



KeySpan Corporation
Environmental Asset Management
175 East Old County Road
Hicksville, NY 11801

November 15, 2007

Mr. Amen M. Omorogbe, P.E.
Project Manager
New York State Department of Environmental Conservation
MGP Remedial Section, Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7017

**Re: Storm Sewer and Catch Basin Investigation Summary Report
Operable Unit No. 3
Bay Shore/Brightwaters Former MGP Site
Site No. 1-52-172**

Dear Mr. Omorogbe:

This letter summarizes the investigation conducted by KeySpan Corporation (KeySpan) into reports from community residents of petroleum-like odors near catch basins and storm sewer lines extending from Union Boulevard to Montauk Highway in the vicinity of the Operable Unit No. 3 (OU-3) groundwater plume of the Bay Shore/Brightwaters former Manufactured Gas Plant (MGP) site. Local residents brought to KeySpan's attention that following storm events a petroleum odor was noticed near the catch basins located near the intersection of Lanier Lane and Cooper Lane. Based on those reports KeySpan implemented an investigation to identify any odors and, if present, to determine whether they are related to the former MGP operations

The investigation consisted of an evaluation of the existing catch basin network, a zNose[®] odor screening, two rounds of catch basin and ambient air sampling (March 2007 and August 2007), and catch basin sediment sampling. All work completed was in accordance with both the Final Storm Sewer and Catch Basin Investigation Work Plan, dated February 2, 2007 as well as the Draft Work Plan for Supplemental Storm Sewer and Catch Basin Investigation dated August 15, 2007.

Summary of the Investigation

The investigation was conducted in four phases:

- Phase 1: Catch Basin Network Evaluation (February, August 2007)
- Phase 2: zNose[®] Odor Screening (February 2007)
- Phase 3: Catch Basin and Ambient Air Sampling (March, August 2007)
- Phase 4: Catch Basin Sediment Sampling (March, September 2007)

Phase 1: Catch Basin Network Evaluation

The catch basin network evaluation was completed to determine the flow direction and structural details of the existing catch basin network located within the study area of the OU-3 groundwater plume. The OU-3 catch basin study area is shown on **Figure 1**. Relevant construction documentation provided by the Town of Islip and Suffolk County was reviewed to determine the location and flow paths of the drainage piping. Due to the limited documentation, KeySpan contracted a surveyor to locate the existing drainage structures and any visible pipe invert elevations. The initial evaluation was completed in February of 2007 and expanded to include the area north of the Site (Orinoco Drive) and west of the Site (Hemlock Lane) in August/September 2007. A subsurface utility locator was also hired to trace the existing drainage network. A summary of the construction details are provided in **Table 1**. The catch basin network and structural details are shown on **Figure 2**. This map identifies and connects drainage features that were identified in the field where pipes appear to connect various basins or buried main drainage pipes. Flow direction was interpolated by using invert elevations to determine potential flow directions as well as the flow direction that was observed in the field.

Following completion of the initial location survey in February 2007, a survey of the catch basin conditions was conducted. This included the identification of the depth of standing water (if present), the presence of any odors and other pertinent observations. In addition a photoionization detector (PID) was used to screen each catch basin for volatile organic compounds (VOCs). The screening evaluation was completed on February 12 and 20, 2007. During the dates of the PID screening, there were no detections of VOCs from any of the 50 catch basins (CB-1 through CB-50) within the initial study area. There were, however, faint odors identified at three catch basins (CB-37, CB-40, CB-41) and a slight sheen identified on the surface of standing water in one catch basin (CB-11). A summary of the catch basin conditions and the PID screening results is presented on **Table 2**.

Phase 2: zNose[®] Odor Screening

Following completion of the Phase 1, a zNose[®] odor screening was conducted on February 16 and 28, 2007 and March 1, 2007 using the zNose[®] ultra-fast gas chromatograph. As identified in the work plan, each of these dates followed storm events. Reflecting the winter season when the investigation was conducted, these storm events were a 1-inch snowfall event and a less than one half-inch sleet event.

Based on the results of the PID screening, the odor/sheen observations, and the area identified by the residents, ten catch basins were identified for zNose[®] odor screening. The catch basins identified for zNose[®] odor screening included the following locations:

CATCH BASIN ID	LOCATION	zNOSE [®] SCREENING RATIONALE
CB-5	Union Boulevard & Community Road	Area Identified by Resident's Concern – No Odors Identified
CB-6	Union Boulevard & Community Road	Area Identified by Resident's Concern – No Odors Identified
CB-11	Union Boulevard & Lanier Lane	Area Identified by Resident's Concern – Sheen observed in catch basin
CB-25	Montauk Highway & Community Road	Upgradient of OU-2 oxygen injection system – No Odors Identified
CB-26	Montauk Highway & Community Road	Upgradient of OU-2 oxygen injection system – No Odors Identified
CB-37	Cooper Lane	Area Identified by Resident's Concern – Faint Intermittent Organic Odor
CB-39	Cooper Lane	Area Identified by Resident's Concern – No Odors Identified
CB-40	Lanier Lane	Area Identified by Resident's Concern – Faint Naphthalene Odor Observed during PID Screening
CB-41	Lanier Lane	Area Identified by Resident's Concern – Faint Naphthalene Odor Observed during PID Screening
CB-50	Johnson Lane & Cooper Lane	Area Identified by Resident's Concern – No Odors Identified

At each catch basin location, the air within the catch basin was analyzed using the zNose[®] for naphthalene, toluene, ethylbenzene, and xylene isomers. At each location, a maximum of five samples were collected within a 15-minute period and averaged to produce a 15-minute average value of each analyte. The results of the analysis are summarized on **Table 3**.

Naphthalene, toluene, ethylbenzene, and xylene isomers were detected in only four of the ten catch basins sampled (CB-40, CB-41, CB-11, and CB-26). The ASTM odor index is a determination of the frequency, intensity, duration and offensiveness of an odor. This is based on a ranking system of 1 through 10. At none of the locations did the odor exceed the ASTM odor index of 1. Studies have shown that an odor which meets or exceeds an ASTM odor index of 3 would be found objectionable by the average person.

Phase 3: Catch Basin and Ambient Air Sampling

Two rounds of catch basin and ambient air sampling were completed during March and August of 2007. The March sampling event consisted of sampling the catch basin and ambient air at the catch basin locations that were identified during the zNose[®] odor screening (CB-40, CB-41, CB-11, and CB-26). During the August sampling event these four catch basins were re-sampled as well as four additional locations based on the concerns identified by local residents (CB-6, CB-37, CB-38, and CB-50). At the request of the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) an upgradient catch basin (CB-77)

and a side-gradient catch basin (CB-64) were also sampled to evaluate the conditions in catch basins in areas unrelated to the groundwater plume.

One catch basin air sample and one ambient air sample were collected at each catch basin identified above. Catch basin samples were collected from approximately 1 foot above the bottom of each catch basin. Ambient air samples were collected from the presumed breathing zone of a young child (approximately 3 feet aboveground) adjacent and downwind to each of the catch basins. Ambient air samples were collected using individually cleaned laboratory certified 6-liter SUMMA canisters fitted with 1-hour regulators. Catch basin samples were collected using a 6-liter SUMMA and 1-hour regulators attached to inert Teflon tubing of laboratory or food grade quality. The Teflon tubing was lowered into the catch basin to approximately 1 foot above the bottom of the catch basin or any standing water surface.

All samples were submitted to Alpha Labs (Alpha), a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory, for analysis of VOCs plus naphthalene via Modified EPA Method TO-15.

The results of the sampling were compared to the 95th percentile within Table C1 of the NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes. Background values for naphthalene are from the NYSDOH 1997 Control Home Database presented in Table C3 of the NYSDOH 2006 Guidance. This comparison is presented on **Table 4**. For each sample location, the analytical results from the catch basin sample and the adjacent air sample are presented side by side for comparison. **Appendix A** includes graphical plots of the ambient air and catch basin samples as well as the field blank samples and outdoor air 95th percentile background concentrations.

Summary of Analytical Results

At six catch basin locations, CB-6, CB-11, CB-26, CB-40, CB-41, and CB-77 there were detections of compounds that exceeded the NYSDOH outdoor air 95th percentile background concentrations in the catch basin air samples. In the adjacent ambient air samples, most of these compounds were detected below the NYSDOH outdoor air 95th percentile background concentrations. Exceedances in the catch basin and ambient air samples are summarized below.

Ambient Air (March 2007)

- At Catch Basin CB-41A Toluene (3.8 ug/m³), Chloroform (0.63 J ug/m³), Methylene chloride (4.0 J ug/m³), 1,2,3-Trimethylbenzene (3.0 ug/m³), 1,2,4-Trimethylbenzene (5.3 ug/m³), 1,3,5-Trimethylbenzene (1.7 ug/m³), and Nonane (3.7 ug/m³) were detected above the NYSDOH 95th percentile background concentrations.

Ambient Air (August 2007)

- Benzene, toluene, ethylbenzene, xylene (BTEX) compounds were not detected above the respective 95th percentile background concentration in any ambient air samples.
- Methylene chloride was detected above 95th percentile at CB-11A (3.1 ug/m³), CB-26A (4.0 ug/m³), CB-38A (4.5 ug/m³), and CB-41A (3.1 ug/m³).
- 2,-Butanone, Chloroethane, and Ethanol were detected above 95th percentile at upgradient location CB-77A (24 ug/m³, 0.45J ug/m³, and 1,200 ug/m³ respectively).

Catch Basin Air (March 2007)

- At Catch Basin CB-11, Benzene (130 ug/m³), Toluene (490 ug/m³), Ethylbenzene (79 ug/m³), m,p-xylenes (110 ug/m³), o-xylenes (52 ug/m³), styrene (2.8 ug/m³), n-decane (11 ug/m³), 1,2,3-Trimethylbenzene (1.9 ug/m³), 1,2,4-Trimethylbenzene (5.8 ug/m³), and 1,3,5-Trimethylbenzene (2.8 ug/m³), n-decane (11 ug/m³), and n-undecane (52 ug/m³) were detected above the NYSDOH 95th percentile background concentrations.
- At Catch Basin CB-40, Benzene (36 ug/m³), Toluene (42 ug/m³), Ethylbenzene (120 ug/m³), m,p-xylenes (71 ug/m³), o-xylenes (70 ug/m³), styrene (2.7 ug/m³), 1,2,3-Trimethylbenzene (8.9 ug/m³), 1,2,4-Trimethylbenzene (5.6 ug/m³), and 1,3,5-Trimethylbenzene (1.7 ug/m³), and n-undecane (4.0 J ug/m³) were detected above the NYSDOH 95th percentile background concentrations.
- At Catch Basin CB-41, styrene (0.68 J ug/m³) was detected above the NYSDOH 95th percentile background concentrations in the duplicate sample.
- At Catch Basin CB-26, styrene (2.3 J ug/m³) was detected above the NYSDOH 95th percentile background concentrations in the duplicate sample

Catch Basin Air (August 2007)

- At Catch Basin CB-40, Benzene (36 ug/m³), Toluene (250 ug/m³), Ethylbenzene (430 ug/m³), m,p-xylene (520 ug/m³), o-xylene (310 J ug/m³), Styrene (7.6 ug/m³), Naphthalene (20 J ug/m³), 1,2,3-Trimethylbenzene (48 ug/m³), 1,2,4-Trimethylbenzene (40 J ug/m³), and 1,3,5-Trimethylbenzene (22 J ug/m³) were detected above the NYSDOH 95th percentile background concentrations.
- At Catch Basin CB-41, Benzene (34 ug/m³), Toluene (240 ug/m³), Ethylbenzene (560 ug/m³), m,p-xylene (560 ug/m³), o-xylene (380 J ug/m³), Styrene (7.5 ug/m³), 1,2,3-Trimethylbenzene (52 ug/m³), 1,2,4-Trimethylbenzene (41 J ug/m³), and 1,3,5-Trimethylbenzene (25 J ug/m³) were detected above the NYSDOH 95th percentile background concentrations.
- At Catch Basin CB-11, Methylene chloride (7.5 ug/m³) was detected above the NYSDOH 95th percentile background concentrations.

- At Catch Basin CB-6, Methylene chloride (3.2 ug/m^3) and Trichloroethene (0.59 J ug/m^3) were detected above the NYSDOH 95th percentile background concentrations.
- At Catch Basin CB-77, Methylene chloride (3.0 ug/m^3) was detected above the NYSDOH 95th percentile background concentrations.

Multiple BTEX compounds exceeded NYSDOH 95th percentile background concentrations within the catch basin air samples at CB-40 and CB-41 during the March and August 2007 sampling events. However, the ambient air concentrations adjacent to these catch basins do not appear greatly influenced by the catch basin air concentrations. During the March and August 2007 sampling events at CB 40 and the August 2007 sampling event at CB-41, there were no detections in ambient air that exceeded NYSDOH 95th percentile background concentrations despite the elevated concentrations of BTEX compounds within the catch basins. During the August 2007 sampling event at CB-41, Toluene was the only BTEX compound detected in ambient air above NYSDOH 95th percentile background concentration in ambient air.

Groundwater infiltration appears to be contributing to the BTEX concentrations detected within catch basins CB-41 and CB-40. Catch basins CB-40 and CB-41 are located within the OU-3 groundwater plume. Both of these catch basins were visually inspected and appear to be constructed of brick and mortar which is deteriorating with age. The catch basins are approximately 2 feet deep and the construction of the floor of the catch basin could not be identified due to the depth of sediment within the catch basin. The depth to groundwater in the vicinity of these two catch basins was between 1.5 and 2.5 feet bgs at the time of the August 2007 sampling event.

Catch basins CB-35, CB-36, CB-37, CB-38, CB-39 and CB-50 were identified by local residents as possible sources of odor. These catch basins are downgradient and interconnected with catch basins CB-40 and CB-41. Catch basins CB-37, CB-38, and CB-50 were sampled and there were no compounds that were detected above the NYSDOH 95th percentile background concentration within the catch basin air or ambient air with the exception of methylene chloride (4.5 ug/m^3) in the ambient air sample adjacent to CB-38. Catch basin CB-35 was not sampled because it was completely filled with sediment. Catch basin CB-39 appeared to be free draining (no visible inverts), therefore it was not sampled. Catch basin CB-36 was not sampled because of its close proximity and connection with catch basin CB-37.

Catch basins CB-5, CB-6, CB-11, and CB-12 are also located within the OU-3 groundwater plume. CB-11 was sampled in March and August 2007. BTEX compounds were detected above NYSDOH 95th percentile background concentration during the March 2007 sampling but not the August 2007 sampling event. During the March sampling event, a sheen was observed in CB-11. A sheen was not observed during the August 2007 sampling event. The presence/absence of the sheen may account for the variations in the analytical results at this location. Catch Basin CB-5 was not sampled due to its proximity in location and connection to catch basin CB-6. Catch basin CB-6

was sampled during the August sampling event and only methylene chloride (3.2 ug/m^3) and Trichloroethene (0.59 ug/m^3) were detected above NYSDOH 95th percentile background concentration. No compounds were detected in the corresponding ambient air samples above the NYSDOH 95th percentile background concentrations.

Phase 4: Catch Basin Sediment Sampling

The NYSDEC requested that sediments within the sampled catch basins be collected and analyzed as part of this investigation to determine if the OU-3 groundwater plume is impacting the sediments within the catch basins. Samples were collected and submitted to Alpha for VOCs via USEPA Method 8260 and semivolatile organic compounds (SVOCs) via USEPA Method 8270. The results of the analytical sampling are presented on **Table 5**.

Polycyclic aromatic hydrocarbons (PAHs) were detected in the catch basin sediments at each location. PAH exceedances of the NYSDEC Standards, Criteria, or Guidance (SCG) values were observed at the upgradient catch basin location CB-77, as well as at catch basin locations CB-6, CB-26, CB-37, CB-38, CB-40, CB-41 and CB-50. There were no exceedances at CB-11. There was no recoverable sediment located within the sidegradient catch basin location CB-64, therefore it was not sampled. PAHs contamination is often associated with MGP residuals. However, several studies by EPA and others have indicated that urban road runoff is a significant source of PAHs in urban environments. Related studies include;

- *Final Report of the Nationwide Urban Runoff Program, USEPA, December 1983*
- *Urban Runoff as a Source of Polycyclic Aromatic Hydrocarbons to Coastal Waters, Hoffman, EJ; Mills, GL; Latimer, JS; Quinn, JG. Environmental Science and Technology Vol. 18, No. 8, p 580-587, August, 1984*
- *Diffuse Pollution Conference, Dublin 2003 PERSISTENT POLLUTANTS URBAN RIVERS SEDIMENT SURVEY: IMPLICATIONS FOR POLLUTION CONTROL, Wilson C, Clarke R, D'Arcy BJ, Heal KV and Wright PW, Scottish Environment Protection Agency & University of Edinburgh, School of GeoSciences, 2003.*

As catch basins are designed to accept and carry storm runoff from roads, it is not unexpected to see concentrations of PAHs in sediments within the catch basins. At the upgradient catch basin location, the same PAHs are present in the catch basin sediment and the concentrations detected are similar or higher than those detected in catch basins within or near the groundwater plume. Furthermore, the PAH groundwater concentrations in this area are primarily Naphthalene. The sediments contained various carcinogenic PAHs which are not detected in the groundwater plume emanating from OU-3. Therefore, it appears that the PAHs detected in catch basin sediments are the result of urban runoff and are not related to OU-3.

