

FILE ON EDOC'S _____ YES _____ NO

SITE NAME _____

SITE # 130004

COUNTY _____ TOWN _____

FOILABLE _____ YES _____ NO

SC/PSA _____ RI/FS _____

RD _____ RA _____

SM _____ OTHER _____

NAME DESCRIPTION:

Report. hwl30004. 2005-07-01. RCRA - Demolition

workplan



Demolition Work Plan

**Bayer MaterialScience LLC
125 New South Road
Hicksville, New York**

July 2005

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

WORK PLAN

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1. Introduction

1.1 General

This document has been prepared on behalf of Bayer MaterialScience LLC (Bayer) and presents a work plan for implementing demolition activities at the Bayer facility located at 125 New South Road in Hicksville, New York (the "Site"). The proposed demolition activities include the elements identified in e-mail correspondence from the New York State Department of Environmental Conservation (NYSDEC) to Bayer dated July 26, 2004.

Aside from the Administration Building located in the northern portion of the Site, all other buildings and aboveground structures formerly used in connection with Site operations were demolished down to their floor slabs in 2003. The remaining concrete floor slabs and other concrete surfaces, including ramps, driveways, and former equipment/tank pads, will be demolished as part of the demolition activities proposed in this work plan. Proposed demolition activities include:

- implementing pre-demolition, concrete material characterization sampling;
- demolishing onsite concrete building floor slabs, ramps, driveways, and former equipment/tank pads;
- crushing and re-using demolition debris as on-site fill (as appropriate); and
- performing site restoration activities.

The organization of this Demolition Work Plan is presented below, followed by a summary of relevant background information related to the demolition activities.

1.2 Work Plan Organization

The Demolition Work Plan has been organized into the following sections:

Section	Purpose
Section 1 – Introduction	Provides a brief overview of the demolition activities and Site background information.
Section 2 – Demolition Activities	Presents the objectives and a description of the demolition activities.
Section 3 – Project Schedule	Presents the anticipated schedule for the demolition activities.

1.3 Background Information

This subsection presents relevant background information used to develop the demolition approach. A description of the Site is presented below, followed by a summary of topography and drainage in the vicinity of the Site, historical site information, and results of previous sampling that are relevant to the proposed demolition activities.

1.3.1 Site Description

The Site consists of a 14-acre triangular-shaped parcel located just southeast of the intersection of New South Road and Commerce Road in the City of Hicksville, New York. The Site is bordered to the north by industrial properties, to the south and west by the Long Island Railroad and commercial/industrial properties, and to the east by warehouses and the Northrop Grumman Corporation (Northrop Grumman) complex. A site location map is included as Figure 1.

The location of the Administration Building and the concrete slabs from former buildings are shown on the site layout plan included as Figure 2. As shown on Figure 2, a large asphalt-paved parking area is located in the western portion of the site, and a series of rainwater runoff sumps/recharge basins are located along the eastern property boundary. Additionally, a railroad spur enters the northwestern portion of the Site and splits into two separate lines, including one that continues southward between a former building (Plant 1) and warehouse and a second that extends eastward toward another former building (Plant 2). Access to the Site is limited by a chain-link fence and locking gates.

Non-masonry building materials generated by the aboveground demolition activities were transported for offsite reclamation/disposal. Brick and mortar wall materials generated by aboveground demolition activities, were crushed and remain stockpiled onsite for future use as hard fill material. The stockpiled materials were previously characterized as part of the aboveground demolition activities. Pending results of further characterization sampling (as described in Subsection 2.4), the stockpiled-materials will be used as hard fill, as appropriate.

The building floor slabs remaining onsite are constructed of concrete and are generally 6 to 9 inches thick and elevated approximately 2 to 4 feet above the surrounding grade. The ground surface in the vicinity of the floor slabs is generally covered with asphalt or concrete. Varying amounts of construction and demolition debris are scattered on the ground surface in the vicinity of the slabs. Remaining areas of the Site are covered with crushed stone/gravel or vegetation (grass or brush).

1.3.2 Topography and Drainage

The Site is located on relatively level land at an elevation of approximately 129 to 134 feet above mean sea level. The northwestern portion of the Site (the vicinity of Plant 3 and the parking lot) slopes gently to the west, and the southern portion of the Site (vicinity of Plant 1) slopes gently to the south. Depending on location, stormwater at the Site either flows to the recharge basins/rainwater runoff sumps (via overland flow and storm sewer piping) or is conveyed offsite via overland flow.

Sanitary wastewater from the facility was formerly conveyed via underground piping to several septic tanks and cesspools/leachate pits (refer to Figure 2 for septic tank and leachate pit locations). The leachate pits were eventually abandoned in-place when sanitary sewer piping was installed to convey the sanitary wastewater to the municipal sewer system beneath Commerce Place.

1.3.3 Relevant Site History

The Site was formerly used as a production facility for polyester resin, polyurethane dispersions, and polyvinyl chloride (PVC). The facility was originally constructed in 1945 and operations were expanded in subsequent years. The facility was previously owned/operated by the Hooker Chemical and Plastic Corporation/Occidental Chemical Corporation (HCPC/OCC) from 1966 to 1982. The facility was designated as a Superfund site and placed on the National Priorities List (NPL) established under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in the early 1980s. Various soil and groundwater investigation/remedial activities have been implemented since that time.

Ruco Polymer Corporation (Ruco) purchased the facility from HCPC/OCC in 1982. The purchase agreement indemnified Ruco for environmental liabilities associated with facility operations conducted prior to the sale. Ruco operated an onsite Resource Conservation and Recover Act (RCRA) interim status drum storage facility in the early 1980s, which formed the basis for RCRA Corrective Action activities initiated in 2003. Ruco was acquired by Sybron Chemical Corporation (Sybron) in 1988. Sybron was, in turn, acquired by Bayer Corporation in 2000. Facility ownership was transferred from Bayer Corporation to Bayer Polymers LLC in 2003 as part of a corporate restructuring. As part of further restructuring, Bayer Polymers LLC became Bayer MaterialScience LLC in 2004. As the successor to Ruco, Bayer received the HCPC/OCC indemnification for environmental liabilities associated with former facility operations. *ie prior to 1982*

Based on economic evaluation, manufacturing operations were discontinued during 2002 and transferred to existing Bayer facilities in Georgia and West Virginia. In an effort to prepare the Site for future sale and economic redevelopment, all raw materials, products, and hazardous chemicals were removed from the Site. In addition, facility equipment was decommissioned and tanks/piping were closed pursuant to applicable regulations. Asbestos-containing materials were removed and the onsite buildings and aboveground structures were demolished in 2003.

A RCRA Facility Assessment (RFA) was completed in 2003 as a follow-up to a site closure plan prepared by Bayer and submitted to the NYSDEC in October 2002. The RFA identified several Areas of Concern (AOC) for further evaluation in a RCRA Facility Investigation (RFI). BBL, on behalf of Bayer, implemented a two-phase RFI during 2004. The initial phase of RFI activities was implemented during February 2004 and included the collection of samples from 58 AOCs. Samples were collected as part of the Phase I RFI to evaluate the potential presence and extent of constituents of interest in:

- accumulated debris (silt, sand, and gravel material) encountered within the identified AOCs at the Site, including manholes/catch basins, sumps, floor trenches, etc., and within an onsite rainwater runoff sump;
- concrete remaining in-place from the floor slabs of buildings that were demolished during 2003 in preparation for future Site redevelopment;
- soil within unpaved areas of the Site and beneath the remaining concrete floor slabs; and
- standing water encountered within a former building foundation sump.

The Phase I RFI debris, soil, and water samples were submitted for laboratory analysis for glycols, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) inorganic constituents (including cyanide), polychlorinated biphenyls (PCBs), and/or pH. The Phase I RFI concrete samples were submitted for laboratory analysis for glycols, VOCs, SVOCs, and TAL inorganic constituents (including cyanide) in leachate generated via Toxicity Characteristic Leaching Procedure (TCLP) extraction.

In response to findings of the Phase I RFI activities, a second phase of RFI sampling was conducted during October 2004 and included the collection of samples from 13 AOCs. Samples were collected as part of the

Phase II RFI to further evaluate the potential presence and extent of constituents of interest in accumulated debris, concrete, and soils. Each Phase II RFI debris and concrete sample was submitted for laboratory analysis for PCBs. The Phase II RFI soil samples were submitted for laboratory analysis for glycols, VOCs, SVOCs, and/or TAL inorganic constituents.

Results of the Phase I RFI field investigation activities are summarized in the *RCRA Facility Investigation Report* (BBL, June 2004) and follow-up correspondence between BBL and the NYSDEC. Results of the Phase II RFI field investigation activities are summarized in the Phase II RFI Report (which was in the form of a letter from BBL to the NYSDEC dated January 5, 2005) and a March 14, 2005 letter that responds to the NYSDEC's conditional approval of the Phase II RFI Report.

Based on the results of the RFI, Bayer has elected to implement an interim corrective measure (ICM) to support a timely transfer of the property for redevelopment. Details of the proposed ICM activities are presented in the *Interim Corrective Measures Work Plan* (BBL, April 2005) and ICM Work Plan Modification dated April 26, 2005. In support of the property transfer, Bayer has also elected to complete the demolition activities described herein.

1.3.4 Previous Concrete Sampling

Concrete sampling activities performed as part of the RFI that are relevant to the proposed demolition activities are summarized below, followed by a discussion of the concrete sampling results.

Concrete Sampling Activities

The RFI concrete sampling activities were conducted to characterize the remaining concrete building floor slabs for re-use (as onsite or offsite fill material) or offsite disposal. Concrete samples were collected from a total of 25 locations, as shown on Figure 3 [refer to the blue-colored sampling locations]. Sampling locations were selected to target areas of potential concern and to provide coverage across the slabs. AOCs where concrete samples were collected and the conditions identified in each AOC are summarized in the table below.

