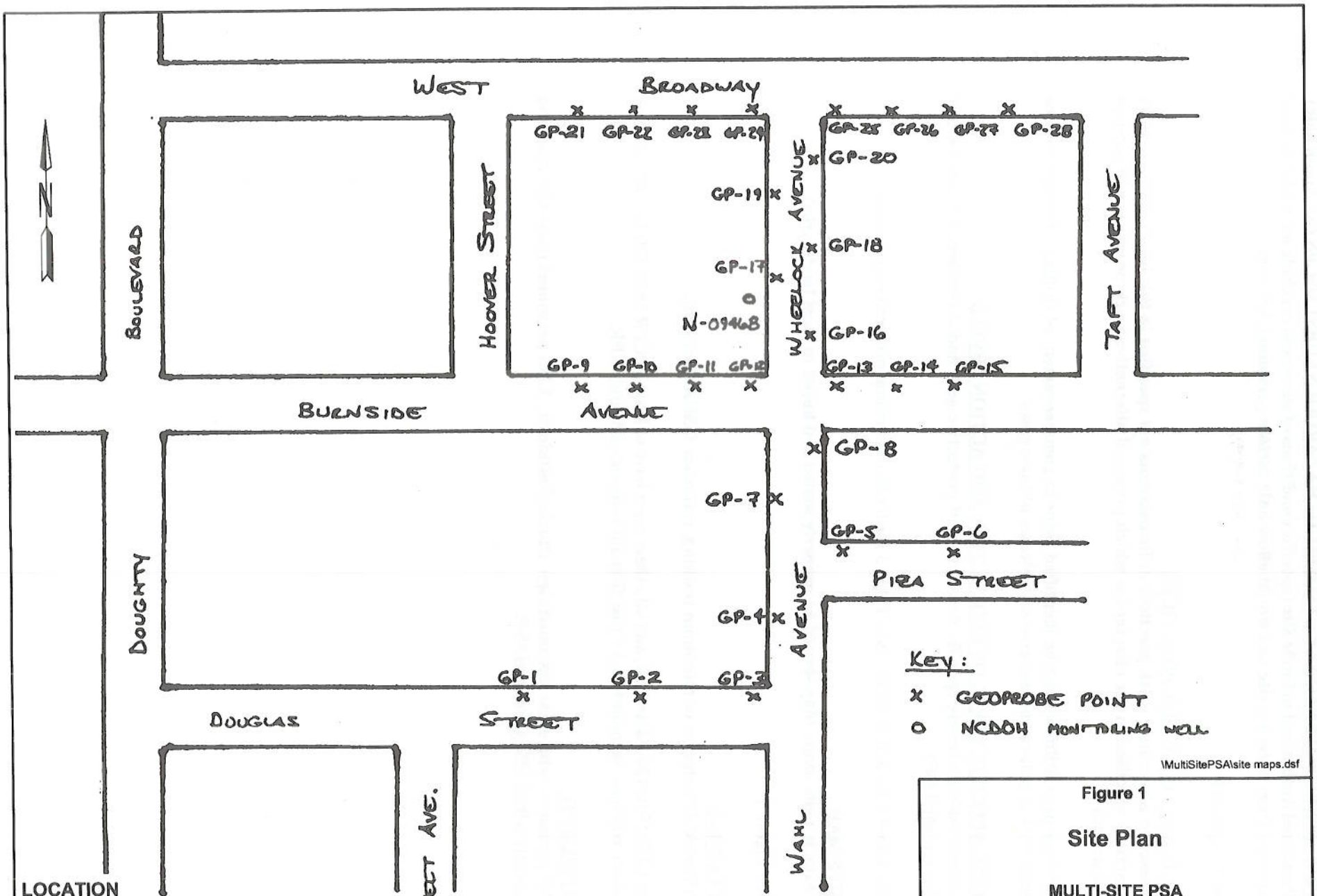
Pearl River, New York



LOCATION

NW corner of Wheelock and Burnside Avenues
Inwood, NY 11096
(Nassau County)

Figure 1

Site Plan

MULTI-SITE PSA
Wheelock Avenue Burnside Avenue
NYSDEC I.D. No. 130090 130091

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

PERSONNEL POTENTIALLY EXPOSED TO HAZARDOUS SUBSTANCES (As Applicable)
Personnel Authorized to Enter Site (specific conditions of site would preclude most LMS trained persons from entering site and would allow only certain personnel, list here)

Not Applicable.

