**Bayer MaterialScience LLC (formerly Hooker/Ruco)**
**125 New South Road**
**Hicksville, NY**

## Background Information

- 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 currently owned by Bayer MaterialScience LLC (Bayer), Baytown, Texas. (See *Figure 1, Site Layout Plan*)
- In 2003 all buildings and aboveground structures, except for the Administration Building, were demolished down to their floor slabs. In 2006 the remaining floor slabs and other concrete surfaces were removed and soils underneath the building structures were investigated. (See *Figure 2, Aerial Photo*)

## RFI Results for Soil Sampling

- The RFI was implemented in several phases from February 2004 to April 2007.
- Prior to removal of the building slabs, site-wide surface and subsurface soils were sampled and analyzed for PCBs, VOCs, SVOCs and inorganics. After removal of the building slabs, soils were again analyzed for the same constituents.
- PCB's above 50 ppm were mainly concentrated at the sump in the northwest corner of the former Pilot Plant building. Further delineation of this area found PCB concentrations ranging from 90 ppm to 14,000 ppm at depths from 8 to 29 feet bgs.
- VOCs above the TAGM 4046 action levels were primarily found at the east side of the former Plant 1 building.
- Lower concentrations of SVOCs were found throughout the site, with the higher concentrations also found at the east side of the former Plant 1 building.
- Some inorganics were found at concentrations slightly above the TAGM 4046 action levels, primarily in the former Plant 1 area.

## Demolition Activities

- Demolition activities at the site were completed between December 2005 and May 2006. Activities included the following.
  - ❖ Removing an old gasoline UST beneath the former Plant 2 building. Verification soil sampling was completed and the results were acceptable to the Nassau County DOH.
  - ❖ Demolishing concrete floor slabs and foundations to a depth of 2 feet below the surrounding grade.
  - ❖ Segregating exempt (clean) materials from non-exempt (impacted) materials, stocking materials for onsite reuse, and disposing off-site of non-exempt materials.

## PCB Removal

- Soil excavation activities were implemented in the summer of 2006 to remove PCB soils above 50 ppm at the former Pilot Plant building. These soils were concentrated in the southwest corner of the Pilot Plant.

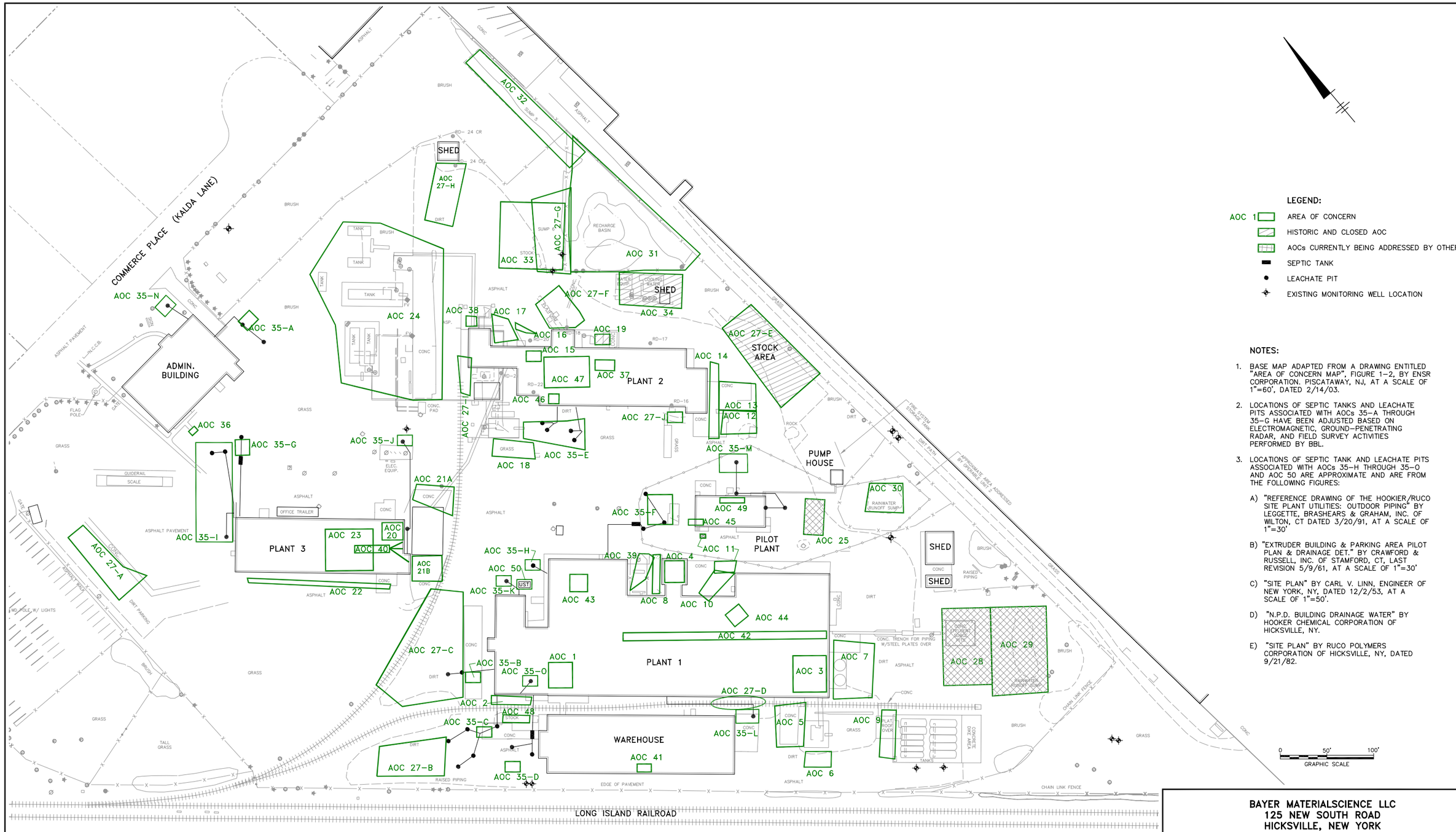
- Approximately 670 cubic yards of PCB impacted soils were excavated from an area around the Pilot Plant sumps (see *Figure 3, Horizontal Limits of Soil Excavation* and *Figure 4, Vertical Limits of Soil Excavation*).