AOC Sample#	Concrete Sampling Location	Condition of Concrete
1-1	Plant 1 – Less than 90-Day Storage Unit	Cracks observed at surface. No staining noticed.
3-1 & 3-2	Plant 1 – Wastewater Tanks 1, 11A, and 11B	Slight staining noticed at location 3-1. Cracks observed at location 3-2.
4-1	Plant 1 – Former Liquid Incinerator Area	No cracks observed. Slight staining noticed.
11-5	Plant 1 – Boiler condensate runoff	No cracks observed. No staining noticed.
14-1 & 14-2	Plant 2 – Waste Compactor and Scrap Metal Area	Slight staining noticed at location 14-2. No cracks observed at location 14-1 or 14-2.
15-1	Plant 2 – Distillate Wastewater Tank 2	Cracks observed. No staining noticed.
16-1	Plant 2 – Reactor 4 Knockout Tank	Cracks observed. No staining noticed.
20-1	Plant 3 Warehouse – RCRA Less than 90 Day Storage Unit	No cracks or staining noticed.
23-1 & 23-2	Plant 3 Warehouse – Non-Hazardous Waste Accumulation	Cracks observed at both locations. No staining noticed at either location.

Are sample locations near where staining & floor cracks were found.

AOC Sample#	Concrete Sampling Location	Condition of Concrete
36-1	Administration Building Lab Storage Area	No cracks or staining noticed.
37-2	Plant 2 – DOA Sump	Staining noticed. No cracks observed.
39-7 through 39-11	Plant 1 – Electrical Transformers	No cracks observed. No staining noticed.
41-1 through 41-3	Plant 1 – Stained Concrete in Warehouse	Cracks and staining noticed at all three sampling locations.
45-3	Pilot Plant – Sump in NE Corner of Plant	Staining noticed. No cracks observed.
46-3	Plant 2 – Scale Area and Circular Plate Area in Foundation	Staining noticed. No cracks observed.
49-3	Pilot Plant – Trench Around East Wall	Staining noticed. No cracks observed.

Except for samples submitted for laboratory analysis for TCLP VOCs, each concrete sample was a pulverized sample collected from the 0- to 3-inch depth interval using a hammer drill equipped with a 1-inch diameter pulverizing bit. Several holes were drilled (immediately adjacent to one another) to obtain the necessary volume for each sample. Except for the samples collected from AOC Nos. 11 and 39 (Boiler Condensate Runoff Area and Former Electrical Transformer Area), each pulverized sample was placed into a labeled sample container and submitted for laboratory analysis for glycols, SVOCs, and TAL inorganic constituents in leachate generated via TCLP extraction. Samples collected from AOC Nos. 11 and 39 were placed into labeled sample containers and submitted for laboratory analysis for PCBs.

To minimize the potential loss of VOCs during sampling, concrete samples submitted for laboratory analysis for TCLP VOCs were collected as solid core samples (as opposed to pulverized samples). Each solid core sample was collected using a hammer drill equipped with a 3-inch diameter core barrel. At each location, an approximately 2- to 4-inch long solid concrete core sample was successfully extracted. The core samples did not penetrate the full thickness of the concrete flooring, except for cases where soil sampling was conducted beneath the concrete. Upon retrieval, the solid concrete core samples were chiseled into pieces and placed into labeled sample containers and submitted for laboratory analysis for TCLP VOCs. A portion of each concrete sample was placed in a container for headspace screening using a PID. The headspace screening result for each concrete sample was 0.0 parts per million (ppm).

Two blind duplicate concrete samples were collected in support of the concrete sampling activities, one per each phase of the RFI. A Phase I RFI duplicate sample collected from location AOC 3-1 (Plant 1 Wastewater Tank area) was submitted for laboratory analysis for glycols, VOCs, SVOCs, and TAL inorganic constituents in leachate generated via TCLP extraction. A Phase II RFI duplicate sample collected from location AOC 39-7 (Plant 1 Outdoor Electrical Transformer Area) was submitted for laboratory analysis for PCBs.

Concrete Analytical Results

Analytical results obtained for the laboratory analysis of the RFI concrete samples collected from the former building floor slabs remaining at the Site are presented in Tables 1 and 2 and summarized below.

- Analytical results for TCLP VOCs, TCLP SVOCs, and TCLP metals indicate that the concrete does not exhibit these constituents at concentrations above the regulatory limits presented in 40 CFR 261 or 6 NYCRR 371.
- Selected TCLP VOCs were detected above laboratory detection limits at 16 of the 19 concrete sampling locations, and one TCLP SVOC (4-methylphenol) was detected above laboratory detection limits at one of

the 19 concrete sampling locations (location AOC 49-3). The TCLP VOC concentrations are low, with a maximum of 0.016 ppm (estimated value) at sampling location AOC 46-3. The TCLP 4-methylphenol concentration identified at sampling location AOC 49-3 is also low, at an estimated 0.004 ppm.

- TCLP glycols were detected above laboratory detection limits at three of the 19 concrete sampling locations. Ethylene glycol was detected in the TCLP extract from three concrete sampling locations at concentrations ranging from an estimated 10.4 ppm (sampling location AOC 49-3) to 37.5 ppm (sampling location AOC 4-1). Propylene glycol was detected in the TCLP extract from sampling location AOC 4-1 at a concentration of 19 ppm. A federal or New York State regulatory limit does not exist for glycols in TCLP extract.
- PCBs were detected above laboratory detection-limits at each of the six concrete sampling locations for PCBs, including locations AOC 11-5 and AOC 39-7 through AOC 39-11. The PCB concentrations range from an estimated 0.035 ppm at location AOC 39-10 to 2.8 ppm at location AOC 39-9. Except for the PCB concentration identified at location AOC 39-9, the PCB concentrations identified in the concrete samples are all below the 1 ppm surface soil guidance value established in the NYSDEC's Technical and Administrative Guidance Memorandum titled, "Determination of Soil Cleanup Objectives and Cleanup Levels," HWR-94-4046, dated January 24, 1994 (TAGM 4046) that would be applicable for the concrete if it were to be crushed and re-used onsite as fill material. The 2.8 ppm PCB concentration identified at location AOC 39-9 is below the 10 ppm guidance value established in TAGM 4046 that would be applicable if the concrete were to be crushed and re-used onsite as subsurface fill material (at depths greater than 12 inches below the ground surface).

TAGM values apply only to soils

Additional concrete sampling for PCBs will be performed in support of the demolition activities described in this work plan to further evaluate whether the concrete is appropriate for re-use onsite following demolition and crushing of remaining concrete floor slabs, ramps, driveways, and pads.

2. Demolition Plan

2.1 General

This section presents an overview of demolition activities. The objective of the demolition activities is presented below, followed by a description of the demolition activities.

2.2 Demolition Objective

The overall demolition objective is to demolish the remaining concrete building floor slabs and other remaining concrete surfaces, including ramps, driveways, and former equipment/tank pads, in a manner that minimizes the generation and/or migration of dust particulates and facilitates onsite concrete re-use in accordance with applicable regulations. The concrete slabs/surfaces and underlying supports (footers, frost walls) will be removed to approximately 2 feet below the surrounding grade. Aboveground utility connections (fire hydrants and waterline post indicator valves) will be removed to 2 feet below grade.

2.3 Mobilization/Site Preparation Activities

Work activities to be conducted in preparation for slab demolition include the following general mobilization and site preparation activities:

- mobilizing labor, equipment, materials, supplies, and things necessary and incidental for implementing the demolition activities;
- coordinating with the local utility companies and New York City – Long Island One Call Center to identify locations of remaining active utilities (if any). Based on available information, all utilities have been deactivated and disconnected at the property boundary, with the exception of existing waterlines that extend across the property [refer to Figure 4 for waterline locations]. The waterline that enters the property northeast of the Administration Building (an 8-inch diameter line) will be disconnected in accordance with the requirements of the Town of Oyster Bay and the Hicksville Water Department. The waterline originating near the intersection of New South Road and Commerce Place that services the Administration Building and extends across the property (a 6-inch diameter line) will be disconnected at the tee to the Administration Building. Water service to the Administration Building will be maintained. The waterline disconnect at the tee to the Administration Building will be performed in accordance with requirements of the Town of Oyster Bay and the Hicksville Water Department. If other utilities are determined to be active, the location(s) will be verified and the utility(ies) will be disconnected, as necessary;
- notifying the Town of Oyster Bay of plans to complete slab demolition in accordance with the "Application for Demolition" and "Affidavit of Demolition" previously submitted to the Town. Letters for disconnection of services (electric, gas, and sanitary sewer) were previously provided with the application;
- constructing staging areas for material to be transported for offsite disposal based on the presence of heavy staining and based on results of pre-demolition characterization sampling as discussed under Subsection 2.4. Material staging areas will be constructed, as appropriate, as discussed under Subsection 2.11;

Do these
application
include
NOI + SWPPP?

$$\text{concrete paved area} = 48324 \text{ ft}^2 \left(\frac{9}{12} \right) = 36243 \text{ ft}^3 \left(\frac{1 \text{ yd}^3}{27 \text{ ft}^3} \right) = 1342.33 \text{ yd}^3$$

(1) composite for 500 yd³ or 1342
 $\frac{1342}{500} = 2.68 \approx 3$ total composites

Each composite consists of (1) discrete samples, per 100 cy

$$\text{Bldg floor slabs} = 85661 \text{ ft}^3 \left(\frac{9}{12} \right) = 64246 \text{ ft}^3 \left(\frac{1 \text{ yd}^3}{27 \text{ yd}^3} \right) = 2379.5 \text{ yd}^3$$

(4) Bldgs total, so avg floor volume = 595 yd³

(1) composite will consist of (3) discrete samples (from total avg volume of 595 yd³)

- installing erosion and sedimentation control measures, and other storm water control measures, in accordance with an Erosion and Sedimentation Control Plan (to be prepared by the contractor);
please submit this to DEC
- providing air monitoring devices to facilitate air monitoring activities in accordance with Subsection 2.10 during the demolition activities; and
- obtaining necessary permits prior to implementing the building demolition activities.

The mobilization/site preparation activities and related demolition activities, as described below, will be conducted in accordance with the provisions of a site-specific Health and Safety Plan (HASP) to be submitted to the NYSDEC under separate cover.