Conclusions and Recommendations


KeySpan did not identify any locations where the catch basins appear to be influencing ambient air within the community. However, consistently elevated BTEX concentrations were observed within catch basins CB-40 and CB-41 during both sampling events. The elevated BTEX concentrations may be attributed to possible groundwater infiltration from the deterioration of the aging catch basin structures. Catch basin air quality located downgradient from CB-40 and CB-41 does not seem to be affected. Catch basins CB-35, CB-36, CB-37, CB-38, CB-39 and CB-50 were identified by local residents as possible sources of odor. These catch basins are downgradient and interconnected with catch basins CB-40 and CB-41. Three of these catch basins were sampled (CB-37, CB-38, and CB-50) and there were no exceedances of the NYSDOH 95th percentile background concentrations.

Although elevated concentrations of BTEX were also detected in CB-11 during the March 2007 sampling event, the source of this does not appear to be related the groundwater plume. This catch basin is a pre-cast concrete drainage structure and there is no evidence of groundwater infiltration. The source of the sheen and associated VOC detections in the catch basin air may be attributable to either road surface runoff that may have been present within the catch basin during the time of the March 2007 sampling event that was subsequently cleaned out or flushed from the structure.

KeySpan has initiated discussions with the Town of Islip of the need to replace or repair catch basins CB-40 and CB-41 to prevent further groundwater infiltration. Replacing catch basins CB-40 and CB-41 with new pre-cast concrete structures will mitigate the catch basin air quality issues at catch basins CB-40 and CB-41 as well as the potential for downgradient migration of vapors to the interconnected catch basins.

If you have any questions, feel free to contact me at (516) 545-2586.

Sincerely,


(for) William J. Ryan
Project Manager

Enclosures

c: J. Nealon (NYSDOH)
W. Parish (NYSDEC Region 1)
R. Paulsen (SCDHS)
T. Leissing (KSE)

TABLES

TABLES

Table 1
 Drainage Structure Summary
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Drainage Structure ID	Catch Basin Details				Storm Sewer Connection Details		
	Type		Grade Elevation	Depth (ft bgs)	Invert Elevation	Invert Direction	Pipe Type
1	Catch Basin	2X4 Non-Leaching	18.5	3	15.5	South	15" RCP
2	Round Drainage Inlet	2.5 X 4 Non-Leaching	17.7	3	14.6	West	12" RCP
3	Drainage Inlet	-	17.2	3	-	North	-
4	Drainage Inlet	-	17.1	2.5	14.4	South	15" CI
5	Catch Basin	2 X 4	16.7	2	14.8	South	15" CI
6	Catch Basin	2.5 X 4	16.7	2	14.6	West	15" CI
7	Catch Basin	-	18.4	6	14.7	West	12" RCP
8	Catch Basin	-	18.4	6.5	-	South	-
9	Catch Basin	2.5 X 4	18.1	5	14.6	East	12" RCP
10	Catch Basin	2.5 X 4	17.3	4	-	South	-
11	Catch Basin	2.5 X 4	16.6	2.5 (Filled with dirt)	14.0	West	24" CI
12	Catch Basin	2.5 X 4	17.1	2 (Filled with silt/leaves)	-	North	-
13	Catch Basin	2.5 X 4	18.8	3 (Filled with leaves)	-	East	-
14	Catch Basin	2X2	16.2	2.5	-	West	-
15	Catch Basin	2X2	16	2	13.4	East	18" RCP
16	Catch Basin	2X4	15.7	1.5	13.4	West	15" RCP
17	Catch Basin	2X2	17.5	2.5	13.6	North	24" RCP
18	Catch Basin	2X2	16.2	2	13.6	East	18" RCP
19	Catch Basin	2X2	16.5	2	13.6	West	18" RCP
20	Catch Basin	2X2	17.2	2	-	West	-
21	Catch Basin	2X2	17.1	(Filled with leaves)	13.8	Northwest	14" CI
22	Catch Basin	2X2	16.8	2	13.8	East	14" CI
23	Catch Basin	2X2	16.9	(Under water)	13.9	South	14" CI
24	Catch Basin	2X2	17.1	2	14.1	West	12" CI
25	Drainage Manhole	-	15.4	6	14.2	North	12" CI
26	Drainage Inlet	-	15.5	6	14.5	South	12" CI
27	Drainage Inlet	-	15.4	7	14.1	West	12" CI
28	Drainage Inlet	-	13.9	5 (Flows West)	14.2	North	12" CI
29	Drainage Inlet	-	13.6	5 (Flows West)	14.5	South	12" CI
30	Drainage Inlet	2X2 Grate	11.4	5.5 (Stream Culvert)	14.1	East	12" RCP
31	Drainage Inlet	2X2 Grate	10.9	5.5 (Stream Culvert)	14.2	East	12" RCP
32	Catch Basin	-	10.7	(Filled with leaves)	14.9	North	12" RCP
33	Curb Inlet	2X2 Conc	13	2.5	-	Northeast	-
34	Catch Basin	2X4	13	3	10.9	West	18" RCP
35	Catch Basin	2X2	15.3	(Filled with silt)	10.2	West	18" RCP
36	Catch Basin	2X2	15.6	2	10	West	18" RCP
37	Catch Basin	2X2	15.6	2	9.7	East	18" RCP
38	Catch Basin	2X2	15.4	2.5	9.2	South	15" RCP
39	Drainage Inlet	2X4	15.2	(Filled with leaves)	9.0	East	18" RCP
40	Catch Basin	2X2	15.5	2	9.0	West	18" RCP
41	Catch Basin	2X2	15.7	2	8.9	East	18" RCP
42	Drainage Inlet	-	16.2	2.5	8.9	West	18" RCP
43	Drainage Inlet	-	16.4	2.5	9.2	North	18" RCP
44	Curb Inlet	5X5 Conc	15.2	-	8.5	East	18" RCP
45	Curb Inlet	5X5 Conc	15.8	-	8.5	West	18" RCP
46	Drainage Inlet	2X4	13.9	(Filled with silt)	-	Southwest	-
47	Catch Basin	2X2	14.7	4 (Stream Culvert)	10.9	North	12" RCP
48	Drainage Inlet	-	15	(Filled with silt)	-	East	-
49	Catch Basin	2X2	14.2	2	-	West	-
50	Drainage Inlet	-	14.5	3	-	North	-
51	Curb Inlet	2.5X2.5	22.2	2.3	11.4	South	-
52	Manhole	4' d	23	10.2	-	East	12" RCP
53	Curb Inlet	3X3	21.9	2	20.2	West	-
54	Curb Inlet	2.5 X 2.5	19	3.2	12.7	Northeast	12" Trans
55	Manhole	4' d	19.4	5.9	12.8	North	15" RCP
56	Catch Basin	3X3	16	4	12.8	East	PCP
57	Curb Inlet	3X3	16.1	2.3	12.8	West	PCP
58	Drainage Inlet	2X2	16.6	2.5	17.0	Northeast	Trans
59	Curb Inlet	2.5X2.5	16	2	18.9	Southwest	Trans
					-	Southwest	-
					16.5	Northeast	12" RCP
					13.8	North	15" PCP
					13.7	South	15" PCP
					13.8	West	15" RCP
					15.3	Southwest	12" PCP
					-	None (Dry Well)	-
					14.4	Southwest	-
					14.0	North	8" CMP
					14.1	Northeast	15" CMP
					14.1	South	15" CMP
					-	Inverts Not Visible	-

Table 1
 Drainage Structure Summary
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Drainage Structure ID	Catch Basin Details			Storm Sewer Connection Details			
	Type	Grade Elevation	Depth (ft bgs)	Invert Elevation	Invert Direction	Pipe Type	
60	Manhole	3' d	17.5	2.8	14.7	North	12" PCP
					-	Southeast	-
					14.6	South	12" PCP
61	Catch Basin	3X3	16.6	1.5	-	Northeast	-
62	Catch Basin	2X2	16.8	1.7	-	South	-
63	Catch Basin	3X3	16.1	4	-	East	-
64	Catch Basin	4X4	19	3.5	15.8	North	18" RCP
65	Catch Basin	4X4	19.1	4.8	14.3	East	18" RCP
					14.9	West	18" RCP
					15.0	South	-
					14.0	South	24X42" CMP
66	Manhole	4X4	18.6	4.6	14.0	West	24X42" CMP
					12.9	North	-
67	Manhole	4X2	16.4	-	12.9	South	-
					12.1	North	-
68	Manhole	4X2	15.3	-	12.1	South	-
					10.8	South	24" PCP
69	Headwall	-	14.5	-	9.8	North	12" Clay
70	Manhole	3' d	14.7	5	9.8	South	12" Clay
					16.7	West	-
71	Catch Basin	3X3	18.4	5	-	South	-
72	Catch Basin	3X3	18.1	5	16.3	East	12" CMP
					14.3	North	15" RCP
73	Manhole	4X6	17.9	3.6	14.3	South	15" RCP
					13.4	East	12x18" RCP
					15.4	North	18" RCP
74	Manhole	4X5	19	4.5	14.5	West	15" RCP
					14.1	North	15" RCP
					14.1	South	15" RCP
75	Manhole	4X5	18.8	4.7	14.3	Northeast	15" RCP
					14.1	North	15" RCP
					14.1	South	15" RCP
76	Manhole	3.5' d	19.2	5.1	16.9	North	18" CMP
					17.2	West	18" CMP
					17.2	East	18" CMP
78	Drainage Inlet	2X3	19.9	3	16.8	South	18" PVC
					17.0	North	18" PVC
79	Drainage Inlet	2X3	19.7	2.5	16.8	West	18" CMP
					16.7	East	18" CMP
80	Drainage Inlet	2X3	19.3	3	16.5	West	18" PVC
					16.3	East	18" PVC
					16.3	Northwest	15" PVC
81	Manhole	4X5	19.7	4	16.2	South	24" PVC
					16.0	North	24" PVC
					16.2	South	24" PVC
82	Drainage Inlet	6' d	19.8	5	15.5	West	12" PVC
					15.5	East	12" PVC
83	Catch Basin	4X5	19.5	5	15.5	East	12" PVC
84	Drainage Inlet	4' d	18.9	4	15.5	East	12" CMP
					15.8	West	24" PVC
85	Drainage Inlet	4X4	19.5	4.5	15.8	North	24" PVC
					16.0	West	24" PVC
					15.0	East	24" PVC
86	Drainage Inlet	4X4	19.3	4.5	14.8	West	24" CMP
					15.0	North	8" PVC
					16.8	South	8" PVC
87	Drainage Inlet	1X1	19.2	2.6	-	East	-
88	Drainage Inlet	-	18.7	4	-	West	-
					13.9	East	24" CMP
89	Drainage Inlet	4X4	18.5	5	15.3	North	15" PVC
					14.3	West	24" PVC
					Inverts Not Visible		
90	Drainage Inlet	2X3	17.9	5	15.1	South	15" PVC
					15.8	West	12" PVC
V	Catch Basin	-	-	-	-	East	-
S	Manhole	-	-	-	-	West	-
					-	North	-

notes

- CI - Cast Iron
- RCP - Reinforced Concrete Pipe
- CMP - Corrugated Metal Pipe
- DI - Drainage Inlet
- RDI - Round Drainage Inlet
- DMH - Drainage Man Hole
- Invert location depicted is the side of the catch basin where the storm sewer connection is located.
- ft bgs - Feet Below Ground Surface

Table 2
 Catch Basin and Storm Sewer Vapor Screening Summary
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Catch Basin #	Location	PID Screening Date	PID Reading (ppm)	Comments/Observations	zNose Sampling Conducted	Vapors Detected with zNose	Catch Basin Air Analytical Sampling Conducted	Catch Basin Sediment Analytical Sampling Conducted	Ambient Air Analytical Sampling Conducted
1	Union Boulevard & Community Road	2/12/2007	0.0	--	--	--	--	--	--
2	Union Boulevard & Community Road	2/12/2007	0.0	--	--	--	--	--	--
3	Community Road	2/12/2007	0.0	--	--	--	--	--	--
4	Community Road	2/12/2007	0.0	--	3/1/2007	NONE	--	--	--
5	Union Boulevard & Community Road	2/12/2007	0.0	--	3/1/2007	NONE	--	--	--
6	Union Boulevard & Community Road	2/12/2007	0.0	Sheen observed in catch basin	--	--	8/30/2007	9/12/2007	8/30/2007
7	Union Boulevard	2/12/2007	0.0	--	--	--	--	--	--
8	Union Boulevard	2/12/2007	0.0	--	--	--	--	--	--
9	Union Boulevard & Johnson Lane	2/12/2007	0.0	--	--	--	--	--	--
10	Union Boulevard	2/12/2007	0.0	--	--	--	--	--	--
11	Union Boulevard & Lanier Lane	2/12/2007	0.0	Sheen observed in catch basin	2/16/2007	Toluene, Naphthalene	3/9/2007 8/31/2007	3/9/2007	3/9/2007 8/31/2007
12	Union Boulevard & Lanier Lane	2/12/2007	0.0	--	--	--	--	--	--
13	Union Boulevard	2/12/2007	0.0	--	--	--	--	--	--
14	Community Road	2/12/2007	0.0	--	--	--	--	--	--
15	Community Road	2/12/2007	0.0	--	--	--	--	--	--
16	Community Road	2/12/2007	0.0	--	--	--	--	--	--
17	Community Road & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
18	Community Road & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
19	Community Road & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
20	Community Road & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
21	Community Road	2/12/2007	0.0	--	--	--	--	--	--
22	Community Road	2/12/2007	0.0	--	--	--	--	--	--
23	Community Road	2/12/2007	0.0	--	--	--	--	--	--
24	Community Road	2/12/2007	0.0	--	--	--	--	--	--
25	Montauk Highway and Community Road	2/20/2007	0.0	--	2/16/2007	NONE	--	--	--
26	Montauk Highway and Community Road	2/20/2007	0.0	--	2/16/2007	Naphthalene	3/9/2007 8/31/2007	3/9/2007	3/9/2007 8/31/2007
27	Montauk Highway	2/20/2007	0.0	--	--	--	--	--	--
28	Montauk Highway and Lanier Lane	2/20/2007	0.0	--	--	--	--	--	--
29	Montauk Highway and Lanier Lane	2/20/2007	0.0	--	--	--	--	--	--
30	Montauk Highway	2/20/2007	0.0	--	--	--	--	--	--
31	Montauk Highway	2/20/2007	0.0	--	--	--	--	--	--
32	Montauk Highway	2/20/2007	0.0	--	--	--	--	--	--
33	Lanier Lane	2/20/2007	0.0	--	--	--	--	--	--
34	Lanier Lane	2/12/2007	0.0	--	--	--	--	--	--
35	Lanier Lane & Cooper Lane	2/12/2007	0.0	Completely filled with sediment	--	--	--	--	--
36	Lanier Lane & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
37	Cooper Lane	2/12/2007	0.0	Faint Intermittant Organic Odor	3/1/2007	NONE	8/30/2007	9/12/2007	8/30/2007
38	Lanier Lane & Cooper Lane	2/12/2007	0.0	--	--	--	9/5/2007	9/12/2007	9/5/2007
39	Cooper Lane	2/12/2007	0.0	Free Draining (No Inverts)	3/1/2007	NONE	--	--	--
40	Lanier Lane	2/12/2007	0.0	Faint Naphthalene Odor	2/16/2007	Ethylbenzene/ m,p-Xylene, Naphthalene	3/9/2007 8/30/2007	3/9/2007	3/9/2007 8/30/2007
41	Lanier Lane	2/12/2007	0.0	Faint Naphthalene Odor	2/16/2007	Ethylbenzene/ m,p-Xylene, o- Xylene, Naphthalene	3/9/2007 8/30/2007	3/9/2007	3/9/2007 8/30/2007
42	Johnson Lane	2/12/2007	0.0	--	--	--	--	--	--
43	Johnson Lane	2/12/2007	0.0	--	--	--	--	--	--
44	Johnson Lane	2/12/2007	0.0	--	--	--	--	--	--
45	Johnson Lane	2/12/2007	0.0	--	--	--	--	--	--
46	Johnson Lane	2/12/2007	0.0	--	--	--	--	--	--
47	Johnson Lane & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
48	Johnson Lane & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
49	Johnson Lane & Cooper Lane	2/12/2007	0.0	--	--	--	--	--	--
50	Johnson Lane & Cooper Lane	2/12/2007	0.0	--	3/1/2007	NONE	8/30/2007	9/12/2007	8/30/2007
64	Union Boulevard	8/30/2007	0.0	--	--	--	8/30/2007	9/12/2007	8/30/2007
77	Ackerson Street	8/30/2007	0.0	--	--	--	8/30/2007	9/12/2007	8/30/2007

Note:
 ppm - parts per million
 -- Not Applicable

Table 3
zNose Screening Results
Catch Basin Investigation
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

Catch Basin 11				
Sample Date/Time: February 16, 2007 1202-1219				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	120	32	3	5
Ethylbenzene/m,p-Xylene	< 172	< 40	0	5
o-Xylene	< 86	< 20	0	5
Naphthalene	7	1	3	5
ASTM Odor Index	1			

Catch Basin 26				
Sample Date/Time: February 28, 2007 1605-1626				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 1071	< 283	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	94	18	5	5
ASTM Odor Index	0			

Catch Basin 40				
Sample Date/Time: February 16, 2007 1018-1035				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 86	< 23	0	4
Ethylbenzene/m,p-Xylene	131	30	1	4
o-Xylene	< 86	< 20	0	4
Naphthalene	5	1	1	4
ASTM Odor Index	1			

Catch Basin 41				
Sample Date/Time: February 16, 2007 1053-1109				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 86	< 23	0	5
Ethylbenzene/m,p-Xylene	311	72	2	5
o-Xylene	98	23	2	5
Naphthalene	9	2	4	5
ASTM Odor Index	1			

Catch Basin 5				
Sample Date/Time: March 1, 2007 0931-0943				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 536	< 142	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	< 21	< 4	0	5
ASTM Odor Index	0			

Table 3
zNose Screening Results
Catch Basin Investigation
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

Catch Basin 6				
Sample Date/Time: March 1, 2007 1023-1034				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 536	< 142	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	< 21	< 4	0	5
ASTM Odor Index	0			

Catch Basin 25				
Sample Date/Time: February 28, 2007 1710-1721				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 1071	< 283	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	< 21	< 4	0	5
ASTM Odor Index	0			

Catch Basin 37				
Sample Date/Time: March 1, 2007 1306-1317				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 536	< 142	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	< 21	< 4	0	5
ASTM Odor Index	0			

Catch Basin 39				
Sample Date/Time: March 1, 2007 1411-1422				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 536	< 142	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	< 21	< 4	0	5
ASTM Odor Index	0			

Catch Basin 50				
Sample Date/Time: March 1, 2007 1526-1538				
Compound	Conc. (ug/m3)	Conc. (ppbv)	Number of Detects	Number of Samples
Toluene	< 536	< 142	0	5
Ethylbenzene/m,p-Xylene	< 536	< 123	0	5
o-Xylene	< 268	< 62	0	5
Naphthalene	< 21	< 4	0	5
ASTM Odor Index	0			

Table 3
zNose Screening Results
Catch Basin Investigation
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

Notes:

The zNose is a screening instrument that has been calibrated to detect the above compounds.

