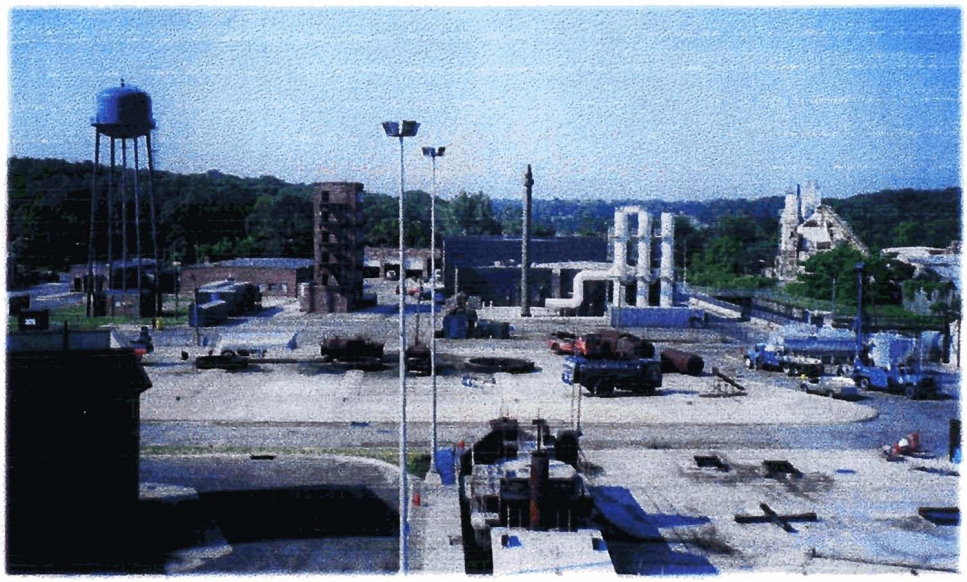
FIREMEN'S TRAINING CENTER
GROUNDWATER REMEDIATION

DEPARTMENT OF PUBLIC WORKS

Nassau County

Long Island, New York

ANNUAL OPERATIONS AND ENVIRONMENTAL MONITORING SUMMARY



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COMMISSIONER

2002

Fireman's Training Center Groundwater Remediation
Annual Operations Monitoring Summary
For Operating Year 2002

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1.0 2002 Treatment Plant Operations

1.1 2002 Treatment Systems Configuration

The Firemen's Training Center Groundwater Remediation Facility (FTCGRF) was constructed to extract contaminated groundwater from three (3) on-site and seven (7) off-site recovery wells, treat the water to meet the State's required standards, and discharge the treated water to a County recharge basin and/or three (3) groundwater injection wells. For Operating Year (OY) 2002 (January 1, 2002 to December 31, 2002), the FTCGRF recovered water from both the on-site and off-site recovery well systems. The off-site recovery well system operated for the entire OY 2002 and the on-site recovery well system operated essentially for two (2) distinct periods, the first sixteen (16) weeks of OY 2002 and for fourteen (14) weeks in the Fall of OY 2002.

Recovered groundwater from both on-site and off-site well locations was pumped via force mains to the FTCGRF located on the Fire Service Academy property on Winding Road. Once within the treatment facility, recovered water proceeded through the respective on-site or off-site metals removal systems without the addition of any chemicals to enhance precipitation. No chemicals were added to either the on-site or the off-site systems due to the low levels (<1.0 ppm) of Iron and Manganese present in the raw waters. Recovered water then proceeded through the facility's dual media sand filtration system to remove any suspended solids prior to air stripping treatment. The final step of treatment was air stripping, with a typical air to water ratio of 70 to 1. After air stripping, treated water was pumped from the facility's effluent wet well to a County recharge basin and/or to the site's three (3) groundwater injection wells.

1.2 Significant 2002 Operations Events

Two significant operations events occurred in OY 2002: an intensive re-development of the three, (3) groundwater injection wells in May, and the failure and replacement of off-site recovery well (ORW-5) in December. Neither of the two events caused a complete shutdown of the remediation, but resulted in temporary periods of reduced flow. The May re-development took six (6) weeks to complete. Due to the injection well re-development, overall recharge capacity was reduced and limited to using only the recharge basin. The number of wells used in off-site recovery was also reduced to using only lead edge recovery wells ORW-6 and ORW-7. The replacement of ORW-5 took five (5) weeks to complete, during which time the remediation system remained in operation.

2.0 Treatment Plant Operations Monitoring Results

2.1 Total Flow and On-Line Performance

The FTC Groundwater Remediation Facility (FTCGRF) pumped and treated a total of 298,742,833 gallons of contaminated groundwater in OY 2002. A total of 39,175,900 gallons was recovered from the on-site system and a total of 259,566,933 gallons from the off-site system. Figure 1 shows typical daily flow rates for each week of OY 2002. Detailed monthly summaries of flow are presented below:

2002

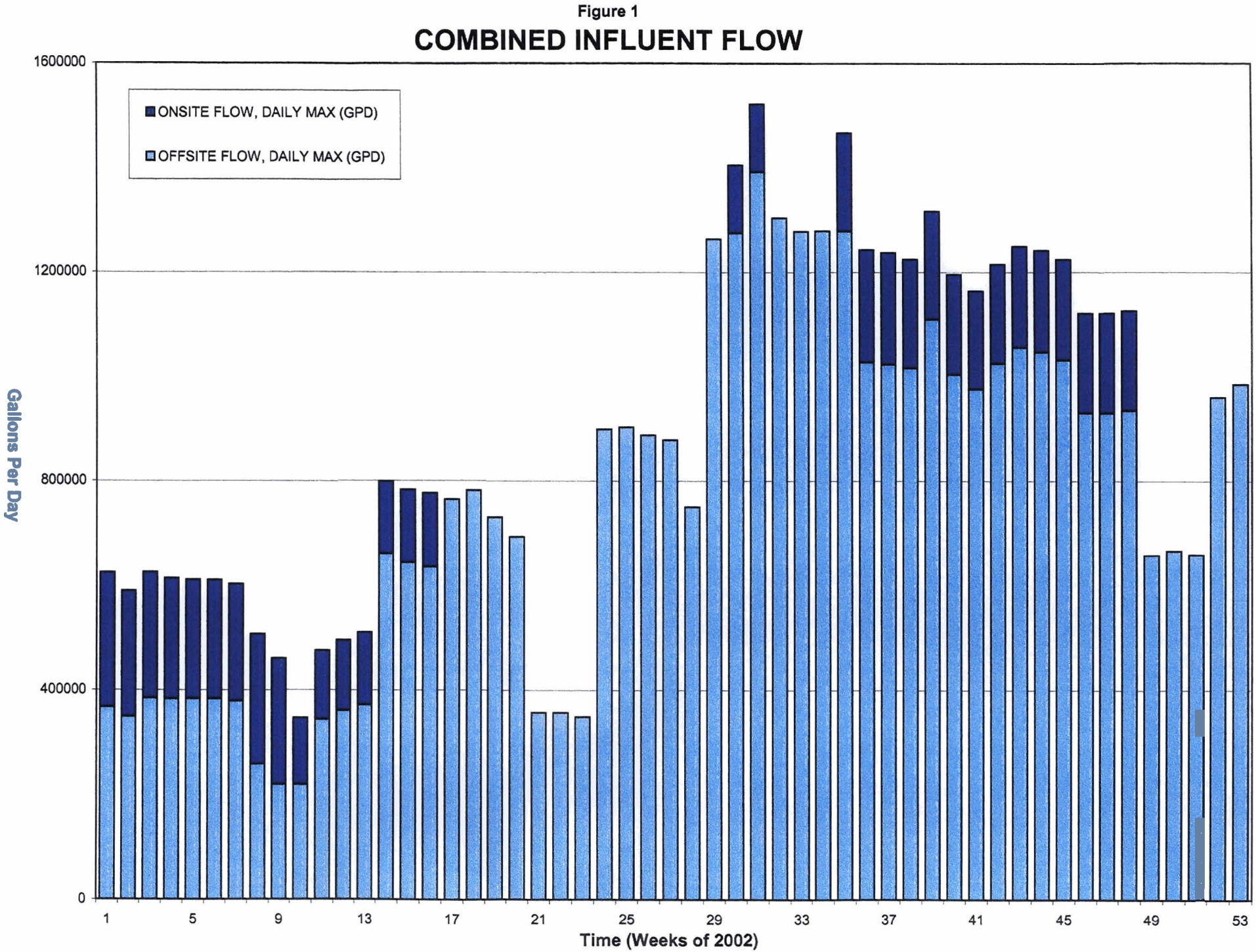
MONTH	ON-SITE	OFF-SITE	TOTAL
JANUARY	7,060,800	10,134,700	17,195,500
FEBRUARY	5,747,600	7,748,400	13,496,000
MARCH	4,068,367	11,497,800	15,566,167
APRIL	2,646,433	18,703,600	21,350,033
MAY	0	13,005,200	13,005,200
JUNE	0	21,964,733	21,964,733
JULY	1,615,600	33,395,900	35,011,500
AUGUST	1,373,000	37,041,550	38,414,550
SEPTEMBER	5,966,800	28,310,950	34,277,750
OCTOBER	5,640,300	29,303,200	34,943,500
NOVEMBER	5,056,400	25,535,350	30,591,750
DECEMBER	600	22,925,550	22,926,150
TOTAL	39,175,900	259,566,933	298,742,833

At the conclusion of OY 2002, the FTCGRF had treated 298,742,833 gallons of contaminated groundwater for a cumulative total of 852,599,783 gallons of groundwater during the 3.5 years of the remediation. A summary for each operating year is provided below:

YEAR	ON-SITE FLOW	OFF-SITE FLOW	ANNUAL TOTAL	CUMULATIVE TOTAL
2000	42,028,828	118,174,125	160,202,953	160,202,953
2001	27,345,799	366,308,198	393,653,997	553,856,950
2002	39,175,900	259,566,933	298,742,833	852,599,783

The FTCGTF operated a total of 8576 hours out of a possible 8,760 hours during OY 2002. This resulted in an overall on-line performance of 97.90 % for OY 2002. The majority of the system's downtime was due to weather related shutdowns, power loss from thunderstorms or effluent discharge shutdowns due to high recharge basin water levels as a result of heavy rain events. Detailed monthly summaries of on-line performance are presented in Appendix A.

Figure 1


COMBINED INFLUENT FLOW
ONSITE FLOW, DAILY MAX (GPD)
OFFSITE FLOW, DAILY MAX (GPD)
1600000
1200000
800000
400000
0
Gallons Per Day
1
5
9
13
17
21
25
29
33
37
41
45
49
53
Time (Weeks of 2002)

2.2 Influent Water Quality Results

2.2.1 On-Site Influent Water Quality Results

On-site influent water quality samples were collected on a weekly basis. The samples were analyzed for volatile organic compounds (VOC's), semi-volatile organic compounds (SVOC's) and metals. Detailed monthly data summaries are presented in Appendix B.

The on-site recovery system was operated to treat onsite groundwater and depress the water table to enhance the recovery of floating petroleum product (no. 2 fuel oil) in the proximity of one of two known petroleum spill areas. The on-site influent concentrations of total volatile organic compounds (TVOC's) ranged from 38 parts per billion (ppb) to below detection limits (BDL), see Figure 2. The extremely low TVOC levels were typically comprised of four constituents: Benzene, Cis-1,2-Dichloroethene, Naphthalene and O-Xylene, see Figure 3

The FTCGRF is required by the State to monitor seven SVOC's: Phenanthrene, Fluorene, Pyrene, Bis(2-ethylhexyl)phthalate, Di-N-octyl Phthalate, Dimethyl Phthalate and Diethyl Phthalate. There were only three sampling events in OY 2002 where a SVOC was detected in the on-site influent; on March 5, 2002, 1.1 ppb of fluorene and on July 23, 2002 and September 24, 2002, 1.1 ppb of Bis(2-ethylhexyl)phthalate were detected in the influent.

The FTCGRF is also required by the State to monitor six metals: iron, manganese, nickel, arsenic, aluminum and chromium. Iron and manganese are naturally occurring metals in the soils and groundwater of Long Island. During OY 2002 the average influent concentration for iron was 1318 ppb, and the average concentration for manganese was 7227 ppb. These levels are elevated relative to native groundwater, however, they reflect typical concentrations encountered at other Long Island groundwater remediation sites, especially those impacted by landfill leachate.

Nickel was consistently observed in the on-site influent samples with levels ranging from 9 ppb to BDL. Aluminum and chromium were detected sporadically in the on-site influent. The highest level detected for aluminum was 17 ppb and for chromium 9 ppb. Both levels were well below the facility's discharge limits that are 2,000 ppb and 50 ppb, respectively.

2.2.2 Off-Site Influent Water Quality Results

Off-site influent water quality samples were collected on a weekly basis. The samples were analyzed for VOC's, SVOC's and metals. Detailed monthly summaries of the off-site influent quality results are presented in Appendix B.

Halogenated organics including; Tetrachloroethene, 1,2 (Cis)-Dichloroethene and Benzene were the major contaminants observed in the off-site influent, see Figure 4. Weekly TVOC results are presented in Figure 5. The influent TVOC average for OY 2002 was 109 ppb. This is significantly less than the off-site TVOC's average concentration of 317.8 ppb for the first year of operation. More detail on the quality of the off-site groundwater can be found in Section 2.3, Recovery Well Data.

No Semi-volatile organics (SVOC's) were detected in the off-site influent during OY 2002.

Figure 2

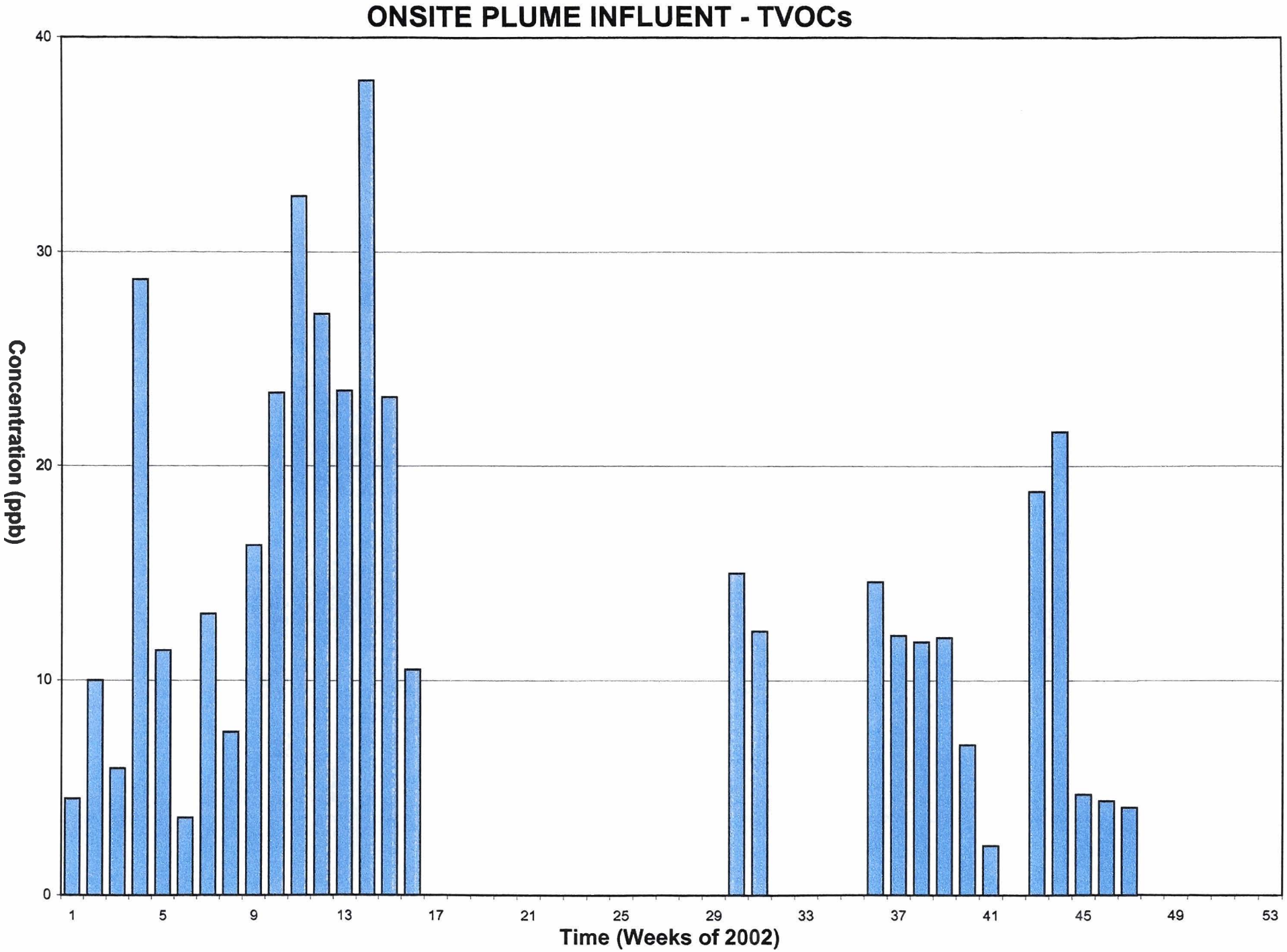

ONSITE PLUME INFLUENT - TVOCs
Concentration (ppb)
0
10
20
30
40
1
5
9
13
17
21
25
29
33
37
41
45
49
53
Time (Weeks of 2002)