2.4 Pre-Demolition Characterization Sampling

Based on available mapping and observations made during previous site visits, the existing concrete floor slabs cover approximately 85,661 square feet (SF) and the concrete-paved areas outside the floor slabs cover approximately 48,324 SF, for a total of approximately 133,985 SF. Assuming an average concrete thickness of 9-inches, the total volume of concrete to be generated by the demolition activities is 3,722 cubic yards (CY) (in-place measurement, before bulking from removal). In addition, there are approximately 8 stockpiles of concrete and masonry construction and demolition (C&D) debris remaining onsite that were generated by previous demolition of aboveground structures. The stockpiles range in size from an estimated 25 CY to 100 CY. The estimated total volume of C&D debris within the stockpiles is 420 CY. The locations of the concrete floor slabs, concrete-paved areas/pads outside the floor slab areas, and C&D debris stockpiles are shown on Figure 3. Sampling will be performed to further characterize the concrete floor slabs, concrete-paved areas/pads, and C&D debris stockpiles as described below.

Prior to initiating actual demolition activities, additional concrete core sampling will be performed to further evaluate the presence and extent of PCBs in the former building concrete floor slabs. Sampling will also be performed to evaluate the potential presence of PCBs in concrete-paved areas outside the floor slabs. A minimum of one composite concrete characterization sample will be collected for every 500 cubic yards (CY) of concrete anticipated to be generated by the demolition activities. Each composite sample will be formed from a minimum of one discrete sample per 100 CY of concrete. In addition, a minimum of one composite sample will be collected from each building floor slab (with a minimum of three discrete samples per composite). The discrete sampling locations will be uniformly distributed across the building floor slabs and other concrete-paved areas/pads. An analytical sample summary, which identifies the number of discrete concrete samples to be collected within and outside each building area for compositing, is presented below.

Sampling Locations	Approximate Square Footage of Remaining Concrete Slabs/Pads (sq.ft)	Anticipated Volume of Concrete (CY)	Number of Discrete Samples	Number of Composite Samples
Plant 1 (4) grids	44,958 $\times (9/12) (1/2)$	1,249	12	3
Plant 2 (3) grids	14,407	400	4	1
Plant 3 (3) grids	10,772	299	3	1
Pilot Plant (1) grid	2,542	71	3	2
Warehouse (3) grids	12,982	361	4	1

samples in dem of TRW site

*3722
YCO
4142
CY*

This is confusing

The sampling description above is confusing, it indicates only (1) composite per bldg slab & only (3) discrete samples.

(1) discrete samples per each comp.

- In bldg slabs samples should concentrate on stained/diseased area, rather than uniformly.

engineers, scientists, economists

- In pilot plant would like (3) composite samples, one near the 2-2 strip & another at the other end of the bldg.

Do these locations first focus on areas where there is staining and/or cracks? (See Table on p. 1-4).

Sampling Locations	Approximate Square Footage of Remaining Concrete Slabs/Pads (sq. ft)	Anticipated Volume of Concrete (CY)	Number of Discrete Samples	Number of Composite Samples
Concrete-Paved Areas/Pads Outside Building Footprints	48,324	1,342	$\frac{1342}{100} = 13$	3
Totals:	133,985	3,722	39	10

There appear to be many areas which will not be obtained. Need to justify this. See figure 3.

Locations where discrete concrete core samples will be collected to generate composite samples are shown on Figure 3 [refer to the red-colored sampling locations]. Each composite sample will be submitted for laboratory analysis for PCBs using United States Environmental Protection Agency (USEPA) SW-846 Method 8082.

In addition to the above-described pre-demolition composite characterization sampling, an estimated three discrete concrete samples (uncomposited) will also be collected for laboratory analysis for PCBs. The discrete samples designated for laboratory analysis will be collected from areas where heavy staining is observed on the concrete surface. Based on previous observations by BBL, discrete samples will be collected (for analysis) from one location in the former Plant 1 building near the former boiler condensate runoff area (AOC 10), one location in Plant 2 near the former distillate wastewater tank 2 (AOC 15), and one location in Plant 3 near the non-hazardous waste accumulation area (AOC 23). Anticipated locations where the discrete concrete core samples designated for laboratory analysis will be collected are shown on Figure 3 [refer to the gray-colored sampling locations]. Additional discrete concrete samples will be collected for laboratory analysis, as appropriate, based on the observations of field personnel during the pre-demolition characterization sampling activities.

Are these shown on fig 3??

Each discrete concrete sample (whether for compositing or for analysis uncomposited) will be a pulverized sample collected from the 0- to 3-inch depth interval using a hammer drill equipped with a 1-inch diameter pulverizing bit. Up to three holes will be drilled (immediately adjacent to one another) to obtain the necessary volume for each sample. Each composite sample will be formed by combining equal portions of the requisite number of discrete samples as indicated in the table above.

240 cy (4 discrete samples from each pile)

After the discrete and composite core samples are collected to characterize the in-place concrete, composite samples will be collected to characterize the materials within the existing C&D debris stockpiles for re-use (as onsite or offsite fill material) or offsite disposal. A total of two composite samples will be collected to characterize the stockpiled C&D debris, including one sample for the four stockpiles north of Plant 2 and one sample for the four stockpiles between Plant 1 and Plant 2. Each composite C&D debris sample will be formed from a total of 4 discrete samples (one discrete sample per stockpile). The two composite C&D debris samples will be submitted for laboratory analysis for PCBs, TCLP VOCs, TCLP SVOCs, and TCLP metals. pH.

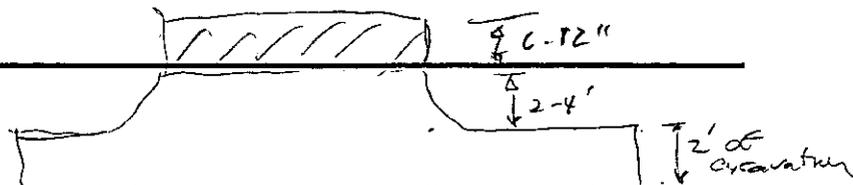
Should there be more than 2 COM. samples?

What areas did this come from?

Laboratory analysis of each discrete and composite concrete and C&D debris characterization sample will be performed on an expedited turnaround (approximately 1 to 2 weeks) for reporting of results. Final laboratory results will be reported using NYSDEC Analytical Services Protocol (ASP) Category B deliverables. The analytical data will undergo Tier III level validation. Results of pre-demolition characterization sampling will be used to determine appropriate material handling procedures and/or identify additional data needs.

at least 20% validation.

2.5 Slab Demolition



The building floor slabs remaining onsite are constructed of concrete and are generally 6 to 12 inches thick and elevated approximately 2 to 4 feet above the surrounding grade. The ground surface in the vicinity of the floor slabs is generally covered with asphalt or concrete. Following mobilization and site preparation activities, the concrete floor slabs and underlying concrete foundation materials (frost walls, spread footers, etc.) will be demolished and removed to a minimum depth of 2-feet below the existing ground surface near the slabs. Based on available building construction drawings, it is anticipated that spread footers will be encountered approximately every 20 feet, each way, below the floor slabs. In addition to the concrete floor slab removal, the concrete paved ramps, driveways, and former tank pads remaining outside the former building footprints will be demolished and removed. Design drawings indicate the presence of steel reinforcement (wire mesh and rebar) within the concrete floor slabs, ramps, driveways, and pads. The limits of concrete to be removed as part of the proposed demolition activities are shown on Figure 4.

One or more excavators equipped with the appropriate attachments (ram-hoe, bucket, etc) will be used to break up and remove the concrete slabs and foundation materials. The demolition activities will be conducted with appropriate control measures, including erosion and sediment control, dust control, noise control, and air monitoring as discussed under Subsections 2.6, 2.7, 2.8, and 2.9, respectively. The resulting concrete demolition debris will be handled as described in Subsection 2.10.

Soils beneath the building slabs will be visually characterized by an onsite observer as the slabs are removed. The visual characterization information (soil type and presence of any staining) will be documented in a field notebook. If heavy staining is observed (i.e., visible oil that could become mobile) or if an obvious odor is noticed, the onsite observer and Bayer will discuss the approach for addressing the soils, including the potential collection of characterization soil samples for laboratory analysis.

DEC should be informed of a significant discovery w/in 24 hours of discovery.

If previously unidentified sumps, vaults, pits, or other sub-slab features are encountered during slab demolition/removal activities, the condition of the structures will be observed and documented by the onsite observer. If accumulated debris are encountered within the structures or the sidewalls/flooring exhibit heavy staining, then the NYSDEC will be contacted to discuss the approach for addressing the structures and their contents. It is anticipated that accumulated debris (if any) within the structures would be removed, characterized, and transported for offsite disposal in accordance with applicable regulations. In the absence of any heavy staining within the sidewalls/flooring of the structures, it is anticipated that the structures would be abandoned in-place and covered with backfill material. If heavy staining is observed within the sidewalls/flooring of the structures, the structures may be further cleaned or removed and transported for proper offsite disposal. Proposed actions for newly-identified subsurface structures will be discussed with the NYSDEC prior to implementation.

Cracks or other foundation problems leading to leakage

Subsurface utilities encountered below the concrete floor slabs will be removed to a depth of 2-feet below the surrounding grade. In addition, onsite hydrants and waterline post indicator valves not associated with the Administration Building will be removed to a depth of 2-feet below the surrounding grade. Exposed ends of former building stormwater downspouts, sanitary sewer piping, or waterlines, where encountered, will be capped (grouted) to limit future migration of infiltrating stormwater. Further removal of subsurface utilities below the target 2-foot removal depth is not anticipated unless heavy staining is observed within piping or underlying bedding materials.

If a camp site has a Dept approved work plan under CERCLA, RCRA or Voluntary cleanup agreement & has prepared a SWPPP which meets the substantive requirements of GP 02-01 they do not need to obtain permit coverage. If the project meets Condition A, B or C in Part III.A.1.b. of the general permit, the SWPPP must include erosion & sediment controls & water quantity & water quality controls (post-construction stormwater controls).

General Permit
↓
Notice of Intent
↓
SWPPP

2.6 Erosion and Sedimentation Control

Does local govt require a Stormwater Pollution Prevention Plan?