ALTERNATIVE WORK PRACTICES
(Describe alternative work practices or instruments not specified in this form. Indicate work practices specified in the chapter for which proposed alternative work practices will serve as substitute).

Underground utilities must be identified prior to commencement of drilling. Blowers may be employed to reduce and disperse any releases of toxic gases.

TASK-SPECIFIC LEVEL OF PROTECTION AND ACTION LEVELS
(attach table including specific description of protective gear and action levels to upgrade or downgrade LOP)

See Table 2 for action levels. See Table 3 for levels of personal protective equipment.

SITE MAP
(Attach a site map. Map should be properly scaled and keyed to local landmarks).

See Figure 1.

TRAINING
(Provide description of minimum training, reference OSHA Sections).

29 CFR 1910.120 E3 and E4, and all others must have at least 29 CFR 1910.120 E3. One person onsite will have standard Red Cross first aid training and adult CPR.

AFFIDAVIT
All personnel who enter site must sign attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name:	10 Wheelock Avenue Site 530 Burnside Avenue	**HASP Preparer:**	Edith Hollister
Address:	NW corner of Wheelock and Burnside Avenues	**City/State:**	Inwood, NY

Job No.: 650-441/650-444
650-442/650-445
650-443/650-446

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: John Nixon
On-Site Health and Safety Officer: John Nixon

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 23 March 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In groundwater: Volatile organic compounds (VOCs) present in the groundwater are reported to be trichloroethylene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride, and other related compounds.

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

The major route of exposure to potential contaminants will be respiratory. Inhalation of vapors and contaminated dusts would provide the mechanism for exposure. Vinyl chloride is the compound of highest concern both from the point of view of its confirmed carcinogenicity and its high vapor pressure. Trichloroethylene (TCE) has also been identified as a compound of concern because of its abundance in groundwater and soil samples. The international Agency for Research on Cancer (IARC) has classified TCE as a probable human carcinogen. The program will use engineering controls and personnel protective equipment to reduce the amount of potential exposure. Continuous air monitoring and personnel protection devises will serve to prevent exposure from chemicals. See Table 1.

Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

TABLE 1

CHARACTERISTICS OF CHEMICALS FOUND ON THE SITE

WHEELOCK AND BURNSIDE AVENUES

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% at °F)	UEL (%)	FLASH POINT (°F)	AUTOIG. TEMP (°F)	VP (mm at °F)	VD	IP (eV)	SOLU. (%)	ODOR THRESH. (ppm)	RESP.	TOXIC EFFECTS
,2-Dichloroethylene	Acetylene dichloride, cis-Acetylene dichloride, trans-Acetylene dichloride, sym-Dichloroethylene	200	200	200	1000	5.6	12.8	36-39	860	180-265	3.4	9.65	0.4%	0.085-500	yes	Irrit eyes, resp sys; CNS depres
Trichloroethylene	Ethylene trichloride, TCE, Trichloroethene; Trilene	50 A5, BEI	25	100	Ca 1000	8	10.5	?	788	58	4.5	9.45	0.0001 %	21.4-400	yes	Irrit eyes, skin; head, vertigo; vis dist, ftg, gidd; tremor; som, nau, vomit; derm; card arrhy; pares; liver inj; [carc]
Vinyl chloride	Chloroethylene; Chloroethene; VCM; Vinyl chloride monomer; Monochloroethene; Ethylene monochloride	(5) A1	Ca	1	Ca	3.6	33	NA gas	882	3.3 atm	2.2	9.99	0.1% @ 77 °F	260	no	Weak; abd pain; GI bleeding; enlarged liver; pal or cyan of extremities; liq: frostbite; [carc]