Figure 3

ONSITE PLUME INFLUENT - VOCs

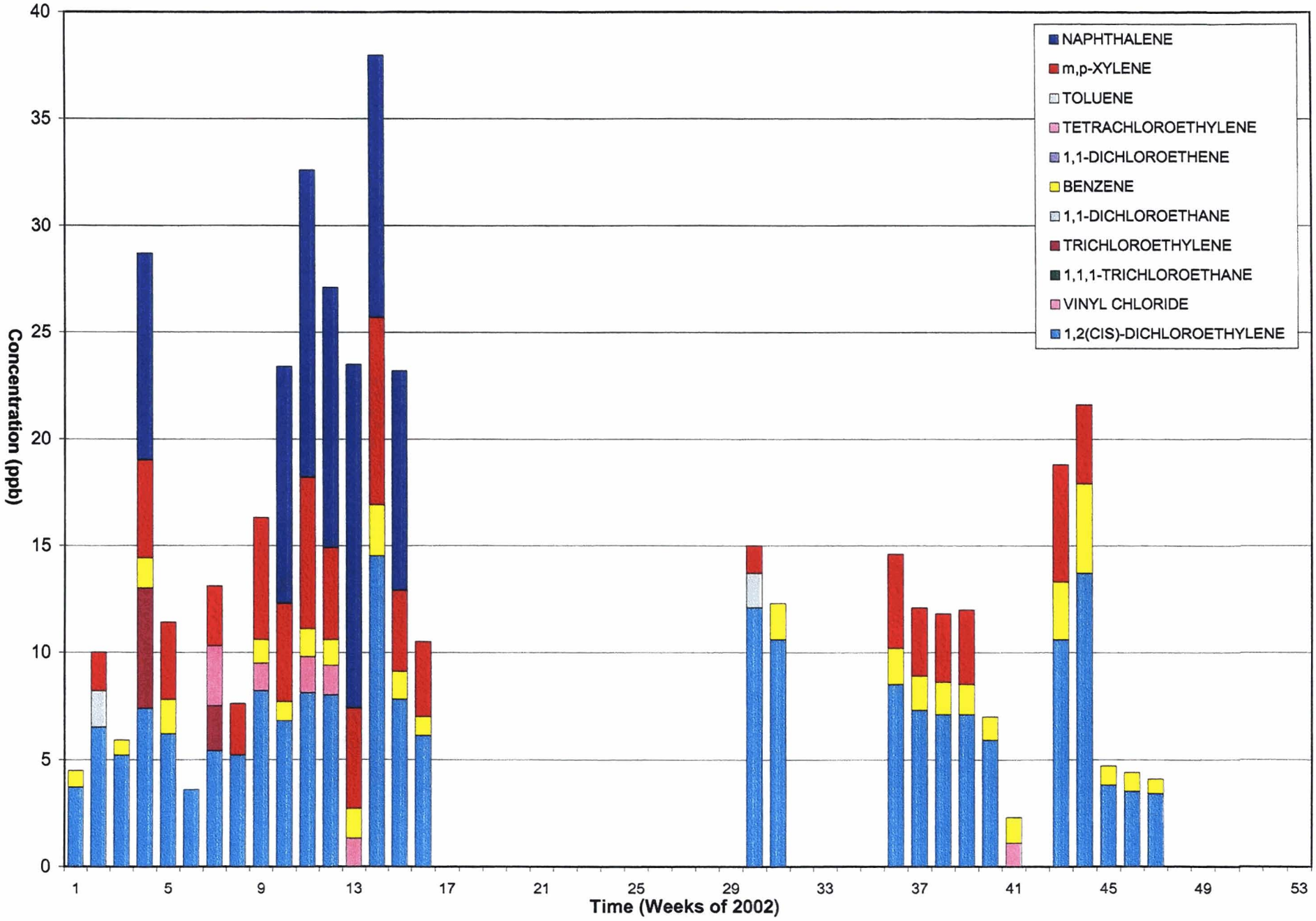


Figure 4

OFFSITE PLUME INFLUENT - VOCs

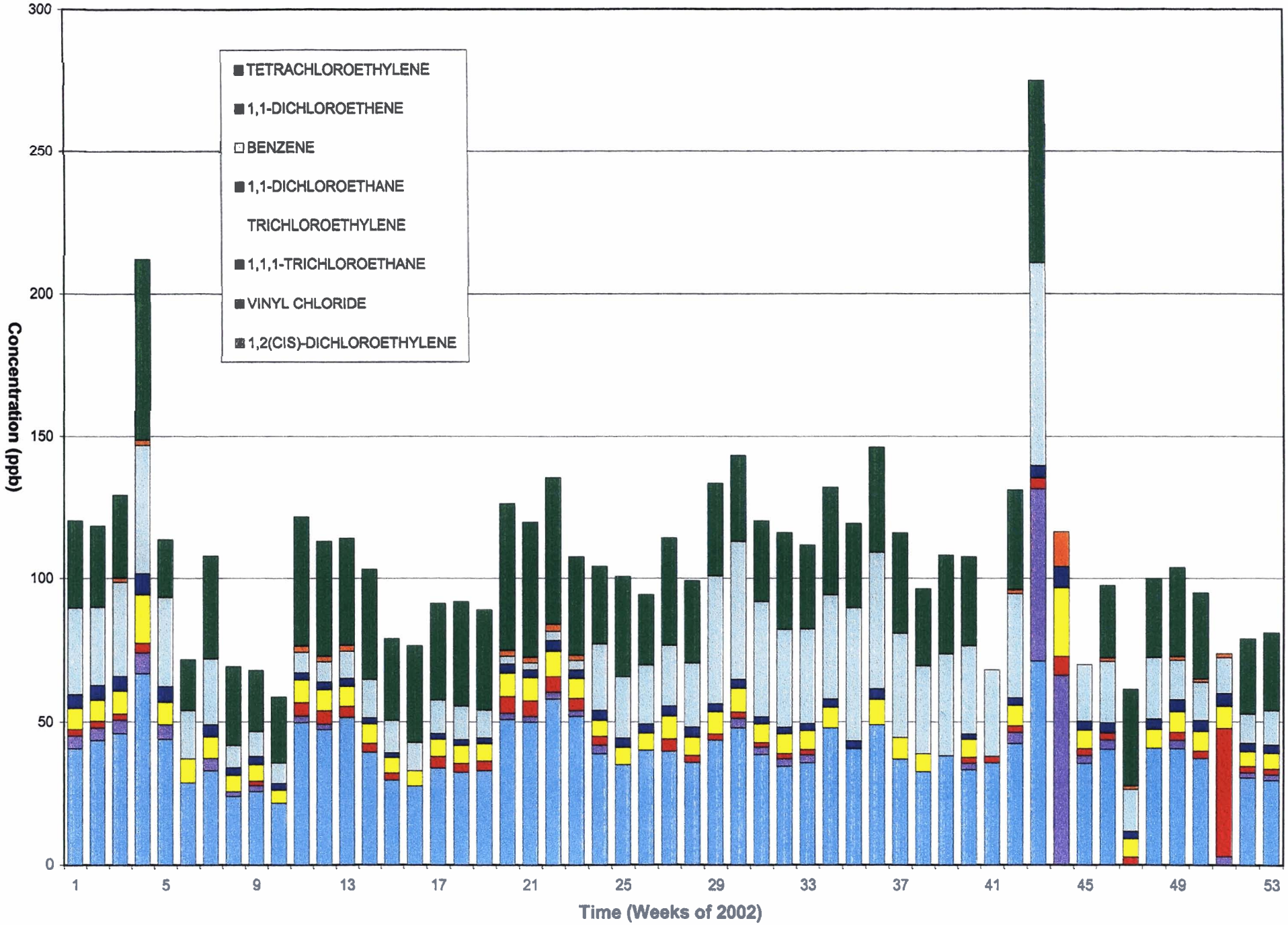
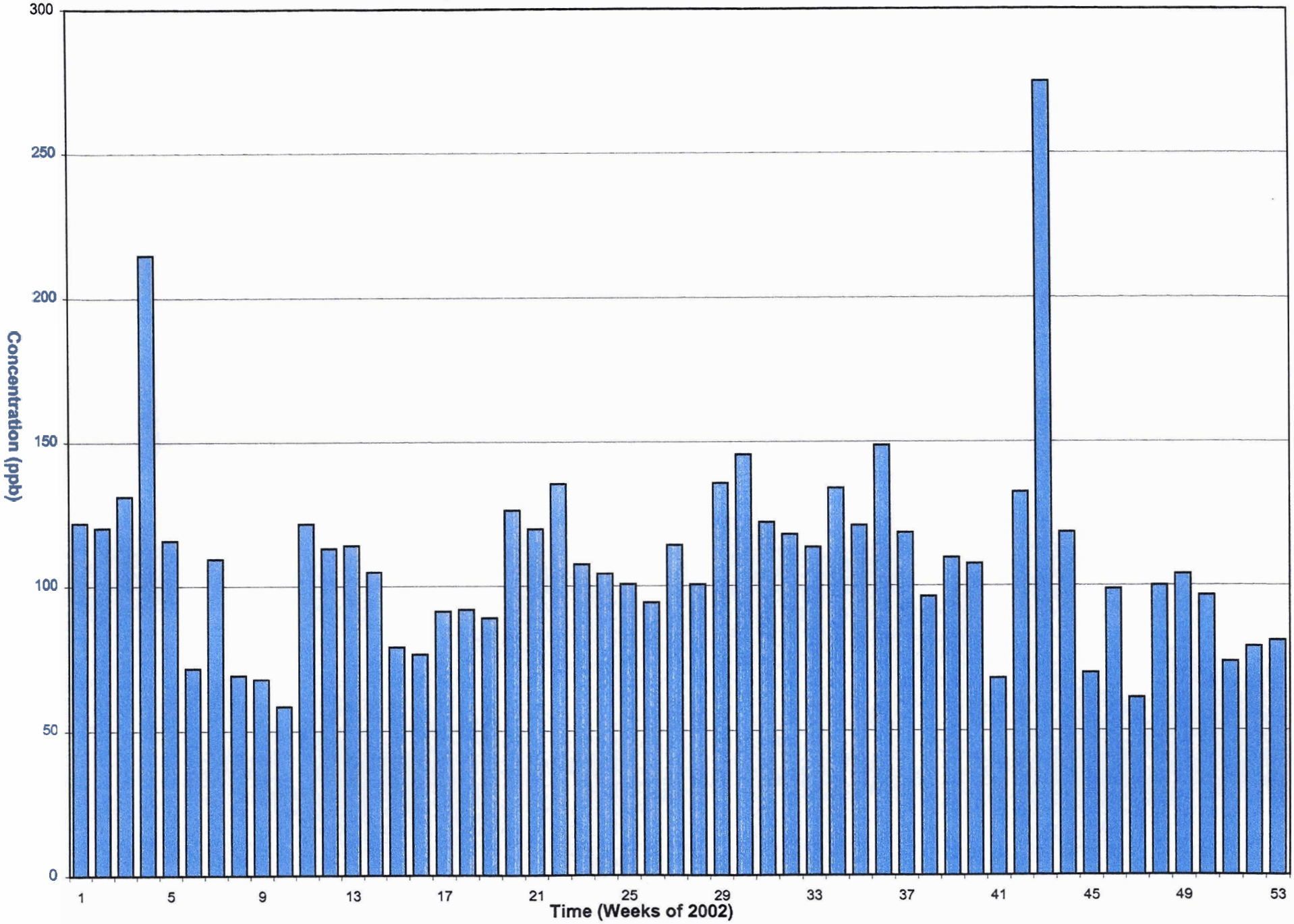


Figure 5

OFFSITE PLUME INFLUENT -TVOCs



Iron and manganese were consistently detected in the off-site influent. Iron averaged 263 ppb and manganese averaged 102 ppb during OY 2002. Nickel was also consistently detected in the off-site influent, its concentration ranged from 7 ppb to BDL.

2.3 Recovery Well Data

Both the on-site and off-site recovery well systems were operated in OY 2002. Table 1 and Figure 6 present weekly summaries of the system's operation. In OY 2002 the on-site recovery well system was operated during two (2) distinct periods, January through April and July through November. During these two (2) periods on-site recovery well RW-3 was operated in order to treat onsite groundwater and depress the water table to enhance product recovery in the proximity of the site's Mock-up Building. Although a significant amount of petroleum product was recovered during the on-site system's operation, see section 2.4 for details on product recovery. Recovered groundwater from RW-3 exhibited consistently low levels of contamination, typically 20 ppb to 30 ppb of TVOC's. The low levels of TVOC's are consistent with the type of the petroleum product present in the vicinity of RW-3. No. 2 fuel oil does not contribute a significant dissolved fraction to the groundwater.

During OY 2002, the off-site recovery well system was operated on a continuous basis. Off-site recovery wells ORW 5, ORW-6 and ORW-7, the wells located at the leading edge of the contaminant plume, were typically operated in paired tandems in order to maintain hydraulic control of the plume. The TVOC's observed during the operation of the lead edge recovery wells typically ranged from 50 ppb to 150 ppb. Recovery wells ORW-1 and ORW-2 were generally operated for short periods of four (4) to eight (8) weeks, in order to exercise the well pumps and to observe any changes in influent contaminant concentrations. ORW-1 consistently showed low TVOC's in the 50 ppb range. ORW-2 showed TVOC's ranging from 85 ppb to 354 ppb and was operated more frequently than ORW-1. Recovery well ORW-3 was operated for 20 weeks during OY 2002, and it's influent TVOC's ranged from 111 ppb to 489 ppb. Recovery well ORW-4 was operated for 36 weeks during OY 2002, and it's TVOC's ranged from 145 ppb to 934 ppb.

From July 29, 2002 to November 6, 2002, the off-site recovery well system consistently operated at a pumping rate in excess of 1 million gallons per day. During this 17-week period of high groundwater recovery a steady level of contamination, from 100 ppb to 150 ppb of TVOC's, was observed in the facility's influent. However, towards the end of this high recovery period a significant increase in contamination was detected. Closer review of the operating data indicates that recovery well ORW-4 was the major source of the increased level of contamination observed in the plant influent. ORW-4's TVOCs increased from approximately 200 ppb before October to 250 ppb on October 15, 664 ppb on October 22 and 934 ppb on October 29. During this period, two (2) compounds, Vinyl Chloride and Dichlorodifluoromethane, showed increased concentrations that were never observed during the entire course of the remediation. Vinyl Chloride, typically present at concentrations below 10 ppb, increased to 173 ppb on October 15 and was 139 ppb on October 29. Dichlorodifluoromethane, a compound that was never detected on the FTC site, went from a level of less than 5 ppb before October to 37.7 ppb on October 22 and 27.5 ppb on October 29. The cumulative effect of the selected offsite recovery wells operating at a high recovery rate, appear to have increased levels of total contamination and elevated the concentrations of Vinyl Chloride and Dichlorodifluoromethane. It appears likely that recovery well ORW-4 could have been impacted by contamination from a source other than the FTC site.

Table 1

OFFSITE RECOVERY WELL
VOLATILE ORGANIC CONCENTRATIONS
2002

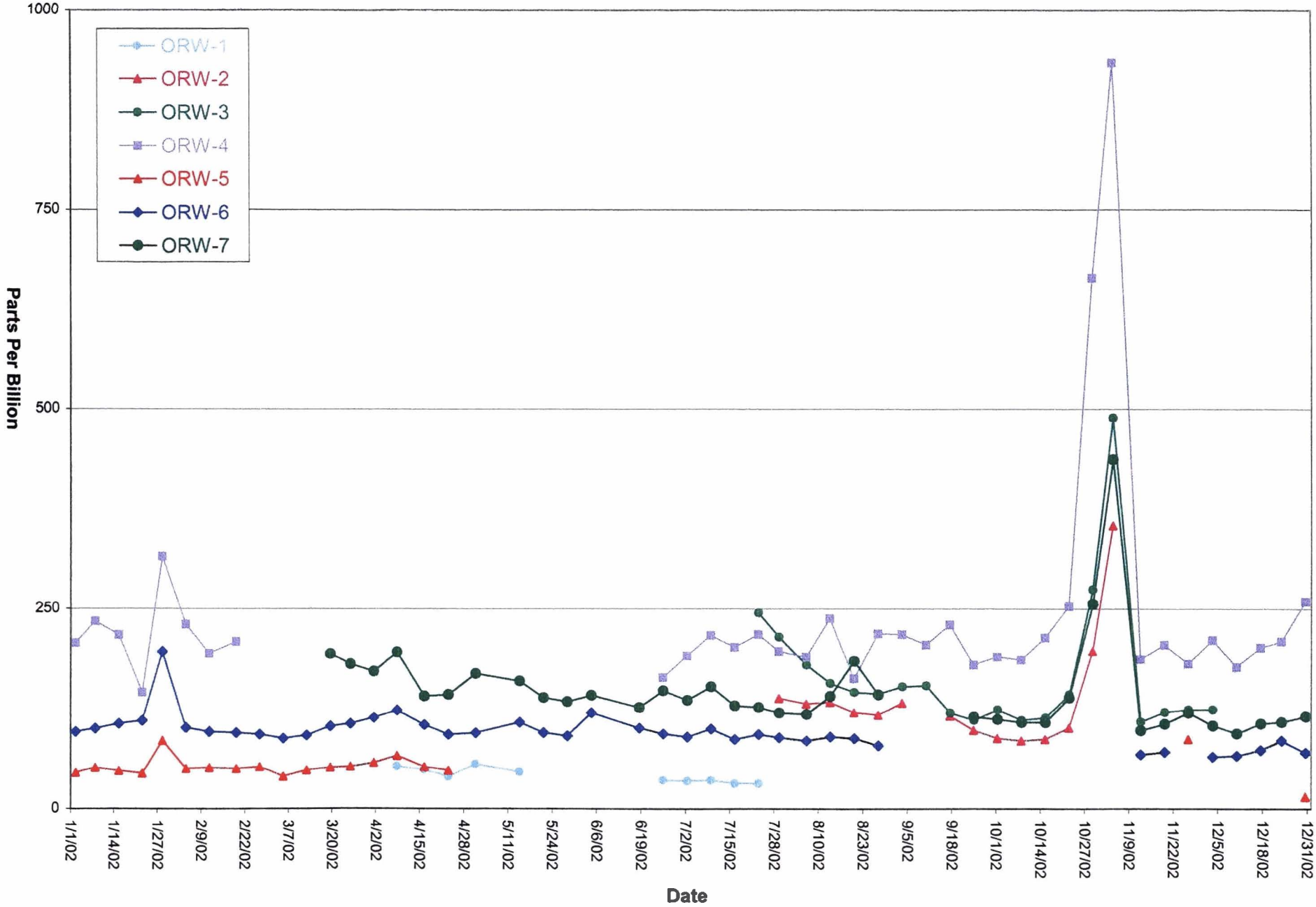
WELL No.	1/2/02	1/8/02	1/15/02	1/22/02	1/28/02	2/4/02	2/11/02	2/19/02	2/26/02	3/5/02	3/12/02	3/19/02	3/25/02	4/1/02	4/8/02	4/16/02	4/23/02
ORW -1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**53 ppb**	**49 ppb**	**40 ppb**	**56 ppb**
ORW -2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW -3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW -4	**234ppb**	**217ppb**	**145ppb**	**315ppb**	**230ppb**	**194ppb**	**209ppb**	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-5	**51ppb**	**47ppb**	**44ppb**	**85ppb**	**50ppb**	**51ppb**	**50ppb**	**52ppb**	**40ppb**	**48ppb**	**51ppb**	**52ppb**	**57ppb**	**66 ppb**	**52 ppb**	**48 ppb**	**OFF**
ORW-6	**100ppb**	**106ppb**	**110ppb**	**196ppb**	**101ppb**	**96ppb**	**95ppb**	**93ppb**	**88ppb**	**92ppb**	**103ppb**	**106ppb**	**114ppb**	**123 ppb**	**105 ppb**	**93 ppb**	**95 ppb**
ORW -7	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**194ppb**	**181ppb**	**172ppb**	**196 ppb**	**141 ppb**	**143 ppb**	**169 ppb**
RW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**41 ppb**	**33 ppb**	OFF	OFF

WELL No.	5/1/02	5/14/02	5/21/02	5/28/02	6/4/02	6/18/02	6/25/02	7/2/02	7/9/02	7/16/02	7/23/02	7/29/02	8/6/02	8/13/02	8/20/02	8/27/02	9/3/02
ORW -1	**46 ppb**	OFF	OFF	OFF	OFF	**36 ppb**	**35 ppb**	**36 ppb**	**32 ppb**	**32 ppb**	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW -2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**138 ppb**	**131 ppb**	**133 ppb**	**120 ppb**	**117 ppb**	**132 ppb**	OFF
ORW -3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**245 ppb**	**215 ppb**	**180 ppb**	**157 ppb**	**146 ppb**	**144 ppb**	**153 ppb**	**154 ppb**
ORW -4	OFF	OFF	OFF	OFF	OFF	**164 ppb**	**191 ppb**	**217 ppb**	**202 ppb**	**218 ppb**	**197 ppb**	**190 ppb**	**238 ppb**	**163 ppb**	**219 ppb**	**218 ppb**	**205 ppb**
ORW-5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW-6	**108 ppb**	**95 ppb**	**91 ppb**	**120 ppb**	**101 ppb**	**94 ppb**	**90 ppb**	**100 ppb**	**87 ppb**	**93 ppb**	**89 ppb**	**85 ppb**	**90 ppb**	**88 ppb**	**79 ppb**	OFF	OFF
ORW -7	**160 ppb**	**139 ppb**	**134 ppb**	**142 ppb**	**127 ppb**	**148 ppb**	**136 ppb**	**153 ppb**	**129 ppb**	**127 ppb**	**120 ppb**	**118 ppb**	**141 ppb**	**185 ppb**	**143 ppb**	OFF	OFF
RW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**22 ppb**	**24 ppb**	OFF	OFF	OFF	**587 ppb**	**59 ppb**

WELL No.	9/10/02	9/17/02	9/24/02	10/1/02	10/8/02	10/15/02	10/22/02	10/29/02	11/4/02	11/12/02	11/19/02	11/26/02	12/3/02	12/10/02	12/17/02	12/23/02	12/30/02
ORW -1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW -2	**116 ppb**	**98 ppb**	**88 ppb**	**85 ppb**	**87 ppb**	**101 ppb**	**197 ppb**	**354 ppb**	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
ORW -3	**120 ppb**	**111 ppb**	**124 ppb**	**111 ppb**	**114 ppb**	**143 ppb**	**274 ppb**	**489 ppb**	**109 ppb**	**121 ppb**	**124 ppb**	**124 ppb**	OFF	OFF	OFF	OFF	OFF
ORW -4	**230 ppb**	**180 ppb**	**190 ppb**	**186 ppb**	**214 ppb**	**253 ppb**	**664 ppb**	**934 ppb**	**187 ppb**	**205 ppb**	**181 ppb**	**211 ppb**	**177 ppb**	**201 ppb**	**209 ppb**	**259 ppb**	**187 ppb**
ORW-5	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**87 ppb**	OFF	OFF	OFF	OFF	**15 ppb**	**28 ppb**
ORW-6	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**68 ppb**	**71 ppb**	OFF	**65 ppb**	**66 ppb**	**73 ppb**	**85 ppb**	**70 ppb**	**53 ppb**
ORW -7	OFF	**115 ppb**	**112 ppb**	**108 ppb**	**108 ppb**	**139 ppb**	**256 ppb**	**437 ppb**	**98 ppb**	**106 ppb**	**120 ppb**	**104 ppb**	**94 ppb**	**106 ppb**	**108 ppb**	**115 ppb**	**118 ppb**
RW-1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RW-3	**43 ppb**	**24 ppb**	**34 ppb**	**24 ppb**	**357 ppb**	**30 ppb**	**41 ppb**	**22 ppb**	**13 ppb**	**76 ppb**	**10 ppb**	**11 ppb**	OFF	OFF	OFF	OFF	OFF

Figure 6

Temporal Variations in Offsite Recovery Well TVOCs (ppb) 2002



2.4 Petroleum Product Recovery Results

Petroleum product recovery continued to be recovered on-site during OY 2002. There were two (2) distinct periods during OY 2002 when product was recovered, January through April and July through November. During OY 2002, a total of 1,821 gallons of petroleum product was recovered bringing the total cumulative amount of product recovered for the remediation (1999 through 2002) to 5,032 gallons. Figure 7 graphically presents the historical monthly product recovery for the entire remediation.