Erosion and sedimentation control measures will be installed prior to the demolition activities to reduce runoff flow velocity and minimize sedimentation. The erosion and sedimentation control measures will be conducted in accordance with the provisions of an Erosion and Sedimentation Control Plan to be prepared by the contractor. The control measures will be installed in accordance with the *New York Standards and Specifications for Erosion and Sediment Control* (Empire State Chapter of the Soil and Water Conservation Society, latest edition). At a minimum, erosion and sediment control measures shall include, but are not limited to, the following activities:

- installing silt fencing along portions of the Site perimeter prior to initiating slab demolition activities and/or other activities that may potentially result in soil disturbance;
- installing silt fencing surrounding areas where soil will be exposed as a result of slab demolition;
- installing silt fencing surrounding material staging areas;
- constructing a tire wash area in accordance with a Decontamination Plan (to be prepared by the contractor), to remove soil and other debris from the tires of vehicles/equipment prior to exiting the Site; and
- temporarily seeding areas with exposed soils to provide a vegetative cover to minimize potential soil erosion, if necessary.

Submit this plan to be attached to approved demo WB.

Erosion and sediment control measures will be inspected, ^{by whom?} at a minimum, once per day and after each significant rainfall event. Throughout the project, accumulated sediment collected by the control measures will be removed and/or the control measures will be repaired or replaced, as necessary, to maintain performance as intended. Removal of erosion and sediment control measures will occur when Site restoration activities have been completed and permanent vegetation is established.

Based on site-specific considerations, such as the anticipated size of the soil disturbance (between 1 and 5 acres) and the planned activities (demolition of existing concrete slabs only), the Erosion and Sedimentation Control Plan is considered a complete Stormwater Pollution Prevention Plan for the purposes of obtaining coverage under NYSDEC "General Permit GP-02-01 for Stormwater Discharges from Construction Activities." A Notice of Intent (NOI) will be submitted to the NYSDEC to request coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit.

NOI only if < 5 acs

Submitting the NOI is an affirmation that a SWPPP has been prepared & will be implemented prior to construction activities.

2.7 Dust Control Measures

Dust control measures will be implemented to mitigate dust generation during the project and may include techniques presented in NYSDEC TAGM 4031 titled, "Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites," dated October 27, 1989. Such techniques include, but are not limited to, spraying water on equipment surfaces, building slabs, and demolition debris, and covering demolition debris after the demolition activity ceases. roads,

Will need to develop a full SWPPP (with quantity control plan components), but do not need to seek coverage under general permit (ie do not need to submit NOI).

Send a copy of SWPPP to local authority in Nassau County.

2.8 Noise Control

During the demolition activities, noise levels will be monitored at safe and tolerable levels as set forth by the Occupational Safety and Health Administration (OSHA) and local code ordinances (Code of the Town of Oyster Bay, New York, Part II Chapter 156). Construction equipment presenting a potential noise nuisance will be equipped with muffling devices. The contractors at the Site will implement hearing conservation programs.

2.9 Air Monitoring

Airborne monitoring for particulate (dust) will be conducted during the demolition activities in accordance with the New York State Department of Health's (NYSDOH's) Community Air Monitoring Program, dated June 2000. Dust monitoring will be conducted using a Real-Time Aerosol Monitor (mini-RAM). Air monitoring equipment will be calibrated daily, prior to the start of work activities.

The results of airborne particulate monitoring will be recorded by the on-site health and safety supervisor (or designated alternate) at a minimum frequency of once per hour, unless Site conditions and work activities do not cause the generation of dust. If particulate monitoring indicates that ambient dust levels in the worker breathing zone exceed the action level of 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) above background, the level of particulates will be manually recorded at the downwind perimeter of the work area at 15-minute intervals.

If the level of particulates at the downwind perimeter of the work area is $150 \mu\text{g}/\text{m}^3$ (above Site background) or greater, or if visible airborne dust is observed leaving the work area, then work activities will cease and additional dust control techniques will be employed to maintain particulate levels below $150 \mu\text{g}/\text{m}^3$ and prevent visible dust migration. Potential dust generating work activities may resume provided that dust levels at the downwind work area perimeter are less than $150 \mu\text{g}/\text{m}^3$ and no dust is visible.

Any exceedance should be recorded, along w/ actions taken.

2.10 Demolition Debris Handling

Based on the laboratory analytical results for the RFI concrete samples and the absence of visible staining over much of the concrete-covered areas at the site, it is anticipated that the majority of the concrete to be generated by the proposed demolition activities will be classified as exempt (non-impacted) C&D debris. For purposes of this Work Plan, "exempt C&D debris" will refer to C&D debris that satisfies 6 NYCRR Part 360-8.6(b) and need not be landfilled because it consists of "recognizable concrete and other masonry solid waste (including steel and fiberglass reinforcing rods that are embedded in concrete), asphalt pavement, sand, dirt, soil, brick, stone and glass" that is not impacted by spills of a petroleum product or hazardous/industrial waste that is placed for grade adjustment before construction of a building, parking area, or roadway. It is Bayer's intent to re-use all exempt C&D debris generated by the demolition activities as hard fill at the Site. Non-exempt (impacted) C&D debris, including concrete from areas where staining is observed or where PCBs (if any) are identified at concentrations exceeding the 10 ppm TAGM 4046 guidance value that would apply if the concrete were to be used as subsurface fill material, will be segregated and transported for proper offsite disposal. If unacceptable characteristics are identified in pre-demolition characterization samples collected from the existing C&D debris stockpiles (i.e., PCBs greater than 10 ppm and/or RCRA characteristics of a hazardous waste), then the debris will be designated as non-exempt and will also be transported for proper offsite disposal. Offsite transportation of non-exempt C&D debris will be performed by waste transporters with a valid 6 NYCRR Part 364 Transporter Permit. Non-exempt C&D debris will be transported for offsite treatment/disposal under a bill-of-lading, non-hazardous waste manifest, or hazardous waste manifest, as appropriate.

No concrete w/ petroleum stains.

Do not use the existing concrete floor/slabs - does not allow for collection of liquids.

The non-exempt C&D debris will be direct-loaded for offsite transportation and disposal, to the extent possible. If it is necessary to temporarily stage the non-exempt C&D debris prior to offsite transportation and disposal, it will be staged on portions of the existing concrete floor slabs/pads (to be demolished) or within one or more constructed material staging areas. Each constructed material staging area will be formed with an approximately 12-inch high berm around the perimeter, lined with one or more layers of 20-mil (minimum) reinforced polyethylene sheeting, and sloped to a polyethylene-lined sump to allow for collection of liquids. The polyethylene sheeting will be overlain by a 6-inch layer of sand/gravel. In addition, erosion and sedimentation control measures will be installed surrounding the staging areas. The C&D debris awaiting offsite transportation and disposal will be covered with a low-permeability cover of 20-mil polyethylene sheeting whenever waste material is not actively being placed into/removed from the staging area, during overnight/weekend hours, during periods of precipitation, or whenever dust action levels are exceeded. The low-permeability cover will be anchored to prevent disturbance due to wind. Following completion of the offsite transportation and disposal of the non-exempt C&D debris, the polyethylene sheeting used to construct the material staging areas will be disposed in accordance with the material stored in the area. Liquids from the staging areas (if any) will be collected, containerized, characterized, and transported for offsite treatment/disposal in accordance with applicable rules and regulations.

Exempt C&D debris designated ^{OK} for re-use onsite will be processed through a portable onsite crusher to reduce the particle size to 4-inches in diameter, or less. The crusher will have the ability to segregate metal debris (steel rebar) from the concrete and masonry materials. Metal debris segregated by the crushing will be transported for offsite reclamation, as appropriate. The crusher will be operated in a manner to minimize the creation of dusts. Environmental control measures to be utilized during crushing operations include erosion and sediment control, dust controls, noise control, and air monitoring as discussed under Subsections 2.6, 2.7, 2.8, and 2.9, respectively. ^{OK}

It is currently anticipated that demolition debris handling will be based on the results of pre-demolition characterization sampling. Additional post-demolition characterization sampling may be conducted if field personnel observe staining or notice an obvious odor during slab removal activities. ^{Petroleum stained concrete should be excluded.}

Exempt C&D debris that is processed through the onsite crusher will be used as hard-fill onsite as described in Subsection 2.13 below.

2.11 Water Handling

Based on observations during previous site visits, a foot or more of standing water is present within the two sumps for a former cooling water tower and related equipment, both located within AOC 34 (Cooling Tower Sump). The NYSDEC previously approved no further action for this AOC. However, based on the discoloration of the water within the sumps (possibly related to algae growth and not impacts of constituents of potential interest), a sample will be collected to characterize the water for potential onsite release or offsite treatment/disposal. The water sample will be submitted for laboratory analysis for PCBs, VOCs, SVOCs, and inorganic constituents. ^{OK} The water will be managed accordingly based on receipt of the analytical results. The NYSDEC will be contacted for approval prior to releasing the water onsite.

Water collected in the lined material staging areas will be allowed to evaporate or will be containerized in 55-gallon drums for offsite treatment/disposal. Sampling will be performed, as appropriate, to characterize the water for offsite treatment/disposal.

2.12 Equipment Decontamination

Equipment, materials, and personnel that come into contact with non-exempt (impacted) C&D debris will be decontaminated prior to handling exempt demolition debris and prior to demobilization. Equipment decontamination will be performed within a decontamination area that will be lined with 20-mil (minimum) reinforced polyethylene sheeting that slopes to a collection sump. Solid waste materials generated during decontamination activities will be separated from washwaters, collected, and containerized into appropriate United States Department of Transportation (USDOT) approved containers for offsite transportation and disposal in accordance with applicable regulations. Washwater generated by the decontamination activities will be collected for evaporation or offsite treatment/disposal.

2.13 Site Restoration

The following Site restoration will be conducted following completion of demolition activities:

- placing and grading crushed exempt C&D debris over the areas where the floor slabs and concrete pavement were removed. C&D debris exhibiting PCBs at concentrations between 1 ppm and 10 ppm (such as the concrete in the vicinity of RFI sampling location AOC 39-9 in Plant 1 where PCBs were identified at a concentration of 2.8 ppm) will be placed onsite below at least 12 inches of non-impacted backfill material;
- seeding and mulching disturbed soil areas; and
- removing erosion and sedimentation control measures after the demolition activities are completed.

Areas that are backfilled with crushed C&D debris will be covered with clean soil fill material/topsoil, pavement, or buildings as part of the final-remedy/planned future site redevelopment after a Corrective Measures Study (CMS) is completed and a Final Decision is issued by the NYSDEC. In the meantime, it is anticipated that clean soil fill material/topsoil will only be placed and graded onsite if site conditions support the generation of wind-blown dust.