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name: Carbona Products **HASP Preparer:** Edith Hollister

Address: SW corner of Calyer and Humboldt Streets **City/State:** Brooklyn, NY 11222

Job No.: 650-651, 650-652, 650-653

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: Brett MacDonald
On-Site Health and Safety Officer: Brett MacDonald

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 25 March 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In soils: Volatile organic compounds (VOCs) present in the soil are reported to include tetrachloroethene (PCE).

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

The major route of exposure to potential contaminants will be respiratory. Inhalation of vapors and contaminated dusts would provide the mechanism for exposure. PCE is the compound of concern. Petroleum may be encountered, which may be a hazard for drilling, i.e. slip/trip or fire/explosion. Air monitoring and personnel protection devises will serve to prevent exposure from chemicals. See Table 1.

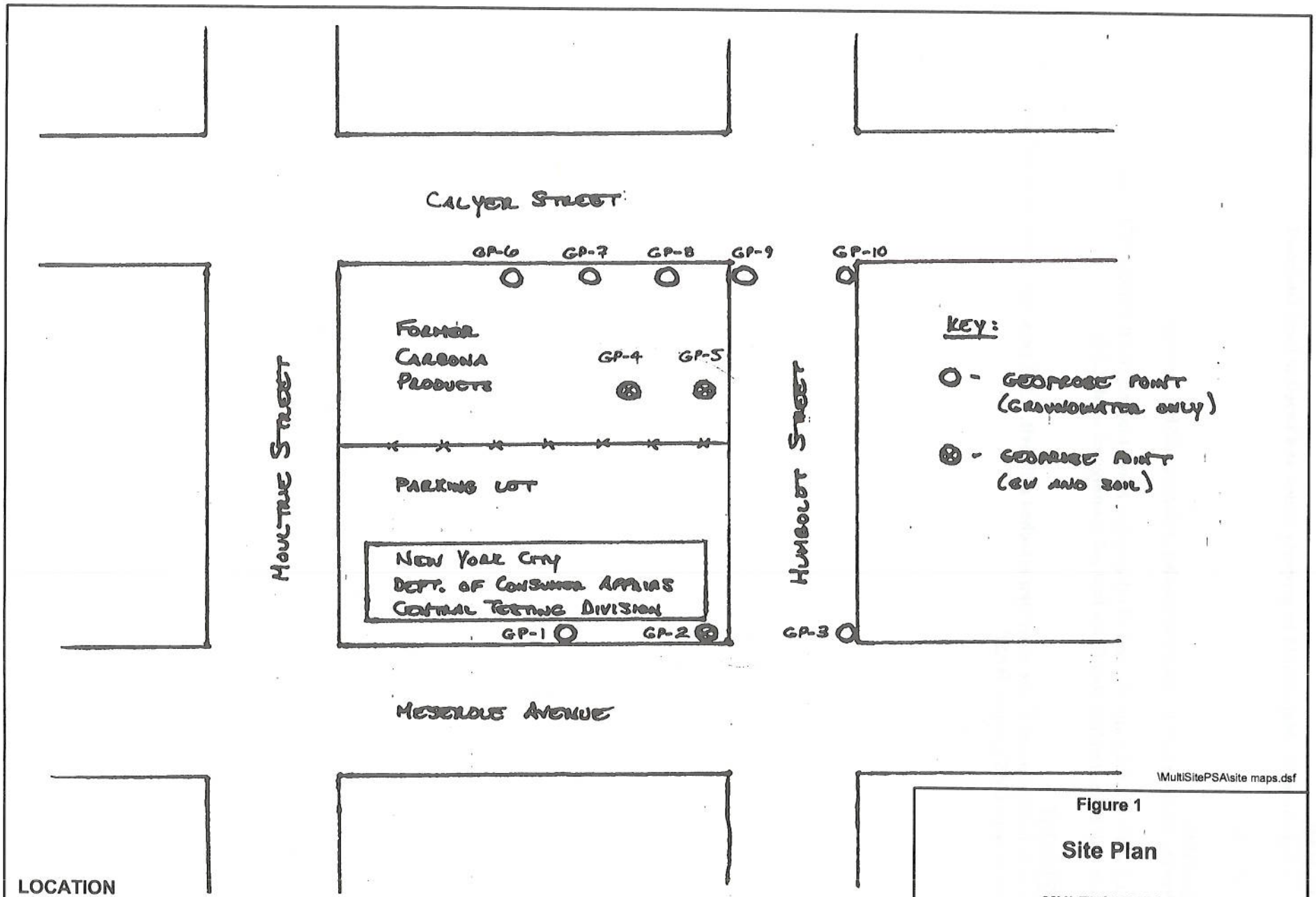
Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