2.5 Effluent Water Quality Results

Effluent water quality samples were collected on a weekly basis. The samples were analyzed for VOC's, SVOC's and metals. Detailed monthly summaries of the effluent quality results are presented in Appendix B.

All samples analyzed during OY 2002 for VOC's were below the detection limits (BDL) for the constituents being monitored.

All samples analyzed during OY 2002 for SVOC's were below their detection limits (BDL) for the constituents being monitored, with the exception of two samples taken on July 2, 2002 and July 7, 2002, when 1.5 ppb and 1.3 ppb of Diethyl Phthalate were detected in effluent. The 1.5 ppb and 1.3 ppb levels were still below the parameter's effluent discharge criteria of 50 ppb.

Iron and manganese were the two metals that were consistently detected in the facility's effluent. Both metals have an individual discharge limit of 600 ppb and a combined discharge limit of 1,000 ppb. For the first sixteen weeks and for fourteen weeks from September through November of OY 2002, the FTCGRF exceeded the manganese and combined iron and manganese discharge limits. The discharge limits were exceeded due to high manganese levels (4000 to 8500 ppb) in water collected from the on-site recovery well RW-3. These high levels were reduced during treatment, however, between 1300 ppb and 3200 ppb still remained in the effluent, which exceeded its discharge limits.

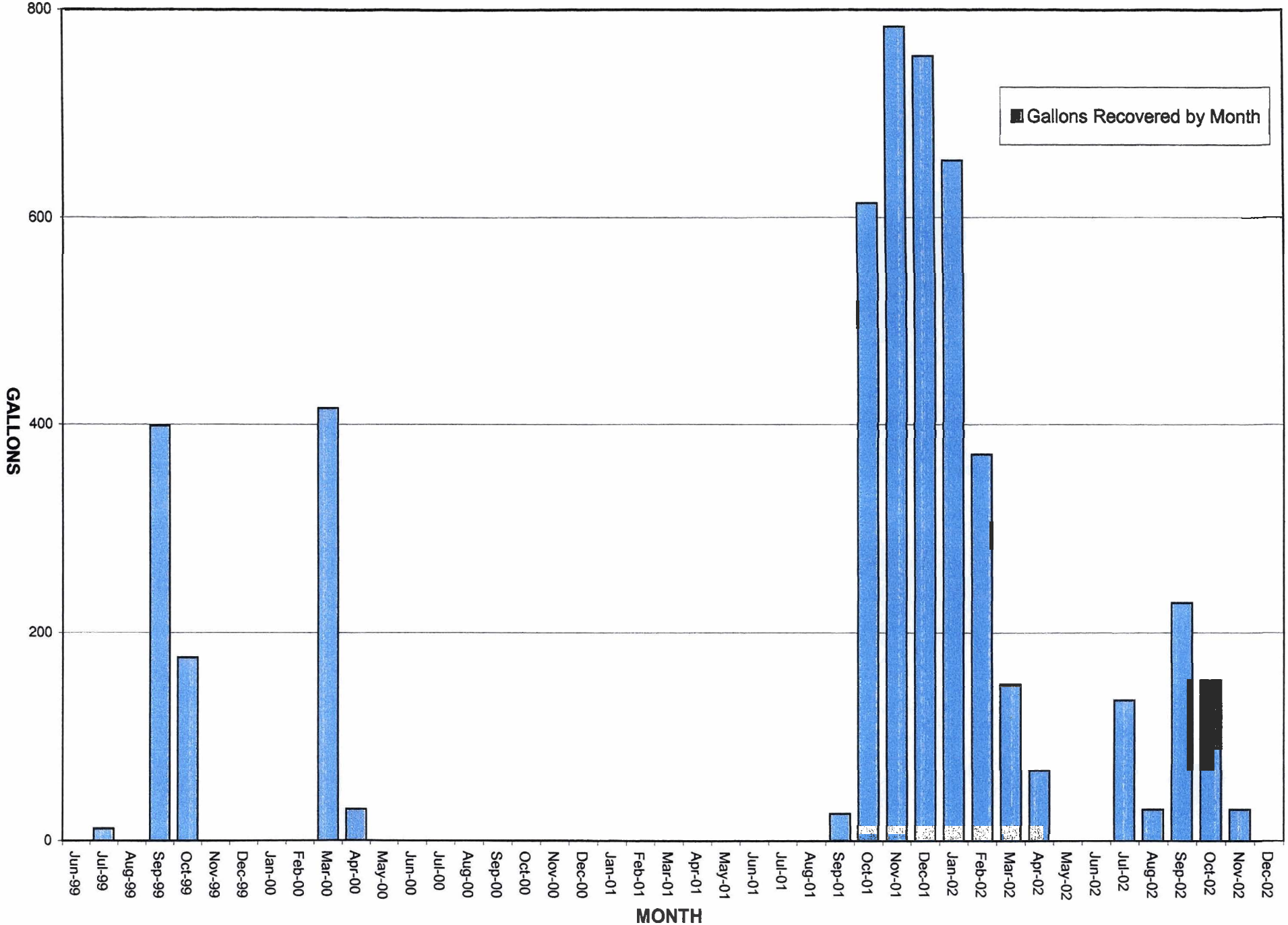
The only other metal that exceeded its discharge limit in OY 2002 was arsenic. There were three events, February 11 and 19 and March 19, when arsenic ranged from 62 ppb to 144 ppb, which was above its discharge limit of 50 ppb. The only other metal that was consistently detected in the facility's effluent was nickel. The highest detected value for nickel was 11 ppb, well below the discharge limit of 2,000 ppb.

2.6 Air Emissions Monitoring Results

Three compounds: benzene, vinyl chloride and tetrachloroethene were identified by the State as potential air contaminant sources resulting from the operation of the FTCGRF. No direct air emissions sampling is required at the FTCGRF; instead, air emissions rates are calculated based on a specific day's influent contaminant concentration and its associated fluid flow rate. The calculation assumes that 100% of the measured compound is removed by the air strippers and discharged to the atmosphere.

FIGURE 7

HISTORICAL ONSITE PRODUCT RECOVERY - 1999 to 2002



During OY 2002 the highest calculated emission rate for benzene was 0.630 pounds per day (lbs/d), which represents approximately 7 % of the maximum allowable emission rate of 9.49 lbs/d. The highest emissions rate calculated for vinyl chloride was 0.578 lbs/d and for tetrachloroethene was 0.562 lbs/d. These emissions were approximately 39 % of the facility's maximum allowable rate for vinyl chloride (1.50 lbs/d) and less than 1 % for Tetrachloroethene (93.96 lbs/d). Basically 100 % of the air emissions of Benzene, Vinyl Chloride and Tetrachloroethene resulted from recovered off-site contamination. The weekly air emissions data for the monitored compounds are presented graphically in Figures 8, 9 and 10.

3.0 2002 Environmental Monitoring Program

3.1 2002 Environmental Monitoring Dates, Wells and Parameters

In compliance with the Fireman's Training Center Groundwater Remediation Project's (FTCGRP) Remediation Monitoring Plan (RMP), the County conducted four (4) sampling events in Monitoring Year (MY) 2002 (January 1, 2002 to December 31, 2002). The four (4) sampling events were comprised of three (3) Quarterly (March, September and December) and one (1) Annual (June). Quarterly sampling events analyzed groundwater for volatile organic compounds (VOC's) and semi-volatile organic compounds (SVOC's). The Annual sampling event included an expanded list of parameters comparable to the baseline sampling round, which included alkalinity, BOD, COD, hardness, nitrate/nitrite, phosphorus, sodium, TKN/ammonia, sulfate, chloride, TDS, TSS, pH, conductivity and metals.

Both the on-site and off-site groundwater for the FTCGRP was sampled during MY 2002. The on-site monitoring well network consisted of eleven (11) Annual / eight (8) Quarterly wells (Figure 11). The off-site network consisted of fifteen (15) Annual / fourteen (14) Quarterly wells (Figure 12). All on-site and off-site monitoring wells are equipped with dedicated sampling devices (Grundfos Redi-flo 2 submersible pump) (Appendix D).

3.1.2 2002 Environmental Monitoring Special Notes

During MY 2002, there were several occasions when specific monitoring wells were not sampled. On-site monitoring well W-7A was not sampled for two (2) Quarterly sampling rounds in March and September due to a low water level condition. Off-site monitoring well U-6A was not sampled during an Annual sampling round in June due to equipment failure. Off-site monitoring well BP-9C was not sampled for a Quarterly round in March due to equipment failure.

4.0 Environmental Monitoring Results

4.1 On-Site Quarterly and Annual Sampling Results

4.1.1 On-Site Volatile and Semi-Volatile Organic Sampling Results

Groundwater samples were collected from eleven (11) monitoring wells for the one (1) Annual sampling event and from eight (8) monitoring wells for the three (3) Quarterly sampling events. The results of the Quarterly and Annual sampling analyses are presented in Table 2.

Figure 8

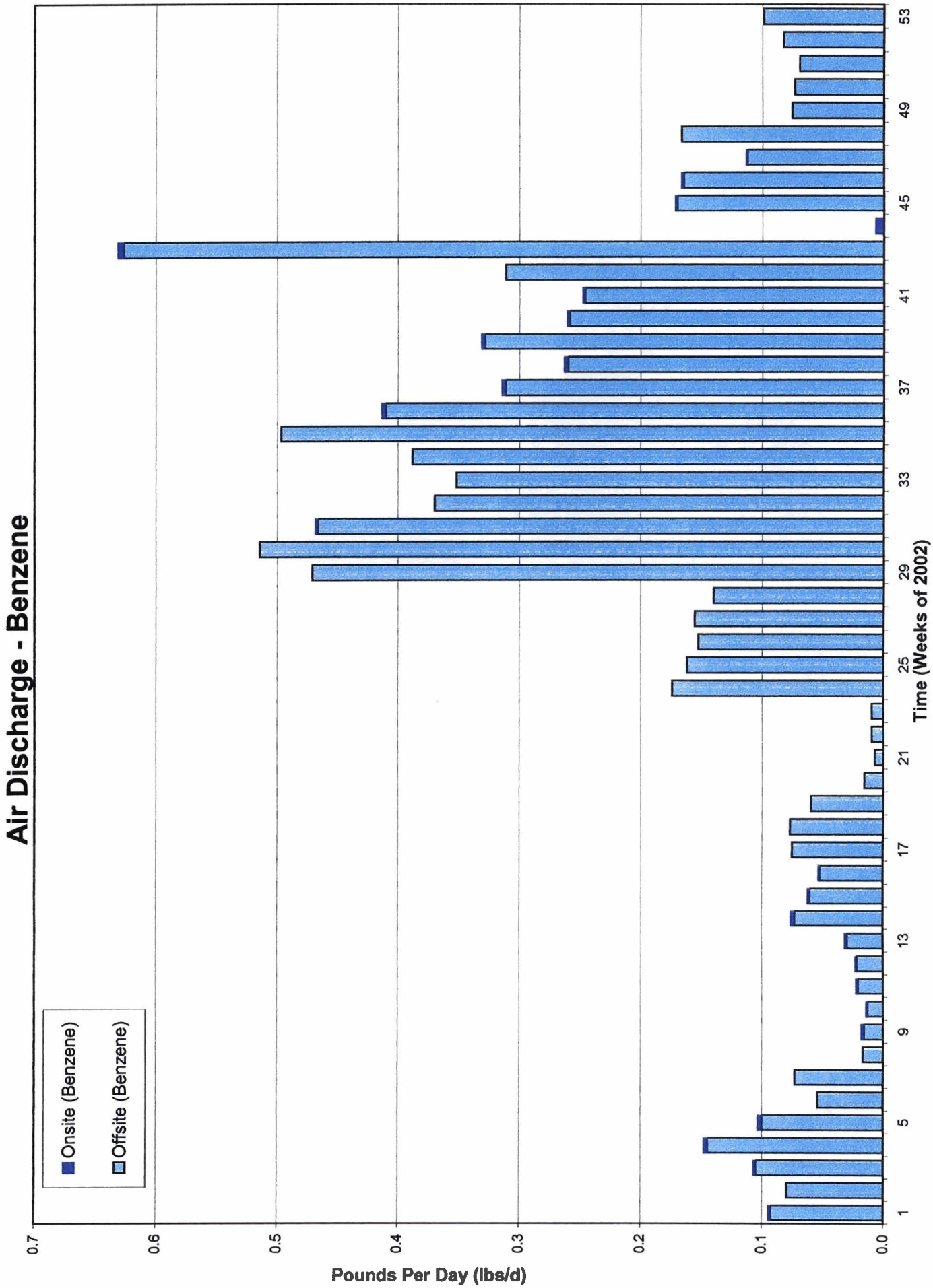

Air Discharge - Benzene
Onsite (Benzene)
Offsite (Benzene)
Pounds Per Day (lbs/d)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Time (Weeks of 2002)
1
5
9
13
17
21
25
29
33
37
41
45
49
53

Figure 9

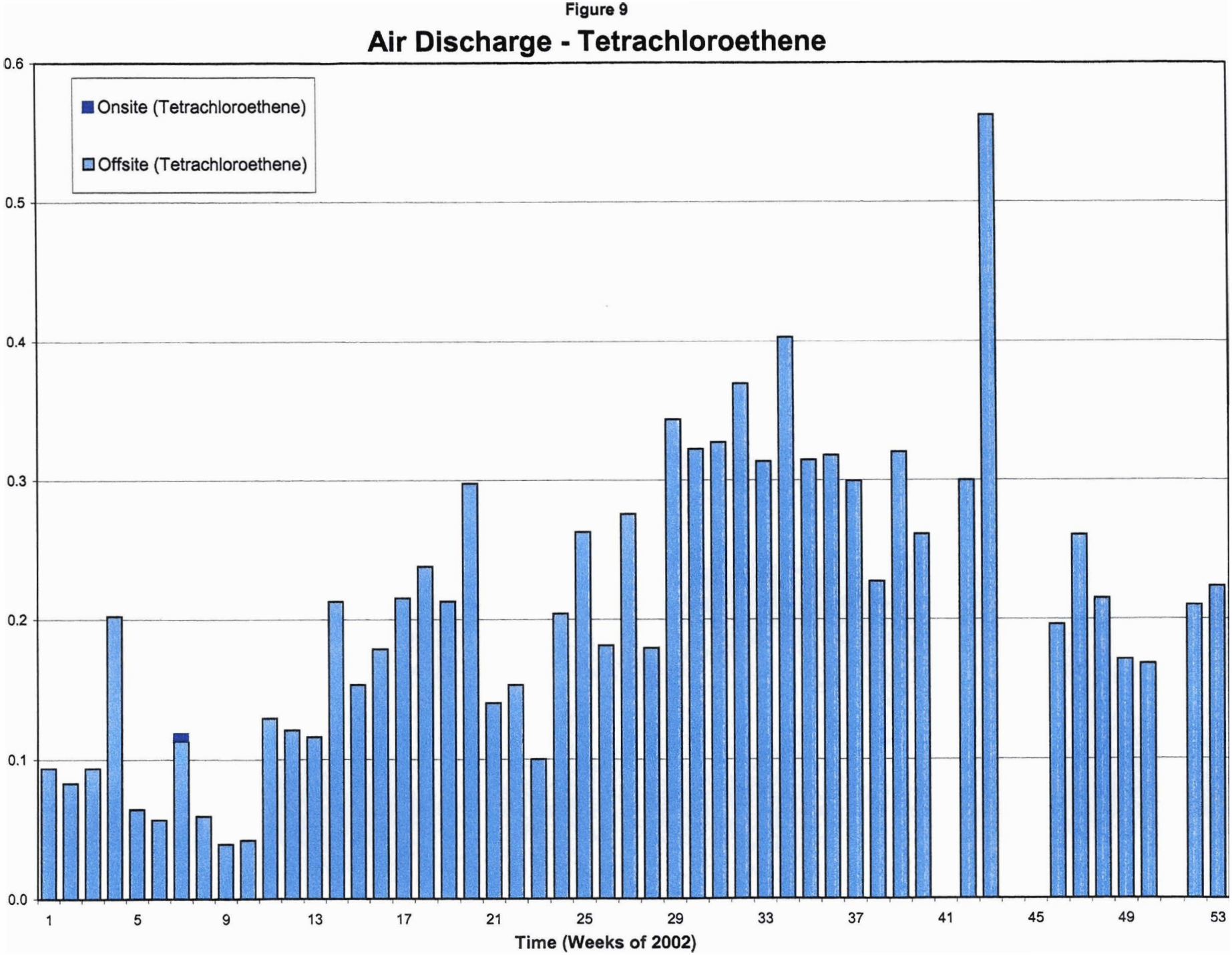

Air Discharge - Tetrachloroethene
Onsite (Tetrachloroethene)
Offsite (Tetrachloroethene)
Pounds Per Day (lbs/d)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1
5
9
13
17
21
25
29
33
37
41
45
49
53
Time (Weeks of 2002)