OK
ENV
intermediate

3. Schedule

This section presents the anticipated schedule for implementing the demolition activities at the Site. It is Bayer's goal to expeditiously complete the demolition activities and address concerns (if any) that arise during demolition as ICMs, where appropriate. Bayer will retain a remedial contractor to perform the demolition activities. After the demolition contract is awarded, a detailed demolition schedule will be developed with the input of the contractor. dk/

At this time, it is anticipated that the pre-demolition characterization sampling and analysis activities will take approximately one month to complete. Mobilization of demolition equipment and materials and installation of erosion and sedimentation control measures will take place when sampling is complete. Actual demolition will begin following receipt of the laboratory analytical results for the pre-demolition characterization sampling activities and is anticipated to take approximately two months to complete.

~4-6 - months total

Tables

TABLE 1
RFI CONCRETE ANALYTICAL RESULTS FOR GLYCOLS, VOCs, SVOCs, AND INORGANIC CONSTITUENTS IN TCLP EXTRACT (ppm)

DEMOLITION WORK PLAN
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD, HICKSVILLE, NEW YORK

Sample ID: Date Collected:	Regulatory Limits	AOC 1-1 02/10/04	AOC 3-1 02/10/04	AOC 3-1 [CONC-DUP-1] 02/10/04	AOC 3-2 02/10/04	AOC 4-1 02/10/04	AOC 14-1 02/10/04	AOC 14-2 02/11/04	AOC 15-2 02/11/04	AOC 16-1 02/11/04	AOC 20-1 02/11/04
TCLP Glycols											
Ethylene Glycol	NA	<5	<5	<5	<5	37.5	<5	<5	<5	<5	<5
Propylene Glycol	NA	<5	<5	<5	<5	19	<5	<5	<5	<5	<5
TCLP VOCs											
1,1-Dichloroethene	0.7	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
1,2-Dichloroethane	0.5	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
2-Butanone (MEK)	200	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	0.007 J	<0.01 J	<0.01 J
Benzene	0.5	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
Carbon tetrachloride	0.5	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
Chlorobenzene	100	<0.005 J	<0.005 J	<0.005 J	0.001 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
Chloroform	6	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
Tetrachloroethene	0.5	<0.005 J	<0.005 J	<0.005 J	<0.005 J	0.003 J	<0.005 J	0.014 J	<0.005 J	<0.005 J	<0.005 J
Trichloroethene	0.5	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.002 J
Vinyl chloride	0.2	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J
TCLP SVOCs											
1,4-Dichlorobenzene	7.5	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
2,4,5-Trichlorophenol	400	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J
2,4,6-Trichlorophenol	2	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
2,4-Dinitrotoluene	0.13	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
2-Methylphenol	200	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
4-Methylphenol	NA	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
Hexachlorobenzene	0.13	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
Hexachlorobutadiene	0.5	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
Hexachloroethane	3	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
Nitrobenzene	2	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J	<0.02 J
Pentachlorophenol	100	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J
Pyridine	5	<0.04 J	<0.04 J	<0.04 J	<0.04 J	<0.04 J	<0.04 J	<0.04 J	<0.04 J	<0.04 J	<0.04 J

TABLE 1
RFI CONCRETE ANALYTICAL RESULTS FOR GLYCOLS, VOCs, SVOCs, AND INORGANIC CONSTITUENTS IN TCLP EXTRACT (ppm)

DEMOLITION WORK PLAN
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD, HICKSVILLE, NEW YORK

Sample ID: Date Collected:	Regulatory Limits	AOC 1-1 02/10/04	AOC 3-1 02/10/04	AOC 3-1 [CONC-DUP-1] 02/10/04	AOC 3-2 02/10/04	AOC 4-1 02/10/04	AOC 14-1 02/10/04	AOC 14-2 02/11/04	AOC 15-2 02/11/04	AOC 16-1 02/11/04	AOC 20-1 02/11/04
TCLP Inorganics											
Aluminum	NA	3.47 J	<2.5 J	<2.5 J	<2.5 J	<2.5 J	<2.5 J	<2.5 J	<2.5 J	<2.5 J	0.67 BJ
Antimony	NA	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J	<0.1 J
Arsenic	5	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J
Barium	100	0.458 J	0.32 J	0.324 J	0.241 J	0.323 J	0.314 J	0.377 J	0.303 J	0.323 J	0.55 J
Beryllium	NA	<0.025 J	<0.025 J	<0.025 J	<0.025 J	<0.025 J	<0.025 J	<0.025 J	<0.025 J	<0.025 J	<0.025 J
Cadmium	1	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J
Calcium	NA	1860 J	1870 J	1890 J	1900 J	1920 J	1890 J	1900 J	1870 J	1830 J	1920 J
Chromium	5	0.0704 J	<0.05 J	<0.05 J	<0.05 J	0.128 J	0.663 J	0.17 J	0.0272 J	0.0082 J	<0.05 J
Cobalt	NA	0.0322 BJ	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	0.0608 J
Copper	NA	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	0.027 BJ	<0.05 J	0.0446 BJ
Cyanide, Total	NA	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J
Iron	NA	2.01 J	<1 J	<1 J	<1 J	<1 J	<1 J	<1 J	<1 J	<1 J	0.334 BJ
Lead	5	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J
Magnesium	NA	19.6 J	24.5 J	17.5 J	46.7 J	28.2 J	16.1 J	5.3 J	35.5 J	51.8 J	25.1 J
Manganese	NA	0.465 J	<0.075 J	<0.075 J	<0.075 J	0.148 J	<0.075 J	<0.075 J	<0.075 J	<0.075 J	1.48 J
Mercury	0.0002	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J
Nickel	NA	0.0492 BJ	<0.05 J	<0.05 J	0.0206 BJ	0.0602 J	<0.05 J	<0.05 J	<0.05 J	<0.05 J	0.168 J
Potassium	NA	9.05 J	8.11 J	9.14 J	12.5 J	8.41 J	10.3 J	18.5 J	15 J	20.8 J	17.5 J
Selenium	1	<0.15 J	<0.15 J	<0.15 J	<0.15 J	<0.15 J	0.025 J	<0.15 J	<0.15 J	<0.15 J	<0.15 J
Silver	5	<0.03 J	<0.03 J	<0.03 J	<0.03 J	<0.03 J	<0.03 J	<0.03 J	<0.03 J	<0.03 J	<0.03 J
Sodium	NA	20.4 J	18 J	21 J	18.4 J	20.4 J	22.5 J	35.8 J	28.7 J	20.5 J	25.9 J
Thallium	NA	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J	<0.2 J
Vanadium	NA	0.0155 BJ	0.0121 BJ	0.0108 BJ	0.0122 BJ	0.0122 BJ	0.0143 BJ	0.0138 BJ	0.0103 BJ	0.0075 BJ	<0.03 J
Zinc	NA	<0.25 J	<0.25 J	<0.25 J	<0.25 J	<0.25 J	<0.25 J	<0.25 J	<0.25 J	<0.25 J	0.452 J

TABLE 1
RFI CONCRETE ANALYTICAL RESULTS FOR TCLP GLYCOLS, TCLP VOCs, TCLP SVOCs, AND TCLP INORGANIC CONSTITUENTS (ppm)

DEMOLITION WORK PLAN
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD, HICKSVILLE, NEW YORK

Sample ID: Date Collected:	Regulatory Limits	AOC 23-1 02/11/04	AOC 23-2 02/11/04	AOC 36-1 02/11/04	AOC 37-2 02/11/04	AOC 41-1 02/11/04	AOC 41-2 02/11/04	AOC 41-3 02/11/04	AOC 45-3 02/11/04	AOC 46-3 02/11/04	AOC 49-3 02/11/04
TCLP Glycols											
Ethylene Glycol	NA	<5	<5	<5	12.2 J	<5	<5 J	<5 J	<5 J	<5 J	10.4 J
Propylene Glycol	NA	<5	<5	<5	<5 J	<5	<5	<5	<5	<5	<5 J
TCLP VOCs											
1,1-Dichloroethene	0.7	<0.005 J	<0.005								
1,2-Dichloroethane	0.5	<0.005 J	<0.005								
2-Butanone (MEK)	200	<0.01 J	<0.01								
Benzene	0.5	<0.005 J	<0.005								
Carbon tetrachloride	0.5	<0.005 J	<0.005								
Chlorobenzene	100	<0.005 J	<0.005								
Chloroform	6	<0.005 J	<0.005								
Tetrachloroethene	0.5	0.001 J	<0.005 J	<0.005 J	0.002 J	<0.005 J	0.004 J	<0.005 J	<0.005 J	0.016 J	0.01
Trichloroethene	0.5	<0.005 J	0.002 J	0.001 J	0.001 J	0.002 J	0.001 J				
Vinyl chloride	0.2	<0.005 J	<0.005								
TCLP SVOCs											
1,4-Dichlorobenzene	7.5	<0.02 J									
2,4,5-Trichlorophenol	400	<0.1 J									
2,4,6-Trichlorophenol	2	<0.02 J									
2,4-Dinitrotoluene	0.13	<0.02 J									
2-Methylphenol	200	<0.02 J									
4-Methylphenol	NA	<0.02 J	0.004 J								
Hexachlorobenzene	0.13	<0.02 J									
Hexachlorobutadiene	0.5	<0.02 J									
Hexachloroethane	3	<0.02 J									
Nitrobenzene	2	<0.02 J									
Pentachlorophenol	100	<0.1 J									
Pyridine	5	<0.04 J									



TABLE 1
RFI CONCRETE ANALYTICAL RESULTS FOR TCLP GLYCOLS, TCLP VOCs, TCLP SVOCs, AND TCLP INORGANIC CONSTITUENTS (ppm)

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BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD, HICKSVILLE, NEW YORK