The drill rig presents a hazard with its moving parts and overhead equipment. All field personnel including drill rig operators must wear steel-toe workbooks and hard hats. All persons unrelated to the project must remain outside the exclusion zone. If persons have business in the exclusion area other than the LMS investigation, they must remain at a safe distance away from the rig as determined by the site health and safety officer.

TABLE 1

CHARACTERISTICS OF CHEMICALS FOUND ON THE SITE
CARBONA PRODUCTS

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% at °F)	UEL (%)	FLASH POINT (°F)	AUTOIG. TEMP (°F)	VP (mm at °F)	VD	IP (eV)	SOLU. (%)	ODOR THRESH. (ppm)	RESP.	TOXIC EFFECTS
Tetrachloroethylene	Perchlorethylene, Perchloroethylene, Perk, Tetrachloroethene	25 A3, BEI	Ca	100	Ca 150	NA	NA	NA	-	14	5.8	9.32	0.02%	4.7-50	yes	Irrit eyes, nose, throat; nau; flush face, neck; vertigo, dizz, inco; head; som; skin eryt; liver damage; [carc]



\MultiSitePSA\site maps.dsf

Figure 1

Site Plan

MULTI-SITE PSA
Carbona Products
NYSDEC I.D. No. 224023

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

LOCATION

SW corner of Cayler and Humboldt Streets
Brooklyn, NY 11222
(Kings County)

SITE MAP

(Attach a site map. Map should be properly scaled and keyed to local landmarks).

See Figure 1.

TRAINING

(Provide description of minimum training, reference OSHA Sections).

29 CFR 1910.120 E3 and E4, and all others must have at least 29 CFR 1910.120 E3. One person onsite will have standard Red Cross first aid training and adult CPR.

AFFIDAVIT

All personnel who enter site must sign attached affidavit. LMS personnel must also read and comply with LMS' generic HASP.

LAWLER, MATUSKY & SKELLY ENGINEERS LLP

SITE-SPECIFIC

HEALTH AND SAFETY PLAN FORM

Site Name:	Public School 60/62 (former Voges Manufacturing) Ozone Industries	**HASP Preparer:**	Edith Hollister
Address:	103-22 99th Street (PS 60/62) 101-32 101st Street (Ozone Industries)	**City/State:**	Ozone Park, NY 11417
Job No.:	650-654, 650-655, 650-656		

APPROVALS

Project Manager: Karen A. Wright
Safety Officer: Karen A. Wright

PROJECT PERSONNEL:

On-Site Coordinator: Edith Hollister
On-Site Health and Safety Officer: Edith Hollister

Phone: (914) 735-8300

DATE OF PLAN PREPARATION: 26 March 1999

HAZARDOUS/SUBSTANCES **(known or suspected, contaminated media or in storage container, etc.):**

In groundwater: Volatile organic compounds (VOCs) present in the groundwater are reported to include trichloroethene (TCE).