Figure 10

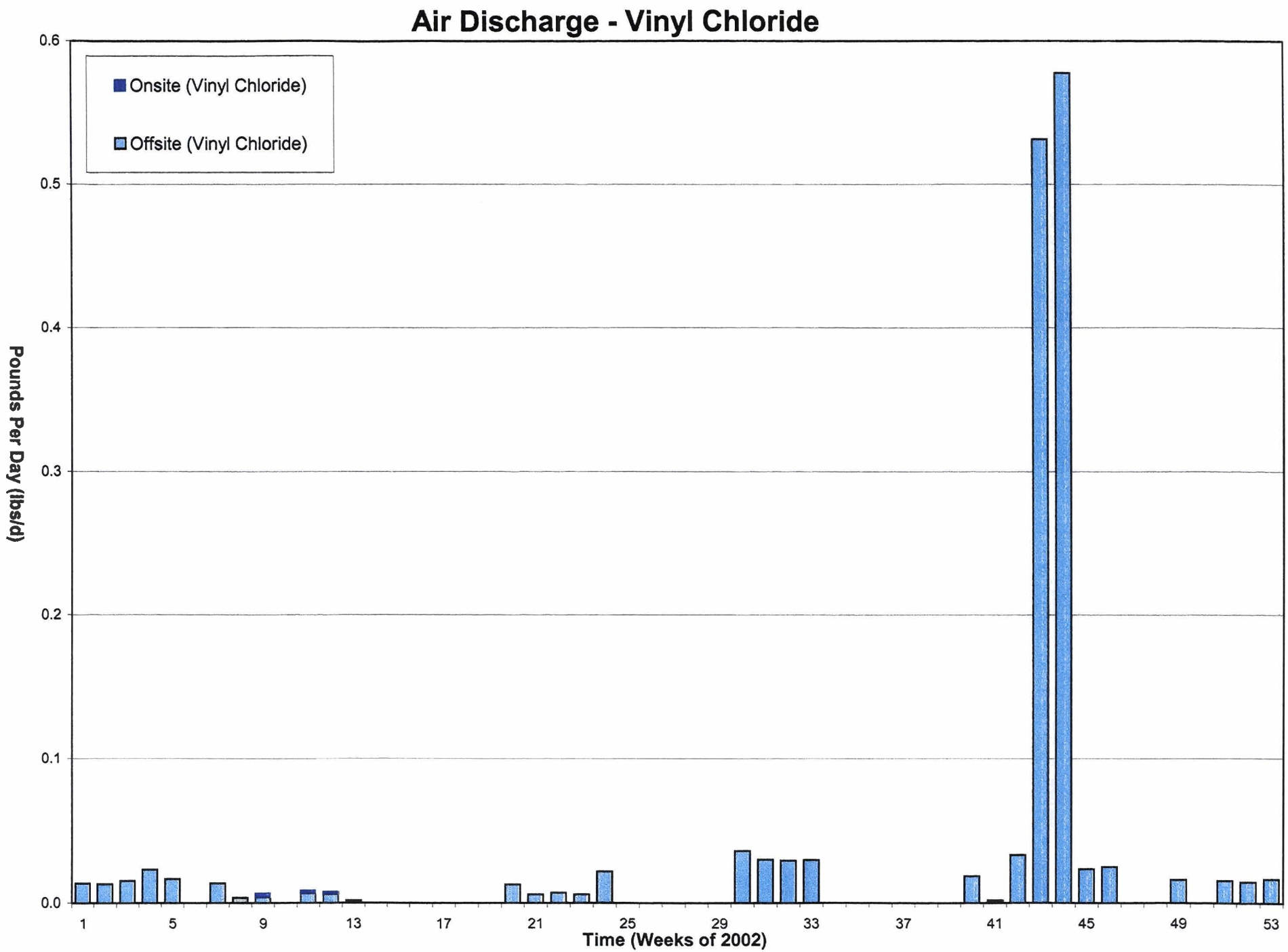
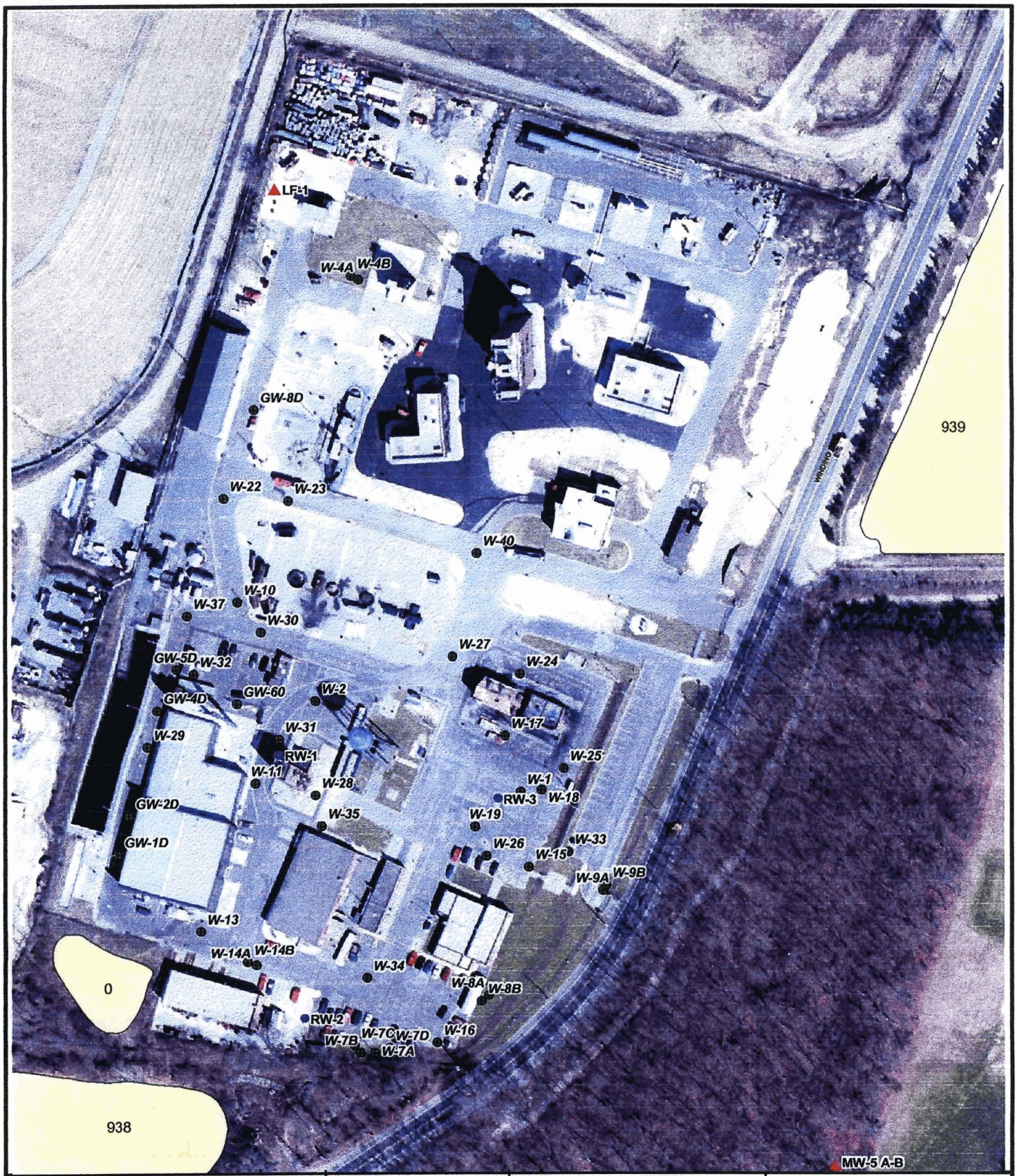

Air Discharge - Vinyl Chloride
Onsite (Vinyl Chloride)
Offsite (Vinyl Chloride)
Pounds Per Day (lbs/d)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
1
5
9
13
17
21
25
29
33
37
41
45
49
53
Time (Weeks of 2002)

Figure 11



Legend

- FTC Monitoring Wells
- Fireman's Training Center Area Wells
- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Claremont Polychemical Site Diffusion Well
- Claremont Polychemical Site Monitoring Well or Well Cluster
- Claremont Polychemical Site Proposed Monitoring Well or Well Cluster
- Nassau County Injection Well
- Nassau County Monitoring Well or Well Cluster
- Nassau County Recovery Well
- Plainview WD Public Supply Well
- T of Oyster Bay Monitoring Well or Well Cluster
- T of Oyster Bay Recovery Well
- V of Farmingdale Public Supply Well
- Recharge Basins

Map Location

NASSAU COUNTY
Fireman's Training Center Site Area
Old Bethpage, NY
Prepared By: - NCDPW - Water Resources Engineering Unit

N W E S

1 Inch equals 150 Feet

Nassau County
Geographic Information System

Date: 10/14/2005

Figure 12

Legend

Fireman's Training Center Area Wells

- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Claremont Polychemical Site Diffusion Well
- Claremont Polychemical Site Monitoring Well or Well Cluster
- Nassau County Injection Well
- Nassau County Monitoring Well or Well Cluster
- Nassau County Recovery Well
- Plainview WD Public Supply Well
- T of Oyster Bay Monitoring Well or Well Cluster
- T of Oyster Bay Recovery Well
- V of Farmingdale Public Supply Well

Map Location

SITE PLAN
FIREMAN'S TRAINING CENTER

Prepared By: - NCDPW - Water Resources Engineering Unit

N
W E
S

1 Inch equals 1,300 Feet

Nassau County

Geographic Information System

Date: 10/14/2005

Table 2a

2002 ONSITE GROUNDWATER SAMPLING RESULTS

	FTC-W-4A		FTC-W-4B					FTC-W-7A		FTC-W-7B				
	Baseline Water Quality		Baseline Water Quality	DATE SAMPLED				Baseline Water Quality		Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/10/99		6/10/99	3/28/02	6/21/02	10/7/02	12/19/02	6/10/99		6/10/99	3/29/02	6/21/02	10/7/02	1/9/03
Vinyl Chloride	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	Well Dry No Samples	BDL	BDL	BDL	BDL	BDL	BDL	Well Dry No Sample	2.1	BDL	BDL	BDL	BDL
Benzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		1.6	BDL	BDL	BDL	1.1
Toluene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	1.3
Tetrachloroethene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL		1.8	2.1	BDL	BDL	1.8	BDL		BDL	2.5	BDL	1.6	1.9
Ethyl Benzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		6.6	BDL	BDL	BDL	BDL
o-Xylene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		1.5	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		1.4	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		2.7	BDL	BDL	BDL	BDL
sec-Butyl Benzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL		7.2	6.1	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL		2.1	BDL	BDL	2.4	BDL	BDL		BDL	2.5	BDL	BDL	3.9
Hexachlorobutadiene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS														
Acenaphthene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Nitrobenzene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL		2.3	BDL	2.1	BDL	5.5	BDL		BDL	1.7	BDL	BDL	1.7
1,3-Dichlorobenzene	BDL		BDL	BDL	BDL	BDL	1.4	BDL		BDL	BDL	1.6	BDL	BDL
Phenanthrene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Fluorene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
INORGANIC PARAMETERS														
ph	6.73		7.02	NA	6.74	NA	NA	5.57		6.51	NA	6.63	NA	NA
Specific Conductance	264		1460	NA	1050	NA	NA	263		698	NA	826	NA	NA
Alkalinity as Calcium Carbonate	BDL		414	NA	222	NA	NA	16		158	NA	182	NA	NA
B.O.D.	BDL		3	NA	BDL	NA	NA	BDL		3	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL		60	NA	33.4	NA	NA	BDL		45	NA	BDL	NA	NA
Hardness, Total	79.5		151	NA	105	NA	NA	55.3		87.7	NA	42.3	NA	NA
Nitrate as N	18.48		1.02	NA	0.19	NA	NA	1.69		BDL*	NA	BDL	NA	NA
Total Phosphorus as P	BDL		BDL	NA	0.08	NA	NA	BDL		0.09	NA	BDL	NA	NA
Sodium, Total	14.5		142	NA	77.4	NA	NA	21.9		61.6	NA	87.8	NA	NA
Total Kjeldahl	0.33		45.1	NA	26.8	NA	NA	0.21		8.84	NA	19	NA	NA
Ammonia as N	BDL		35.3	NA	17.1	NA	NA	BDL		8.84	NA	14	NA	NA
Sulfate	32.7		29.5	NA	27.5	NA	NA	29		31.5	NA	38	NA	NA
Chloride	5		162	NA	158	NA	NA	37.5		95	NA	105	NA	NA
Total Dissolved Solids	190		630	NA	434	NA	NA	137		310	NA	360	NA	NA
Total Suspended Solids	BDL		5.5	NA	22	NA	NA	BDL		44	NA	26	NA	NA
Aluminum, Total	BDL		BDL	NA	0.145	NA	NA	BDL		BDL	NA	0.011	NA	NA
Iron, Total	0.052		2.4	NA	8.14	NA	NA	0.005		31.3	NA	13.8	NA	NA
Manganese, Total	0.034		3.09	NA	2.64	NA	NA	0.003		3.1	NA	2.49	NA	NA
Nickel, Total	0.010		0.022	NA	0.014	NA	NA	0.012		0.008	NA	0.006	NA	NA
Chromium, Total	BDL		0.002	NA	0.002	NA	NA	BDL		0.009	NA	BDL	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory
Ceder Creek S.T.P., Wantagh, New York

NOTE: All results ug/l

Table 2b

2002 ONSITE GROUNDWATER SAMPLING RESULTS

	FTC-W-7C					FTC-W-7D			FTC-W-9A		FTC-W-9B					FTC-W-14A				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED		Baseline Water Quality		Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/8/99	3/29/02	6/21/02	10/7/02	1/9/03	6/8/99	6/21/02		6/10/99		6/10/99	3/28/02	6/21/02	10/7/02	12/30/02	6/10/99	3/28/02	6/21/02	10/8/02	12/30/02
Vinyl Chloride	1.2	2.5	BDL	BDL	BDL	2.4	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	1.6	1.7	BDL	BDL	BDL	1.3	BDL	Annual Sample Only	BDL	Well Dry No Samples	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	4.7	5.1	BDL	1.9	1.6	3.6	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	3.2	0.8	BDL	BDL	1.1	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	1.2	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	1.4	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	1.2	2.3	BDL	BDL	1.5	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL *	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	3.0	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
sec-Butyl Benzene	1.3	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	2.2	5.4	BDL	BDL	2.8	1.4	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobutadiene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,3-Trichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	5.7	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS																				
Acenaphthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	1.0	5.5	4.3	BDL	BDL	BDL	BDL		BDL		BDL	BDL	1.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	BDL	1.5	1.1	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
INORGANIC PARAMETERS																				
ph	5.71	NA	6.2	NA	NA	5.17	5.79		6.28		6.65	NA	6.42	NA	NA	6.42	NA	6.03	NA	NA
Specific Conductance	781	NA	815	NA	NA	486	260		324		564	NA	926	NA	NA	158	NA	352	NA	NA
Alkalinity as Calcium Carbonate	59	NA	140	NA	NA	14	22		88		40	NA	156	NA	NA	46	NA	41	NA	NA
B.O.D.	2	NA	BDL	NA	NA	2	BDL		BDL		BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL	NA	BDL	NA	NA	BDL	BDL		BDL		BDL	NA	97.9	NA	NA	BDL	NA	BDL	NA	NA
Hardness, Total	181	NA	146	NA	NA	68.2	32.9		95.7		61.5	NA	188	NA	NA	47.5	NA	7.8	NA	NA
Nitrate as N	0.23	NA	BDL	NA	NA	1.57	2.42		0.6		BDL*	NA	BDL	NA	NA	0.44	NA	2.8	NA	NA
Total Phosphorus as P	BDL	NA	BDL	NA	NA	BDL	BDL		0.05		BDL	NA	BDL	NA	NA	0.07	NA	BDL	NA	NA
Sodium, Total	60.4	NA	72.9	NA	NA	57.7	22.9		125		65.2	NA	82.7	NA	NA	11.4	NA	2.83	NA	NA
Total Kjeldahl	5.86	NA	10.2	NA	NA	1.15	2.96		0.62		4.74	NA	6.34	NA	NA	0.4	NA	0.32	NA	NA
Ammonia as N	5.86	NA	8.45	NA	NA	0.88	2.67		0.35		4.26	NA	5.61	NA	NA	0.15	NA	BDL	NA	NA
Sulfate	185	NA	72	NA	NA	49.4	8.93		24		25.1	NA	75.2	NA	NA	7.28	NA	35.6	NA	NA
Chloride	70	NA	110	NA	NA	80	50		22.5		120	NA	140	NA	NA	7.5	NA	42.5	NA	NA
Total Dissolved Solids	425	NA	405	NA	NA	248	120		164		264	NA	476	NA	NA	92	NA	181	NA	NA
Total Suspended Solids	BDL	NA	2	NA	NA	BDL	1		6		BDL	NA	BDL	NA	NA	20	NA	19	NA	NA
Aluminum, Total	BDL	NA	0.049	NA	NA	BDL	0.049		BDL		BDL	NA	0.008	NA	NA	BDL	NA	0.087	NA	NA
Iron, Total	0.023	NA	0.904	NA	NA	0.013	0.056		0.638		0.013	NA	0.051	NA	NA	0.38	NA	0.3	NA	NA
Manganese, Total	4.46	NA	4	NA	NA	0.104	0.072		0.565		2.84	NA	9.67	NA	NA	0.59	NA	0.111	NA	NA
Nickel, Total	0.694	NA	0.027	NA	NA	0.012	BDL		0.023		BDL	NA	0.004	NA	NA	0.005	NA	0.005	NA	NA
Chromium, Total	BDL	NA	0.004	NA	NA	BDL	BDL		BDL		BDL	NA	0.001	NA	NA	0.008	NA	0.007	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory
Ceder Creek S.T.P., Wantagh, New York

NOTE: All results ug/l

Table 2c

2002 ONSITE GROUNDWATER SAMPLING RESULTS

	FTC-W-14B					FTC-W-23			FTC-W-31			FTC-W-32					FTC-W-35				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/10/99	3/28/02	6/21/02	10/8/02	12/30/02	6/8/99	7/2/02		6/11/99	7/2/02		6/15/00	3/29/02	7/2/02	10/8/02	12/30/02	6/11/99	3/29/02	7/2/02	10/8/02	12/30/02
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	Annual Sample Only	BDL	BDL	Annual Sample Only	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		17.4	4.7	5.3	3.3	3.1	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		2.7	BDL	1.8	BDL	BDL	392	BDL	1.3	19.5	BDL
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.6
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		112	BDL		13.3	31.5	3.7	BDL	BDL	311	2.8	34.9	101	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		415	BDL		33.8	62.5	2.5	BDL	BDL	823	3.7	4.9	42.3	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		194	BDL		10.1	21.2	BDL	BDL	BDL	457	BDL	5.1	21.3	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		23.1	BDL		17.0	7.2	9.5	BDL	BDL	BDL	BDL	3.8	19.7	BDL
n-Propylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		65.7	BDL		39.9	12.4	11.8	BDL	BDL	62.2	BDL	5.6	36.2	BDL
1,3,5-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		169	5.2		70.9	20.3	3	BDL	2.2	126	BDL	2.7	25.3	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		548	3.9		209	65.6	13.9	1.7	3.5	465	2.5	9.2	121.0	BDL
sec-Butyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.5	BDL
p-Isopropyltoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		21.8	2.9		12.7	1.8	BDL	BDL	BDL	7.3	BDL	BDL	1.5	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.9
Hexachlorobutadiene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		106	BDL		BDL	24.2	BDL	BDL	BDL	140	BDL	BDL	20.6	BDL
1,2,3-Trichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		3.2	BDL	BDL	5.7	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS																					
Acenaphthene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		1.3	1.4		BDL	6.2	9.3	3.3	1.0	BDL	BDL	BDL	BDL	BDL
Nitrobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	4.1	BDL	BDL	BDL	BDL	BDL	7.8	1.8
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	1.0	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	3.8	3.1	BDL	3.9
1,3-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.8	BDL	1.0
Phenanthrene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		BDL	1.8	4.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-Dinitrotoluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		3.9	BDL		1.8	BDL	1.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		2.0	1.5		1.8	10.1	12.5	8.2	2.4	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL		61.8	BDL		BDL	BDL	BDL	BDL	BDL	85.8	BDL	BDL	20.6	BDL
INORGANIC PARAMETERS																					
ph	6.17	NA	6.24	NA	NA	6.99	7.03		6.48	6.5		6.64	NA	6.48	NA	NA	5.83	NA	6.67	NA	NA
Specific Conductance	568	NA	681	NA	NA	832	577		632	727		776	NA	732	NA	NA	260	NA	859	NA	NA
Alkalinity as Calcium Carbonate	60	NA	84	NA	NA	182	126		71	140		179	NA	300	NA	NA	56	NA	244	NA	NA
B.O.D.	BDL	NA	BDL	NA	NA	BDL	BDL		7	BDL		5.2	NA	BDL	NA	NA	6	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL	NA	BDL	NA	NA	BDL	BDL		36	50.1		54.9	NA	74	NA	NA	BDL	NA	40.6	NA	NA
Hardness, Total	190	NA	265	NA	NA	52.6	51.5		50.8	110		108	NA	237	NA	NA	45	NA	105	NA	NA
Nitrate as N	2.59	NA	1.25	NA	NA	4.07	11		BDL*	0.16		BDL	NA	BDL	NA	NA	1.72	NA	BDL	NA	NA
Total Phosphorus as P	BDL	NA	BDL	NA	NA	BDL	BDL		0.05	0.1		0.06	NA	0.1	NA	NA	BDL	NA	BDL	NA	NA
Sodium, Total	23.9	NA	23.1	NA	NA	106	44.3		80.5	61.6		56.7	NA	33.5	NA	NA	16.4	NA	77.5	NA	NA
Total Kjeldahl	0.42	NA	0.82	NA	NA	16.9	19.3		6.23	10.6		2.70	NA	4.92	NA	NA	0.99	NA	21.6	NA	NA
Ammonia as N	BDL	NA	0.43	NA	NA	16.9	18.9		6.24	10.4		2.69	NA	3.55	NA	NA	0.76	NA	21	NA	NA
Sulfate	158	NA	160	NA	NA	24.9	32		33.4	26.6		48.1	NA	11.6	NA	NA	26	NA	14.2	NA	NA
Chloride	20	NA	50	NA	NA	100	35		80	92.5		90.0	NA	25	NA	NA	20	NA	95	NA	NA
Total Dissolved Solids	347	NA	440	NA	NA	384	266		306	343		377	NA	376	NA	NA	140	NA	384	NA	NA
Total Suspended Solids	1	NA	BDL	NA	NA	1	2		40	68		102	NA	80	NA	NA	8	NA	8	NA	NA
Aluminum, Total	BDL	NA	0.01	NA	NA	BDL	0.135		BDL	BDL		0.012	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Iron, Total	0.422	NA	0.039	NA	NA	0.013	0.279		24.3	42.3		64.9	NA	45.1	NA	NA	20.4	NA	4.41	NA	NA
Manganese, Total	4.37	NA	1.03	NA	NA	0.277	2.76		2.31	2		5.39	NA	4.29	NA	NA	3.25	NA	2.09	NA	NA
Nickel, Total	BDL	NA	0.001	NA	NA	0.014	0.001		0.006	0.006		0.002	NA	0.002	NA	NA	0.008	NA	0.005	NA	NA
Chromium, Total	0.002	NA	BDL	NA	NA	BDL	BDL		0.006	0.001		BDL	NA	BDL	NA	NA	0.005	NA	BDL	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory
Ceder Creek S.T.P., Wantagh, New York

NOTE: All results ug/l

During MY 2002 there was a significant drop in VOC contamination observed in all on-site monitoring wells. Figures 13, 14 and 15 show the steep decreases in VOC contamination for the three (3) most highly contaminated wells observed at the start of the remediation in 1999. Monitoring well FTC-W-31 (Fig. 13) has gone from a TVOC level of approximately 1600 ppb in 1999 to approximately 10 ppb in 2002. Similar decreases were observed in FTC-W-32 (Fig. 14) and FTC-W-35 (Fig. 15).