Sample ID: Date Collected:	Regulatory Limits	AOC 23-1 02/11/04	AOC 23-2 02/11/04	AOC 36-1 02/11/04	AOC 37-2 02/11/04	AOC 41-1 02/11/04	AOC 41-2 02/11/04	AOC 41-3 02/11/04	AOC 45-3 02/11/04	AOC 46-3 02/11/04	AOC 49-3 02/11/04
TCLP Inorganics											
Aluminum	NA	<2.5 J	<2.5 J	<2.5 J	0.502 BJ	<2.5 J	1.33 BJ	1.29 BJ	<2.5 J	0.484 BJ	8.65 J
Antimony	NA	<0.1 J									
Arsenic	5	<0.2 J									
Barium	100	0.288 J	0.283 J	0.338 J	0.511 J	0.442 J	0.552 J	0.551 J	0.687 J	0.395 J	1.1 J
Beryllium	NA	<0.025 J									
Cadmium	1	<0.05 J	0.0056 J	<0.05 J	<0.05 J	0.0127 J					
Calcium	NA	1910 J	1940 J	1900 J	2100 J	1860 J	1690 J	1710 J	1960 J	1970 J	1780 J
Chromium	5	0.283 J	0.314 J	0.0466 J	0.0207 J	<0.05 J	0.0194 J	0.049 J	0.0137 J	0.403 J	0.0207 J
Cobalt	NA	<0.05 J	<0.05 J	<0.05 J	<0.05 J	0.119 J	0.071 J	0.0842 J	<0.05 J	0.0206 BJ	0.0835 J
Copper	NA	<0.05 J	<0.05 J	<0.05 J	<0.05 J	0.0963 J	0.0546 J	0.069 J	<0.05 J	<0.05 J	0.0578 J
Cyanide, Total	NA	<0.01 J									
Iron	NA	<1 J	1.63 J	3.76 J	<1 J	<1 J	6.87 J				
Lead	5	<0.05 J	0.0487 J	<0.05 J	0.0871 J						
Magnesium	NA	14.5 J	20.9 J	39.8 J	0.667 J	65.3 J	30.3 J	26.1 J	11.2 J	21.9 J	21.8 J
Manganese	NA	<0.075 J	<0.075 J	<0.075 J	<0.075 J	1.44 J	1.86 J	1.79 J	<0.075 J	0.168 J	2.72 J
Mercury	0.2	<0.01 J									
Nickel	NA	<0.05 J	0.02 BJ	0.0185 BJ	<0.05 J	0.122 J	0.099 J	0.154 J	<0.05 J	0.0673 J	0.132 J
Potassium	NA	25.8 J	28.3 J	16.5 J	12.1 J	12.8 J	20.3 J	12.3 J	3.23 J	10.7 J	3.54 J
Selenium	1	<0.15 J									
Silver	5	<0.03 J									
Sodium	NA	48.8 J	38.7 J	22.5 J	18.7 J	24.1 J	26 J	27.3 J	12.2 J	17.1 J	14.9 J
Thallium	NA	<0.2 J									
Vanadium	NA	0.0199 BJ	0.0088 BJ	0.0179 BJ	<0.03 J	<0.03 J	<0.03 J	<0.03 J	0.0108 BJ	0.0092 BJ	0.0089 BJ
Zinc	NA	<0.25 J	<0.25 J	<0.25 J	<0.25 J	0.186 BJ	0.403 J	0.462 J	<0.25 J	0.0665 BJ	1.07 J

TABLE 1
RFI CONCRETE ANALYTICAL RESULTS FOR GLYCOLS, VOCs, SVOCs, AND INORGANIC CONSTITUENTS IN TCLP EXTRACT (ppm)

DEMOLITION WORK PLAN
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD, HICKSVILLE, NEW YORK

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. (BBL) during February 2004.
2. TCLP = Toxicity Characteristic Leaching Procedure.
3. VOCs = Volatile Organic Compounds.
4. SVOCs = Semi-Volatile Organic Compounds.
5. Samples were analyzed by Severn Trent Laboratories, Inc. (STL) located in Shelton, Connecticut for TCLP Glycols using United States Environmental Protection Agency (USEPA) SW-846 Method 1311/8015, TCLP VOCs using Method 1311/8260, SVOCs using Method 1311/8270; and TCLP inorganics using Methods 1311/6010/7470/9010.
6. Concentrations reported in parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
7. < = Constituent was not detected at a concentration exceeding the laboratory detection limit.
8. J = Estimated result. Result is less than the laboratory detection limit.
9. B = Indicates that the constituent was detected at a concentration equal to or exceeding the instrument detection limit, but less than the contract required detection limit.
10. Analytical results were validated by BBL.

TABLE 2
RFI CONCRETE ANALYTICAL RESULTS FOR PCBS (ppm)

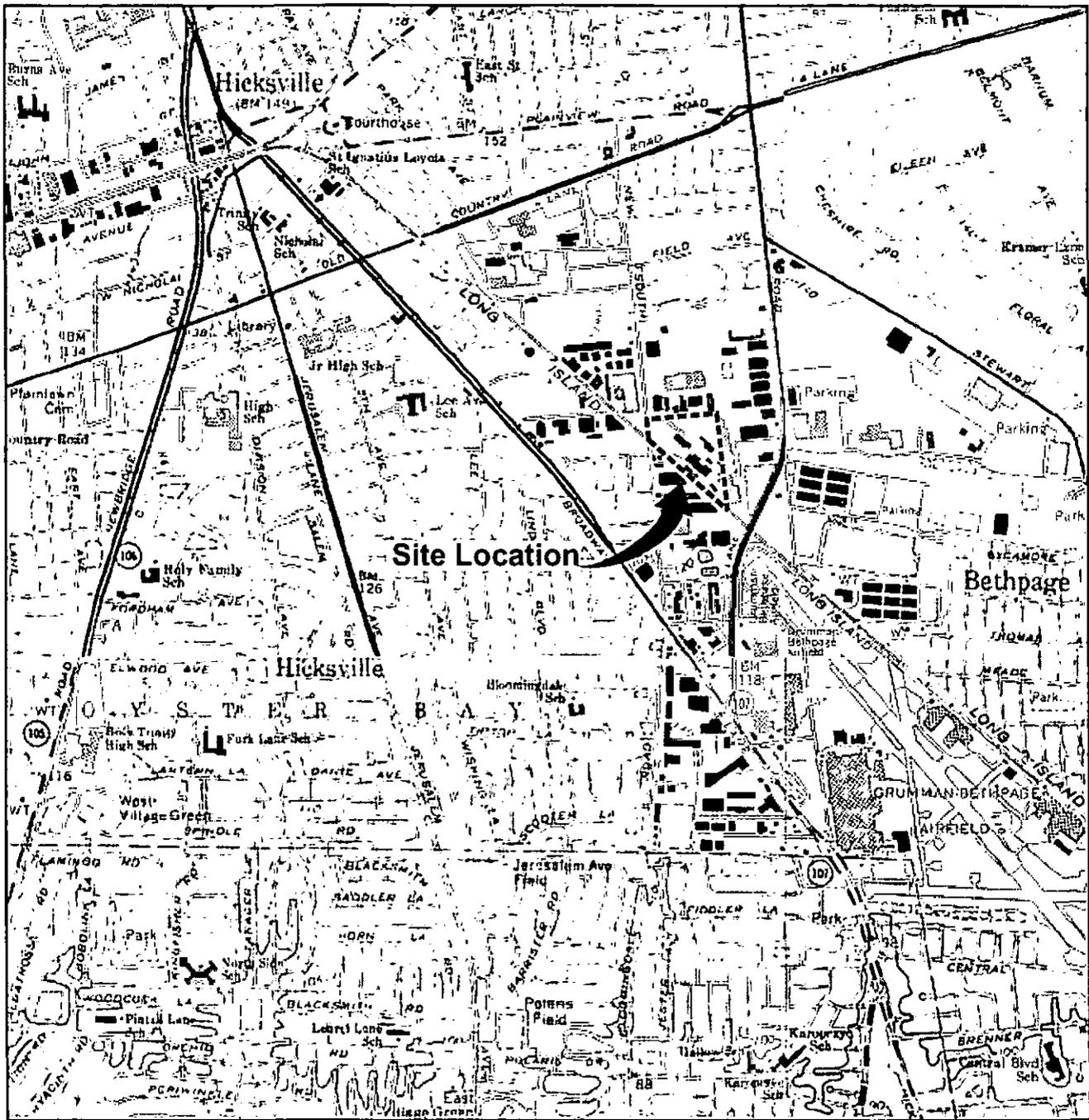
DEMOLITION WORK PLAN
BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD, HICKSVILLE, NEW YORK

Sample ID: Sample Depth (Feet): Date Collected:	AOC11-5 0-0.25 10/20/04	AOC39-7 0-0.25 10/20/04	AOC39-7 [AOC-DUP-3] 0-0.25 10/20/04	AOC39-8 0-0.25 10/20/04	AOC39-9 0-0.25 10/20/04	AOC39-10 0-0.25 10/20/04	AOC39-11 0-0.25 10/20/04
Aroclor 1016	<0.018	<0.018	<0.018	<0.087	<0.35	<0.017	<0.17
Aroclor 1221	<0.034	<0.034	<0.034	<0.17	<0.67	<0.032	<0.33
Aroclor 1232	<0.018	<0.018	<0.018	<0.087	<0.35	<0.017	<0.17
Aroclor 1242	<0.018	<0.018	<0.018	<0.087	<0.35	<0.017	<0.17
Aroclor 1248	0.13	0.023 J	0.018 J	<0.087	2.8	0.021	1.3
Aroclor 1254	<0.018	<0.018	<0.018	<0.087	<0.35	<0.017	<0.17
Aroclor 1260	0.0081 J	0.022 J	0.024	0.6	<0.35	0.014 J	<0.17
Total PCBs	0.14 J	0.045 J	0.042 J	0.6	2.8	0.035 J	1.3

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. (BBL) during October 2004.
2. PCBs = Polychlorinated Biphenyls.
3. Samples were analyzed by Severn Trent Laboratories, Inc. (STL) located in Shelton, Connecticut for PCBs using United States Environmental Protection Agency (USEPA) SW-846 Method 8082.
4. Concentrations reported in parts per million (ppm), which is equivalent to milligrams per kilogram (mg/kg).
5. < = Constituent was not detected at a concentration exceeding the laboratory detection limit.
6. J = Estimated result. Result is less than the laboratory detection limit.
7. Analytical results have been validated by BBL.

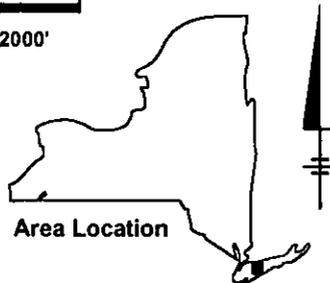
Figures



REFERENCE: Base Map USGS 7.5 Min. Quad., Hicksville, N.Y. 1967, Photorevised 1979.