Confirmation of the presence of these compounds requires analytical sampling.

All concentrations are averages over the period indicated.

Table 4
 Ambient Air and Vapor Analytical Sampling Results
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Location		Union Blvd. & Lanier La.				Montauk Highway & Community Rd				Cooper La. & Lanier La.				
Sample Type		Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Ambient Air	Catch Basin Air	Catch Basin Air	Ambient Air
Constituent	NYDOH Outdoor 95th Percentile1	CB-11 3/9/2007	CB-11 8/31/2007	CB-11A 3/9/2007	CB-11A 8/31/2007	CB-26 3/9/2007	CB-26 8/31/2007	CB-26A 3/9/2007	CB-26A 8/31/2007	CB-37 8/30/2007	CB-37A 8/30/2007	CB-38 8/30/2007	Duplicate of CB-38 8/30/2007	CB-38A 8/30/2007
BTEX (ug/m3)														
Benzene	5.8	130	1.3	2.0	0.86	2.1	1.3	1.2	1.4	0.38 J	0.29 J	0.83	0.45 J	0.83
Toluene	21	490	2.7	3.6	3.0	5.8	2.7	2.5	2.2	1.3	0.56 J	2.8	2.3	5.4
Ethylbenzene	1.9	79	0.48 J	0.69 J	0.52 J	0.78 J	0.39 J	0.48 J	0.3 J	0.87	0.87 U	1.7 J	0.35 J	0.65 J
Xylene, m,p-	3.1	110	1.4 J	1.4 J	1.2 J	2.2	0.74 J	1.4 J	0.61 J	1.1 J	1.7 U	2.1	0.78 J	1.7
Xylene, o-	2.5	52	0.82 J	0.61 J	0.39 J	0.78 J	0.26 J	0.43 J	0.87 UJ	1.2 J	0.87 UJ	1.7 J	0.3 J	0.56 J
Other VOCs (ug/m3)														
Acetaldehyde	NE	0.36 UJ	9.0 U	0.36 UJ	36	0.36 UJ	50	0.36 UJ	38	75	53	28	22	35
Acetone	58	38	13	9.8 J	14	9.4 J	12	12 J	24	15	19	11	9.9	20
Acrolein (propenal)	NE	0.41 J	0.53	0.27 J	0.71	0.23 J	0.5	0.39 J	1.2	0.8	0.78	0.66	0.46 U	0.71
Allyl chloride	NE	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Benzothiophene	NE	5.5 UJ	14 U	5.5 UJ	14 U	5.5 UJ	14 U	5.5 UJ	14 U	14 U	14 U	14 U	14 U	14 U
Bromodichloromethane	NE	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Bromoform	NE	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	0.9	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Butadiene, 1,3-	NE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.13 J	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
Butane	NE	3.0	1.1	1.8	1.2	3.4	1.6	2.3	1.4	0.55	0.64	0.97	0.64	1.1
Butanone,2-	17	4.7	1.3	1.0 J	3.2	1.1 J	5.1	1.3 J	6.6	6.9	6.8	2.6	2.1	2.6
Carbon disulfide	NE	1.1	1.6 U	0.62 U	1.6 U	0.31 J	1.6 U	0.62 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U
Carbon tetrachloride	1	0.50 J	0.57 J	0.44 J	0.57 J	0.50 J	0.57 J	0.44 J	0.5 J	0.57 J	0.57 J	0.57 J	0.44 J	0.57 J
Chlorobenzene	<0.25	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Chloroethane	0.4	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	0.5	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Chloromethane	4.6	1.8	1.0	1.2	1.1	1.5	1.2	1.3	1.0	1.4	0.95	1.8	1.7	0.83
Chlorotoluene,2-	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cryofluorane	1.3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	0.56 J	1.4 U
Cyclohexane	3	0.79	0.69 U	0.34 J	0.28 J	0.52 J	0.21 J	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 J	0.69
Decane, n-	3.6	11	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.81 J
Dibromochloromethane	NE	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dibromoethane,1,2-	<0.25	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Dichlorobenzene,1,2-	0.9	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene,1,3-	0.7	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene,1,4-	0.8	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	11	3.1	2.6	2.8	2.7	2.9	2.8	2.6	2.5	2.7	2.3	2.7	2.5	2.6
Dichloroethane,1,1-	<0.25	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Dichloroethane,1,2-	<0.25	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Dichloroethene, cis-1,2-	<0.25	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Dichloroethene,1,1-	<0.25	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Dichloropropane,1,2-	<0.25	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Dichloropropene, cis-1,3	<0.25	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Dichloropropene, trans-1,3	<0.25	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Dioxane,1,4-	NE	0.83 J	0.72 U	1.8 U	0.72 U	1.8 U	0.72 U	1.8 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Dodecane, n-	7.6	3.0	1.4 U	0.77 J	1.4 U	1.4 U	0.49 J	1.4 U	1.4 U	0.77 J	1.4 U	1.4 U	1.4 U	0.77 J
Ethanol	220	9.4 U	6.3	9.4 U	22	9.4 U	27	9.4 U	30	38	36	14	12	19
Ethylthiophene, 2-	NE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Ethyltoluene, p-	NE	3.5	0.98 UJ	0.98 U	0.98 UJ	0.98 U	0.98 UJ	0.98 U	0.98 UJ	0.98 UJ	0.98 UJ	0.98 UJ	0.98 UJ	0.25 J
Heptane, n-	5.1	0.82	0.41 J	0.53 J	0.41 J	0.98	0.61 J	0.37 J	0.61 J	0.82 U	0.82 U	0.45 J	0.33 J	0.82
Hexachlorobutadiene	7	2.1 UJ	2.1 U	2.1 UJ	2.1 U	2.1 UJ	2.1 U	2.1 UJ	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Hexane, n-	3.6	1.1	1.7	0.88	1.9	1.8	1.9	1.2	2.1	1.5	1.3	0.77	0.56 J	1.6
Hexanone,2-	NE	2.0 U	0.82 U	2.0 U	0.29 J	4.0	0.53 J	2.0 U	0.53 J	0.74 J	0.7 J	0.82 U	0.82 U	0.82 U
Indan	NE	7.3	0.48 J	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.63 J	0.97 U	0.58 J	0.97 U	0.97 U
Indene	NE	8.8	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.52 J	0.95 U	0.47 J	0.95 U	0.95 U
Methyl tert-butyl ether	5.9	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Methyl-2-pentanone,4-	2.9	0.78 J	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.9
Methylene chloride	2.9	1.8 J	7.5	1.7 U	3.1	2.1 J	2.9	1.8 J	4.0	2.9	2.2	1.7 U	2.3	4.5
Methylnaphthalene,1-	NE	14 U	5.8 U	14 U	5.8 U	14 U	5.8 U	14 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U	5.8 U
Methylnaphthalene,2-	NE	14 U	29 U	14 U	29 U	14 U	29 U	14 U	29 U	29 U	29 U	29 U	29 U	29 U
Methylthiophene, 2-	NE	0.56 J	0.8 U	0.80 U	0.8 U	0.80 U	0.8 U	0.80 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Methylthiophene, 3-	NE	0.76 J	0.8 U	0.80 U	0.8 U	0.80 U	0.8 U	0.80 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Naphthalene	10	4.2 J	1.0 UJ	2.6 U	1.0 UJ	2.6 U	1.0 UJ	2.6 U	0.31 J	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
Nonane	1.2	3.4	0.26 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U	0.58 J
Octane, n-	2.1	0.70 J	0.93 U	0.93 U	0.93 U	0.28 J	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.33 J

Table 4
 Ambient Air and Vapor Analytical Sampling Results
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Location		Union Blvd. & Lanier La.				Montauk Highway & Community Rd				Cooper La. & Lanier La.				
Sample Type		Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Ambient Air	Catch Basin Air	Catch Basin Air	Ambient Air
Constituent	NYDOH Outdoor 95th Percentile ¹	CB-11 3/9/2007	CB-11 8/31/2007	CB-11A 3/9/2007	CB-11A 8/31/2007	CB-26 3/9/2007	CB-26 8/31/2007	CB-26A 3/9/2007	CB-26A 8/31/2007	CB-37 8/30/2007	CB-37A 8/30/2007	CB-38 8/30/2007	Duplicate of CB-38 8/30/2007	CB-38A 8/30/2007
Pentane	NE	19	1.1	0.94	1.1	20	1.2	1.1	1.2	0.56 J	0.59	0.94	0.71	1.9
Propanol,2-	NE	1.4 J	3.4	5.4 J	1.8	1.2 U	1.1	1.2 U	1.7	1.7	1.3	0.86	0.74	4.2
Styrene	0.6	2.8	0.85 U	0.85 U	0.85 U	2.3	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
t-Butyl alcohol	NE	4.7	0.64	0.61 U	0.36 J	0.61 U	0.39 J	0.61 U	0.7	0.61 U	0.61 U	0.18 J	0.61 U	0.39 J
Tetrachloroethane,1,1,2,2-	<0.25	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	1.6	1.4 U	0.41 J	1.4 U	0.41 J	1.4 U	0.41 J	1.4 U	0.41 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Tetramethylbenzene, 1,2,4,5-	NE	1.1 U	14 U	1.1 U	14 U	1.1 U	14 U	1.1 U	14 U	14 U	14 U	14 U	14 U	14 U
Thiophene	NE	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
Trans-1,2-dichloroethene	NE	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Trichloro-1,2,2-trifluoroethane,	3.6	0.61 J	0.54 J	0.61 J	0.54 J	0.77 J	0.54 J	0.46 J	0.69 J	0.61 J	0.61 J	0.69 J	0.46 J	0.54 J
Trichlorobenzene,1,2,4-	4.8	3.7 U	1.5 U	3.7 U	1.5 U	3.7 U	1.5 U	3.7 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Trichloroethane,1,1,1-	0.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethane,1,1,2-	<0.25	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	0.5	1.1 U	0.43 J	1.1 U	1.1 U	1.1 U	0.32 J	1.1 U	1.1 U	0.43 J	1.1 U	1.1 U	0.27 J	1.1 U
Trichlorofluoromethane	6.1	1.5	1.4	1.6	1.4	1.6	1.4	1.4	1.5	1.5	1.2	1.2	1.2	1.6
Trimethylbenzene,1,2,3-	0.6	1.9	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.29 J	0.98 U	0.49 J
Trimethylbenzene,1,2,4-	2.5	5.8	0.29 J	0.49 J	0.25 J	0.64 J	0.98 UJ	0.49 J	0.98 UJ	0.98 UJ	0.98 UJ	0.39 J	0.98 UJ	0.69 J
Trimethylbenzene,1,3,5-	1	2.8	0.98 UJ	0.98 U	0.98 UJ	0.98 U	0.98 UJ	0.98 U	0.98 UJ	0.98 UJ	0.98 UJ	0.98 UJ	0.98 UJ	0.29 J
Trimethylpentane, 2,2,4-	2	0.61 J	0.93	0.93 U	0.93	0.84 J	0.56 J	0.93 U	0.65 J	0.23 J	0.93 U	0.98	0.7 J	0.93
Undecane, n-	2.3	4.0 J	1.3 U	6.4 U	1.3 U	6.4 U	1.3 U	6.4 U	1.3 U	0.51 J	1.3 U	0.38 J	1.3 U	1.1 J
Vinyl bromide	NE	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Vinyl chloride	<0.25	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U