## Soil Vapor Investigation

- Bayer implemented a site-wide soil vapor investigation in September 2007. During the initial phase, TCE and PCE were the primary VOC constituents found within the footprint of the former Plant 1 building (see *Figure 5, Soil Vapor Analytical Results*).
- The highest soil vapor concentration was in the area immediately west of the former runoff sumps (east of former Plant 1 building).

## Current Conditions and Activities

- There are several smaller areas, primarily on the east side of the site, where PCBs are slightly above 50 ppm (see *Figure 6, PCB Soil Analytical Results*). These will be addressed in the Corrective Measures Study (CMS).
- Bayer's ultimate goal is to excavate the PCB and VOC impacted soils in the Plant 1 area as part of the overall site cleanup. This will be proposed as part of the CMS.
- The second phase of the soil vapor investigation will be implemented in the spring of 2008. No development of the site will be allowed until this investigation is completed to the satisfaction of DEC and DOH.
- Current plans include development of the site by Simone Development, who will purchase the property upon completion of final remedies. Simone's current plan is construction of a warehouse type building, with most of the site covered by the building and asphalt pavement. Current plans for the building call for a sub-slab depressurization system.




**LEGEND:**

- AOC 1 — AREA OF CONCERN
- HISTORIC AND CLOSED AOC
- AOCs CURRENTLY BEING ADDRESSED BY OTHERS
- SEPTIC TANK
- LEACHATE PIT
- 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 HOOKIER/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 5/9/61, 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