Approximate Scale: 1" = 2000'



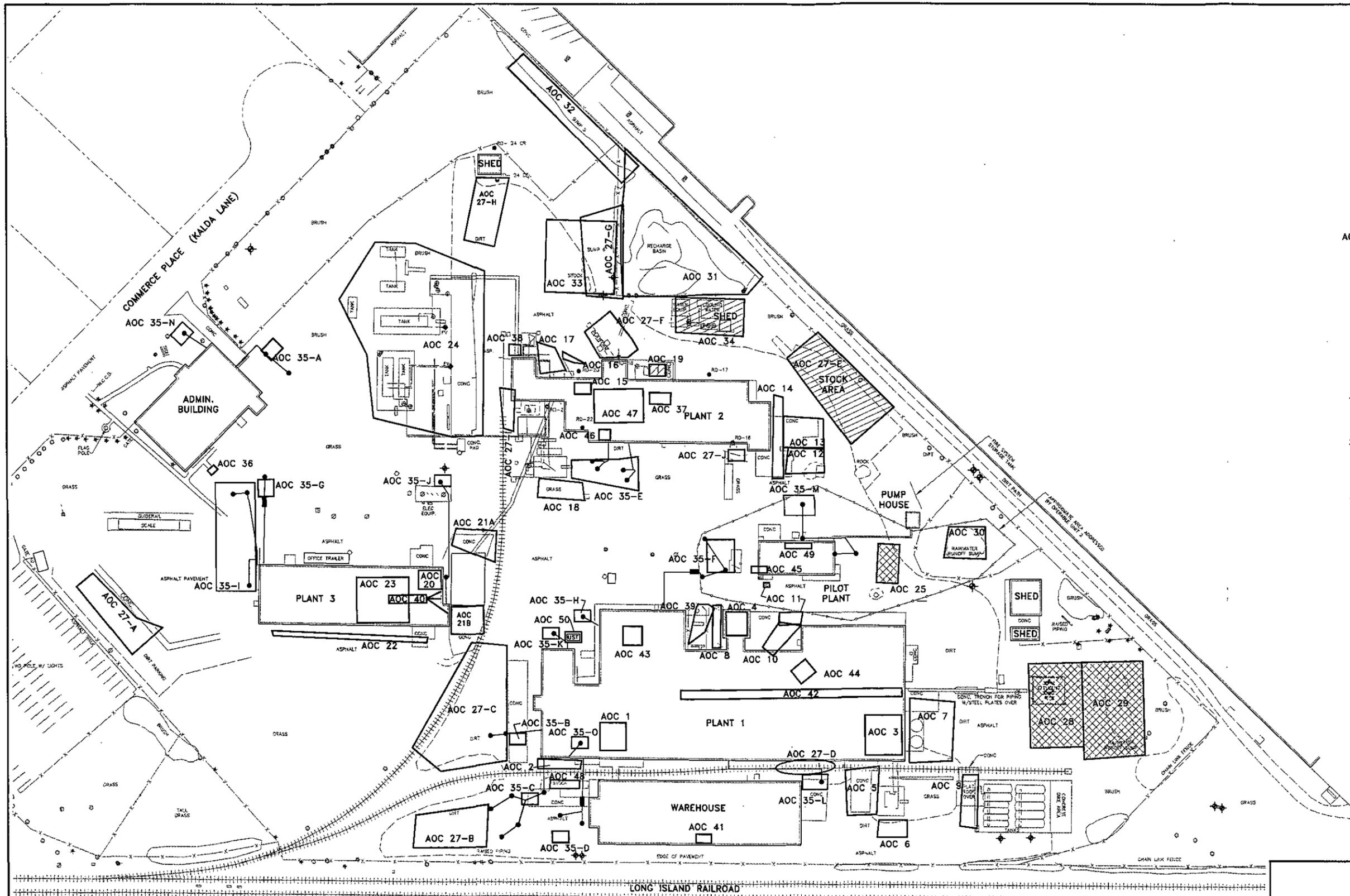
Area Location

BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKVILLE, NEW YORK

SITE LOCATION MAP

BBL
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
1



- LEGEND:**
- AOC 1: [Symbol] AREA OF CONCERN
 - [Symbol] HISTORIC AND CLOSED AOC
 - [Symbol] AOCs CURRENTLY BEING ADDRESSED BY OTHERS
 - [Symbol] SEPTIC TANK
 - [Symbol] LEACHATE PIT
 - [Symbol] EXISTING MONITORING WELL LOCATION

- NOTES:**
1. BASE MAP ADAPTED FROM A DRAWING ENTITLED "AREA OF CONCERN MAP", FIGURE 1-2, BY ENSR CORPORATION, PISCATAWAY, NJ, AT A SCALE OF 1"=60', DATED 2/14/03.
 2. LOCATIONS OF SEPTIC TANKS AND LEACHATE PITS ASSOCIATED WITH AOCs 35-A THROUGH 35-G HAVE BEEN ADJUSTED BASED ON ELECTROMAGNETIC, GROUND-PENETRATING RADAR, AND FIELD SURVEY ACTIVITIES PERFORMED BY BBL.
 3. LOCATIONS OF SEPTIC TANK AND LEACHATE PITS ASSOCIATED WITH AOCs 35-H THROUGH 35-O AND AOC 50 ARE APPROXIMATE AND ARE FROM THE FOLLOWING FIGURES:
 - A) "REFERENCE DRAWING OF THE HOOKER/RUCO SITE PLANT UTILITIES: OUTDOOR PIPING" BY LEGGETTE, BRASHEARS & GRAHAM, INC. OF WILTON, CT DATED 3/20/91, AT A SCALE OF 1"=30'
 - B) "EXTRUDER BUILDING & PARKING AREA PILOT PLAN & DRAINAGE DET." BY CRAWFORD & RUSSELL, INC. OF STAMFORD, CT, LAST REVISION 5/9/81, AT A SCALE OF 1"=30'
 - C) "SITE PLAN" BY CARL V. LINN, ENGINEER OF NEW YORK, NY, DATED 12/2/53, AT A SCALE OF 1"=50'.
 - D) "N.P.D. BUILDING DRAINAGE WATER" BY HOOKER CHEMICAL CORPORATION OF HICKSVILLE, NY.
 - E) "SITE PLAN" BY RUCO POLYMERS CORPORATION OF HICKSVILLE, NY, DATED 9/21/82.

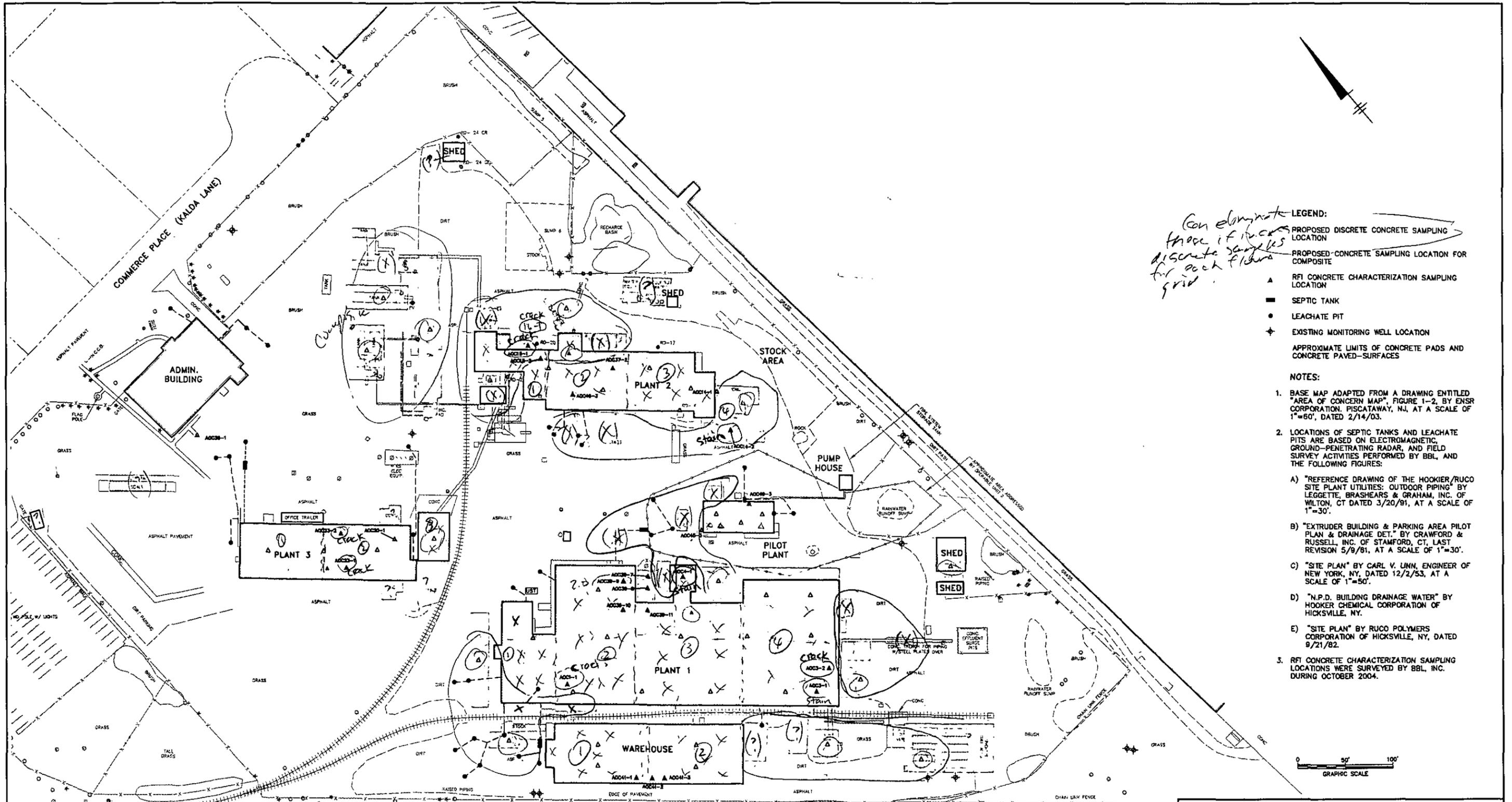
BAYER MATERIALSCIENCE LLC
 125 NEW SOUTH ROAD
 HICKSVILLE, NEW YORK

SITE LAYOUT PLAN

BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers, scientists, economists

FIGURE
2

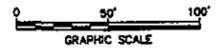
X: 32303X01.DWG
 L: ON=*, OFF=REF
 P: PAGESET/SYR-DL
 7/6/05 SYR-85-GMS RCB
 32303003/32303814.DWG



Can eliminate these if it turns discrete samples for each floor grid.