Table 4
 Ambient Air and Vapor Analytical Sampling Results
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Location		Lanier La.										Cooper La.		Union Blvd. & Community Rd.	
Sample Type		Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Ambient Air	Catch Basin Air	Ambient Air	
Constituent	NYDOH Outdoor 95th Percentile1	CB-40 3/9/2007	CB-40 8/30/2007	CB-40A 3/9/2007	CB-40A 8/30/2007	CB-41 3/9/2007	Duplicate of CB-41 3/9/2007	CB-41 8/30/2007	CB-41A 3/9/2007	CB-41A 8/30/2007	CB-50 8/30/2007	CB-50A 8/30/2007	CB-6 8/30/2007	CB-6A 8/30/2007	
BTEX (ug/m3)															
Benzene	5.8	36	31	1.2	0.41 J	1.4	1.4	34	1.4	0.32 J	0.64 U	0.64 U	0.64 U	0.64 U	
Toluene	21	42	250	2.0	1.2	2.2	2.4	270	3.1	1.1	0.72 J	0.6 J	1.3	1.1	
Ethylbenzene	1.9	120	430	1.1	0.69 J	1.0	1.2	560	1.7	0.82 J	0.3 J	0.87 U	0.22 J	0.87 U	
Xylene, m,p-	3.1	71	520	1.3 J	0.91 J	1.2 J	1.3 J	560	3.8	0.82 J	0.3 J	1.7 U	0.48 J	0.43 J	
Xylene, o-	2.5	70	310 J	0.78 J	0.56 J	0.69 J	0.74 J	380 J	2.0	0.52 J	0.3 J	0.87 U	0.87 U	0.87 U	
Other VOCs (ug/m3)															
Acetaldehyde	NE	0.36 UJ	52	0.36 UJ	63	0.36 UJ	0.36 UJ	69	0.36 UJ	14	56	15	54	42	
Acetone	58	6.6 J	10	9.3 J	20	5.8 J	7.7 J	12	37	25	18	14	16	18	
Acrolein (propenal)	NE	0.46 U	0.44 J	0.46 U	1.0	0.46 U	0.46 U	0.94	1.3	0.85	0.73	0.46 U	0.46 U	0.69	
Allyl chloride	NE	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	
Benzo(a)anthracene	NE	5.5 UJ	1.2 J	5.5 UJ	14 U	5.5 UJ	5.5 UJ	0.93 J	5.5 UJ	14 U	14 U	14 U	14 U	14 U	
Bromodichloromethane	NE	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	
Bromoform	NE	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	
Bromomethane	0.9	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	
Butadiene, 1,3-	NE	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	
Butane	NE	2.4	0.71	1.7	0.59	2.1	2.4	0.64	2.1	0.43 J	0.67	0.36 J	1.3	1.2	
Butanone, 2-	17	0.53 J	5.6	1.3 J	5.7	1.5 U	0.65 J	5.0	8.6	1.4	7.6	1.1	8.4	5.2	
Carbon disulfide	NE	0.62 U	1.6 U	0.19 J	1.6 U	0.62 U	0.62 U	1.6 U	1.9	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	
Carbon tetrachloride	1	0.38 J	0.5 J	0.50 J	0.63 J	0.31 J	0.38 J	0.44 J	0.57 J	0.63 J	0.63 J	0.57 J	0.69 J	0.69 J	
Chlorobenzene	<0.25	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	
Chloroethane	0.4	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.34 J	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	
Chloroform	0.5	0.98 U	0.24 J	0.98 U	0.98 U	0.98 U	0.98 U	0.29 J	0.63 J	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	
Chloromethane	4.6	0.97	0.91	1.3	1.3	1.1	1.3	1.1	2.4	0.76	2.0	1.3	2.5	1.3	
Chlorotoluene, 2-	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Cryofluorane	1.3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
Cyclohexane	3	0.55 J	0.86	0.69 U	0.69 U	0.69 U	0.69 U	1.2	0.69 U	0.69 U	0.69 U	0.69 U	0.24 J	0.69 U	
Decane, n-	3.6	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	2.0	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
Dibromochloromethane	NE	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	
Dibromoethane, 1,2-	<0.25	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
Dichlorobenzene, 1,2-	0.9	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
Dichlorobenzene, 1,3-	0.7	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
Dichlorobenzene, 1,4-	0.8	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.36 J	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	
Dichlorodifluoromethane	11	2.9	2.9	2.9	2.2	2.7	3.2	2.8	2.8	2.5	2.4	2.3	2.3	2.6	
Dichloroethane, 1,1-	<0.25	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	
Dichloroethane, 1,2-	<0.25	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	
Dichloroethene, cis-1,2-	<0.25	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	
Dichloroethene, 1,1-	<0.25	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	
Dichloropropane, 1,2-	<0.25	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	
Dichloropropene, cis-1,3	<0.25	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	
Dichloropropene, trans-1,3	<0.25	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	
Dioxane, 1,4-	NE	1.8 U	0.72 U	1.8 U	0.72 U	1.8 U	1.8 U	0.72 U	1.8 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	
Dodecane, n-	7.6	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	7.2	1.4 U	0.49 J	1.4 U	1.4 U	1.4 U	
Ethanol	220	9.4 U	30	9.4 U	29	9.4 U	9.4 U	22	14 J	5.0	27	5.1	35	20	
Ethylthiophene, 2-	NE	0.92 U	0.64 J	0.92 U	0.92 U	0.92 U	0.92 U	0.73 J	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	
Ethyltoluene, p-	NE	7.7	24 J	0.98 U	0.98 UJ	0.98 U	0.98 U	26 J	2.9	0.98 UJ	0.98 U	0.98 U	0.98 U	0.98 U	
Heptane, n-	5.1	0.82 U	0.41 J	0.82 U	0.37 J	0.20 J	0.82 U	0.82 U	1.0	0.29 J	0.33 J	0.82 U	0.82 U	0.29 J	
Hexachlorobutadiene	7	2.1 UJ	2.1 U	2.1 UJ	2.1 U	2.1 UJ	2.1 UJ	2.1 U	2.1 UJ	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	
Hexane, n-	3.6	1.1	1.8	0.49 J	1.4	1.1	1.1	1.0	1.9	1.3	1.2	1.7	1.7	1.6	
Hexanone, 2-	NE	2.0 U	0.65 J	2.0 U	0.82	2.0 U	2.0 U	0.82 U	3.7	0.37 J	0.82	0.82 U	0.74 J	0.53 J	
Indan	NE	25	270	0.97 U	0.34 J	0.29 J	0.34 J	280	2.6	0.29 J	0.97 U	0.97 U	0.97 U	0.97 U	
Indene	NE	5.9	160	0.95 U	0.28 J	0.95 U	0.95 U	150	0.24 J	0.95 U	0.33 J	0.95 U	0.95 U	0.95 U	
Methyl tert-butyl ether	5.9	0.47 J	1.8	0.72 U	0.72 U	0.72 U	0.72 U	2.2	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	
Methyl-2-pentanone, 4-	2.9	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	2.0	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	
Methylene chloride	2.9	1.7 U	2.8	1.7 U	2.6	1.7 U	1.7 U	2.3	4.0 J	3.1	2.2	2.4	3.2	2.2	
Methylnaphthalene, 1-	NE	14 U	2.4 J	14 U	5.8 U	14 U	14 U	1.4 J	1.0 J	5.8 UJ	5.8 UJ	5.8 UJ	5.8 UJ	5.8 UJ	
Methylnaphthalene, 2-	NE	14 U	0.58 J	14 U	29 U	14 U	14 U	0.46 J	1.3 J	29 U	29 U	29 U	29 U	29 U	
Methylthiophene, 2-	NE	0.80 U	0.36 J	0.80 U	0.8 U	0.80 U	0.80 U	0.36 J	0.80 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	
Methylthiophene, 3-	NE	0.80 U	0.84	0.80 U	0.8 U	0.80 U	0.80 U	0.68 J	0.80 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	
Naphthalene	10	1.4 J	20 J	2.6 U	1.0 UJ	2.6 U	2.6 U	19 J	4.0 J	0.26 J	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	
Nonane	1.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
Octane, n-	2.1	0.93 U	0.93 U	0.93 U	0.23 J	0.93 U	0.93 U	0.93 U	1.9	0.93 U	0.93 U	0.93 U	0.28 J	0.93 U	

Table 4
 Ambient Air and Vapor Analytical Sampling Results
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Location		Lanier La.										Cooper La.		Union Blvd. & Community Rd.	
Sample Type		Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Catch Basin Air	Catch Basin Air	Ambient Air	Ambient Air	Catch Basin Air	Ambient Air	Catch Basin Air	Ambient Air	
Constituent	NYDOH Outdoor 95th Percentile ¹	CB-40	CB-40	CB-40A	CB-40A	CB-41	Duplicate of CB-41	CB-41	CB-41A	CB-41A	CB-50	CB-50A	CB-6	CB-6A	
		3/9/2007	8/30/2007	3/9/2007	8/30/2007	3/9/2007	3/9/2007	8/30/2007	3/9/2007	8/30/2007	8/30/2007	8/30/2007	8/30/2007	8/30/2007	8/30/2007
Pentane	NE	18	0.68	0.62	0.53 J	8.0 J	14 J	0.71	1.0	0.44 J	0.44 J	0.35 J	1.1	1.3	
Propanol,2-	NE	1.2 U	1.1	1.2 U	1.1	1.2 U	1.2 U	1.2	4.1	0.91	0.91	0.76	1.2	0.98	
Styrene	0.6	2.7	7.6	0.85 U	0.85 U	0.43 J	0.68 J	7.5	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	
t-Butyl alcohol	NE	0.61 U	0.61 U	0.61 U	0.36 J	0.61 U	0.61 U	0.61 U	1.0	2.0	0.82	0.61 U	1.2	0.3 J	
Tetrachloroethane,1,1,2,2-	<0.25	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
Tetrachloroethene	1.6	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
Tetramethylbenzene, 1,2,4,5-	NE	1.1 U	6.0 J	1.1 U	1.4 U	1.1 U	1.1 U	5.9 J	0.33 J	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	
Thiophene	NE	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	
Trans-1,2-dichloroethene	NE	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	
Trichloro-1,2,2-trifluoroethane,	3.6	0.54 J	0.61 J	0.54 J	0.69 J	0.46 J	0.46 J	0.69 J	0.61 J	0.54 J	0.69 J	0.61 J	0.61 J	0.69 J	
Trichlorobenzene,1,2,4-	4.8	3.7 U	1.5 U	3.7 U	1.5 U	3.7 U	3.7 U	1.5 U	3.7 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	
Trichloroethane,1,1,1-	0.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	
Trichloroethane,1,1,2-	<0.25	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	
Trichloroethene	0.5	1.1 U	0.32 J	1.1 U	1.1 U	1.1 U	1.1 U	0.32 J	1.1 U	1.1 U	1.1 U	1.1 U	0.59 J	1.1 U	
Trichlorofluoromethane	6.1	1.5	1.4	1.5	1.2	1.5	1.5	1.5	1.6	1.1	1.6	1.4	1.5	1.4	
Trimethylbenzene,1,2,3-	0.6	3.8	48	0.98 U	0.98 U	0.98 U	0.98 U	52	3.0	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	
Trimethylbenzene,1,2,4-	2.5	8.9	40 J	0.29 J	0.98 UJ	0.98 U	0.25 J	41 J	5.3	0.98 UJ	0.98 U	0.98 U	0.98 U	0.98 U	
Trimethylbenzene,1,3,5-	1	5.6	22 J	0.98 U	0.98 UJ	0.98 U	0.98 U	25 J	1.7	0.98 UJ	0.98 U	0.98 U	0.98 U	0.98 U	
Trimethylpentane, 2,2,4-	2	0.65 J	0.42 J	0.93 U	0.56 J	0.28 J	0.47 J	0.33 J	0.28 J	0.47 J	0.93 U	0.28 J	0.42 J	0.42 J	
Undecane, n-	2.3	6.4 U	1.3 U	6.4 U	1.3 U	6.4 U	0.45 J	1.3 U	1.9 J	1.3 U	0.32 J	1.3 U	1.3 U	1.3 U	
Vinyl bromide	NE	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	
Vinyl chloride	<0.25	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	

Table 4
 Ambient Air and Vapor Analytical Sampling Results
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Location		Ackerson St.		Union Blvd.		Orinoco Drive	
Sample Type		Catch Basin Air	Ambient Air	Catch Basin Air	Ambient Air	Field Blank Ambient Air	Field Blank Ambient Air
Constituent	NYDOH Outdoor 95th Percentile1	CB-77 8/30/2007	CB-77A 8/30/2007	CB-64 8/30/2007	CB-64A 8/30/2007	FB-1 3/9/2007	FB 8/30/2007
BTEX (ug/m3)							
Benzene	5.8	0.64 U	0.64 U	0.64 U	0.64 U	0.96	0.48 J
Toluene	21	1.2	1.2	1.4	1.6	1.4	2.0
Ethylbenzene	1.9	0.87 U	0.3 J	0.87 U	0.87 U	0.30 J	0.22 J
Xylene, m,p-	3.1	0.48 J	0.65 J	0.39 J	0.39 J	0.82 J	0.52 J
Xylene, o-	2.5	0.87 U	0.3 J	0.87 U	0.87 U	0.22 J	0.87 UJ
Other VOCs (ug/m3)							
Acetaldehyde	NE	45	490	53	16	0.36 UJ	9.8
Acetone	58	13	47	14	14	11 J	10
Acrolein (propenal)	NE	0.8	13	0.71	0.55	0.37 J	0.25 J
Allyl chloride	NE	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Benzothiophene	NE	14 U	14 U	14 U	14 U	5.5 UJ	14 U
Bromodichloromethane	NE	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Bromoform	NE	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane	0.9	0.78 U	0.78 U	0.39 J	0.78 U	0.78 U	0.78 U
Butadiene, 1,3-	NE	0.44 U	0.27 J	0.44 U	0.44 U	0.44 U	0.44 U
Butane	NE	0.97	1.0	0.86	0.62	1.6	0.74
Butanone, 2-	17	6.6	24	6.6	1.2	1.9	0.97
Carbon disulfide	NE	1.6 U	1.6 U	1.6 U	1.6 U	1.0	1.6 U
Carbon tetrachloride	1	0.5 J	0.69 J	0.57 J	0.57 J	0.44 J	0.82 J
Chlorobenzene	<0.25	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Chloroethane	0.4	0.53 U	0.45 J	0.53 U	0.53 U	0.53 U	0.53 U
Chloroform	0.5	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Chloromethane	4.6	1.8	1.5	1.6	0.95	1.4	1.0
Chlorotoluene, 2-	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cryofluorane	1.3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Cyclohexane	3	0.69 U	0.69 U	0.17 J	0.69 U	0.69 U	0.69 U
Decane, n-	3.6	1.2 U	1.2 U	1.2 U	1.2 U	0.99 J	1.2 U
Dibromochloromethane	NE	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dibromoethane, 1,2-	<0.25	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Dichlorobenzene, 1,2-	0.9	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene, 1,3-	0.7	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorobenzene, 1,4-	0.8	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dichlorodifluoromethane	11	2.6	2.2	2.3	2.1	2.6	2.6
Dichloroethane, 1,1-	<0.25	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Dichloroethane, 1,2-	<0.25	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U	0.81 U
Dichloroethene, cis-1,2-	<0.25	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Dichloroethene, 1,1-	<0.25	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Dichloropropane, 1,2-	<0.25	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Dichloropropene, cis-1,3	<0.25	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Dichloropropene, trans-1,3	<0.25	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Dioxane, 1,4-	NE	0.72 U	0.72 U	0.72 U	0.72 U	1.8 U	0.72 U
Dodecane, n-	7.6	1.4 U	1.4 U	1.4 U	1.4 U	2.2	1.4 U
Ethanol	220	27	1200	27	6.1	9.4 U	6.0
Ethylthiophene, 2-	NE	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Ethyltoluene, p-	NE	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 UJ
Heptane, n-	5.1	0.29 J	0.7 J	0.29 J	0.25 J	0.33 J	0.41 J
Hexachlorobutadiene	7	2.1 U	2.1 U	2.1 U	2.1 U	2.1 UJ	2.1 U
Hexane, n-	3.6	1.3	1.4	1.4	1.2	0.42 J	0.92
Hexanone, 2-	NE	0.65 J	1.5	0.53 J	0.82 U	0.61 J	0.82 U
Indan	NE	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Indene	NE	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U
Methyl tert-butyl ether	5.9	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Methyl-2-pentanone, 4-	2.9	0.82 U	0.82 U	0.29 J	0.82 U	0.82 U	0.82 U
Methylene chloride	2.9	3.0	1.7 J	2.3	1.9	1.7 U	2.3
Methylnaphthalene, 1-	NE	5.8 UJ	5.8 UJ	5.8 UJ	5.8 UJ	14 U	5.8 U
Methylnaphthalene, 2-	NE	29 U	29 U	29 U	29 U	0.41 J	29 U
Methylthiophene, 2-	NE	0.8 U	0.8 U	0.8 U	0.8 U	0.80 U	0.8 U
Methylthiophene, 3-	NE	0.8 U	0.8 U	0.8 U	0.8 U	0.80 U	0.8 U
Naphthalene	10	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ	2.6 U	1.0 UJ
Nonane	1.2	0.31 J	1.0 U	1.0 U	1.0 U	0.47 J	1.0 U
Octane, n-	2.1	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U

Table 4
 Ambient Air and Vapor Analytical Sampling Results
 Catch Basin Investigation
 Bay Shore/Brightwaters Former MGP Site
 Operable Unit No. 3 (OU-3)

Location		Ackerson St.		Union Blvd.		Orinoco Drive	
Sample Type		Catch Basin Air	Ambient Air	Catch Basin Air	Ambient Air	Field Blank Ambient Air	Field Blank Ambient Air
Constituent	NYDOH Outdoor 95th Percentile1	CB-77 8/30/2007	CB-77A 8/30/2007	CB-64 8/30/2007	CB-64A 8/30/2007	FB-1 3/9/2007	FB 8/30/2007
Pentane	NE	0.62	0.71	0.62	0.77	0.59	0.91
Propanol,2-	NE	1.2	23	1.0	0.76	1.2 U	1.7
Styrene	0.6	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
t-Butyl alcohol	NE	0.82	0.61 U	1.1	0.61 U	0.45 J	0.21 J
Tetrachloroethane,1,1,2,2-	<0.25	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Tetrachloroethene	1.6	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Tetramethylbenzene, 1,2,4,5-	NE	14 U	14 U	14 U	14 U	1.1 U	14 U
Thiophene	NE	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
Trans-1,2-dichloroethene	NE	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Trichloro-1,2,2-trifluoroethane,	3.6	0.54 J	0.54 J	0.54 J	0.54 J	0.54 J	0.61 J
Trichlorobenzene,1,2,4-	4.8	1.5 U	1.5 U	1.5 U	1.5 U	3.7 U	1.5 U
Trichloroethane,1,1,1-	0.7	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethane,1,1,2-	<0.25	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Trichloroethene	0.5	0.38 J	1.1 U	0.43 J	1.1 U	1.1 U	1.1 U
Trichlorofluoromethane	6.1	1.2 U	1.2	1.5	1.2	1.4	1.4
Trimethylbenzene,1,2,3-	0.6	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Trimethylbenzene,1,2,4-	2.5	0.98 U	0.98 U	0.98 U	0.98 U	0.54 J	0.98 UJ
Trimethylbenzene,1,3,5-	1	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 UJ
Trimethylpentane, 2,2,4-	2	0.42 J	0.42 J	0.28 J	0.23 J	0.93 U	0.47 J
Undecane, n-	2.3	1.3 U	1.3 U	1.3 U	1.3 U	1.6 J	0.32 J
Vinyl bromide	NE	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U	0.87 U
Vinyl chloride	<0.25	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U

Table 4
Ambient Air and Vapor Analytical Sampling Results
Catch Basin Investigation
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

Notes:

¹ Source: New York State Department of Health (NYSDOH), October 2006. Summary of Indoor and Outdoor Levels of Volatile Organic Compounds from Fuel Oil Heated Homes reported in various locations within sampled homes in NYS, 1997-2003. Background values for naphthalene are from the NYSDOH 1997 Control Home Database presented in Table C3 of the NYSDOH 2006 Guidance.