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

FIGURE 1

X: 32303X01.DWG
L: ON=*, OFF=REF
P: PAGESET/SYR-DL
7/6/05 SYR-85-GMS RCB
32303003/32303B14.DWG

Live Search Maps

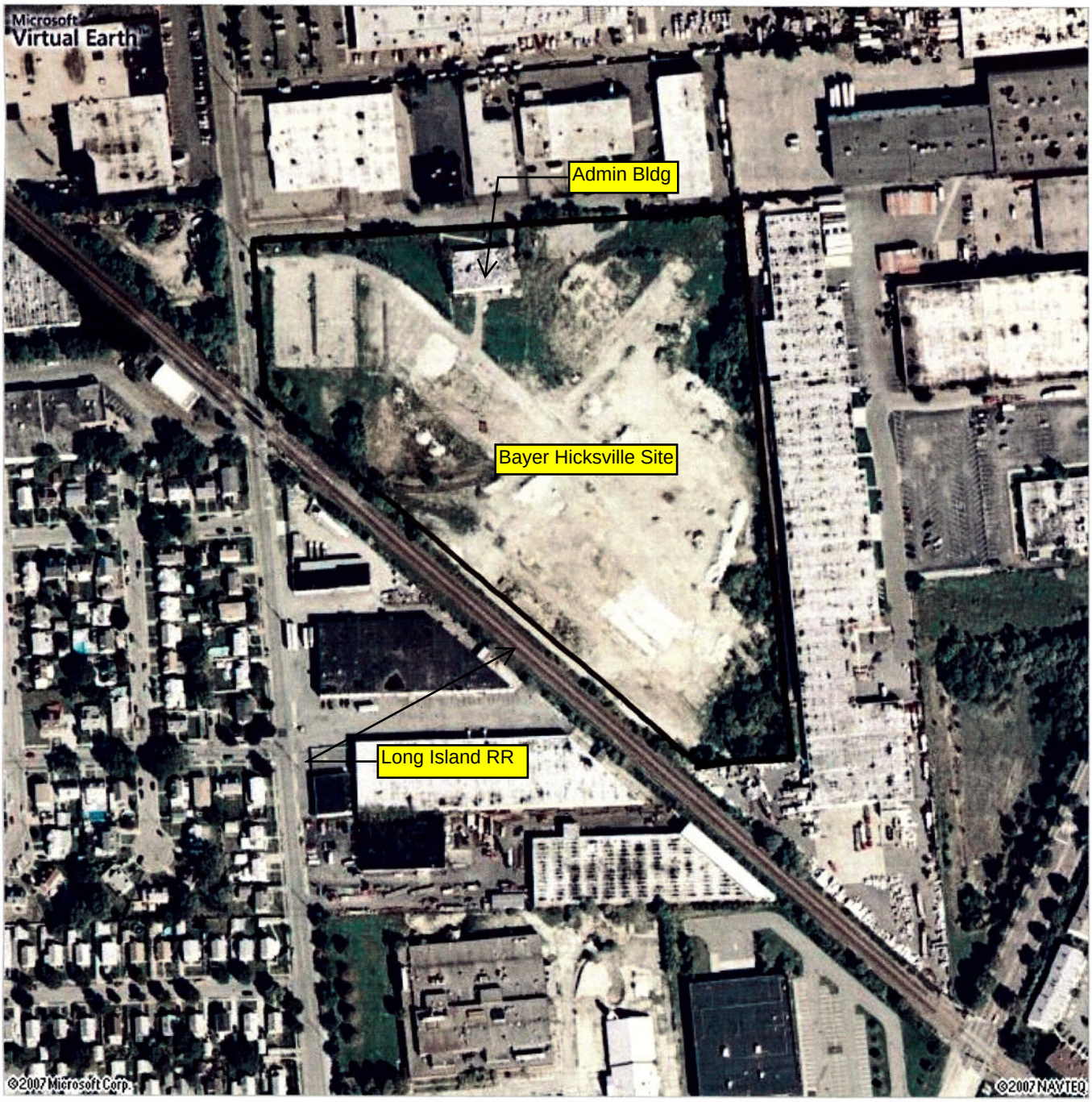
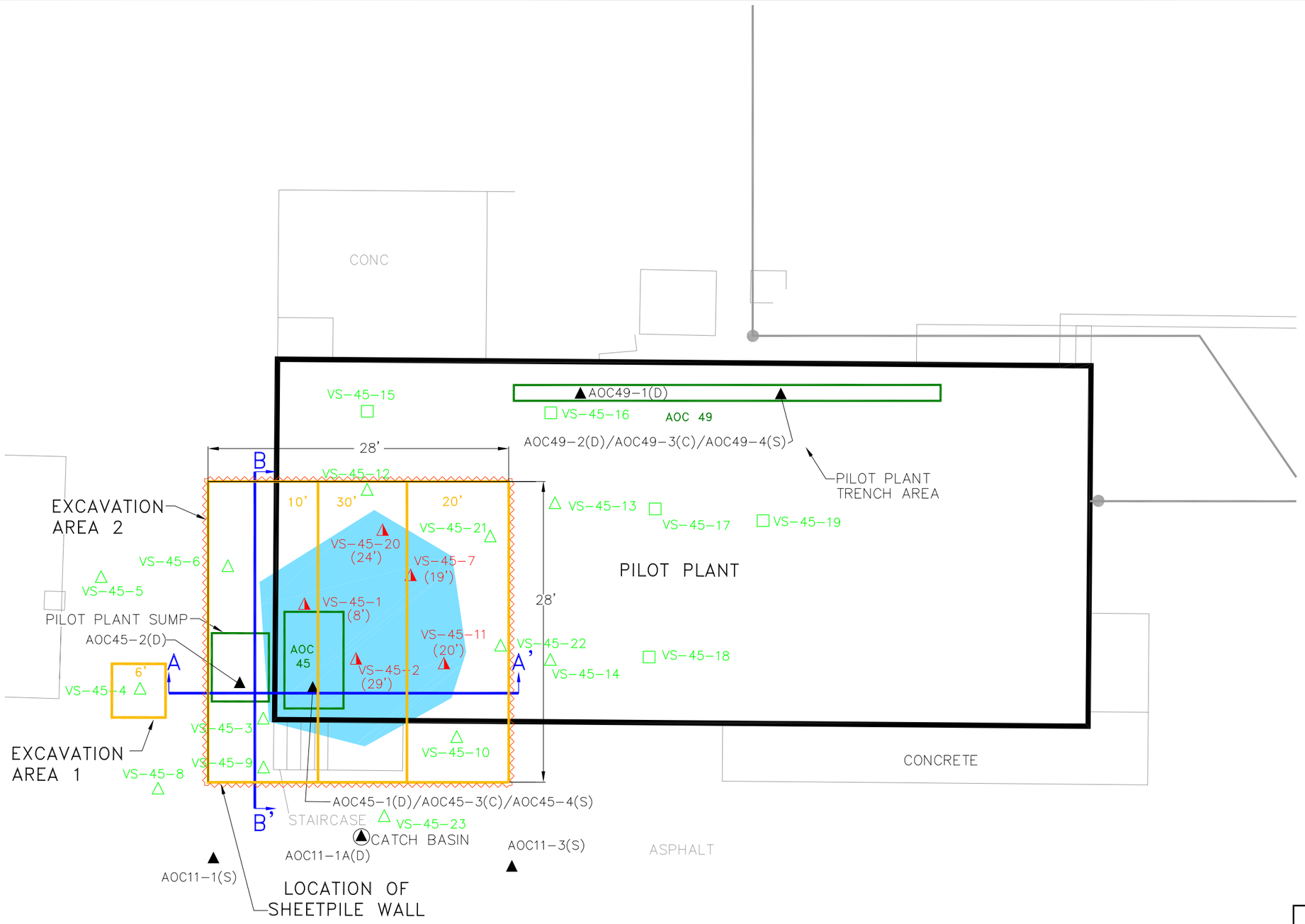