Eight (8) on-site monitoring wells contained measurable levels of SVOC's during MY 2002. The observed SVOC concentrations were at or below the site's clean-up criteria.

Review of the VOC and SVOC results observed during MY 2002, appears to indicate that on-site groundwater has reached the remediation's clean-up goals.

4.1.2 On-Site Inorganic Sampling Results

Metals and other inorganic parameters were also examined as part of the on-site sampling program even though they are not part of the State mandated FTCGRP. The results of the inorganic analyses can be found in Table 2.

On-site groundwater was found to have elevated concentrations of Sodium, Ammonia, Iron and Manganese. All four (4) species are typical of landfill leachate and would be expected due to the site's close proximnity to the Town of Oyster Bay Landfill.

4.2 Off-site Quarterly and Annual Sampling Results

4.2.1 Off-Site Volatile and Semi-Volatile Organic Sampling Results

Groundwater samples were collected from fifteen (15) off-site monitoring wells for the one (1) Annual sampling round and from fourteen (14) off-site wells for the three (3) Quarterly rounds. The results of the Quarterly and Annual sampling analyses are presented in Table 3.

From information collected during the Remedial Investigation (RI) phase of the FTCGRP it was determined that four (4) hydrogeologic zones can be delineated and used to evaluate water quality off-site. The four (4) zones are the "A" (water table) – approximately 40 to 80 feet below grade (fbg), "B" – approximately 180 to 200 fbg, "C" – approximately 280 to 300 fbg and the "D" – approximately 380 to 400 fbg. Following the review of the offsite data, it was determined by the County and the NYSDEC that the majority of FTCGRP's off-site contamination exists in the "B" hydrogeologic zone.

B Zone Water Quality

During MY 2002 the majority of the off-site contamination continued to be detected in four (4) monitoring wells located in the site's designated "B" hydrogeologic zone (–80 ft. to –100 ft. msl). These wells, BP-4B, BP-9B, BP-12B and BP-14B, predominately detected halogenated VOCs, which included: Tetrachloroethene, Trichloroethene, C-1,2- Dichloroethene, 1, 1- Dichloroethane and Vinyl Chloride. Figures 16, 17, 18 and 19 show the historical VOC analytical results for each of the four (4) monitoring wells.

Figure 13

FTC-W-31

VOC CONCENTRATIONS
1999 to 2002

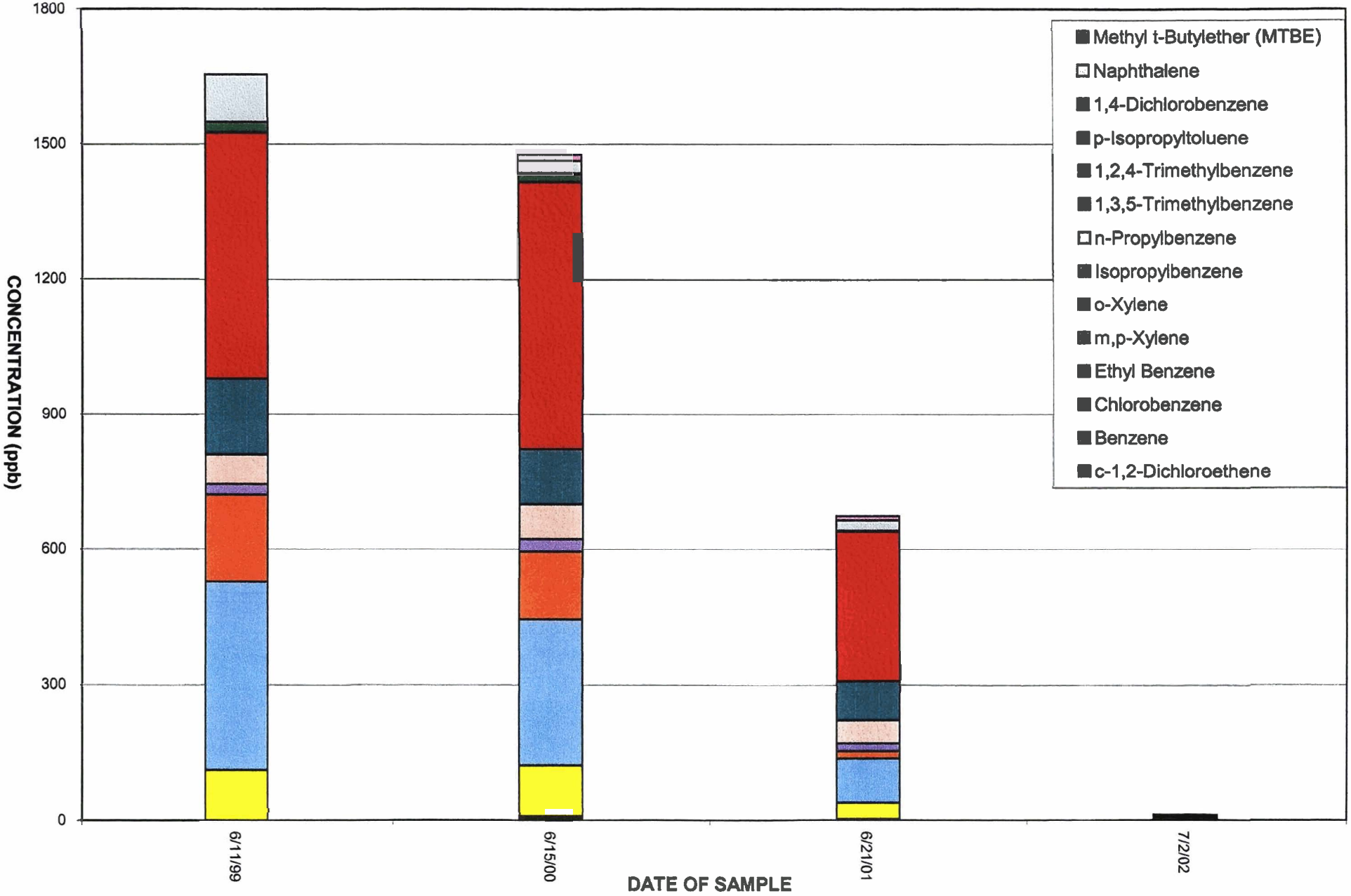


Figure14

FTC-W-32

VOC CONCENTRATIONS
1999 to 2002

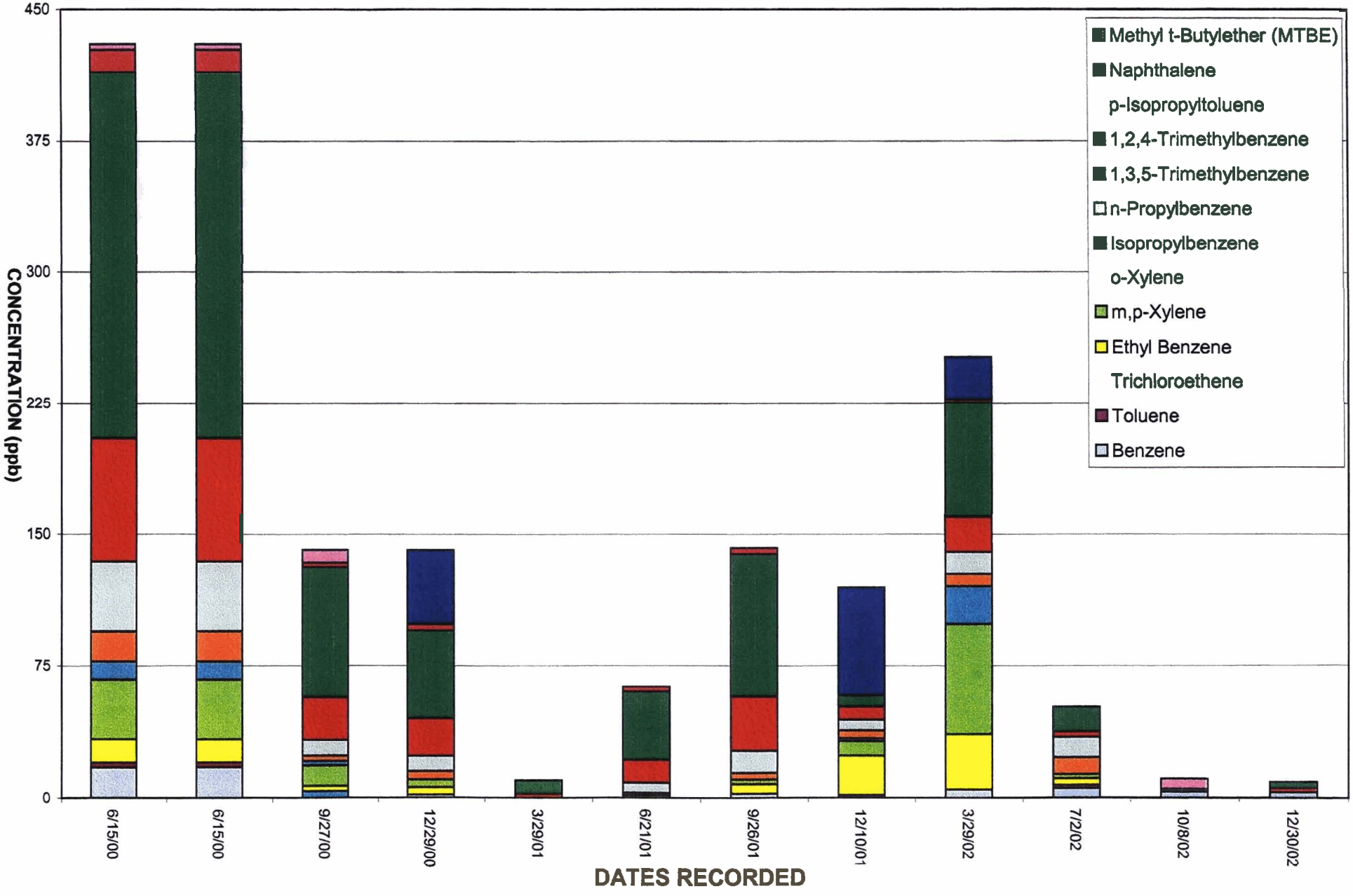


Figure15

FTC-W-35

VOC CONCENTRATIONS
1999 to 2002

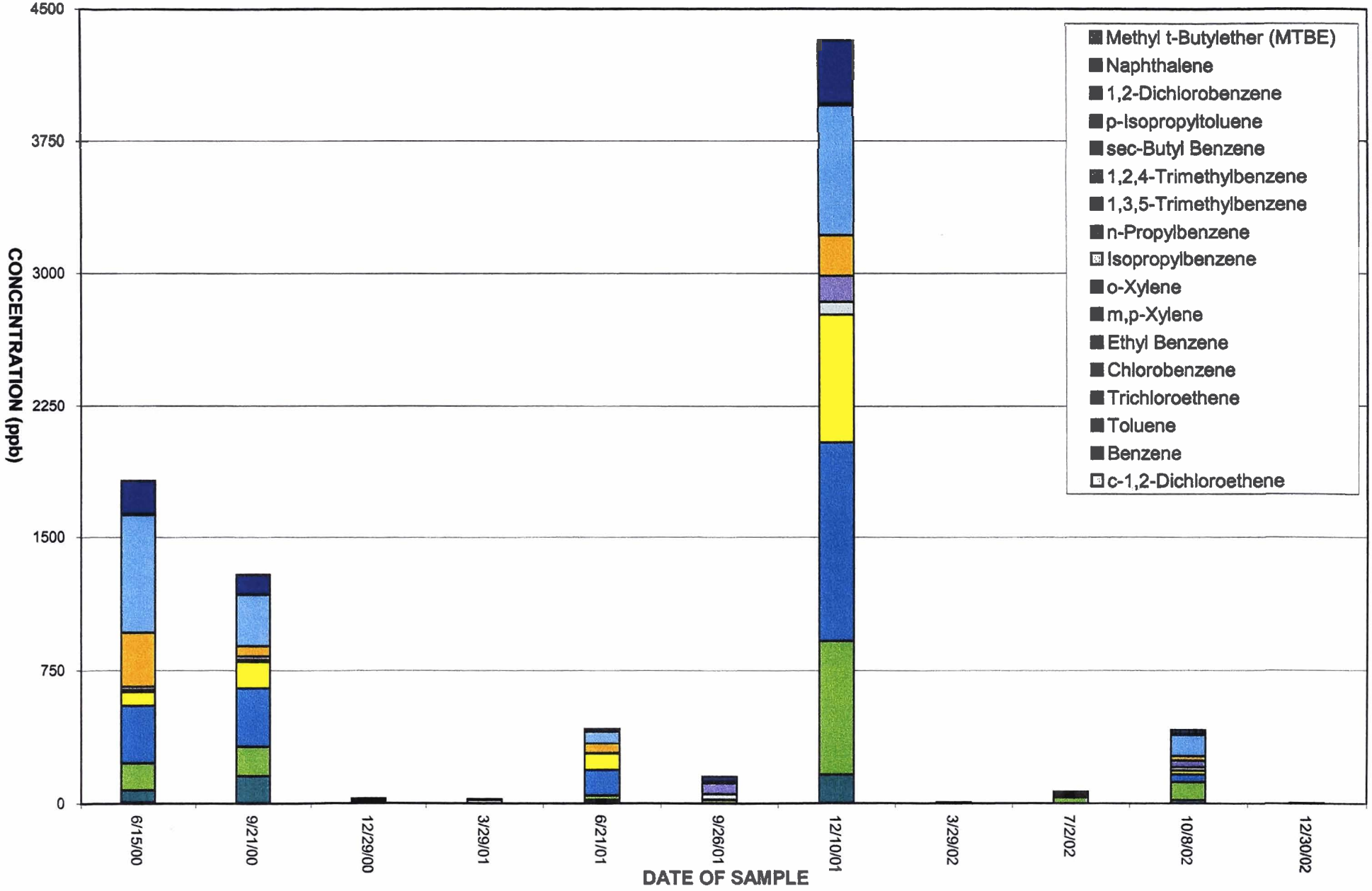


Table 3a

2002 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-2A			BP-2B					BP-3B		BP-3C		BP-4B				
	Baseline Water Quality	DATE SAMPLED		Baseline Water Quality	DATE SAMPLED				Baseline Water Quality		Baseline Water Quality		Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/8/99	7/10/02		6/8/99	3/25/02	7/10/02	10/1/02	12/17/02	11/00/90		11/00/90		6/8/99	3/25/02	6/25/02	10/3/02	12/17/02
Vinyl Chloride	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		10.6	BDL	BDL	1.3	BDL
1,1-Dichloroethene	BDL	BDL	Annual Sample Only	BDL	BDL	BDL	BDL	BDL	BDL	Site Not Accessable No Sample	BDL	Site Not Accessable No Sample	4.4	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		0.9		4.8	2.1	BDL	BDL	BDL
Methylene Chloride	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		NA		BDL	BDL	BDL	2.0	BDL
t -1,2-Dichloroethene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		BDL		BDL	BDL	BDL	BDL	1.2
c-1,2-Dichloroethene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		11.0		117.0	135.6	96.8	33.3	36.8
1,2-Dichloroethene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		NA		BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		8.5	228.3	149	31.3	35.1
Toluene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		32.1	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		12.0		597.0	85.1	63.9	57.9	48.9
Chlorobenzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		26.2	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		155.0	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		NA		4.6	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	2.0		BDL		37.3	9.5	4.4	BDL	BDL
Isopropylbenzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		NA		9.8	7.6	4.6	BDL	BDL
2,2 Dichloropropane & cis-1,2-Dichloroethene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		NA		BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		NA		BDL	BDL	BDL	BDL	BDL
1,1,1 Trichloroethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		2.0		BDL	BDL	BDL	BDL	BDL
1,1,2 Trichloroethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		NA		BDL	BDL	BDL	BDL	BDL
1,2 Dichloroethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		BDL		BDL	BDL	BDL	BDL	1.8
1,2 Dibromoethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		BDL		BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		NA		BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		NA		BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		3.0		BDL	30.4	23.7	11.8	13.3
1,2,4-Trimethylbenzene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	NA		BDL		BDL	BDL	9.5	BDL	1.4
Naphthalene	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		20.0	11.9	BDL	BDL	BDL
1,1,1-Trichloromethane	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		BDL		5.7	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS																	
1,2-Dichlorobenzene	BDL	BDL		2.3	NA	BDL	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA
2,4-Dinitrotoluene	BDL	BDL		BDL	NA	BDL	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA
Fluorene	BDL	BDL		BDL	NA	BDL	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA
Naphthalene	BDL	BDL		BDL	NA	BDL	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA
INORGANIC PARAMETERS																	
ph	6.32	6.25		6.68	NA	6.54	NA	NA	5.03		5.64		4.96	NA	4.90	NA	NA
Specific Conductance	471	363		608	NA	562	NA	NA	81.8		30.0		248	NA	331	NA	NA
Alkalinity as Calcium Carbonate	29	33		68	NA	51	NA	NA	BDL		BDL		9	NA	9.0	NA	NA
B.O.D.	BDL	BDL		BDL	NA	BDL	NA	NA	BDL		1.0		BDL	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL	BDL		BDL	NA	BDL	NA	NA	BDL		40.6		BDL	NA	BDL	NA	NA
Hardness, Total	30.9	64.6		37	NA	32.2	NA	NA	14.9		1.9		49.8	NA	63.7	NA	NA
Nitrate as N	1.97	2.54		BDL	NA	BDL	NA	NA	4.15		BDL		0.53	NA	0.60	NA	NA
Total Phosphorus as P	BDL	BDL		BDL	NA	BDL	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA
Sodium, Total	49.3	34.0		60.9	NA	64.8	NA	NA	6.30		1.91		23.4	NA	21.9	NA	NA
Total Kjeldahl	7.58	0.51		16.1	NA	10.3	NA	NA	0.24		0.16		0.16	NA	0.32	NA	NA
Ammonia as N	7.58	0.15		16.1	NA	11.1	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA
Sulfate	15.8	16.4		15.8	NA	20.4	NA	NA	BDL		6.4		40.8	NA	46.2	NA	NA
Chloride	90	68		110	NA	120	NA	NA	10.0		5.0		30	NA	52.5	NA	NA
Total Dissolved Solids	196	208		237	NA	246	NA	NA	92		47		132	NA	178	NA	NA
Total Suspended Solids	BDL	1.0		BDL	NA	BDL	NA	NA	BDL		1.0		BDL	NA	BDL	NA	NA
Aluminum, Total	BDL	0.016		BDL	NA	BDL	NA	NA	BDL		0.045		BDL	NA	BDL	NA	NA
Iron, Total	0.007	0.017		0.021	NA	0.030	NA	NA	0.106		1.39		0.015	NA	0.009	NA	NA
Manganese, Total	0.275	0.311		0.846	NA	0.625	NA	NA	0.011		0.006		0.13	NA	0.231	NA	NA
Nickel, Total	0.009	0.002		BDL	NA	0.003	NA	NA	BDL		BDL		0.020	NA	0.011	NA	NA
Chromium, Total	BDL	0.001		BDL	NA	0.002	NA	NA	BDL		BDL		BDL	NA	BDL	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory

NOTE: All results ug/l

Table 3b

2002 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-4C					BP-9B					BP-9C				BP-10B				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED				Baseline Water Quality				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/8/99	3/25/02	6/25/02	10/3/02		6/4/99	3/25/02	6/27/02	10/1/02	12/16/02	7/27/99	3/25/02	6/27/02		6/4/99	3/25/02	7/2/02	10/1/02	12/16/02
Vinyl Chloride	5.0	8.3	6.2	5		BDL	1.2	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	4.0	2.4	BDL	1.6		3.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	3.3	4.4	3.8	3	Equipment Failure No Sample	6.4	7.4	BDL	3.6	5.2	BDL	BDL	BDL	Equipment Failure No Samples	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	BDL	BDL	2		BDL	BDL	2.0	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
t -1,2-Dichloroethene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	152.0	145.6	124	89.8		106.0	47.6	BDL	12.4	17.4	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Benzene	9.0	43.6	37.9	24.9		BDL	2.0	BDL	BDL	1.2	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	30.4	143	138	182.1		98.9	18.8	BDL	5.9	9.4	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Chlorobenzene	34.4	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	206.0	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
o-Xylene	1.4	8.8	7.0	4.6		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	1.7	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
2,2 Dichloropropane & cis-1,2-Dichloroethene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	1.2	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1,1 Trichloroethane	BDL	4.4	4.6	4.6		BDL	1.6	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1,2 Trichloroethane	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2 Dichloroethane	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	1	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2 Dibromoethane	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	27.7	25	19.9		BDL	6.4	BDL	2.5	3.3	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	4.2	2.6		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS																			
1,2-Dichlorobenzene	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
2,4-Dinitrotoluene	3.9	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
Fluorene	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
Naphthalene	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
INORGANIC PARAMETERS																			
ph	5.08	NA	4.87	NA		4.97	NA	5.15	NA	NA	NA	NA	6.27		5.21	NA	5.46	NA	NA
Specific Conductance	119	NA	250	NA		89.6	NA	93	NA	NA	NA	NA	76		48.1	NA	48	NA	NA
Alkalinity as Calcium Carbonate	8	NA	10	NA		5	NA	BDL	NA	NA	NA	NA	18		BDL	NA	BDL	NA	NA
B.O.D.	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
Hardness, Total	24.1	NA	60.9	NA		16.2	NA	15.8	NA	NA	NA	NA	22.8		8.8	NA	8.8	NA	NA
Nitrate as N	2.3	NA	4.37	NA		3.62	NA	3.16	NA	NA	NA	NA	1.43		1.73	NA	1.91	NA	NA
Total Phosphorus as P	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	0.28	NA	NA
Sodium, Total	10.3	NA	14.5	NA		L/A	NA	8.06	NA	NA	NA	NA	3.88		L/A	NA	4.22	NA	NA
Total Kjeldahl	BDL	NA	0.31	NA		0.13	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	0.1	NA	NA
Ammonia as N	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	BDL	NA	NA
Sulfate	5.06	NA	16.6	NA		BDL	NA	9.81	NA	NA	NA	NA	6.4		BDL	NA	BDL	NA	NA
Chloride	15	NA	40	NA		12.5	NA	15	NA	NA	NA	NA	5		7.5	NA	BDL	NA	NA
Total Dissolved Solids	64	NA	138	NA		48	NA	56	NA	NA	NA	NA	46		25	NA	46.0	NA	NA
Total Suspended Solids	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		2.5	NA	2.0	NA	NA
Aluminum, Total	BDL	NA	0.084	NA		BDL	NA	0.055	NA	NA	NA	NA	0.034		BDL	NA	0.093	NA	NA
Iron, Total	0.003	NA	0.037	NA		BDL	NA	BDL	NA	NA	NA	NA	0.012		BDL	NA	0.039	NA	NA
Manganese, Total	0.005	NA	0.031	NA		0.003	NA	0.008	NA	NA	NA	NA	0.004		0.001	NA	0.002	NA	NA
Nickel, Total	0.019	NA	0.008	NA		0.005	NA	0.003	NA	NA	NA	NA	BDL		0.005	NA	BDL	NA	NA
Chromium, Total	BDL	NA	BDL	NA		BDL	NA	BDL	NA	NA	NA	NA	BDL		BDL	NA	0.001	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory

NOTE: All results ug/l

Table 3c

2002 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-10C					BP-12A					BP-12B				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/4/99	3/25/02	7/2/02	10/1/02	12/16/02	6/4/99	3/26/02	6/25/02	10/3/02	12/17/02	6/4/99	3/26/02	6/25/02	10/3/02	12/17/02
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	9.2	7.6	5.1	5.4	5.3
Methylene Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.3	BDL
t -1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.4
c-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	78.9	40.5	28.1	31.2	26.7
1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6.0	3.0
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	30.7	10.8	9.9	7.3	12.3
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,2 Dichloropropane & cis-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.1	1.4
1,1,1 Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2 Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2 Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.7	BDL	BDL	1.3
1,2 Dibromoethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	19.8	8.5	6.9	7.1	7
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.3	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS															
1,2-Dichlorobenzene	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
2,4-Dinitrotoluene	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Fluorene	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Naphthalene	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
INORGANIC PARAMETERS															
ph	5	NA	5.11	NA	NA	5.2	NA	4.79	NA	NA	4.86	NA	4.79	NA	NA
Specific Conductance	44.2	NA	51.0	NA	NA	89	NA	505	NA	NA	454	NA	505	NA	NA
Alkalinity as Calcium Carbonate	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
B.O.D.	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Hardness, Total	6.7	NA	8.3	NA	NA	15.8	NA	37.8	NA	NA	41.2	NA	37.8	NA	NA
Nitrate as N	1.8	NA	2.31	NA	NA	2.77	NA	3.22	NA	NA	3.53	NA	3.22	NA	NA
Total Phosphorus as P	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Sodium, Total	L/A	NA	4.37	NA	NA	L/A	NA	70.2	NA	NA	L/A	NA	70.2	NA	NA
Total Kjeldahl	BDL	NA	BDL	NA	NA	BDL	NA	0.19	NA	NA	BDL	NA	0.19	NA	NA
Ammonia as N	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Sulfate	BDL	NA	25.6	NA	NA	6.1	NA	17.4	NA	NA	23.2	NA	17.4	NA	NA
Chloride	7.5	NA	5.0	NA	NA	15	NA	118	NA	NA	95	NA	118	NA	NA
Total Dissolved Solids	16	NA	41.0	NA	NA	42	NA	245	NA	NA	223	NA	245	NA	NA
Total Suspended Solids	BDL	NA	BDL	NA	NA	2	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Aluminum, Total	BDL	NA	BDL	NA	NA	BDL	NA	0.078	NA	NA	BDL	NA	0.078	NA	NA
Iron, Total	BDL	NA	0.008	NA	NA	0.098	NA	0.011	NA	NA	BDL	NA	0.011	NA	NA
Manganese, Total	0.001	NA	0.002	NA	NA	0.063	NA	0.027	NA	NA	0.015	NA	0.027	NA	NA
Nickel, Total	BDL	NA	0.002	NA	NA	0.113	NA	0.008	NA	NA	0.011	NA	0.008	NA	NA
Chromium, Total	BDL	NA	BDL	NA	NA	0.006	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory

NOTE: All results ug/l

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Table 3d

2002 OFFSITE GROUNDWATER SAMPLING RESULTS

	BP-12C					BP-13B					BP-13C				
	Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED				Baseline Water Quality	DATE SAMPLED			
VOLATILE ORGANICS COMPOUNDS	6/15/00	3/26/02	6/25/02	10/3/02	12/10/02	6/19/00	3/28/02	6/27/02	10/4/02	12/19/02	6/19/00	3/28/02	6/27/02	10/4/02	12/19/02
Vinyl Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
t -1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
c-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,2 Dichloropropane & cis-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1 Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2 Trichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2 Dichloroethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2 Dibromoethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SEMI-VOLATILE ORGANIC COMPOUNDS															
1,2-Dichlorobenzene	NA	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
2,4-Dinitrotoluene	NA	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Fluorene	NA	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Naphthalene	NA	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
INORGANIC PARAMETERS															
ph	4.93	NA	4.99	NA	NA	5.03	NA	5.17	NA	NA	5.64	NA	4.52	NA	NA
Specific Conductance	34.0	NA	39.0	NA	NA	81.8	NA	88	NA	NA	30.0	NA	27	NA	NA
Alkalinity as Calcium Carbonate	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
B.O.D.	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	1.0	NA	BDL	NA	NA
Chemical Oxygen Demand	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	40.6	NA	BDL	NA	NA
Hardness, Total	3.8	NA	5.5	NA	NA	14.9	NA	15.8	NA	NA	1.9	NA	1.6	NA	NA
Nitrate as N	1.02	NA	1.94	NA	NA	4.15	NA	4.14	NA	NA	BDL	NA	1.7	NA	NA
Total Phosphorus as P	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Sodium, Total	2.85	NA	3.72	NA	NA	6.30	NA	7.15	NA	NA	1.91	NA	2.57	NA	NA
Total Kjeldahl	0.11	NA	0.11	NA	NA	0.24	NA	BDL	NA	NA	0.16	NA	0.11	NA	NA
Ammonia as N	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA
Sulfate	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	6.4	NA	BDL	NA	NA
Chloride	BDL	NA	5.0	NA	NA	10.0	NA	12.5	NA	NA	5.0	NA	BDL	NA	NA
Total Dissolved Solids	43	NA	23.0	NA	NA	92	NA	65.0	NA	NA	47	NA	20	NA	NA
Total Suspended Solids	BDL	NA	11.0	NA	NA	BDL	NA	BDL	NA	NA	1.0	NA	BDL	NA	NA
Aluminum, Total	0.074	NA	0.082	NA	NA	BDL	NA	BDL	NA	NA	0.045	NA	0.015	NA	NA
Iron, Total	0.002	NA	0.039	NA	NA	0.106	NA	0.018	NA	NA	1.39	NA	0.077	NA	NA
Manganese, Total	0.001	NA	0.001	NA	NA	0.011	NA	0.006	NA	NA	0.006	NA	0.003	NA	NA
Nickel, Total	0.001	NA	0.004	NA	NA	BDL	NA	0.002	NA	NA	BDL	NA	0.004	NA	NA
Chromium, Total	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA	BDL	NA	BDL	NA	NA

LABORATORY: Nassau County DPW Special Projects Laboratory

NOTE: All results ug/l

Table 3e

2002 OFFSITE GROUNDWATER SAMPLING RESULTS

Where is this well?

Not on Prev. Rpts?

	BP-14B				BP-14C				U-6A			RB-1		
	Baseline Water Quality	DATE SAMPLED			Baseline Water Quality	DATE SAMPLED			Baseline Water Quality			Baseline Water Quality		
VOLATILE ORGANICS COMPOUNDS	4/11/02	6/8/02	10/30/02	12/16/02	4/11/02	8/8/02	10/3/02	12/16/02	6/8/99	7/2/02		6/8/99	7/2/02	
Vinyl Chloride	9.2	8.7	10.5	8.3	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,1-Dichloroethene	25	36.4	36.7	39.8	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,1-Dichloroethane	5.1	5.1	4.8	5.6	BDL	BDL	BDL	BDL	BDL	BDL	Annual Sample Only	BDL	BDL	Annual Sample Only
Methylene Chloride	BDL	BDL	3.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
t -1,2-Dichloroethene	BDL	1.5	1.6	4	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
c-1,2-Dichloroethene	244	264	262	319	BDL	BDL	BDL	1.6	BDL	BDL		BDL	BDL	
1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Benzene	83.7	87.5	78.9	91.2	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Toluene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Chloroform	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Tetrachloroethene	375	733	1090	761	BDL	BDL	4.6	2.6	5.8	BDL		BDL	BDL	
Chlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Ethyl Benzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
m,p-Xylene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
o-Xylene	4.3	5.3	5.3	6.5	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
2,2 Dichloropropane & cis-1,2-Dichloroethene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Dichlorodifluoromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,1,1 Trichloroethane	50.6	63.6	74.5	77.9	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,1,2 Trichloroethane	BDL	9.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,2 Dichloroethane	BDL	12.9	BDL	16.7	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,2 Dibromoethane	15.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,4-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,2-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Trichloroethene	40.8	49.3	50.4	57.2	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,2,4-Trimethylbenzene	1.4	1.3	BDL	1.9	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Naphthalene	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
1,1,1-Trichloromethane	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
Methyl t-Butylether (MTBE)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	
SEMI-VOLATILE ORGANIC COMPOUNDS														
1,2-Dichlorobenzene	BDL	NA	BDL	NA	NA	BDL	NA	NA	BDL	BDL		BDL	BDL	
2,4-Dinitrotoluene	BDL	NA	BDL	NA	NA	BDL	NA	NA	BDL	BDL		BDL	BDL	
Fluorene	BDL	NA	BDL	NA	NA	BDL	NA	NA	BDL	BDL		BDL	BDL	
Naphthalene	BDL	NA	BDL	NA	NA	BDL	NA	NA	BDL	BDL		BDL	BDL	
INORGANIC PARAMETERS														
ph	5.03	NA	5.14	NA	NA	5.05	NA	NA	5.58	6.49		5.58	6.42	
Specific Conductance	81.8	NA	114	NA	NA	50.0	NA	NA	5103	449		5103	365	
Alkalinity as Calcium Carbonate	BDL	NA	9.0	NA	NA	BDL	NA	NA	17	17		17	47	
B.O.D.	BDL	NA	2.4	NA	NA	BDL	NA	NA	BDL	3.8		BDL	BDL	
Chemical Oxygen Demand	BDL	NA	BDL	NA	NA	7.7	NA	NA	BDL	BDL		BDL	BDL	
Hardness, Total	14.9	NA	24.3	NA	NA	BDL	NA	NA	423	48.5		423	68.9	
Nitrate as N	4.15	NA	1.93	NA	NA	2.34	NA	NA	3.77	3.12		3.77	2.77	
Total Phosphorus as P	BDL	NA	BDL	NA	NA	BDL	NA	NA	BDL	0.12		BDL	BDL	
Sodium, Total	6.30	NA	8.62	NA	NA	4.62	NA	NA	807	59.1		807	36.6	
Total Kjeldahl	0.24	NA	0.17	NA	NA	0.17	NA	NA	0.1	1.61		0.1	0.14	
Ammonia as N	BDL	NA	BDL	NA	NA	BDL	NA	NA	BDL	BDL		BDL	BDL	
Sulfate	BDL	NA	11.1	NA	NA	5.5	NA	NA	BDL	17.4		BDL	24.2	
Chloride	10.0	NA	15.0	NA	NA	5.0	NA	NA	1574	100		1574	50	
Total Dissolved Solids	92	NA	67.0	NA	NA	31.0	NA	NA	2888	276		2888	211	
Total Suspended Solids	BDL	NA	2.0	NA	NA	1.0	NA	NA	BDL	124		BDL	BDL	
Aluminum, Total	BDL	NA	0.380	NA	NA	0.014	NA	NA	BDL	0.191		BDL	0.017	
Iron, Total	0.106	NA	0.044	NA	NA	0.013	NA	NA	0.008	7.14		0.008	0.049	
Manganese, Total	0.011	NA	0.008	NA	NA	0.002	NA	NA	0.040	0.319		0.040	BDL	
Nickel, Total	BDL	NA	0.003	NA	NA	0.003	NA	NA	BDL	0.009		BDL	0.001	
Chromium, Total	BDL	NA	0.001	NA	NA	BDL	NA	NA	BDL	0.006		BDL	0.002	

LABORATORY: Nassau County DPW Special Projects Laboratory
Ceder Creek S.T.P., Wantagh, New York