HAZARD ASSESSMENT **(toxic effects, including TLVs, IDLHs, reactivity, stability, flammability, and operational hazards with sampling, decontaminating, etc):**

The major route of exposure to potential contaminants will be respiratory. Inhalation of vapors and contaminated dusts would provide the mechanism for exposure. TCE has been identified as a compound of concern because of its abundance in groundwater samples. The international Agency for Research on Cancer (IARC) has classified TCE as a probable human carcinogen. The program will use engineering controls and personnel protective equipment to reduce the amount of potential exposure. Continuous air monitoring and personnel protection devises will serve to prevent exposure from chemicals. See Table 1.

Other Hazards: Site hazards include those that exist on all sites where heavy equipment, industrial, and construction type operations take place, e.g., dangers from falling equipment, cuts, abrasions, and contusions. Drilling operations pose special dangers from overhead lines, buried equipment and utilities, and danger from tools and accessory equipment.

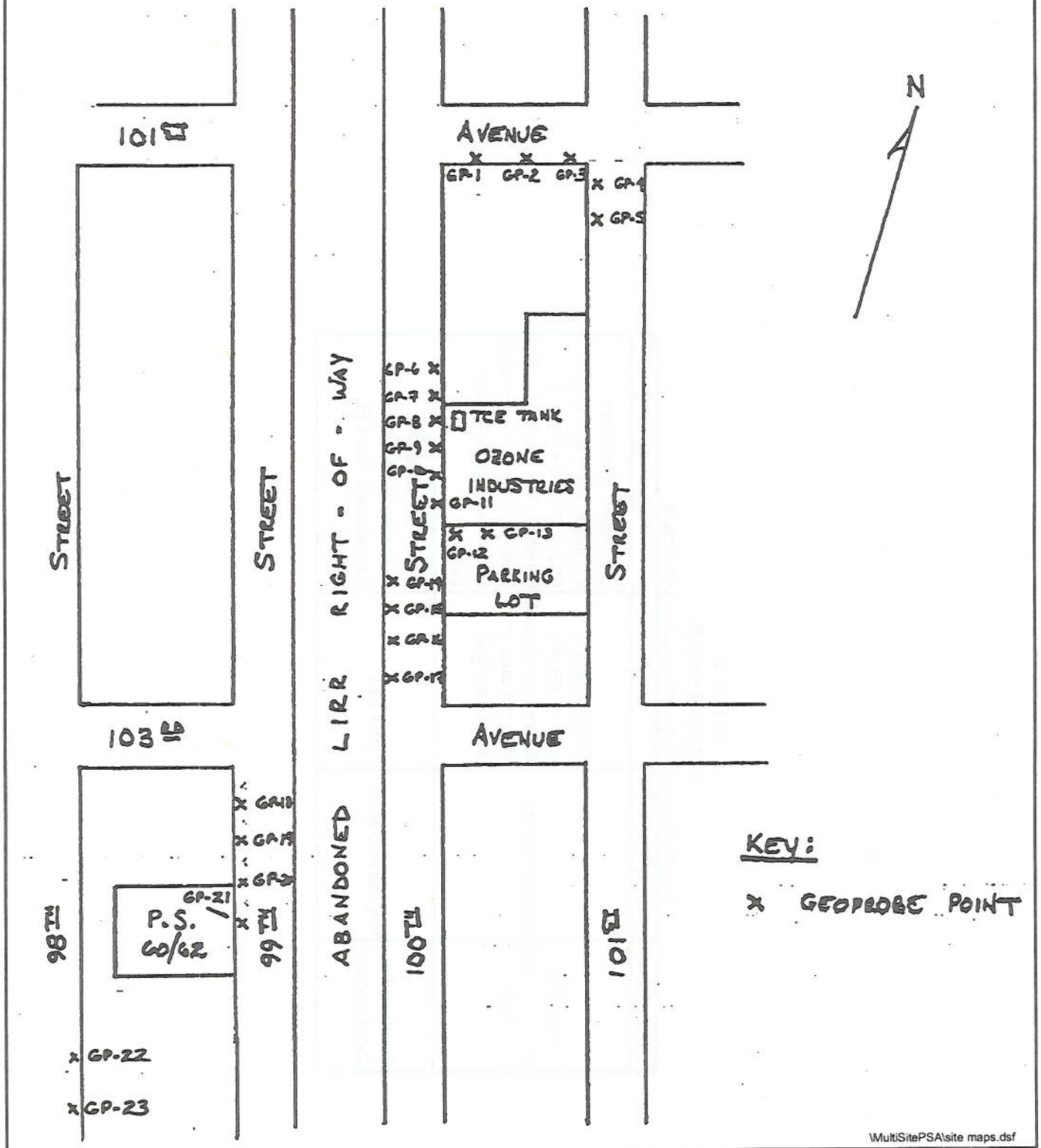
The drill rig presents a hazard with its moving parts and overhead equipment. All field personnel including drill rig operators must wear steel-toe workbooks and hard hats. All persons unrelated