FIGURE 2
AERIAL PHOTO OF BAYER HICKSVILLE SITE




**LEGEND:**

- FINAL EXCAVATION LIMITS
- 20' — MINIMUM EXCAVATION DEPTH
- ICM PRE-EXCAVATION VERIFICATION SAMPLING LOCATION (ALL SAMPLES ARCHIVED)
- ICM PRE-EXCAVATION VERIFICATION SAMPLING LOCATION EXHIBITING PCBs AT CONCENTRATIONS <50 PPM
- ICM PRE-EXCAVATION VERIFICATION SAMPLING LOCATION EXHIBITING PCBs AT CONCENTRATIONS >50 PPM
- RFI SAMPLING LOCATION
- HORIZONTAL EXTENT OF SOILS EXHIBITING PCBs > 50 PPM
- (19') — DEPTH OF SOILS EXHIBITING PCBs AT CONCENTRATION > 50 PPM
- AOC 45 — AREA OF CONCERN
- LEACHATE PIT
- A A' — CROSS SECTION LOCATION (SEE FIGURE 5 FOR SECTION)

**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. RFI SAMPLING LOCATIONS WERE SURVEYED BY BBL, INC. DURING FEBRUARY 2004 AND OCTOBER 2004. ICM SAMPLING LOCATIONS WERE SURVEYED BY BBL, INC. DURING AUGUST 2005.
3. RFI = RCRA FACILITY INVESTIGATION.
4. ICM = INTERIM CORRECTIVE MEASURE.
5. PCBs = POLYCHLORINATED BIPHENYLS.