NE- not established

ND - not detected; total concentration is listed as ND because no compounds were detected in the group

J - estimated value

U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis

Bolding indicates a detected result value

Shading and bolding indicates that the detected result value exceeds NYSDOH 95 Percentile

ug/m3 - micrograms/meter cubed

BTEX - benzene, toluene, ethlybenzene, and xylene

VOCs - volatile organic compounds

Table 5
Soil Analytical Results
Catch Basin Survey
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

	NYSDEC SCG	CB-11 3/9/2007	CB-26 3/9/2007	CB-37 9/12/2007	CB-38 9/12/2007	CB-40 3/9/2007	CB-41* 3/9/2007	CB-50 9/12/2007	CB-6 9/12/2007	Duplicate of CB-77 9/12/2007	CB-77 9/12/2007
BTEX (mg/kg)											
Benzene	0.06	0.0055	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Toluene	1.5	0.0099	0.025	0.0042 U	0.0019 U	0.0023 U	0.00079 J	0.0021 J	0.0032 U	0.0067	0.0031 J
Ethylbenzene	5.5	0.0021	0.002 J	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Xylene, m,p-	NE	0.12	0.0034 J	0.0083 U	0.0039 U	0.0047 U	0.00073 J	0.0056 U	0.0063 U	0.0048 U	0.0063 U
Xylene, o-	NE	0.1 J	0.0031 U	0.0042 U	0.0019 U	0.0017 J	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Xylene, total	1.2	0.22	0.0034	0.0083 U	0.0039 U	0.0017	0.00073	0.0056 U	0.0063 U	0.0048 U	0.0063 U
Total BTEX	NE	0.2375	0.0304	ND	ND	0.0017	0.00152	0.0021	ND	0.0067	0.0031
Other VOCs (mg/kg)											
Acetone	0.2	0.015 J	0.11 J	0.019 B	0.0048 U	0.055 J	0.0056 J	0.015 B	0.0078 JB	0.038 B	0.012 B
Bromobenzene	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Bromodichloromethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Bromoform	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Bromomethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Butanone,2-	0.3	0.0043	0.019	0.0042 U	0.0019 U	0.01 J	0.0014 UJ	0.0017 J	0.0032 U	0.0073	0.002 J
Butylbenzene, n-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Butylbenzene, tert-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Butylbenzene,sec-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Carbon disulfide	2.7	0.002 U	0.002 J	0.0042 U	0.0019 U	0.0021 J	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Carbon tetrachloride	0.6	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chlorobenzene	1.7	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chloroethane	1.9	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chloroethylvinylether,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chloroform	0.3	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chloromethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chlorotoluene, 4-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Chlorotoluene,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dibromo-3-chloropropane,1,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dibromochloromethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dibromoethane,1,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dibromomethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichlorodifluoromethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloroethane,1,1-	0.2	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloroethane,1,2-	0.1	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloroethene, cis-1,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloroethene,1,1-	0.4	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloropropane,1,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloropropane,1,3-	0.3	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloropropane,2,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloropropene, cis-1,3	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloropropene, trans-1,3	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Dichloropropene,1,1-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Hexanone,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Isopropyl benzene	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.015 J	0.0015 J	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Isopropyltoluene,4-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.004 J	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Methyl tert-butyl ether	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0066	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Methyl-2-pentanone,4-	1	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Methylene chloride	0.1	0.0049 U	0.0078 U	0.0035 JB	0.0022 JB	0.0058 U	0.0035 U	0.004 JB	0.0031 JB	0.0039 JB	0.0066 JB
Propylbenzene, n-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0065 J	0.00078 J	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Styrene	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Tetrachloroethane,1,1,1,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Tetrachloroethane,1,1,2,2-	0.6	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 UJ	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U

Table 5
Soil Analytical Results
Catch Basin Survey
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

	NYSDEC SCG	CB-11 3/9/2007	CB-26 3/9/2007	CB-37 9/12/2007	CB-38 9/12/2007	CB-40 3/9/2007	CB-41* 3/9/2007	CB-50 9/12/2007	CB-6 9/12/2007	Duplicate of CB-77 9/12/2007	CB-77 9/12/2007
Tetrachloroethene	1.4	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trans-1,2-dichloroethene	0.3	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trichlorobenzene,1,2,3-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trichloroethane,1,1,1-	0.8	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trichloroethane,1,1,2-	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trichloroethene	0.7	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trichlorofluoromethane	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trichloropropane,1,2,3-	0.4	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trimethylbenzene,1,2,4-	NE	0.0072 J	0.0028 J	0.0042 U	0.0019 U	0.018 J	0.00087 J	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Trimethylbenzene,1,3,5-	NE	0.03 J	0.0031 U	0.0042 U	0.0019 U	0.0012 J	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Vinyl acetate	NE	0.002 U	0.0031 U	0.0042 U	0.0019 U	R	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U
Vinyl chloride	0.2	0.002 U	0.0031 U	0.0042 U	0.0019 U	0.0023 U	0.0014 U	0.0028 U	0.0032 U	0.0024 U	0.0031 U

Table 5
Soil Analytical Results
Catch Basin Survey
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

	NYSDEC SCG	CB-11 3/9/2007	CB-26 3/9/2007	CB-37 9/12/2007	CB-38 9/12/2007	CB-40 3/9/2007	CB-41* 3/9/2007	CB-50 9/12/2007	CB-6 9/12/2007	Duplicate of CB-77 9/12/2007	CB-77 9/12/2007
Non-carcin PAHs (mg/kg)											
Acenaphthene	50	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.16 J	0.27 U	0.64	0.36
Acenaphthylene	41	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Anthracene	50	0.2 U	0.21 J	0.29 J	0.2 J	0.21 U	0.2 U	0.35	0.27 U	0.95	0.7
Benzo[g,h,i]perylene	50	0.2 U	0.39	1.6	1.3	0.21 U	0.12 J	1.5	0.94	2.7	1.8
Fluoranthene	50	0.36	3.2	5.9	4.2	0.64 J	0.67 J	6.2	2.3	12	7.8
Fluorene	50	0.2 U	0.15 J	0.2 J	0.23 U	0.21 U	0.2 U	0.22	0.27 U	0.74	0.44
Methylnaphthalene,2-	36.4	0.26	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Naphthalene	13	1.2	0.25 U	0.33 U	0.23 U	0.13 J	0.3	0.17 U	0.27 U	0.27 U	0.25 U
Phenanthrene	50	0.18 J	1.6	3	1.7	0.29 J	0.35 J	3.1	0.82	8.4	5.1
Pyrene	50	0.33	2.6	3.8	2.9	0.44 J	0.52 J	3.9	1.6	8.3	5.4
Total Noncarcinogenic PAHs	NE	2.33	8.15	14.79	10.3	1.5	1.96	15.43	5.66	33.73	21.6
Carcinogenic PAHs (mg/kg)											
Benz[a]anthracene	0.224	0.2 U	1.1	1.7	1.3	0.17 J	0.22 J	2.4	0.82	4	2.7
Benzof[a]pyrene	0.061	0.2 U	1.2	2	1.6	0.22 J	0.27 J	2	0.99	4	2.5
Benzo[b]fluoranthene	1.1	0.17 J	2.1	2.7	2.4	0.4 J	0.36 J	2.8	1.5	5	3.5
Benzo[k]fluoranthene	1.1	0.1 J	0.93	1.6	1	0.17 J	0.26 J	1.9	0.91	2.6	1.3
Chrysene	0.4	0.14 J	1.6	2.7	2.1	0.33 J	0.36 J	3	1.4	5	2.9
Dibenz[a,h]anthracene	0.014	0.2 U	0.14 J	0.46	0.39	0.21 U	0.2 U	0.6	0.3	0.92	0.59
Indeno[1,2,3-cd]pyrene	3.2	0.2 U	0.39	1.4	1.2	0.21 U	0.2 U	1.4	0.87	2.6	1.7
Total Carcinogenic PAHs	NE	0.41	7.46	12.56	9.99	1.29	1.47	14.1	6.79	24.12	15.19
Total PAHs (mg/kg)											
Total PAHs	NE	2.74	15.61	27.35	20.29	2.79	3.43	29.53	12.45	57.85	36.79
Other SVOCs (mg/kg)											
Benzyl alcohol	NE	NA	NA	0.33 U	0.23 U	NA	NA	0.17 U	0.27 U	0.27 U	0.25 U
Bis(2-chloroethoxy)methane	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Bis(2-chloroethyl)ether	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Bis(2-ethylhexyl)phthalate	50	0.55	5.6	2.8 B	0.36 B	0.56 J	0.41	0.16 JB	0.87 B	0.77 B	1.1 B
Bis(chloroisopropyl)ether	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Bromophenyl phenyl ether,4-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Butyl benzyl phthalate	50	0.2 U	0.25 U	0.33 U	0.5 B	0.21 U	0.2 U	0.17 U	0.16 JB	0.27 U	0.25 U
Carbazole	NE	0.2 U	0.22 J	NA	NA	0.21 U	0.2 U	NA	NA	NA	NA
Chloro-3-methylphenol,4-	0.24	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Chloroaniline,4-	0.22	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Chloronaphthalene,2-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Chlorophenol,2-	0.8	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Chlorophenyl phenyl ether,4-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dibenzofuran	6.2	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.39	0.19 J
Dichlorobenzene,1,2-	7.9	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dichlorobenzene,1,3-	1.6	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dichlorobenzene,1,4-	8.5	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dichlorobenzidine,3,3-	NE	0.2 U	0.25 U	NA	NA	0.21 U	0.2 U	NA	NA	NA	NA
Dichlorophenol,2,4-	0.4	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Diethyl phthalate	7.1	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dimethyl phthalate	2	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dimethylphenol, 2,4-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Di-n-butyl phthalate	8.1	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dinitro-2-methylphenol,4,6-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dinitrophenol,2,4-	0.2	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dinitrotoluene,2,4-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Dinitrotoluene,2,6-	1	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Di-n-octyl phthalate	50	0.2 U	0.25 U	0.33 U	0.18 J	0.21 U	0.2 U	0.17 U	0.27 U	0.67	0.25 U

Table 5
Soil Analytical Results
Catch Basin Survey
Bay Shore/Brightwaters Former MGP Site
Operable Unit No. 3 (OU-3)

	NYSDEC SCG	CB-11 3/9/2007	CB-26 3/9/2007	CB-37 9/12/2007	CB-38 9/12/2007	CB-40 3/9/2007	CB-41* 3/9/2007	CB-50 9/12/2007	CB-6 9/12/2007	Duplicate of CB-77 9/12/2007	CB-77 9/12/2007
Hexachlorobenzene	0.41	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Hexachlorobutadiene	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Hexachlorocyclopentadiene	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Hexachloroethane	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Isophorone	4.4	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Methylphenol, 4-	0.9	0.2 U	0.5	0.17 J	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Methylphenol,2-	0.1	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitroaniline,2-	0.43	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitroaniline,3-	0.5	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitroaniline,4-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitrobenzene	0.2	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitrophenol,2-	0.33	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitrophenol,4-	0.1	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitrosodi-n-propylamine, N-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Nitrosodiphenylamine, N-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Pentachlorophenol	1	0.81 U	1 U	0.33 U	0.23 U	0.86 U	0.79 U	0.17 U	0.27 U	0.27 U	0.25 U
Phenol	0.03	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Trichlorobenzene,1,2,4-	3.4	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Trichlorophenol,2,4,5-	0.1	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U
Trichlorophenol,2,4,6-	NE	0.2 U	0.25 U	0.33 U	0.23 U	0.21 U	0.2 U	0.17 U	0.27 U	0.27 U	0.25 U

Notes:

NYSDEC SCG - New York State Department of Environmental Conservation Standards, Criteria, and Guidelines

NE- not established

SB - site background, typical background metal concentrations in soil for the eastern United States were used

ND - not detected; total concentration is listed as ND because no compounds were detected in the group

J - estimated value

U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis

B - Analyte detected in the associated method blank

Bolding indicates a detected result value

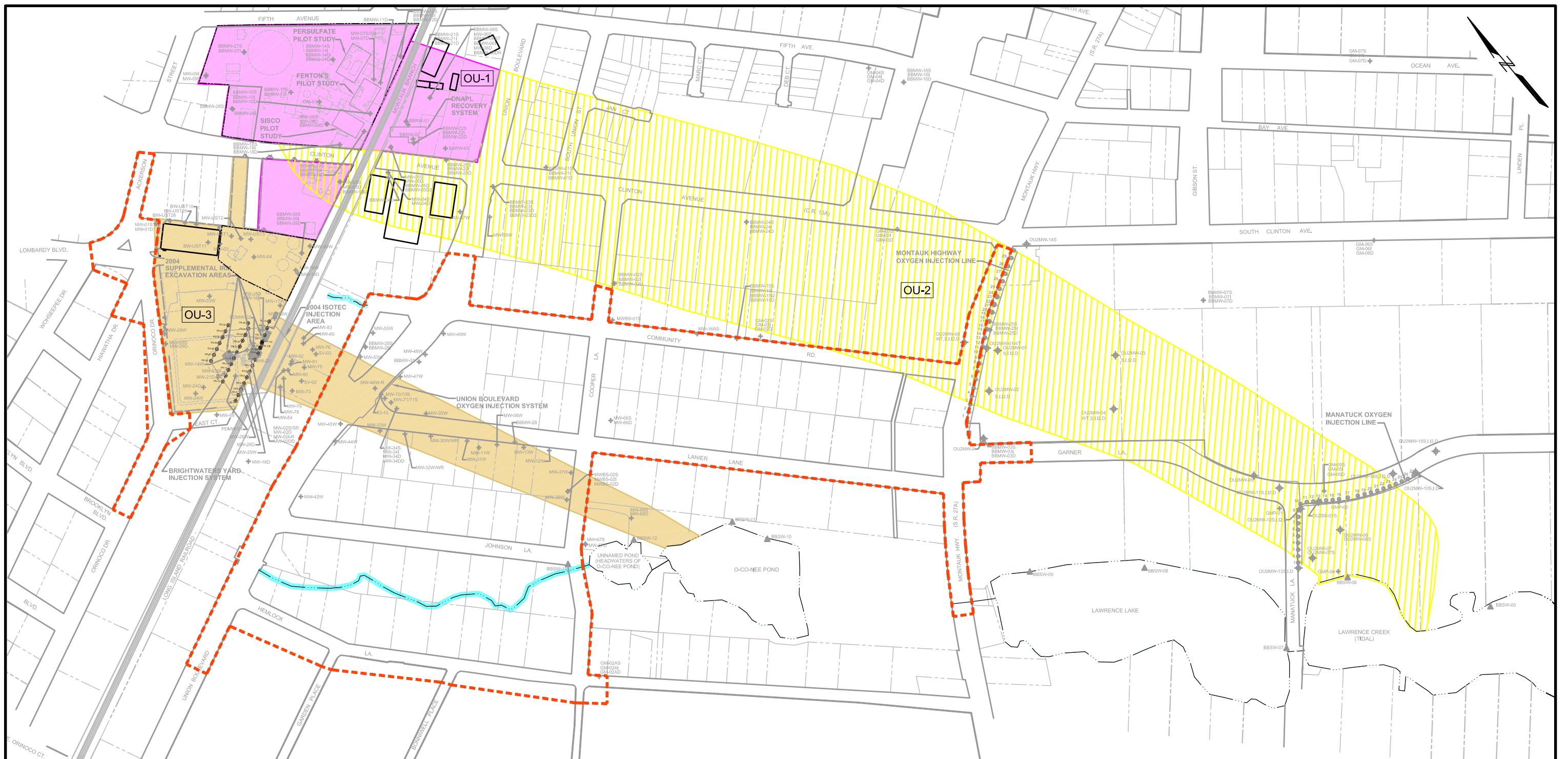
Shading and bolding indicates that the detected result value exceeds established NYSDEC SCGs

mg/kg - milligrams/kilogram or parts per million (ppm)

BTEX - benzene, toluene, ethylbenzene, and xylene

VOCs - volatile organic compounds

*Sample CB-41 was rejected by validator due to poor surrogate recovery and not included; duplicate sample is reported.



SOURCES:

1. MAP TITLED "BAY SHORE/BRIGHTWATERS, FORMER MGP SITE FINAL REMEDIAL INVESTIGATION, BAY SHORE, NEW YORK, OFF-SITE SAMPLE LOCATION MAP" DATED: SEPT. 2002 BY DVIRKA AND BARTILUCCI.
2. FIGURE 2, GROUNDWATER MONITORING WELL AND SURFACE WATER GAUGING STATION LOCATION MAP, BAY SHORE/BRIGHTWATERS FORMER MGP SITE, SCALE: 1"=200', DATED JANUARY 2004, PREPARED BY VANASSE HANGEN BRUSTLIN, INC., MIDDLETOWN, CONNECTICUT.
3. DRAWING C-1, OFF-SITE SAMPLE LOCATION MAP, BAY SHORE/BRIGHTWATERS FINAL REMEDIAL INVESTIGATION, SCALE: 1"=200', DATED OCTOBER 15, 2003, PREPARED BY VANASSE HANGEN BRUSTLIN, INC., MIDDLETOWN, CONNECTICUT.
4. SHALLOW GROUNDWATER CONTOURS SOUTHEAST OF THE PLUME TAKEN FROM FINAL REMEDIAL INVESTIGATION, BAY SHORE, NEW YORK, OFF-SITE SAMPLE LOCATION MAP" DATED: SEPT. 2002 BY DVIRKA AND BARTILUCCI.