TABLE 1

CHARACTERISTICS OF CHEMICALS FOUND ON THE SITE

PUBLIC SCHOOL 60/62 (FORMER VOGES MANUFACTURING)

COMPOUND	SYNONYMS	ACGIH TLV (ppm)	NIOSH REL (ppm)	OSHA PEL (ppm)	NIOSH IDLH (ppm)	LEL (% at °F)	UEL (%)	FLASH POINT (°F)	AUTOIG. TEMP (°F)	VP (mm at °F)	VD	IP (eV)	SOLU. (%)	ODOR THRESH. (ppm)	RESP.	TOXIC EFFECTS
richloroethylene	Ethylene trichloride, TCE, Trichloroethene; Trilene	50 A5, BEI	25	100	Ca 1000	8	10.5	?	788	58	4.5	9.45	0.0001 %	21.4-400	yes	Irrit eyes, skin; head, vertigo; vis dist, ftg, gidd; tremor; som, nau, vomit; derm; card arrhy; pares; liver inj; [carc]



LOCATION

103-22 99th Street (PS60/62)
101-32 101st Street (Ozone Industries)
Ozone Park, NY 11417
(Queens County)

Figure 1

Sample Location Plan

MULTI-SITE PSA
Public School 60/62
(former Voges Manufacturing)
NYSDEC I.D. No. 241021

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

TABLE 3
ACTION LEVELS
Public School 60/62 and Ozone Industries

Instrument	Hazard Monitored	Level	Action Required
HNU PID or OVA FID	Organic Vapors	Continuously 5 units or greater above background for 5 minutes in breathing zone.	Stop work. Evacuate exclusion zone and initiate engineering controls. If levels remain, upgrade from Modified Level D to Level C or confine self to Support Zone.
Combustible Gas Indicator	Explosive Vapors	>10% LEL	Explosion hazard! Withdraw from the area immediately until LEL <10%.