0 10' 20'
GRAPHIC SCALE

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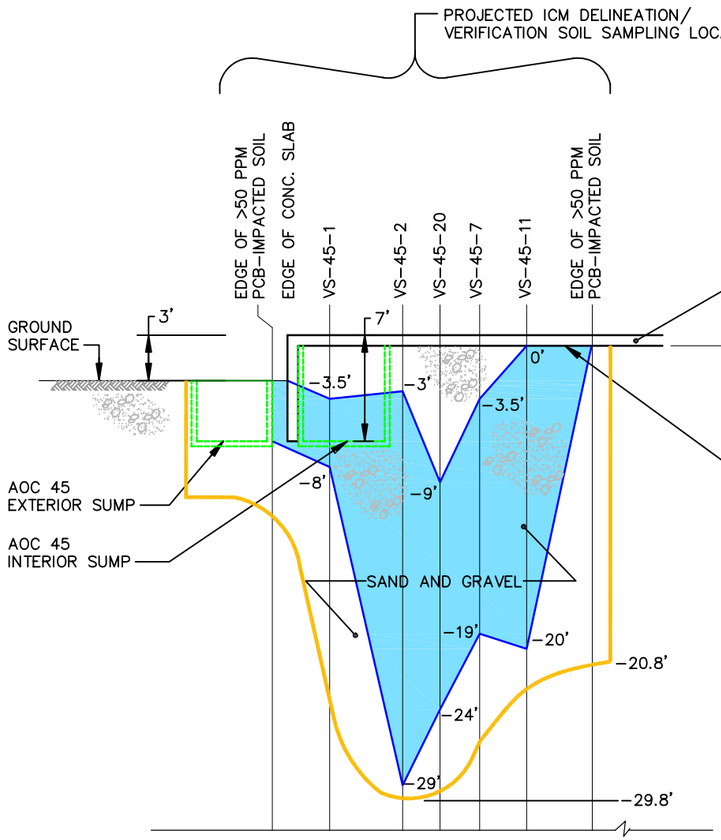
HICKSVILLE, NEW YORK

# HORIZONTAL LIMITS OF SOIL EXCAVATION

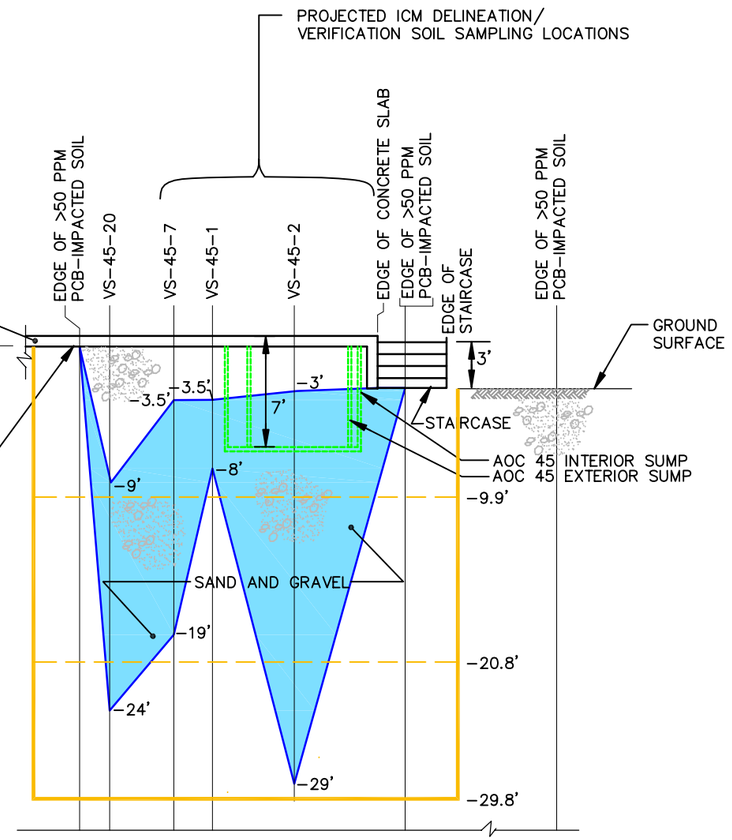
BBL an ARCADIS company

FIGURE 3




## SECTION A-A'

APPROX. HORIZ. SCALE: 1"=10'
APPROX. VERT. SCALE: 1"=10'




## SECTION B-B'

APPROX. HORIZ. SCALE: 1"=10'
APPROX. VERT. SCALE: 1"=10'

## LEGEND:

- EXCAVATION LIMITS
- SAND AND GRAVEL
- VERTICAL EXTENT OF SOILS EXHIBITING PCBs AT CONCENTRATIONS GREATER THAN 50 PPM
- -29' PROJECTED DEPTH SHOWN IN FEET BELOW CONCRETE SURFACE