LEGEND

	STORM SEWER AND CATCH BASIN STUDY AREA
	MW-04S.I.D
	GM-01S.I.D
	MW-01S.I.D
	BS-01S
	GMP-01
	BBMW-01S.I.D
	BBGP-01S.I.D
	BB-01S.I.D
	BBSW-01
	BBSD-01
	S,I,D
	S=SHALLOW; I=INTERMEDIATE; D=DEEP



BAY SHORE/BRIGHTWATERS
FORMER MGP SITE
BAY SHORE, NEW YORK

KEYSPAN CORPORATION



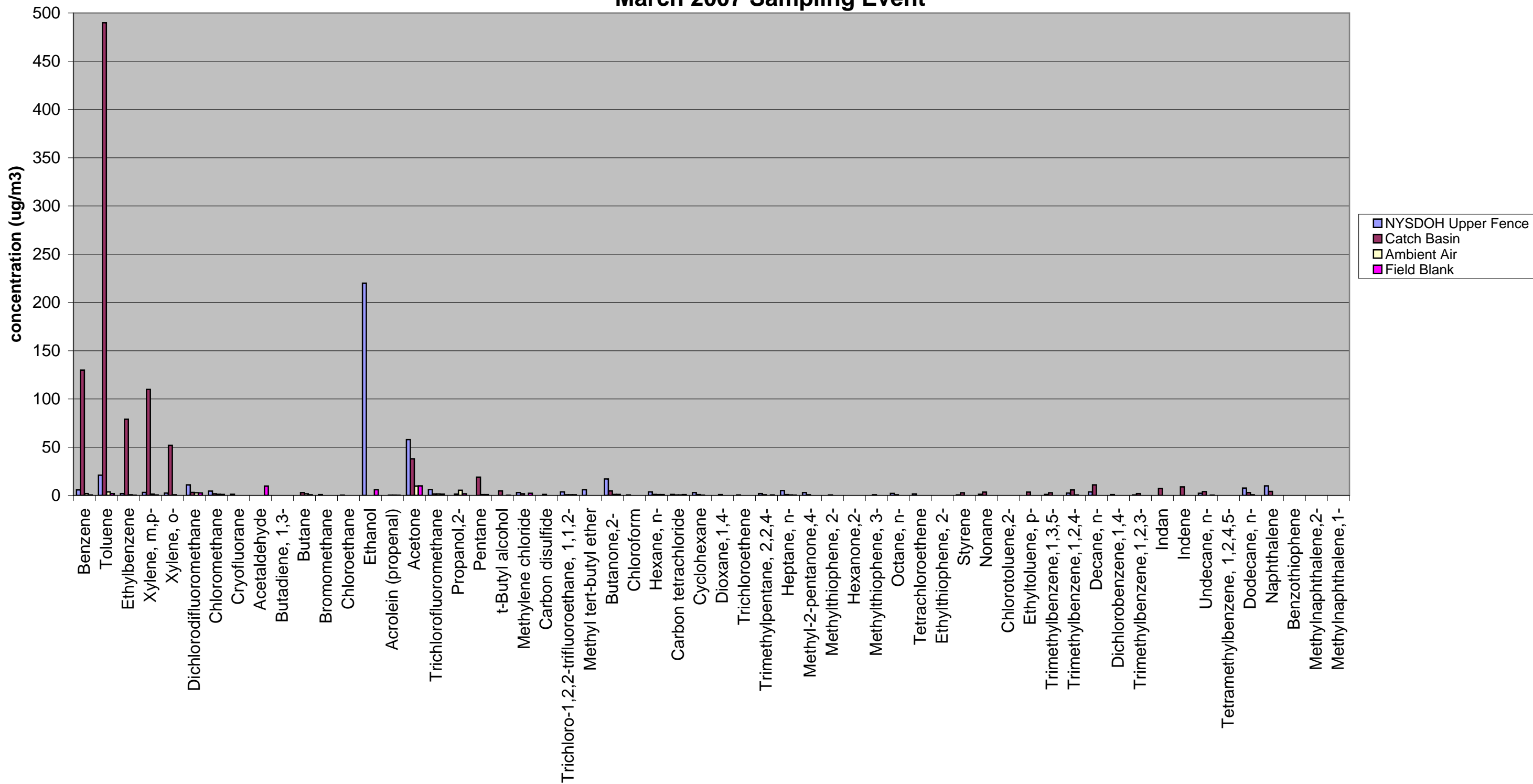
Project 061140-11-2001

**STORM SEWER AND
CATCH BASIN INVESTIGATION
STUDY AREA**

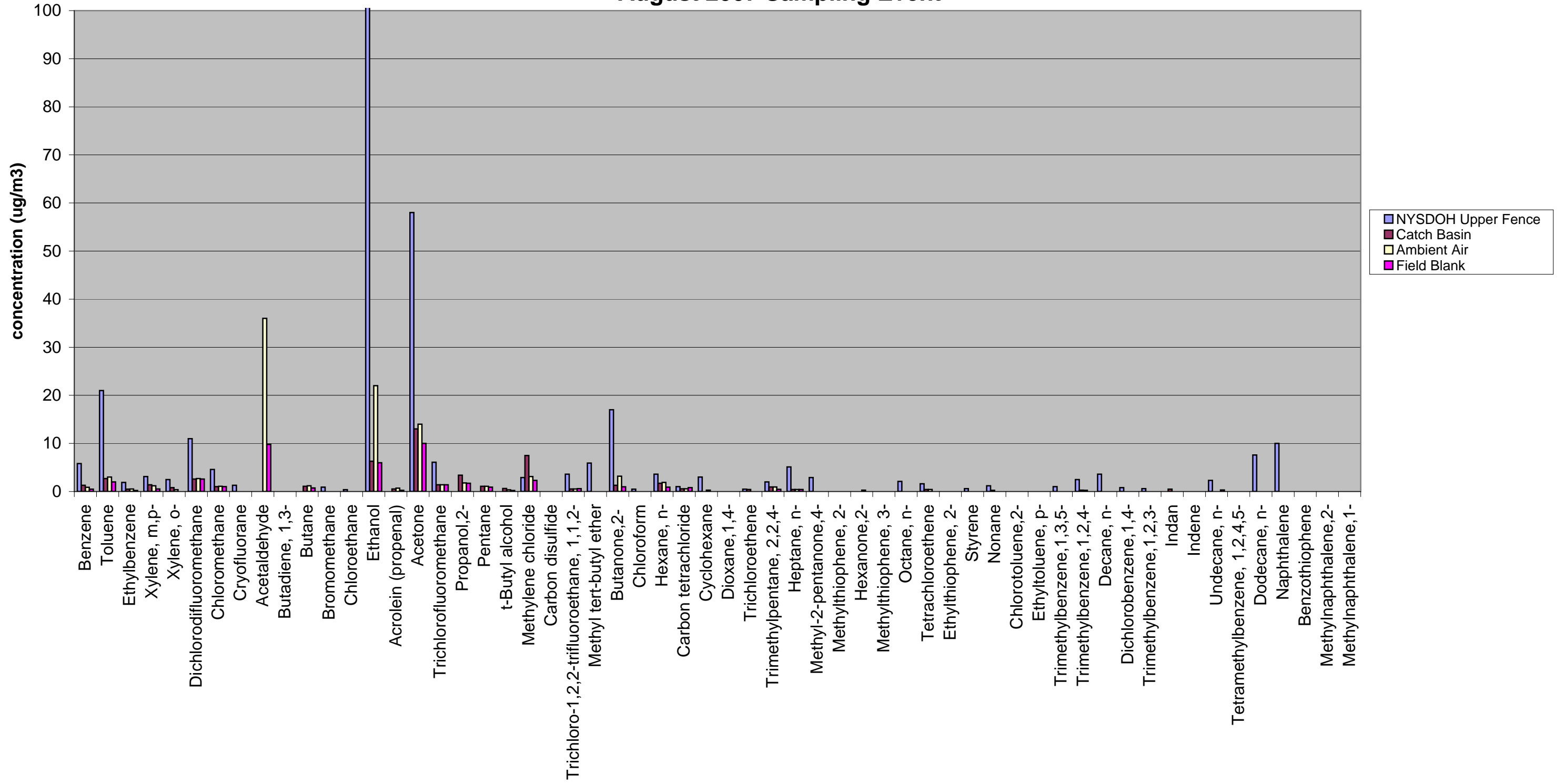
October 2007

Figure 1

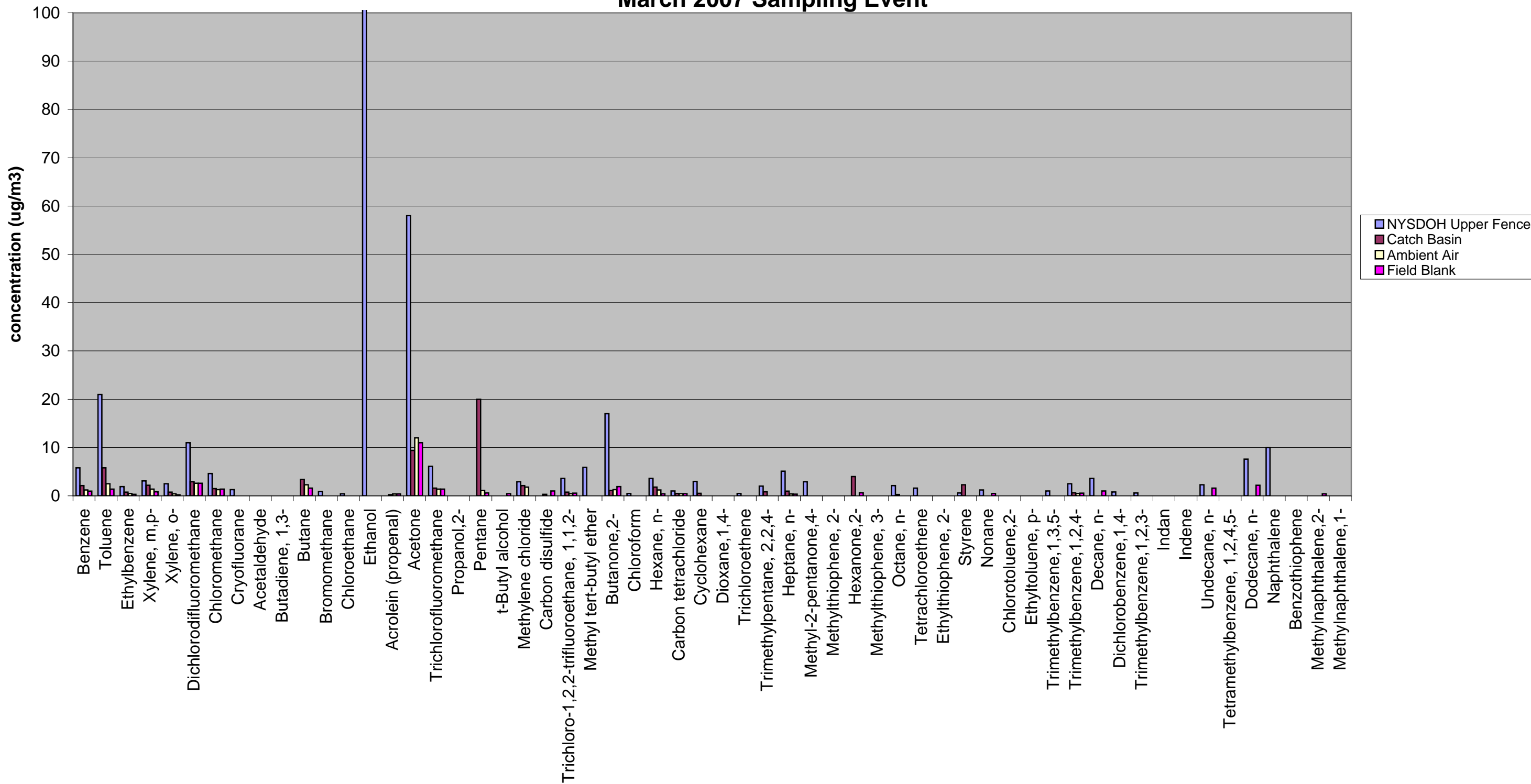
**Appendix A1
Catch Basin CB-11
March 2007 Sampling Event**



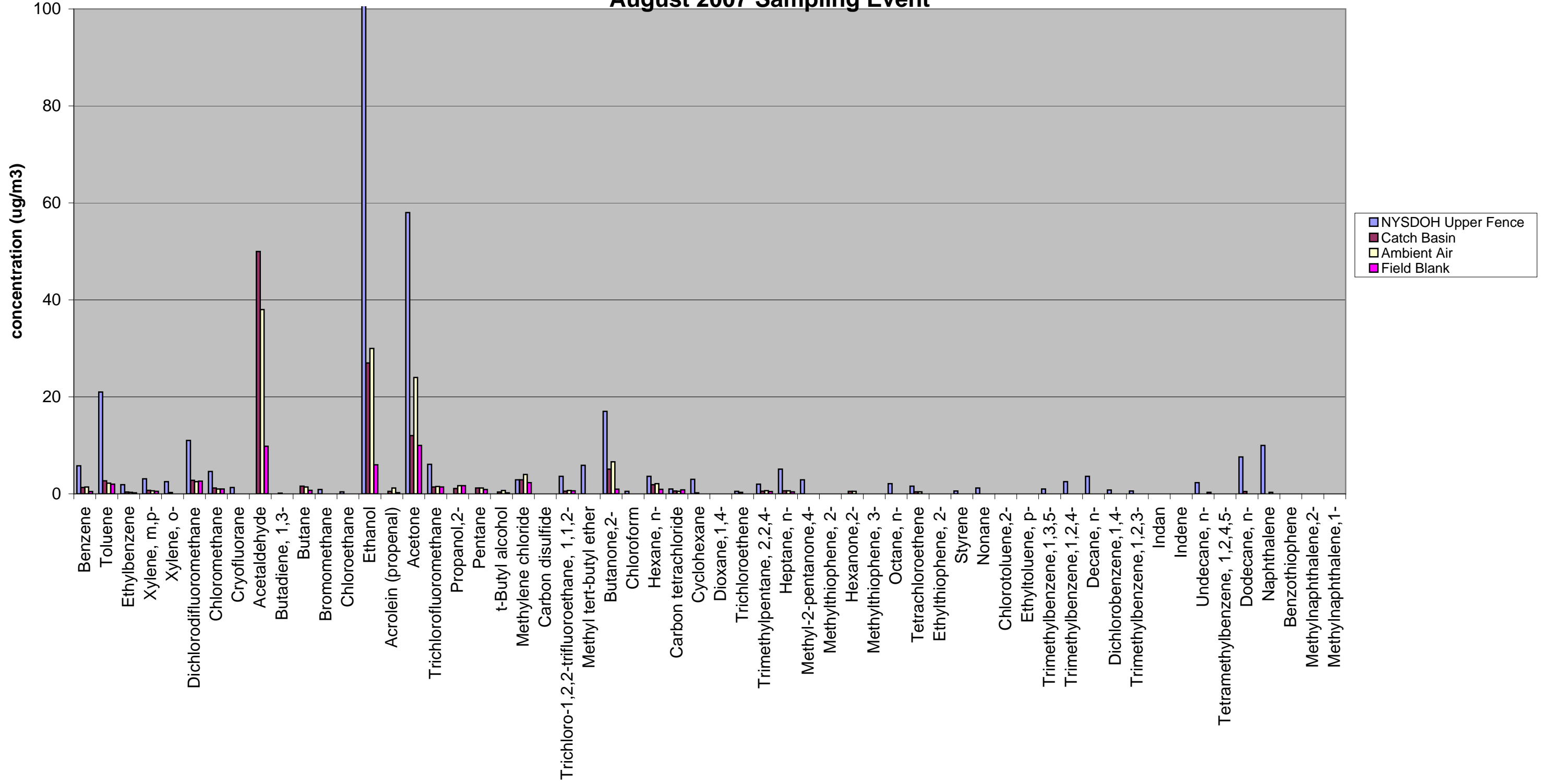
**Appendix A-2
Catch Basin CB-11
August 2007 Sampling Event**