NOTE: All results ug/l

Figure 16

BP-4B

VOC CONCENTRATIONS
1999 to 2002

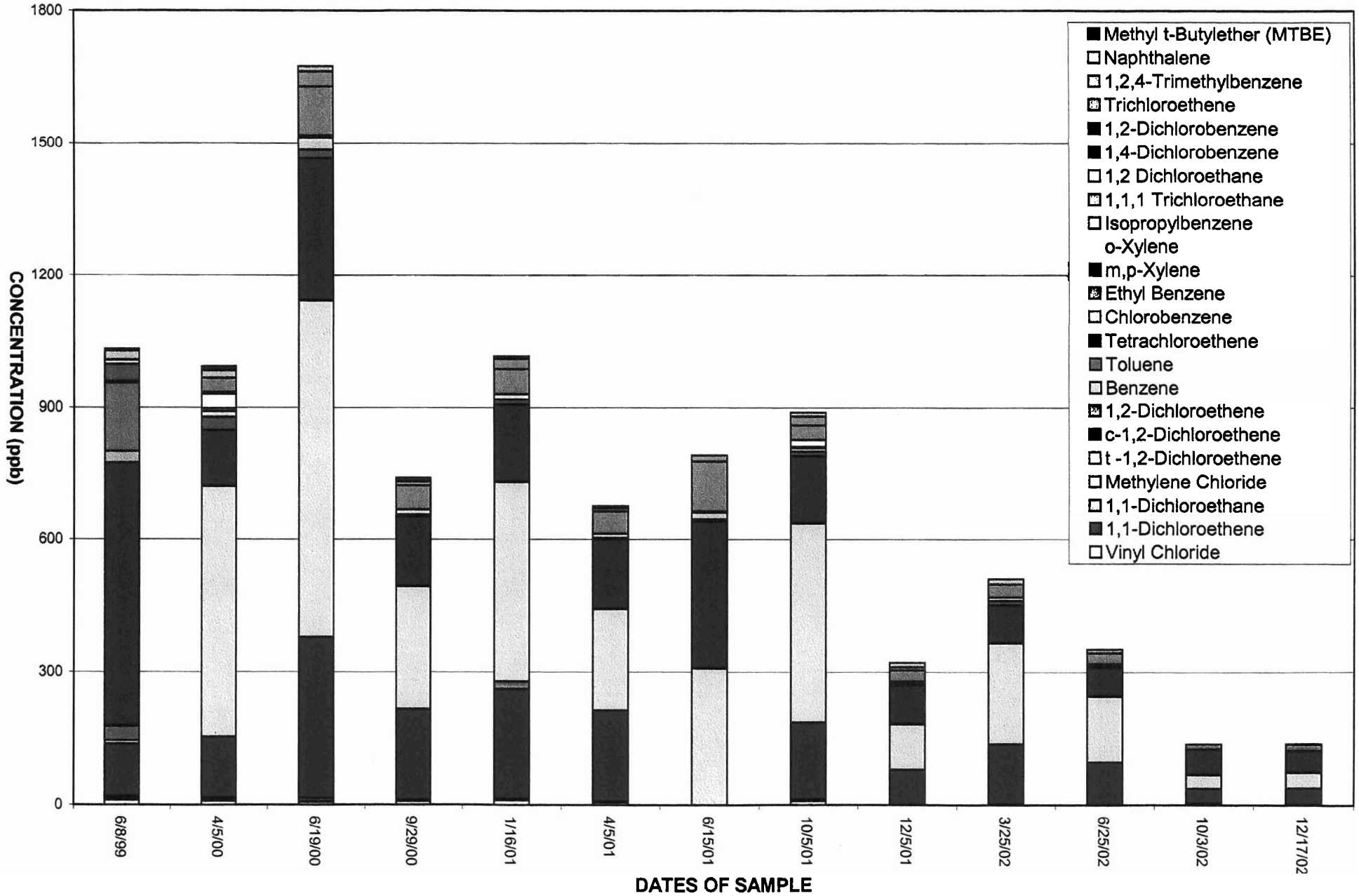


Figure 16

BP-4B

VOC CONCENTRATIONS
1999 to 2002

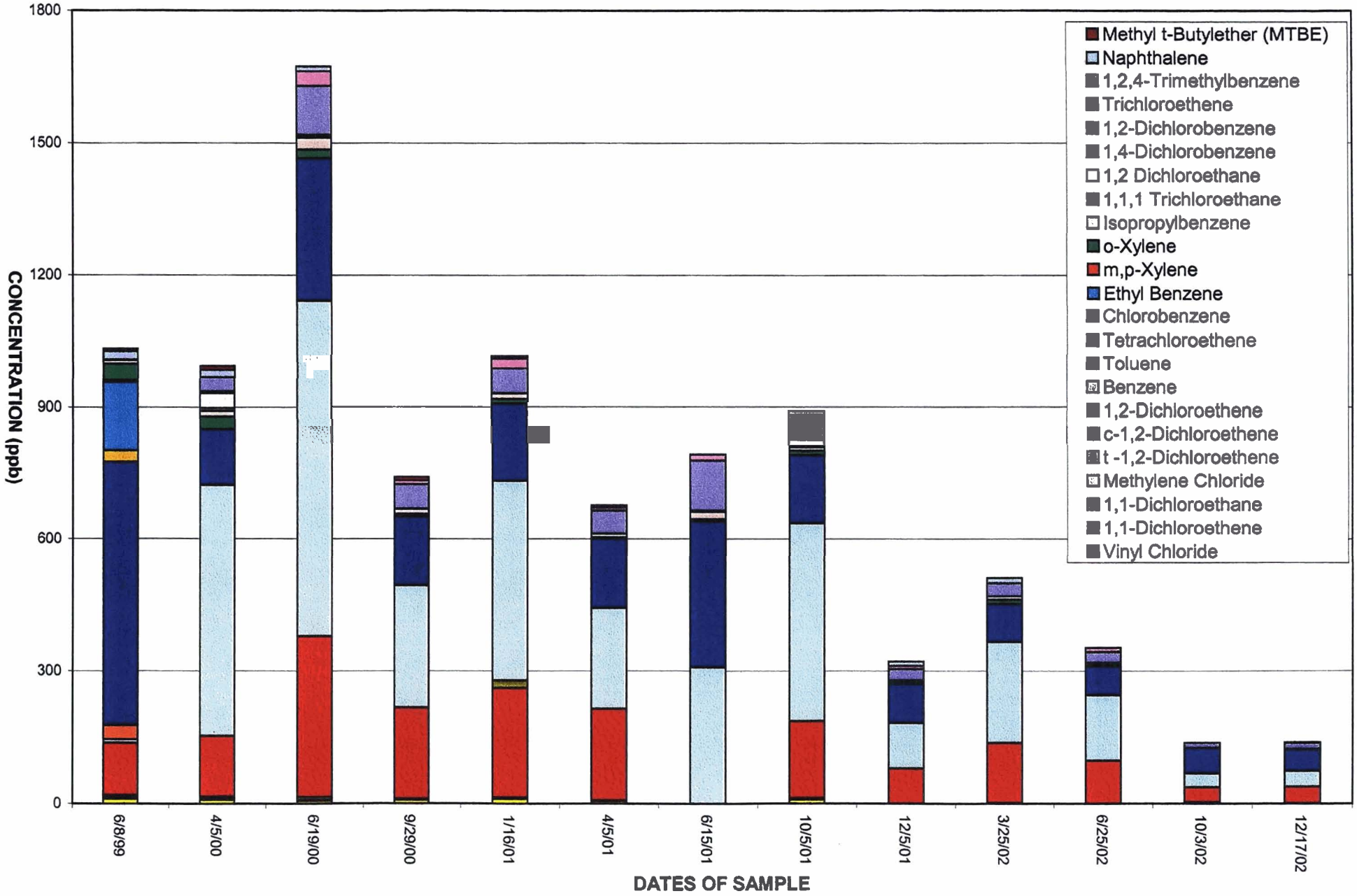


Figure 17

BP-9B

VOC CONCENTRATIONS

1999 to 2002

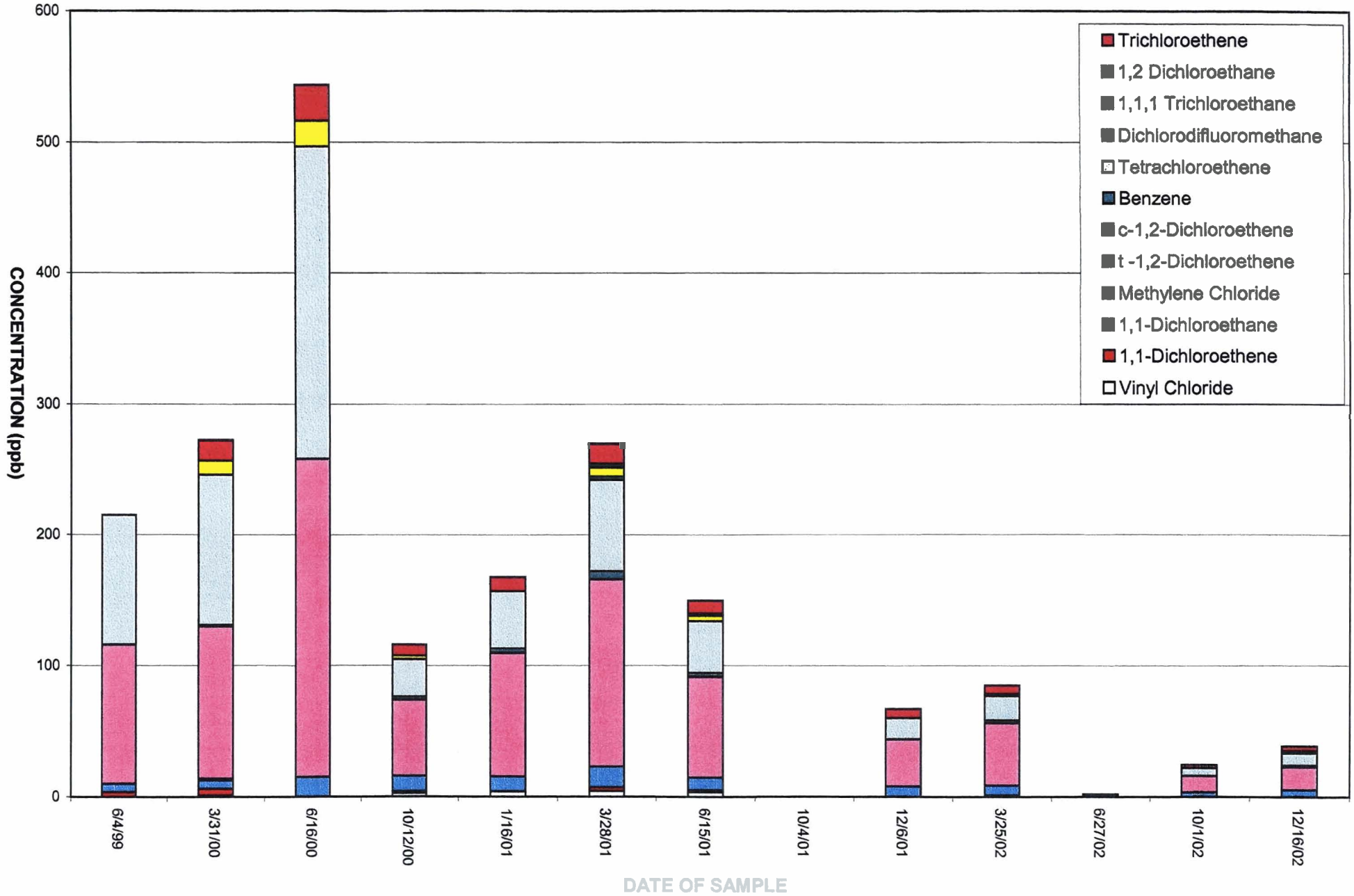


Figure 18

BP-12B

VOC CONCENTRATIONS 1999 to 2002

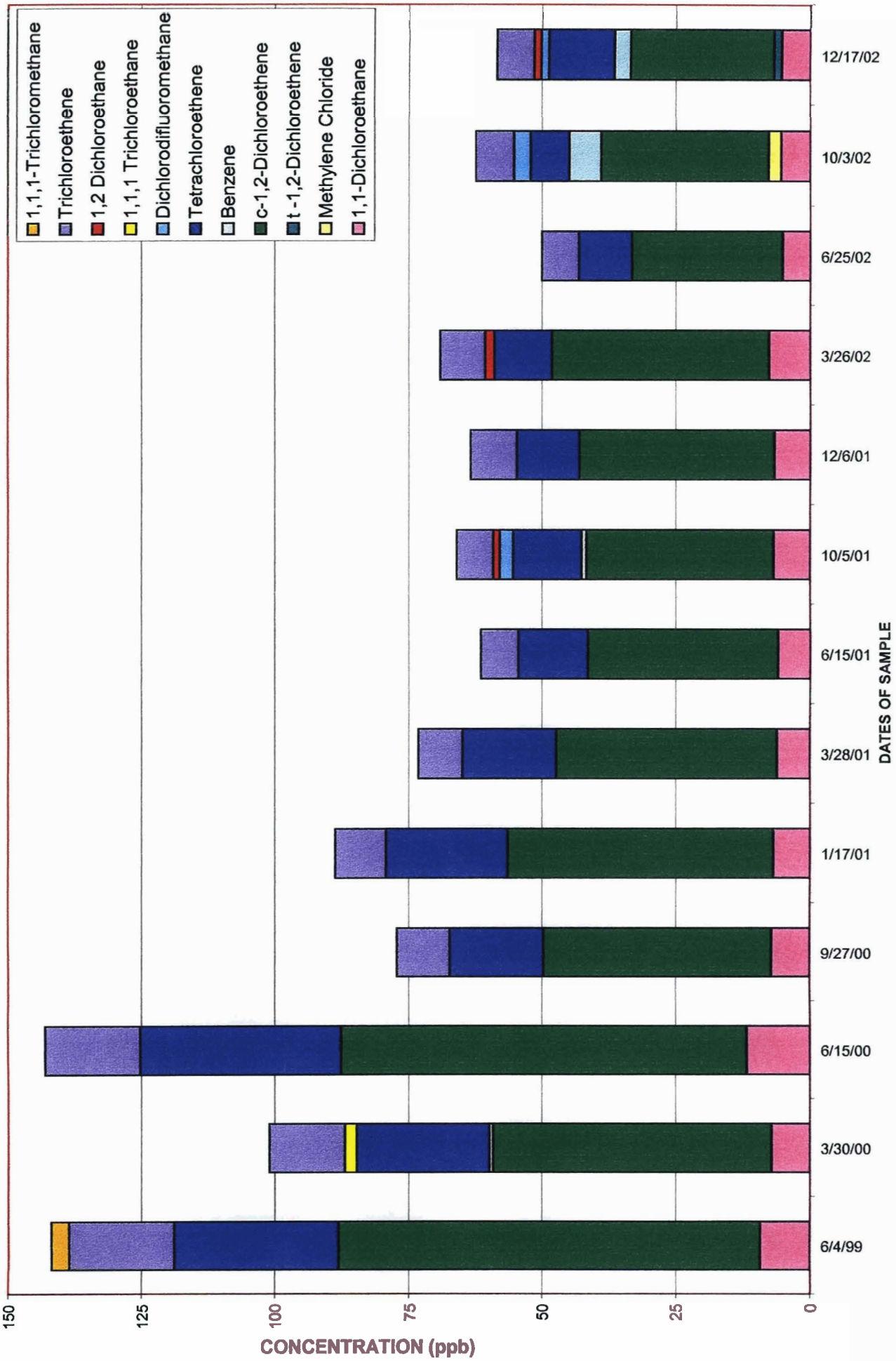
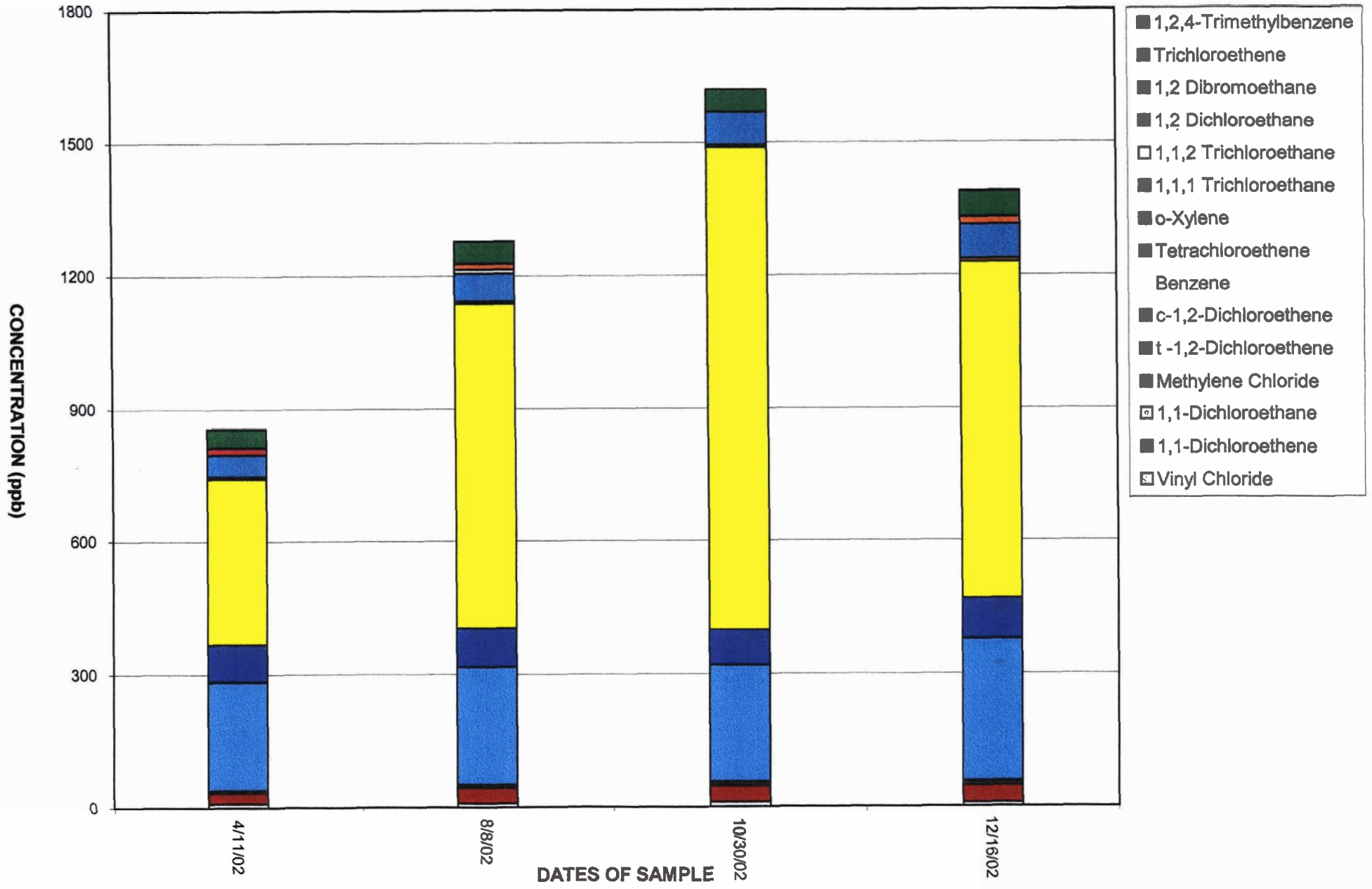


Figure 19

BP-14B

VOC CONCENTRATIONS
2002



Monitoring wells BP-4B (fig. 16) and BP-9B (fig. 17) had their highest level of contamination for the year, during the first Quarterly sampling event in March. Both wells showed decreasing levels for the remainder of MY 2002. TVOC levels for MY 2002 observed in BP-4B were highest in March at 511 ppb and leveled off at 138 ppb and 139 ppb for the last two (2) sampling events in October and December. In MY 2002 Monitoring well BP-12B, located farther downgradient of the site showed consistent TVOC levels ranging from approximately 50 ppb to 70 ppb.

Monitoring well BP-14B was installed in December 2001 to better define the local contamination downgradient of BP-4B and near off-site recovery wells ORW-4, ORW-5 and ORW-6. BP-14B was sampled four (4) times in MY 2002, results from all four (4) sampling events detected significant concentrations of VOC's (Figure 19). TVOC levels in groundwater collected from BP-14B ranged from 855 ppb to 1618 ppb. The major portion of the contamination found in BP-14B is from two (2) VOC's: Cis-1,2-Dichloroethene (244 ppb to 319 ppb) and Tetrachloroethene (375 ppb to 1090 ppb). In addition to high contaminant concentrations, samples collected from BP-14B in MY 2002 also detected many more individual compounds compared to other "B" zone wells. BP-14B detected between eleven (11) and thirteen (13) compounds, compared to six (6) to eight (8) in BP-4B, one (1) to seven (7) in BP-9B and four (4) to eight (8) in BP-12B.

C Zone Water Quality

this not for MY2002

One (1) monitoring well, BP-4C, located in the designated "C" hydrogeologic zone, approximately –180ft. msl to –200 ft. msl, continued to show elevated concentrations of contamination during MY 2004. "C" hydrogeologic zone contamination is not attributed to the FTCGRP. Regional water level survey data and recent groundwater modeling in the area beneath the FTC and Bethpage State Park indicate that contamination originating on the FTC site cannot migrate vertically into the C hydrogeologic zone. During MY 2002 TVOC levels in BP-4C ranged from 340 ppb to 390 ppb. Four (4) VOCs accounted for the major portion of the contamination: Benzene (25 ppb to 44 ppb), Cis-1,2-Dichloroethene (90 ppb to 146 ppb), Trichloroethene (20 ppb to 28 ppb) and Tetrachloroethene (138 ppb to 182 ppb). Well BP-14C was the only other "C" zone well found with volatile organic contamination. Tetrachloroethene was detected in this well at concentrations of 2.6 ppb and 4.6 ppb, while Cis-1,2-Dichloroethene was detected at 1.6 ppb.

4.2.2 Off-Site Inorganic Sampling Results

The inorganic groundwater sampling results are presented in Table 3. No inorganic parameters are included in the FTCGRP's remedial action, as described in the site's Record of Decision. Concentrations of all inorganic parameters analyzed for in MY 2002 were consistent with levels found in natural groundwater beneath Long Island.

4.3 Quarterly and Annual Hydraulic Monitoring Effects

4.3.1 On-Site Hydraulic Effects

During periods of active product recovery additional petroleum product enters each of the impacted monitoring wells further depressing the water table. The change in water levels caused by the presence of petroleum product increases the observed drawdown created by the recovery system alone.

Therefore, the only way to accurately determine the product recovery systems effect is to measure water levels in those monitoring wells that do not contain measurable amounts of petroleum product.

Review of the existing petroleum product monitoring well locations indicates that they are not distributed evenly around the site. The majority of the wells exist in and around the three onsite petroleum product bodies. The available monitoring wells without petroleum product (12) are located around the perimeter of the site, which does not provide enough interior data points to measure and plot the onsite hydraulic effects.

4.3.2 Off-Site Hydraulic Effects

Offsite hydraulic conditions are monitored quarterly to ensure that all operating recovery wells are effectively controlling offsite contamination. In an effort to understand the interaction of the two major offsite treatment systems, (FTCGRP) and the Town of Oyster Bay's (TOBAY) recovery operation, Town and County personnel conduct comprehensive synoptic water level rounds in January, April, July and October of each year.

Physical limitations on the amount of treated water which can be effectively recharged to the aquifer system via the recharge basin and the (3) offsite injection wells located along Bethpage-Sweethollow Road result in occasional reductions in total flowrate and changes in the number and configuration of operating Offsite Recovery Wells (ORW) throughout the year.

During Monitoring Year (MY) 2002, the offsite treatment system operated in five different recovery configurations. During the winter and early spring ORW-1, 5, 6 and 7 were operated at a combined flowrate of 470 gpm. During the summer two recovery modes were employed. In the early summer ORW-1, 4, 6 and 7 were pumped at a combined rate of 605 gpm. In the late summer ORW-2, 3, 4, 6 and 7 were pumped at a combined flowrate of 910 gpm. The increase in flowrate was due to a localized drought condition that provided additional recharge capacity.

In the early fall ORW-2, 3, 4 and 7 were pumped at 765 gpm. In the late fall ORW-2, 3, 4 and 7 were operated at a combined flowrate of 665 gpm.

Offsite recovery well ORW-7 is operated in all five configurations to maintain hydraulic influence on the lead edge of the known contamination.

All groundwater collection and treatment being conducted by Nassau County and the Town of Oyster Bay occurs in the B hydrogeologic zone.

Offsite pumping conditions in the B-zone can be examined in detail by comparing water level data collected during each of the comprehensive synoptic water level rounds. Water level contours produced from the October 21, 2002 synoptic round are presented in figure 20.