## NOTES:

1. PCBs = POLYCHLORINATED BIPHENYLS
2. PPM = PARTS PER MILLION

0 10' 20'
GRAPHIC SCALE

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**SECTIONS A-A' & B-B'
(VERTICAL LIMITS OF SOIL EXCAVATION)**

BBL an ARCADIS company

FIGURE 4

| SG-6 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/18/07** |
| PCE | 430 |
| TCE | 470 |
| cis-1,2-DCE | < 2.0 |
| Vinyl chloride | < 1.3 |

| SG-16 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/19/07** |
| PCE | 2.5 [3.1] |
| TCE | 1.2 [1.6] |
| cis-1,2-DCE | < 0.63 [< 0.63] |
| Vinyl chloride | < 0.41 [< 0.41] |

| SG-17 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/18/07** |
| PCE | 4.5 |
| TCE | < 1.1 |
| cis-1,2-DCE | < 0.79 |
| Vinyl chloride | < 0.51 |

| SG-15 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/19/07** |
| PCE | 1,200 |
| TCE | 120 |
| cis-1,2-DCE | < 5.6 |
| Vinyl chloride | < 3.6 |

| SG-4 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/18/07** |
| PCE | 4,600 |
| TCE | 91 |
| cis-1,2-DCE | < 16 |
| Vinyl chloride | < 10 |

| SG-1 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/20/07** |
| PCE | 20,000 |
| TCE | 2,500 |
| cis-1,2-DCE | 590 |
| Vinyl chloride | < 51 |

| SG-7 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/18/07** |
| PCE | 130 |
| TCE | 3 |
| cis-1,2-DCE | < 0.63 |
| Vinyl chloride | < 0.41 |

| SG-14 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/20/07** |
| PCE | 8,100 |
| TCE | 160 |
| cis-1,2-DCE | < 30 |
| Vinyl chloride | < 19 |

| SG-18 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/24/07** |
| PCE | 8.1 |
| TCE | < 1.1 |
| cis-1,2-DCE | < 0.79 |
| Vinyl chloride | < 0.51 |

| DW/UW (5.0-5.5') | | |
|---|---|---|
| **Constituent** | **9/18/07** | **9/20/07** |
| PCE | < 1.1 | < 1.1 |
| TCE | < 0.86 | < 0.86 |
| cis-1,2-DCE | < 0.63 | < 0.63 |
| Vinyl chloride | < 0.41 | < 0.41 |

| SG-5 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/21/07** |
| PCE | 2,200 |
| TCE | 1,100 |
| cis-1,2-DCE | < 7.9 |
| Vinyl chloride | < 5.1 |

| SG-8 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/24/07** |
| PCE | 4,500 |
| TCE | 48 |
| cis-1,2-DCE | < 21 |
| Vinyl chloride | < 14 |

| SG-9 (15.0-15.5') | |
|---|---|
| **Constituent** | **9/25/07** |
| PCE | 150,000 |
| TCE | 36,000 |
| cis-1,2-DCE | 140,000 |
| Vinyl chloride | < 510 |

| SG-10 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/21/07** |
| PCE | 8.1 |
| TCE | < 1.1 |
| cis-1,2-DCE | < 0.79 |
| Vinyl chloride | < 0.51 |

| SG-11 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/21/07** |
| PCE | 2,400 |
| TCE | 24 |
| cis-1,2-DCE | < 7.9 |
| Vinyl chloride | < 5.1 |

| SG-3 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/24/07** |
| PCE | 16,000 [15,000] |
| TCE | 390 [380] |
| cis-1,2-DCE | 79 [87] |
| Vinyl chloride | < 46 [< 46] |

| SG-2 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/19/07** |
| PCE | < 180 |
| TCE | < 140 |
| cis-1,2-DCE | 320 |
| Vinyl chloride | 10,000 |

| SG-12 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/20/07** |
| PCE | 64 |
| TCE | 1.4 |
| cis-1,2-DCE | < 0.99 |
| Vinyl chloride | < 0.64 |

| SG-13 (5.0-5.5') | |
|---|---|
| **Constituent** | **9/20/07** |
| PCE | 2,700 |
| TCE | < 17 |
| cis-1,2-DCE | < 12 |
| Vinyl chloride | < 7.9 |

LEGEND:

- TEMPORARY SOIL GAS SAMPLING LOCATION
- AMBIENT AIR SAMPLING LOCATION

COLOR – CODED VOC SOIL ANALYTICAL RESULTS:

- VOC(s) AT A CONCENTRATION >TAGM 4046 SOIL GUIDANCE VALUE
- VOCs AT A CONCENTRATION <TAGM 4046 SOIL GUIDANCE VALUE
- ONLY ACETONE AT A CONCENTRATION >TAGM 4046 SOIL GUIDANCE VALUE
- SAMPLING LOCATION WHERE SOIL WAS REMOVED BY ICM EXCAVATION ACTIVITIES
- SAMPLE NOT SUBMITTED FOR VOC ANALYSIS

AOC 1 AREA OF CONCERN

HISTORIC AND CLOSED AOC

SEPTIC TANK

LEACHATE PIT

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. EXISTING SAMPLING LOCATIONS WERE SURVEYED BY ARCADIS BBL. BETWEEN FEBRUARY 2004 AND AUGUST 2007.
3. RESULTS ARE PRESENTED IN MICROGRAMS PER CUBIC METER (ug/m3).
4. VOC = VOLATILE ORGANIC COMPOUND.
5. PCE = TETRACHLOROETHENE.
6. TCE = TRICHLOROETHENE.
7. DCE = DICHLOROETHENE.
8. TAGM 4046 = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUM (TAGM) TITLED "DETERMINATION OF SOIL CLEANUP OBJECTIVES AND CLEANUP LEVELS", HWR-94-4046 DATED 1994.
9. ICM = INTERIM CORRECTIVE MEASURE.
10. APPROXIMATE FOOTPRINT OF POTENTIAL BUILDING IS FROM A DRAWING TITLED "PLATE 3: DETECTED PCE IN SOIL", BY IMPACT ENVIRONMENTAL OF BOHEMIA, NEW YORK AT A SCALE OF 1" = 133', DATED 10/19/06.