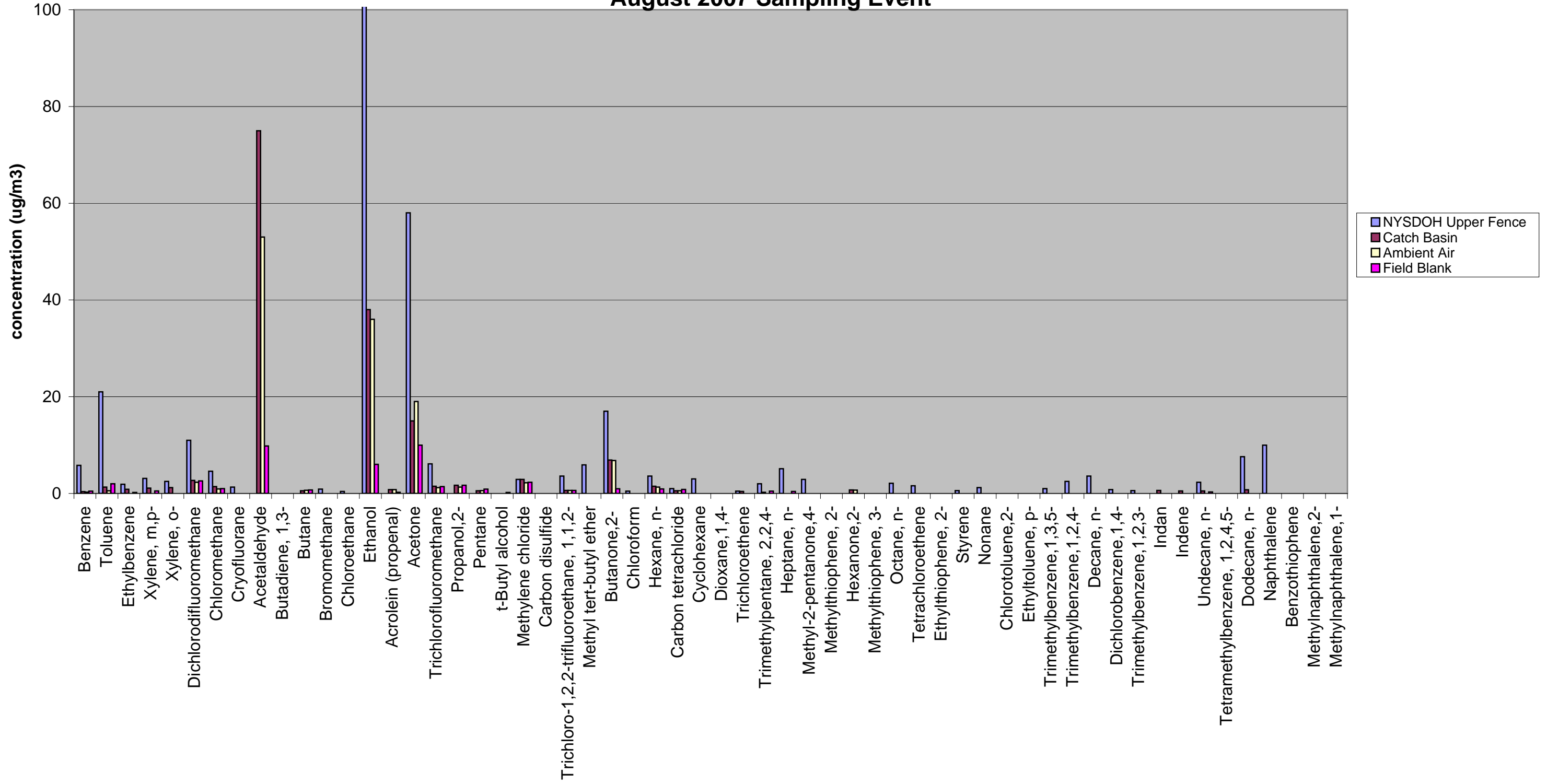
**Appendix A-3
Catch Basin CB-26
March 2007 Sampling Event**



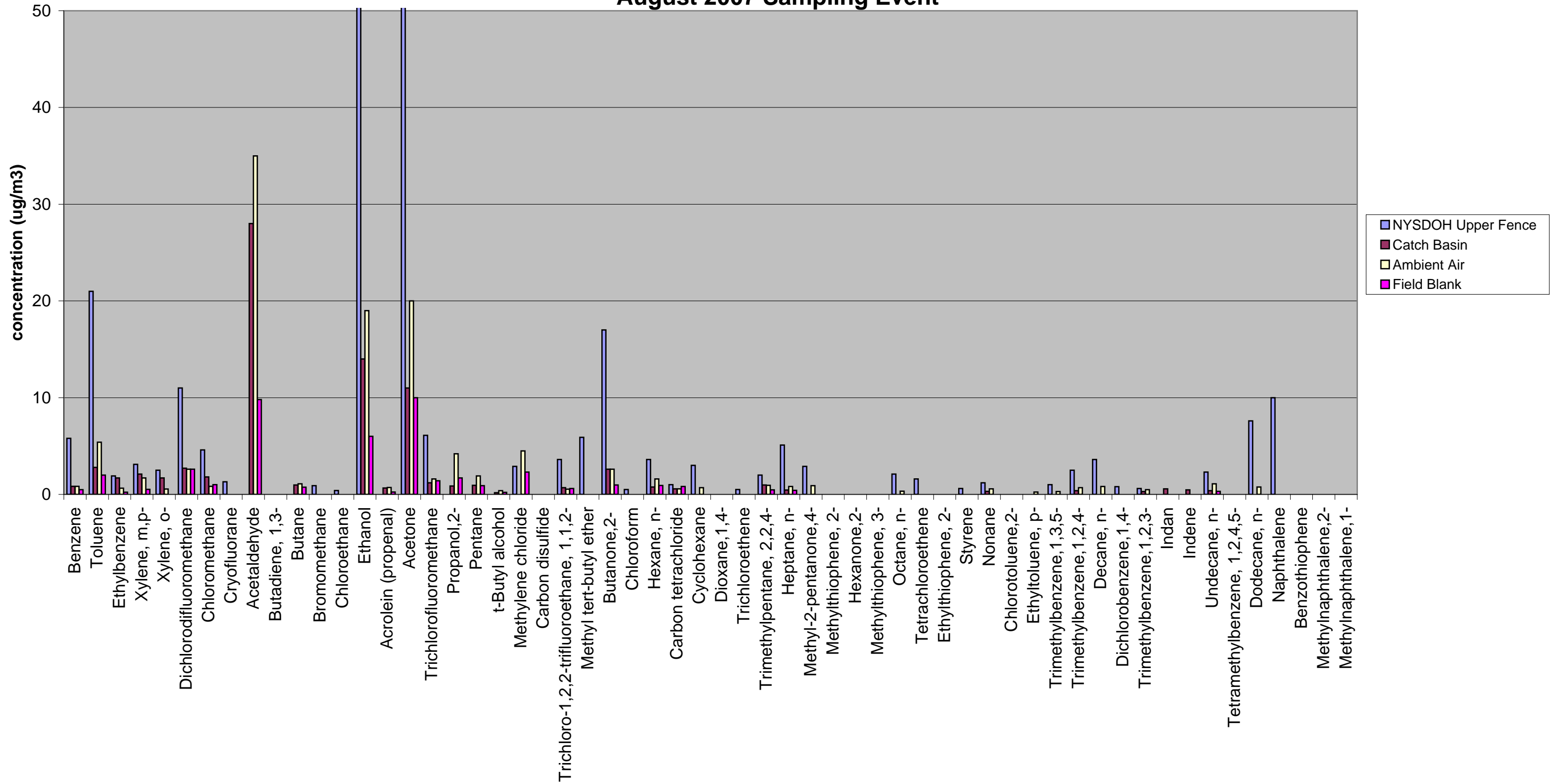
**Appendix A-4
Catch Basin CB-26
August 2007 Sampling Event**



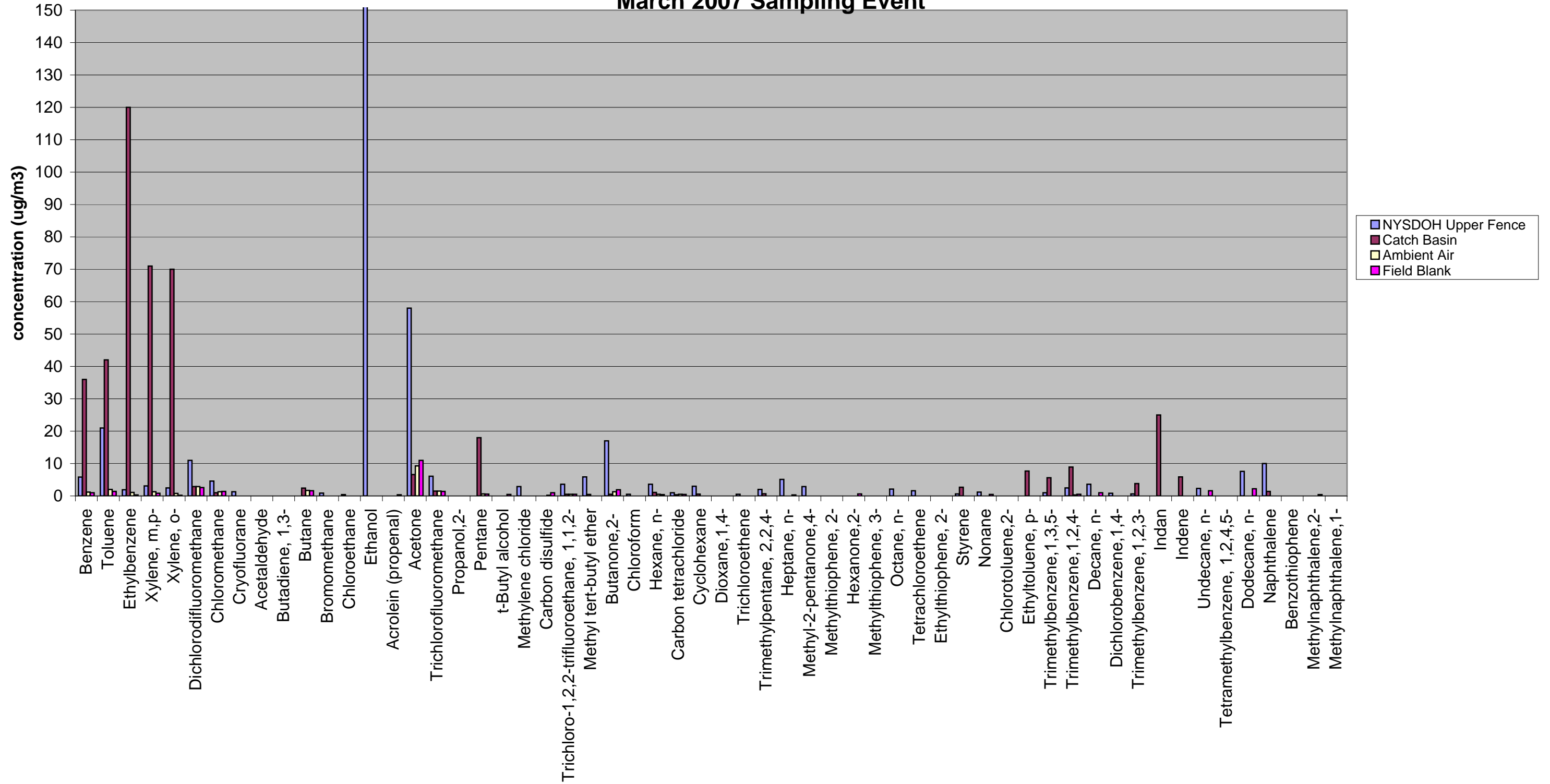
**Appendix A-5
Catch Basin CB-37
August 2007 Sampling Event**



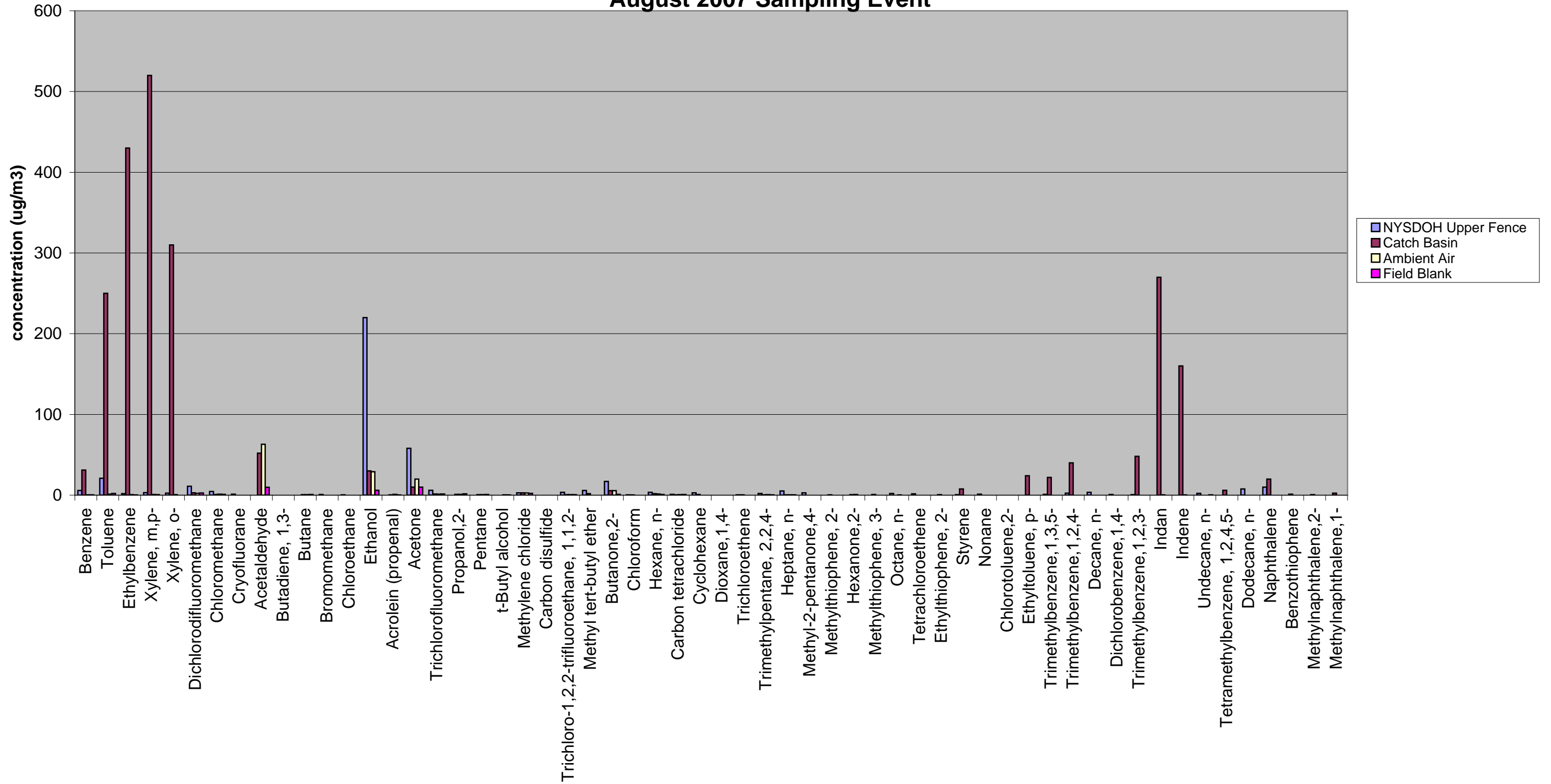
**Appendix A-6
Catch Basin CB-38
August 2007 Sampling Event**



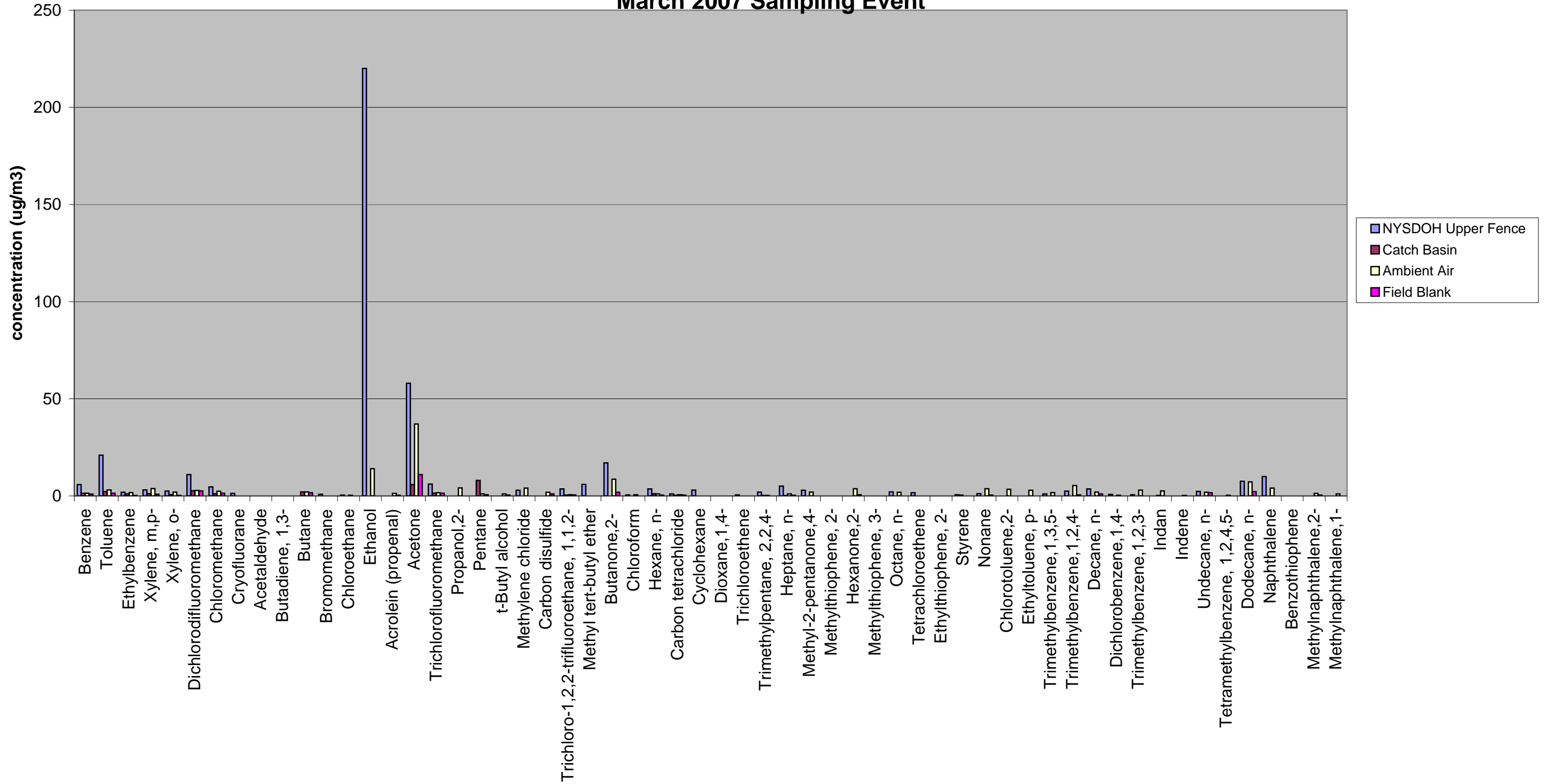
**Appendix A-7
Catch Basin CB-40
March 2007 Sampling Event**