- LEGEND:**
- ▲ PROPOSED DISCRETE CONCRETE SAMPLING LOCATION
 - PROPOSED CONCRETE SAMPLING LOCATION FOR COMPOSITE
 - ▲ RFI CONCRETE CHARACTERIZATION SAMPLING LOCATION
 - SEPTIC TANK
 - LEACHATE PIT
 - ◆ EXISTING MONITORING WELL LOCATION
- APPROXIMATE LIMITS OF CONCRETE PADS AND CONCRETE PAVED-SURFACES

- NOTES:**
1. BASE MAP ADAPTED FROM A DRAWING ENTITLED "AREA OF CONCERN MAP" FIGURE 1-2, BY ENSR CORPORATION, PISCATAWAY, NJ, AT A SCALE OF 1"=60', DATED 2/14/03.
 2. LOCATIONS OF SEPTIC TANKS AND LEACHATE PITS ARE BASED ON ELECTROMAGNETIC, GROUND-PENETRATING RADAR, AND FIELD SURVEY ACTIVITIES PERFORMED BY BBL AND THE FOLLOWING FIGURES:
 - A) "REFERENCE DRAWING OF THE HOOKER/RUCO SITE PLANT UTILITIES: OUTDOOR PIPING" BY LEGGETTE, BRASHEARS & GRAHAM, INC. OF WILTON, CT DATED 3/20/91, AT A SCALE OF 1"=30'.
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 - D) "N.P.D. BUILDING DRAINAGE WATER" BY HOOKER CHEMICAL CORPORATION OF HICKSVILLE, NY.
 - E) "SITE PLAN" BY RUCO POLYMERS CORPORATION OF HICKSVILLE, NY, DATED 9/21/82.
 3. RFI CONCRETE CHARACTERIZATION SAMPLING LOCATIONS WERE SURVEYED BY BBL, INC. DURING OCTOBER 2004.



BAYER MATERIALSCIENCE LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK

**PROPOSED & EXISTING
CONCRETE SAMPLING LOCATIONS**

BBL
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engineers, scientists, economists

FIGURE
3

X: 32303X01.DWG
L: 04/17/05 OFF=REF
P: PAGERET/SYR-DL281
7/8/05 SYR-GMS-RCB
32305001/32305002.DWG

Plant 1 4000 SF

Grid 1 -	(5)	discretes	make (1)	composite	(50' x 80')
Grid 2 -	(6)	"	"	"	(150' x 80')
Grid 3 -	(7)	"	"	"	(120' x 100')
Grid 4 -	(6)				(125' x 100')
	24		(4) composites		12500 SF

Warehouse

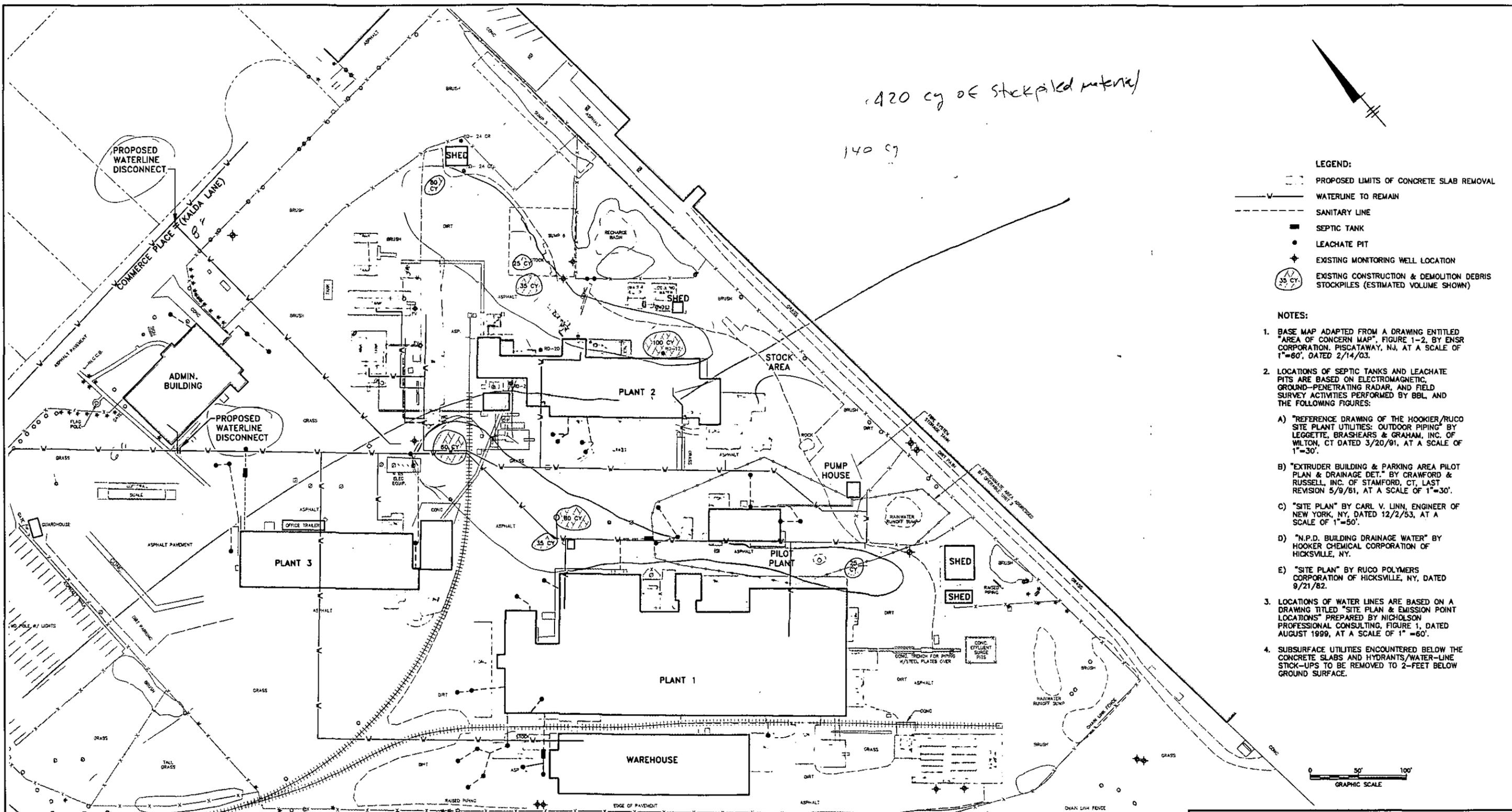
Grid (1) -	(5)	discretes	for (1)	composite	(100' x 60')
Grid (2) -	(5)	"	"	"	(100' x 60')
	10		(2)		

Plant 2

Grid 1 -	(5)	discretes	for (1)	composite	(1650 ft ²)
Grid 2 -	(5)	"	"	"	(5600 ft ²)
Grid 3 -	(5)	"	"	"	(5600)
	(14)		(3)		

Plant 3

Grid 1 -	(5)	discretes	for (1)	comp	(5400 ft ²)
Grid 2 -	(5)	"	"	"	(")
Grid 3 -	(2)	"	"	"	(4500 ft ²)
	(12)		(3)		



420 cy of stockpiled material

140 cy

- LEGEND:**
- PROPOSED LIMITS OF CONCRETE SLAB REMOVAL
 - WATERLINE TO REMAIN
 - SANITARY LINE
 - SEPTIC TANK
 - LEACHATE PIT
 - EXISTING MONITORING WELL LOCATION
 - EXISTING CONSTRUCTION & DEMOLITION DEBRIS STOCKPILES (ESTIMATED VOLUME SHOWN)

- NOTES:**
1. BASE MAP ADAPTED FROM A DRAWING ENTITLED "AREA OF CONCERN MAP", FIGURE 1-2, BY ENSR CORPORATION, PISCATAWAY, NJ, AT A SCALE OF 1"=60', DATED 2/14/03.
 2. LOCATIONS OF SEPTIC TANKS AND LEACHATE PITS ARE BASED ON ELECTROMAGNETIC, GROUND-PENETRATING RADAR, AND FIELD SURVEY ACTIVITIES PERFORMED BY BBL AND THE FOLLOWING FIGURES:
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 - B) "EXTRUDER BUILDING & PARKING AREA PILOT PLAN & DRAINAGE DET." BY CRAWFORD & RUSSELL, INC. OF STAMFORD, CT, LAST REVISION 5/9/81, AT A SCALE OF 1"=30'.
 - C) "SITE PLAN" BY CARL V. LINN, ENGINEER OF NEW YORK, NY, DATED 12/2/53, AT A SCALE OF 1"=50'.
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 - E) "SITE PLAN" BY RUCO POLYMERS CORPORATION OF HICKSVILLE, NY, DATED 9/21/82.
 3. LOCATIONS OF WATER LINES ARE BASED ON A DRAWING TITLED "SITE PLAN & EMISSION POINT LOCATIONS" PREPARED BY NICHOLSON PROFESSIONAL CONSULTING, FIGURE 1, DATED AUGUST 1999, AT A SCALE OF 1"=60'.
 4. SUBSURFACE UTILITIES ENCOUNTERED BELOW THE CONCRETE SLABS AND HYDRANTS/WATER-LINE STICK-UPS TO BE REMOVED TO 2- FEET BELOW GROUND SURFACE.



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PROPOSED LIMITS OF CONCRETE SLAB REMOVAL

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engineers, scientists, economists

FIGURE
4

X: 32305001.DWG
L: QM+V, OFF-REF
P: PAGESET/SYR-04.281
7/8/05 SYR-B5-QMS PCL RCB
32305001/32305004.DWG

BBL[®]
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