0 50' 100'
GRAPHIC SCALE

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HICKSVILLE, NEW YORK

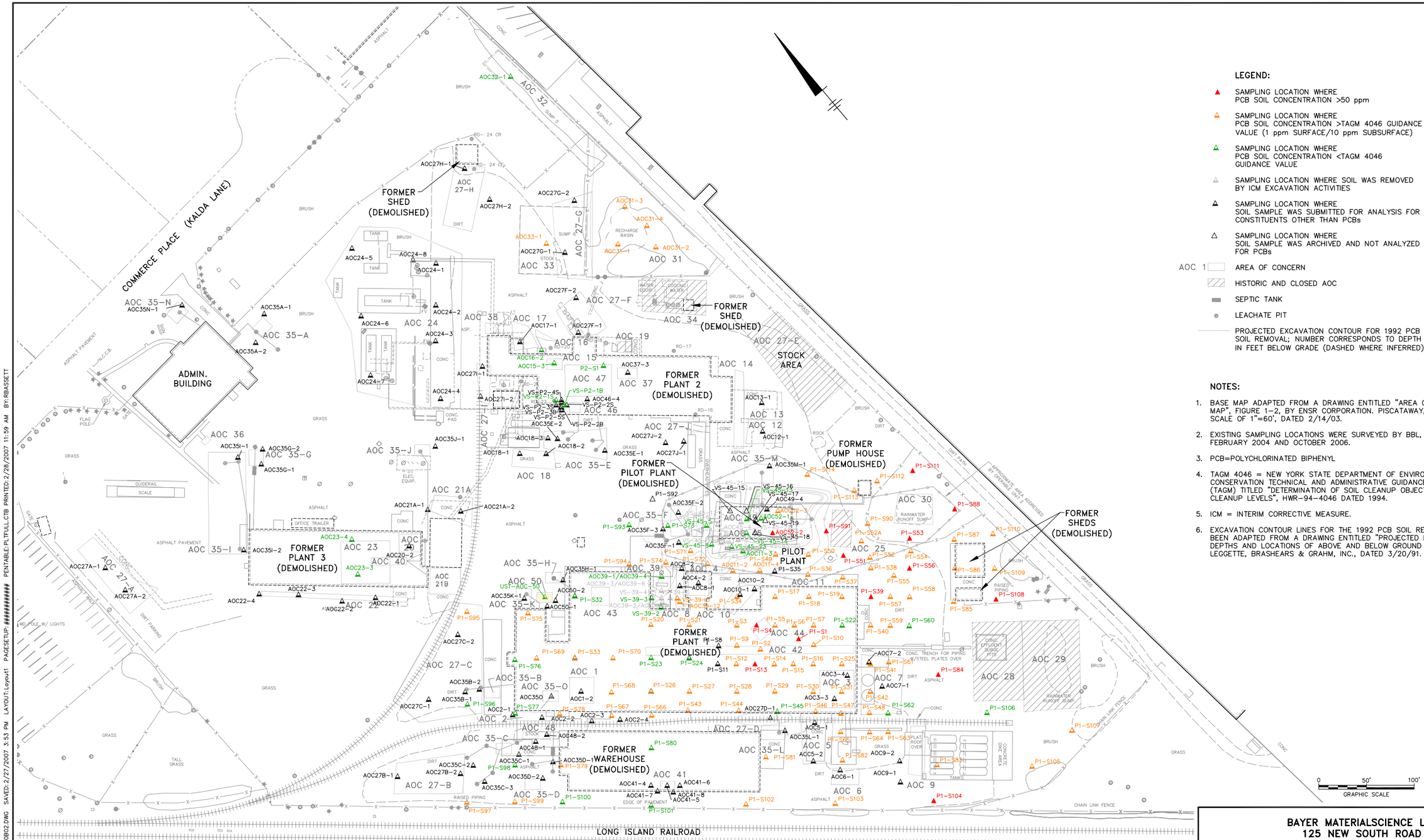
**SOIL VAPOR INVESTIGATION REPORT**

**SOIL VAPOR ANALYTICAL RESULTS**

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 5

SYR-85-RCB JHR RCB LAYER: ON=* OFF=*REF
G:\CAD\ACTIVE\-DWG\ACT\32305016\32305P04.DWG SAVED:11/16/2007 2:19 PM LAYOUT:2 PAGESETUP:---- PENTABLE:PLTFULL.CTB PRINTED:11/16/2007 2:25 PM BY:WJONES
PROJECTNAME:----
XREFS: IMAGES:
32305X01




## LEGEND:

- ▲ SAMPLING LOCATION WHERE PCB SOIL CONCENTRATION >50 ppm
- △ SAMPLING LOCATION WHERE PCB SOIL CONCENTRATION >TAGM 4046 GUIDANCE VALUE (1 ppm SURFACE/10 ppm SUBSURFACE)
- △ SAMPLING LOCATION WHERE PCB SOIL CONCENTRATION <TAGM 4046 GUIDANCE VALUE
- △ SAMPLING LOCATION WHERE SOIL WAS REMOVED BY ICM EXCAVATION ACTIVITIES
- ▲ SAMPLING LOCATION WHERE SOIL SAMPLE WAS SUBMITTED FOR ANALYSIS FOR CONSTITUENTS OTHER THAN PCBs
- △ SAMPLING LOCATION WHERE SOIL SAMPLE WAS ARCHIVED AND NOT ANALYZED FOR PCBs
- AOC 1 AREA OF CONCERN
- HISTORIC AND CLOSED AOC
- SEPTIC TANK
- LEACHATE PIT
- PROJECTED EXCAVATION CONTOUR FOR 1992 PCB SOIL REMOVAL; NUMBER CORRESPONDS TO DEPTH IN FEET BELOW GRADE (DASHED WHERE INFERRED)

## 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. EXISTING SAMPLING LOCATIONS WERE SURVEYED BY BBL, INC. BETWEEN FEBRUARY 2004 AND OCTOBER 2006.
3. PCB=POLYCHLORINATED BIPHENYL
4. TAGM 4046 = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUM (TAGM) TITLED "DETERMINATION OF SOIL CLEANUP OBJECTIVES AND CLEANUP LEVELS", HWR-94-4046 DATED 1994.
5. ICM = INTERIM CORRECTIVE MEASURE.
6. EXCAVATION CONTOUR LINES FOR THE 1992 PCB SOIL REMOVAL HAVE BEEN ADAPTED FROM A DRAWING ENTITLED "PROJECTED EXCAVATION DEPTHS AND LOCATIONS OF ABOVE AND BELOW GROUND UTILITIES", BY LEGGETTE, BRASHEARS & GRAHM, INC., DATED 3/20/91.

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

# PCB SOIL ANALYTICAL RESULTS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 6

SYR-85-RCB GMS RCB L: ON=*; OFF=REF
G:\CAD\ACTIVE\-DWG\ACT\32305007\32310B02.DWG SAVED:2/27/2007 3:53 PM LAYOUT:Layout1 PAGESETUP:######## PENTABLE:PLTFULL.CTB PRINTED:2/28/2007 11:59 AM BY:RBASSETT
PROJECTNAME:----
XREFS: IMAGES:
32305X01