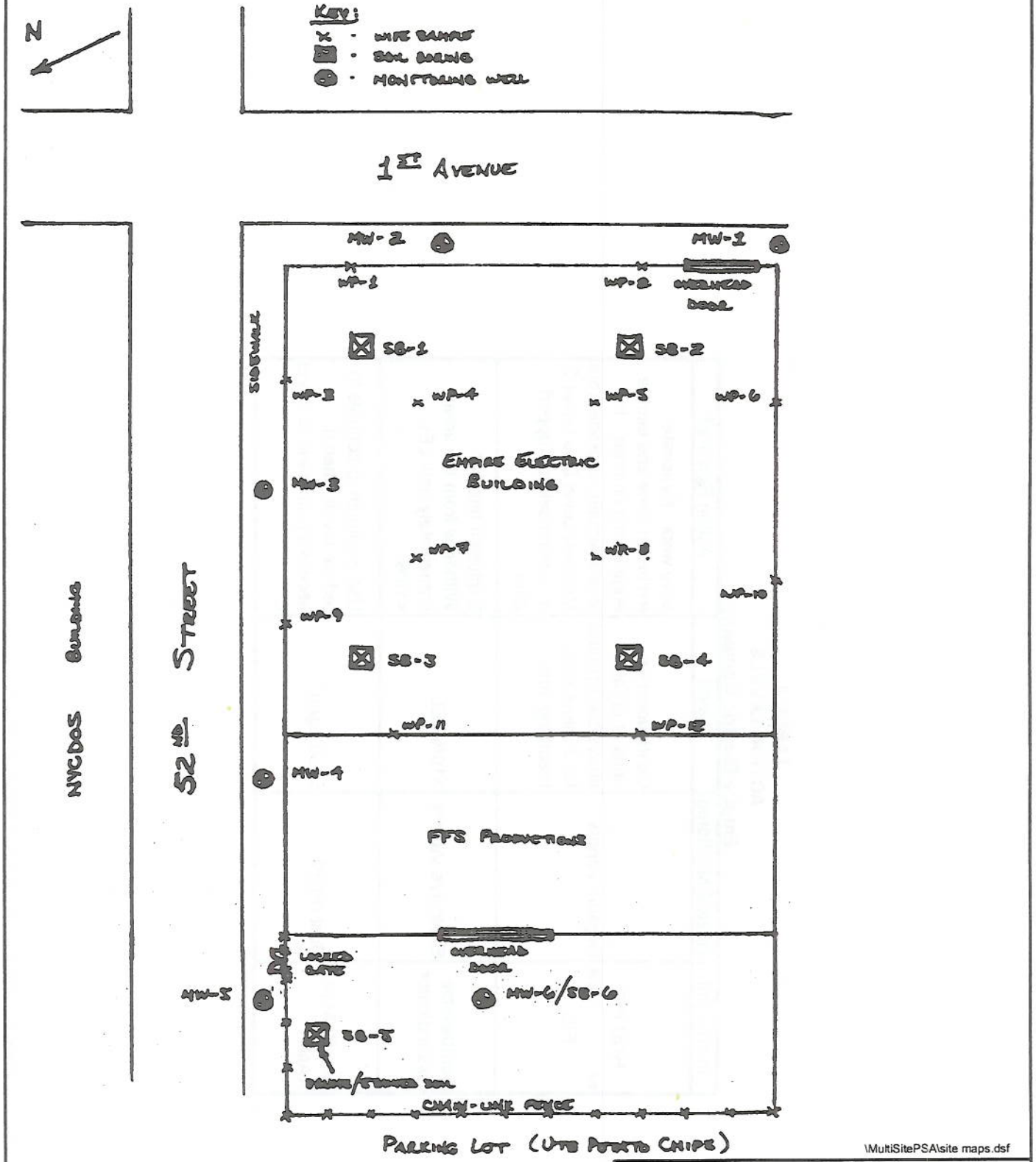


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Figure 1

Site Plan

MULTI-SITE PSA
Empire Electric Company
NYSDEC I.D. No. 224015

LAWLER, MATUSKY & SKELLY ENGINEERS LLP
Pearl River, New York

LOCATION

5200 1st Avenue
Brooklyn, NY 11220
(Kings County)

TABLE 3
ACTION LEVELS
Empire Electric Company

Instrument	Hazard Monitored	Level	Action Required
HNU PID or OVA FID	Organic Vapors	Continuously 5 units or greater above background for 5 minutes in breathing zone.	Stop work. Evacuate exclusion zone and initiate engineering controls. If levels remain, upgrade from Modified Level D to Level C or confine self to Support Zone.
Combustible Gas Indicator	Explosive Vapors	>10% LEL	Explosion hazard! Withdraw from the area immediately until LEL <10%.
DataRAM or RAM-1	Dust (PCB)	>150 $\mu g/m^3$	Use engineering controls to reduce levels, then if necessary, upgrade to Level C.