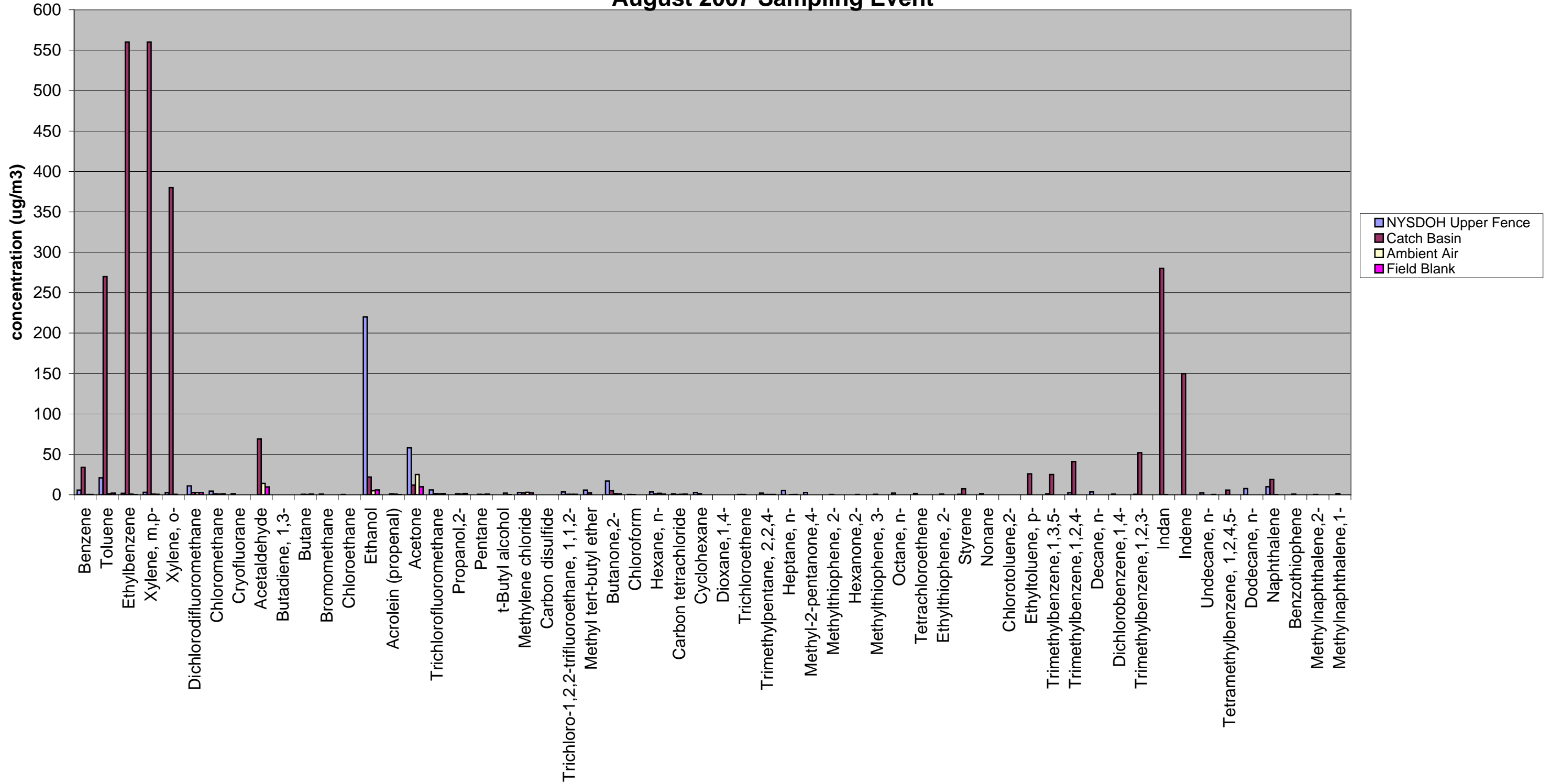
**Appendix A-8
Catch Basin CB-40
August 2007 Sampling Event**



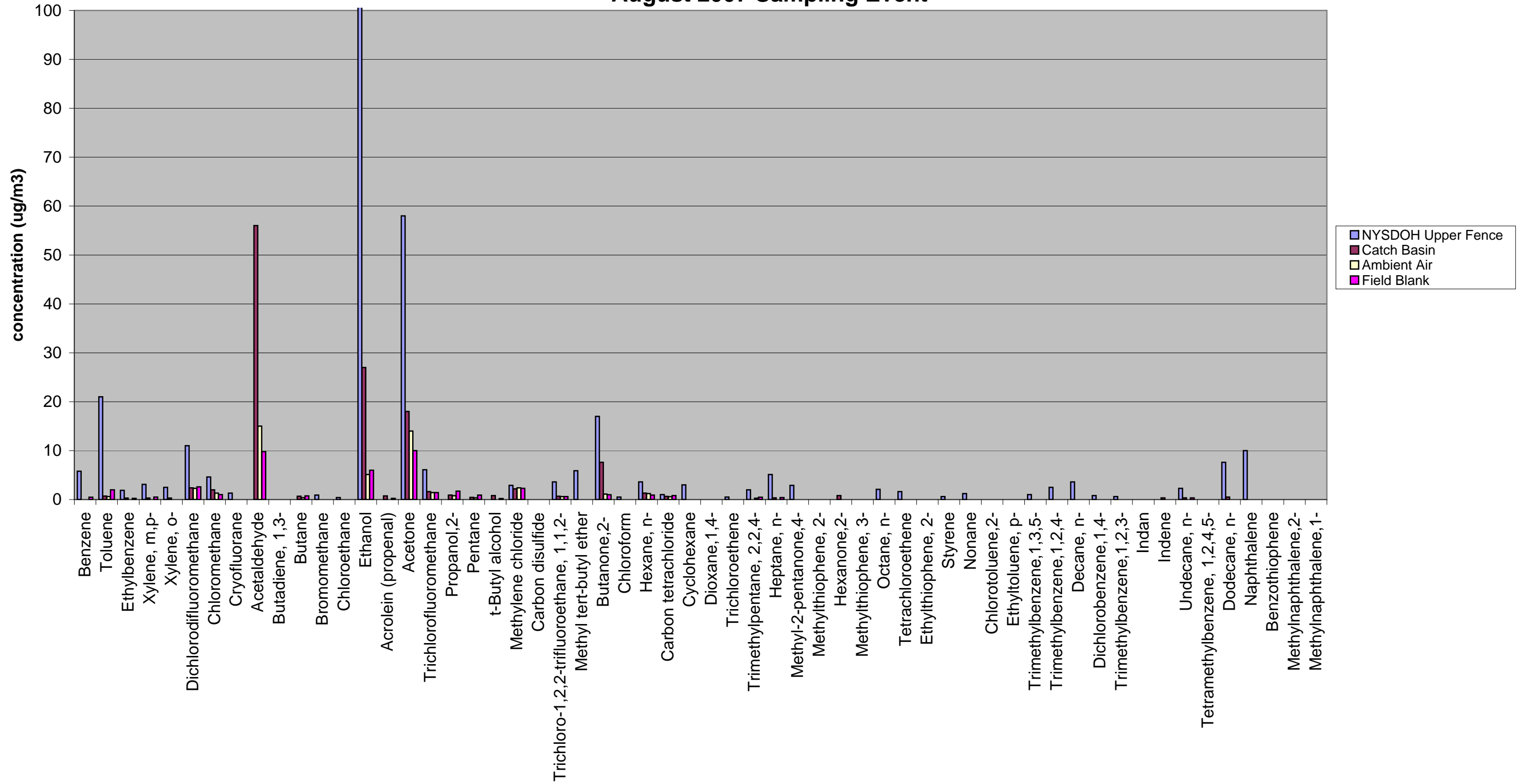
**Appendix A-9
Catch Basin CB-41
March 2007 Sampling Event**



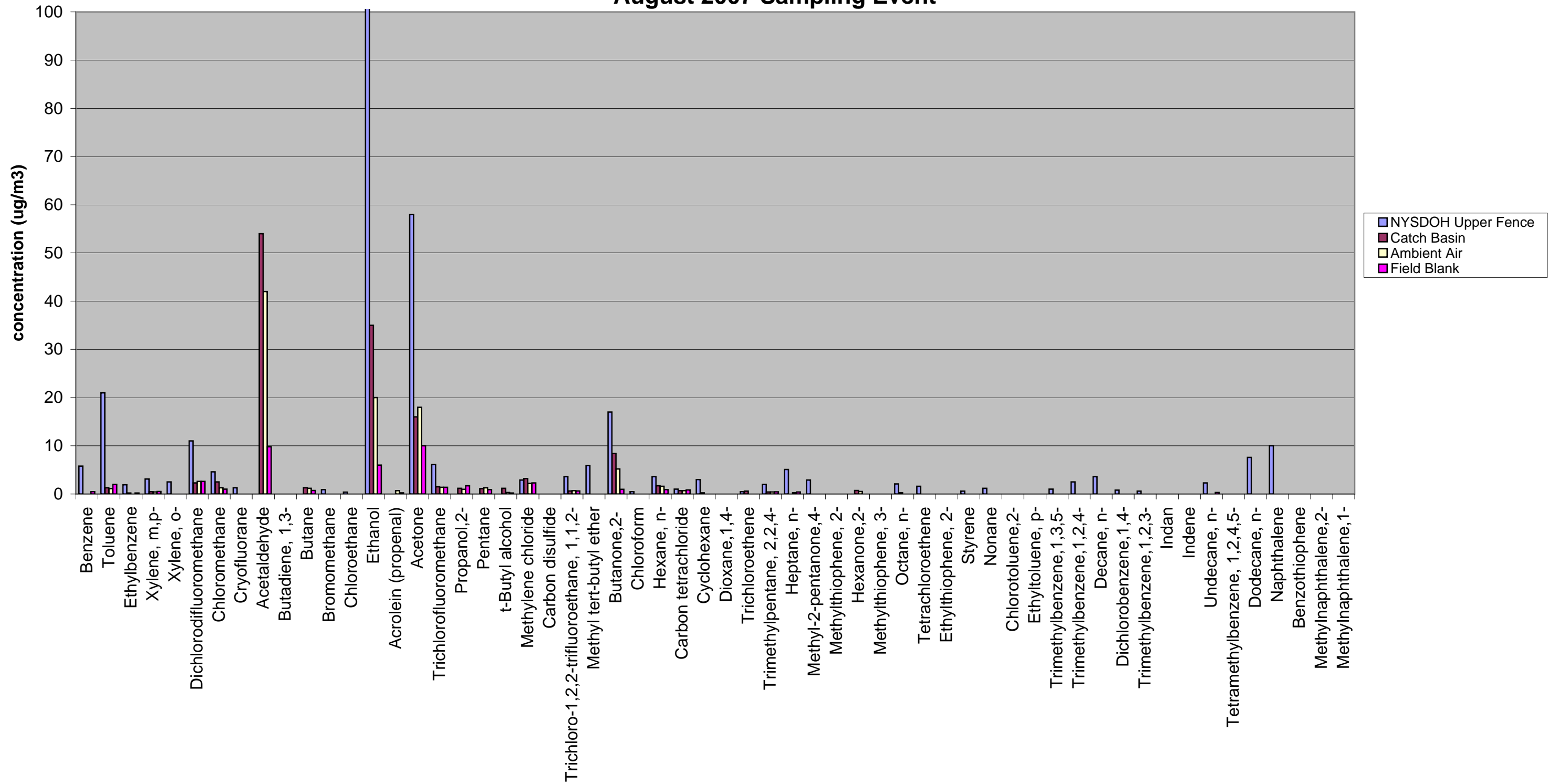
**Appendix A-10
Catch Basin CB-41
August 2007 Sampling Event**



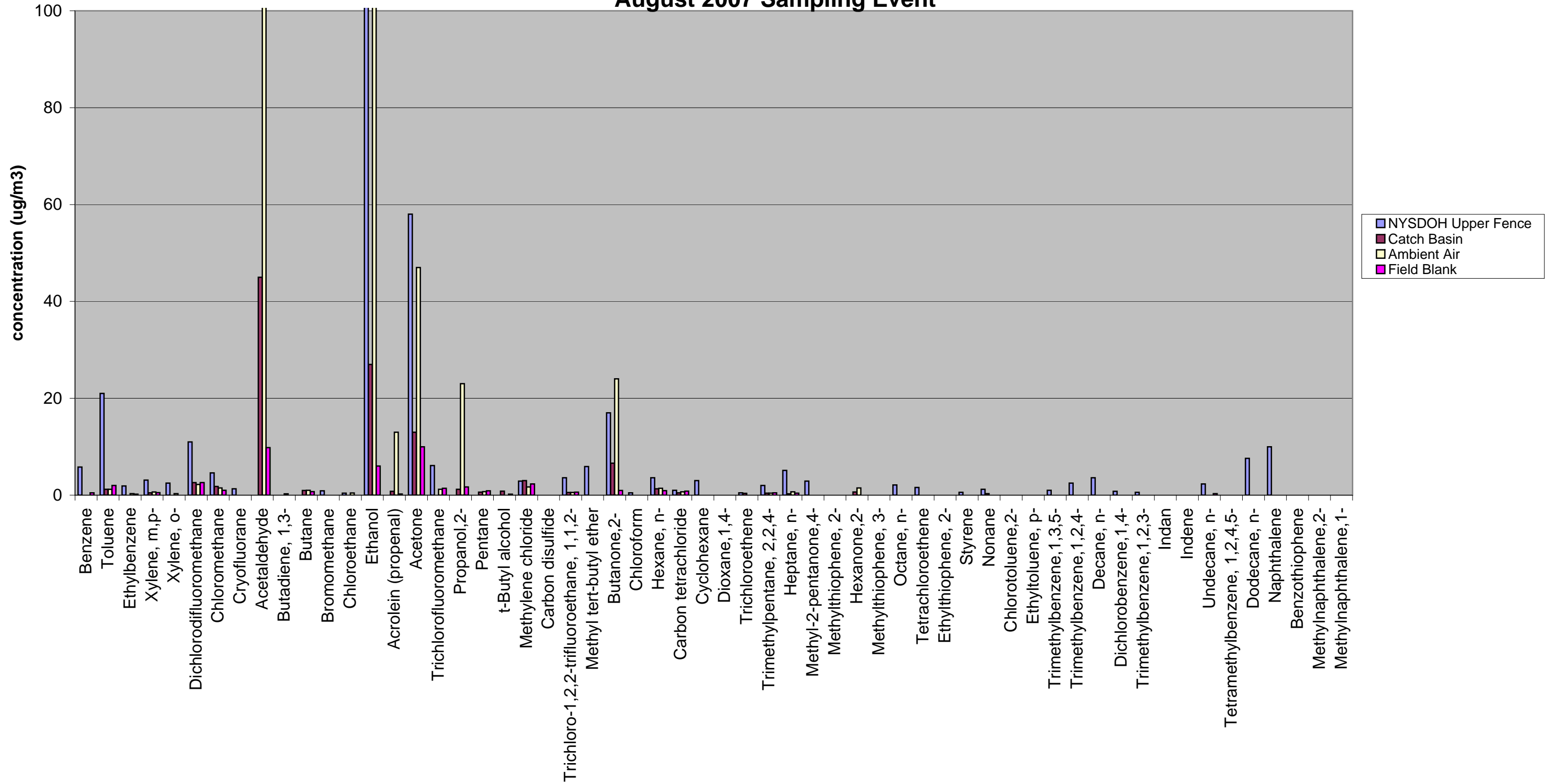
**Appendix A-11
Catch Basin CB-50
August 2007 Sampling Event**



**Appendix A-11
Catch Basin CB-6
August 2007 Sampling Event**



**Appendix A-12
Catch Basin CB-77 (Upgradient)
August 2007 Sampling Event**



**Appendix A-13
Catch Basin CB-64 (Sidegradient)
August 2007 Sampling Event**