Figure 20

Legend

Contour Post Map Oct 21 2002

Fireman's Training Center Area Wells

- Bethpage State Park Inactive Well
- Bethpage State Park Irrigation Well
- Claremont Polychemical Site Diffusion Well
- Claremont Polychemical Site Monitoring Well or Well Cluster
- Claremont Polychemical Site Proposed Monitoring Well or Well Cluster
- Nassau County Injection Well
- Nassau County Monitoring Well or Well Cluster
- Nassau County Recovery Well
- Plainview WD Public Supply Well
- T. of Oyster Bay Monitoring Well or Well Cluster
- T. of Oyster Bay Recovery Well
- V. of Farmingdale Public Supply Well
- bp_14_cp

Map Location

FTC/BSP B-ZONE POTENTIOMETRIC SURFACE OCTOBER 21, 2002

Prepared By: - NCDPW- Water Resources Engineering Unit

N W E S

1 Inch equals 1,200 Feet

Nassau County

Geographic Information System

Date: 6/02/2005

Examination of the potentiometric surface prepared for the B hydrogeologic zone on this date indicates that the overall regional flow direction is from north-northwest to south-southeast. Elevations range from 62 ft. msl. to 16 ft. msl. beneath Bethpage State Park. The regional groundwater contours are modified in the vicinity of both operating recovery systems.

The Town of Oyster Bay operated three of five recovery wells producing a "kidney-shaped" depression with observed recovery wellhead elevations between 46 and 50 ft. msl.

A large depression formed in the vicinity of County recovery wells ORW-2, 3, and 4 which pumped at a combined flowrate of 595 gpm. A separate, nearly circular depression formed around recovery well ORW-7 that was pumped at 150 gpm.

Regional contours are modified at the 50 ft. msl. level creating a northeast to southwest direction of groundwater flow between the two operating systems. The lowest elevation is observed at offsite recovery well ORW-4 (16 ft. msl.).

APPENDIX A

PLANT EFFICIENCY REPORTS

2002

PLANT EFFICIENCY

January 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	21.45	89.4%	Heavy Rain - High East Basin Level
7	12	50.0%	High East Basin Level
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	**729.45**	**98.0%**

PLANT EFFICIENCY

FEBRUARY 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
672	**672**	**100.0%**

PLANT EFFICIENCY

MARCH 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	23.5	97.9%	Power Outage
17	24	100.0%	
18	24	100.0%	
19	23.75	99.0%	Power Outage
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	23.5	97.9%	Power Outage
25	23.75	99.0%	Power Outage
26	23.75	99.0%	Power Outage
27	23.75	99.0%	Power Outage
28	24	100.0%	
29	24	100.0%	
30	23.25	96.9%	Power Outage
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	**741.25**	**99.6%**

PLANT EFFICIENCY

APRIL 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	23	95.8%	High Eff. Wet Well
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	11	45.8%	Heavy Rain - High East Basin Level
29	0	0.0%	High East Basin Level
30	16.75	69.8%	High East Basin Level / Power Outage

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
720	**674.75**	**93.7%**

PLANT EFFICIENCY

MAY 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	23	95.8%	Power Outage
13	24	100.0%	
14	23	95.8%	Power Outage
15	20.25	84.4%	Power Outage
16	24	100.0%	
17	24	100.0%	
18	7.5	31.3%	Heavy Rain - High East Basin Level
19	0	0.0%	High East Basin Level
20	17.5	72.9%	High East Basin Level
21	24	100.0%	
22	23.75	99.0%	Power Outage
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	23.5	97.9%	Power Outage
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	**690.5**	**92.8%**

PLANT EFFICIENCY

JUNE 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	21	87.5%	Heavy Rain - High East Basin Level
8	22.5	93.8%	Power Outage
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	23.75	99.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	23.75	99.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	21.5	89.6%	Power Outage
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
720	**712.5**	**99.0%**

PLANT EFFICIENCY

July 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	20	83.3%	Replacing leaking gasket in SAB-1
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	**740**	**99.5%**

PLANT EFFICIENCY

AUGUST 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	23	95.8%	T-storm - Power outage
3	23	95.8%	Power outage
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	22.5	93.8%	Power outages (X2)
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	17.5	72.9%	High Basin Levels
30	16.45	68.5%	High Basin Levels
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	**726.45**	**97.6%**

PLANT EFFICIENCY

SEPTEMBER 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	23	95.8%	Power outage
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	23	95.8%	Power outage
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	23.5	97.9%	Power outage
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
720	**717.5**	**99.7%**

PLANT EFFICIENCY

OCTOBER 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	23.5	97.9%	Power outage
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	6	25.0%	High Basin levels
14	17	70.8%	High Basin levels
15	24	100.0%	
16	21.75	90.6%	Power outages (X2)
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	23	95.8%	Power outage
22	23.75	99.0%	Power outage
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	**715**	**96.1%**

PLANT EFFICIENCY

NOVEMBER 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	23.5	97.9%	Power outage
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	17.5	72.9%	Replacement of air valve for AS-1
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
720	**713**	**99.0%**

PLANT EFFICIENCY

DECEMBER 2002

DATE	HOURS OF OPERATION	EFFICIENCY OF OPERATION	REASON FOR OUTAGE
1	24	100.0%	
2	24	100.0%	
3	24	100.0%	
4	24	100.0%	
5	24	100.0%	
6	24	100.0%	
7	24	100.0%	
8	24	100.0%	
9	24	100.0%	
10	24	100.0%	
11	24	100.0%	
12	24	100.0%	
13	24	100.0%	
14	24	100.0%	
15	24	100.0%	
16	24	100.0%	
17	24	100.0%	
18	24	100.0%	
19	24	100.0%	
20	24	100.0%	
21	24	100.0%	
22	24	100.0%	
23	24	100.0%	
24	24	100.0%	
25	24	100.0%	
26	24	100.0%	
27	24	100.0%	
28	24	100.0%	
29	24	100.0%	
30	24	100.0%	
31	24	100.0%	

TOTAL HOURS IN THE MONTH	TOTAL HOURS OF OPERATION	EFFICIENCY OF MONTHLY OPERATION
744	744	100.0%

YEARLY TOTALS:

TOTAL HOURS IN THE YEAR	8760
TOTAL HOURS OF OPERATION	8576
EFFICIENCY OF OPERATION FOR 2002	97.9%

APPENDIX B

MONTHLY INFLUENT MONITORING REPORTS

2002

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT

JANUARY 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 01/02/02	ONSITE 1B 01/02/02	OFFSITE 1A 01/08/02	ONSITE 1B 01/08/02	OFFSITE 1A 01/15/02	ONSITE 1B 01/15/02	OFFSITE 1A 01/22/02	ONSITE 1B 01/22/02	OFFSITE 1A 01/29/02	ONSITE 1B 01/29/02
FLOW, DAILY AVG	GPD	301814	252086	319033	215600	313600	233657	378343	227286	268086	225586
FLOW, DAILY MAX	GPD	367850	256400	349200	240000	384500	240300	383200	230000	383400	227000
VINYL CHLORIDE	µ g/l	4.4	BDL	4.5	BDL	4.8	BDL	7.2	BDL	5.2	BDL
1,1-DICHLOROETHANE	µ g/l	4.7	BDL	5.0	BDL	5.2	BDL	7.3	BDL	5.4	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	40.6	3.7	43.3	6.5	45.7	5.2	66.8	7.4	43.7	6.2
1,1,1-TRICHLOROETHANE	µ g/l	2.3	BDL	2.3	BDL	2.1	BDL	3.3	BDL	BDL	BDL
TRICHLOROETHYLENE	µ g/l	7.4	BDL	7.4	BDL	8.0	BDL	17.0	5.6	7.8	BDL
BENZENE	µ g/l	30.3	0.8	27.4	BDL	32.8	0.7	45.3	1.4	31.3	1.6
TETRACHLOROETHYLENE	µ g/l	30.6	BDL	28.5	BDL	29.2	BDL	63.3	BDL	20.2	BDL
TOLUENE	µ g/l	BDL	BDL	BDL	1.7	BDL	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	BDL	BDL	1.8	BDL	BDL	BDL	4.6	BDL	3.6
o-XYLENE	µ g/l	1.6	BDL	1.8	BDL	1.9	BDL	2.7	BDL	2.2	BDL
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	BDL	BDL	1.5	BDL	1.8	BDL	BDL	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	9.7	BDL	BDL
TOTAL VOCs	µ g/l	121.9	4.5	120.2	10.0	131.2	5.9	214.7	19.0	115.8	11.4
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	1.6	BDL	1.2	BDL	1.4	BDL	1.6	BDL
IRON, TOTAL	µ g/l	333.0	4260.0	291.0	3760.0	248.0	4540.0	264.0	4290.0	313.0	4270.0
MANGANESE, TOTAL	µ g/l	47.0	5530.0	50.0	5640.0	48.0	5510.0	49.0	5960.0	49.0	5980.0
SUM IRON & MANGANESE	µ g/l	380.0	9790.0	341.0	9400.0	296.0	10050.0	313.0	10250.0	362.0	10250.0
NICKEL, TOTAL	µ g/l	4.0	3.0	4.0	3.0	4.0	3.0	4.0	4.0	4.0	4.0
ARSENIC, TOTAL	µ g/l	BDL	BDL	11.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT FEBRUARY 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 02/05/02	ONSITE 1B 02/05/02	OFFSITE 1A 02/11/02	ONSITE 1B 02/11/02	OFFSITE 1A 02/19/02	ONSITE 1B 02/19/02	OFFSITE 1A 02/26/02	ONSITE 1B 02/26/02
FLOW, DAILY AVG	GPD	379329	223686	352967	220600	223313	229238	217657	175043
FLOW, DAILY MAX	GPD	383300	226600	379000	223400	258300	248300	219500	240100
VINYL CHLORIDE	µ g/l	BDL	BDL	4.3	BDL	1.7	BDL	2.1	1.3
1,1-DICHLOROETHANE	µ g/l	BDL	BDL	4.3	BDL	2.6	BDL	2.9	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	28.6	3.6	32.8	5.4	23.8	5.2	25.5	8.2
1,1,1-TRICHLOROETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	1.6	BDL
TRICHLOROETHYLENE	µ g/l	8.4	BDL	7.5	2.1	5.8	BDL	5.7	BDL
BENZENE	µ g/l	16.9	BDL	23.1	BDL	7.7	BDL	8.6	1.1
TETRACHLOROETHYLENE	µ g/l	17.8	BDL	35.9	2.8	27.7	BDL	21.5	BDL
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	BDL	BDL	2.8	BDL	2.4	BDL	5.7
o-XYLENE	µ g/l	BDL	BDL	1.6	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	71.7	3.6	109.5	13.1	69.3	7.6	67.9	16.3
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.1
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	1.8	BDL	1.8	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	325.0	3670.0	1460.0	3030.0	259.0	3850.0	230.0	805.0
MANGANESE, TOTAL	µ g/l	48.0	5800.0	52.0	4040.0	32.0	5860.0	34.0	8600.0
SUM IRON & MANGANESE	µ g/l	373.0	9470.0	1512.0	7070.0	291.0	9710.0	264.0	9405.0
NICKEL, TOTAL	µ g/l	4.0	2.0	3.0	9.0	2.0	5.0	4.0	BDL
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	75.0	BDL	75.0	BDL	94.0
ALUMINUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	9.0	BDL	5.0	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT MARCH 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 03/05/02	ONSITE 1B 03/05/02	OFFSITE 1A 03/12/02	ONSITE 1B 03/12/02	OFFSITE 1A 03/19/02	ONSITE 1B 03/19/02	OFFSITE 1A 03/25/02	ONSITE 1B 03/25/02
FLOW, DAILY AVG	GPD	214243	124943	287143	129600	341743	129600	366650	134000
FLOW, DAILY MAX	GPD	219400	126700	343600	131200	361000	134000	372300	137300
VINYL CHLORIDE	µ g/l	BDL	BDL	2.3	1.7	2.0	1.4	BDL	1.3
1,1-DICHLOROETHANE	µ g/l	2.4	BDL	2.5	BDL	2.6	BDL	2.7	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	21.5	6.8	49.6	8.1	47.1	8.0	51.5	BDL
1,1,1-TRICHLOROETHANE	µ g/l	BDL	BDL	4.6	BDL	4.6	BDL	3.7	BDL
TRICHLOROETHYLENE	µ g/l	4.5	BDL	8.0	BDL	7.4	BDL	7.1	BDL
BENZENE	µ g/l	7.1	0.9	7.2	1.3	7.2	1.2	9.6	1.4
TETRACHLOROETHYLENE	µ g/l	23.0	BDL	45.2	BDL	40.2	BDL	37.4	BDL
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	4.6	BDL	7.1	BDL	4.3	BDL	4.7
o-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	2.2	BDL	2.0	BDL	2.1	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	11.1	BDL	14.4	BDL	12.2	BDL	16.1
TOTAL VOCs	µ g/l	58.5	23.4	121.6	32.6	113.1	27.1	114.1	23.5
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	1.1	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	251.0	709.0	227.0	1120.0	169.0	427.0	243.0	730.0
MANGANESE, TOTAL	µ g/l	33.0	8670.0	23.0	8370.0	24.0	8910.0	25.0	8340.0
SUM IRON & MANGANESE	µ g/l	284.0	9379.0	250.0	9490.0	193.0	9337.0	268.0	9070.0
NICKEL, TOTAL	µ g/l	2.0	3.0	3.0	4.0	4.0	4.0	3.0	5.0
ARSENIC, TOTAL	µ g/l	11.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT APRIL 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 04/01/02	ONSITE 1B 04/01/02	OFFSITE 1A 04/08/02	ONSITE 1B 04/08/02	OFFSITE 1A 04/16/02	ONSITE 1B 04/16/02	OFFSITE 1A 04/23/02	ONSITE 1B
FLOW, DAILY AVG	GPD	637457	137028	632200	137814	616025	139225	676629	
FLOW, DAILY MAX	GPD	660300	138500	643300	139500	635000	141600	764400	
VINYL CHLORIDE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1-DICHLOROETHANE	µ g/l	2.0	BDL	1.6	BDL	BDL	BDL	1.9	
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,2(CIS)-DICHLOROETHYLENE	µ g/l	39.3	14.5	29.6	7.8	27.4	6.1	33.8	
1,1,1-TRICHLOROETHANE	µ g/l	3.0	BDL	2.5	BDL	BDL	BDL	4.0	
TRICHLOROETHYLENE	µ g/l	7.0	BDL	5.4	BDL	5.4	BDL	6.0	
BENZENE	µ g/l	13.3	2.4	11.3	1.3	9.9	0.9	11.8	
TETRACHLOROETHYLENE	µ g/l	38.7	BDL	28.6	BDL	33.8	BDL	33.8	
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
m,p-XYLENE	µ g/l	BDL	8.8	BDL	3.8	BDL	3.5	BDL	
o-XYLENE	µ g/l	1.6	BDL	BDL	BDL	BDL	BDL	BDL	
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
NAPHTHALENE	µ g/l	BDL	12.3	BDL	10.3	BDL	BDL	BDL	
TOTAL VOCs	µ g/l	104.9	38.0	79.0	23.2	76.5	10.5	91.3	
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
IRON, TOTAL	µ g/l	248.0	812.0	240.0	695.0	254.0	915.0	130.0	
MANGANESE, TOTAL	µ g/l	214.0	8490.0	217.0	8460.0	240.0	7880.0	240.0	
SUM IRON & MANGANESE	µ g/l	462.0	9302.0	457.0	9155.0	494.0	8795.0	370.0	
NICKEL, TOTAL	µ g/l	5.0	4.0	4.0	3.0	5.0	BDL	6.0	
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	146.0	BDL	
ALUMINUM, TOTAL	µ g/l	BDL	BDL	13.0	11.0	BDL	BDL	13.0	
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT

MAY 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 05/01/02	ONSITE 1B	OFFSITE 1A 05/07/02	ONSITE 1B	OFFSITE 1A 05/14/02	ONSITE 1B	OFFSITE 1A 05/21/02	ONSITE 1B	OFFSITE 1A 05/28/02	ONSITE 1B
FLOW, DAILY AVG	GPD	590288		722550		395057		241343		347114	
FLOW, DAILY MAX	GPD	781700		730300		693300		356600		356700	
VINYL CHLORIDE	µ g/l	BDL		BDL		2.2		2.0			
1,1-DICHLOROETHANE	µ g/l	2.0		2.0		3.1		2.8			
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL		BDL		BDL		BDL			
1,2(CIS)-DICHLOROETHYLENE	µ g/l	32.4		32.9		50.7		49.8			
1,1,1-TRICHLOROETHANE	µ g/l	3.0		3.3		5.8		5.4			
TRICHLOROETHYLENE	µ g/l	6.2		6.0		8.3		8.1			
BENZENE	µ g/l	11.8		9.8		2.7		2.4			
TETRACHLOROETHYLENE	µ g/l	36.5		35.0		51.5		47.2			
TOLUENE	µ g/l	BDL		BDL		BDL		BDL			
m,p-XYLENE	µ g/l	BDL		BDL		BDL		BDL			
o-XYLENE	µ g/l	BDL		BDL		BDL		BDL			
1,1-DICHLOROETHENE	µ g/l	BDL		BDL		2.1		2.0			
METHYL ETHYL KEYTONE	µ g/l	BDL		BDL		BDL		BDL			
ACETONE	µ g/l	BDL		BDL		BDL		BDL			
CHLOROFORM	µ g/l	BDL		BDL		BDL		BDL			
DICHLOROBROMOMETHANE	µ g/l	BDL		BDL		BDL		BDL			
DIBROMOCHLOROMETHANE	µ g/l	BDL		BDL		BDL		BDL			
NAPHTHALENE	µ g/l	BDL		BDL		BDL		BDL			
TOTAL VOCs	µ g/l	91.9		89.0		126.3		119.7			
PHENANTHRENE	µ g/l	BDL		BDL		BDL		BDL			
FLUORENE	µ g/l	BDL		BDL		BDL		BDL			
PYRENE	µ g/l	BDL		BDL		BDL		BDL			
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL		BDL		BDL		BDL			
DI-N-OCTYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL			
DIMETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL			
DIETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL			
IRON, TOTAL	µ g/l	147.0		27.0		269.0		111.0			
MANGANESE, TOTAL	µ g/l	234.0		24.0		77.0		11.0			
SUM IRON & MANGANESE	µ g/l	381.0		51.0		346.0		122.0			
NICKEL, TOTAL	µ g/l	6.0		BDL		2.0		2.0			
ARSENIC, TOTAL	µ g/l	BDL		BDL		193.0		BDL			
ALUMINUM, TOTAL	µ g/l	9.0		BDL		32.0		BDL			
CHROMIUM, TOTAL	µ g/l	BDL		BDL		BDL		BDL			

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT JUNE 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 06/04/02	ONSITE 1B	OFFSITE 1A 06/11/02	ONSITE 1B	OFFSITE 1A 06/18/02	ONSITE 1B	OFFSITE 1A 06/25/02	ONSITE 1B
FLOW, DAILY AVG	GPD	346000		640257		884843		877567	
FLOW, DAILY MAX	GPD	348700		899000		903200		887800	
VINYL CHLORIDE	µ g/l	2.0		2.9		BDL		BDL	
1,1-DICHLOROETHANE	µ g/l	3.0		3.4		3.2		3.3	
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL		BDL		BDL		BDL	
1,2(CIS)-DICHLOROETHYLENE	µ g/l	51.8		38.8		35.0		40.0	
1,1,1-TRICHLOROETHANE	µ g/l	4.2		3.1		BDL		BDL	
TRICHLOROETHYLENE	µ g/l	7.0		5.7		6.0		5.9	
BENZENE	µ g/l	3.3		23.2		21.5		20.6	
TETRACHLOROETHYLENE	µ g/l	34.4		27.2		34.9		24.5	
TOLUENE	µ g/l	BDL		BDL		BDL		BDL	
m,p-XYLENE	µ g/l	BDL		BDL		BDL		BDL	
o-XYLENE	µ g/l	BDL		BDL		BDL		BDL	
1,1-DICHLOROETHENE	µ g/l	1.9		BDL		BDL		BDL	
METHYL ETHYL KEYTONE	µ g/l	BDL		BDL		BDL		BDL	
ACETONE	µ g/l	BDL		BDL		BDL		BDL	
CHLOROFORM	µ g/l	BDL		BDL		BDL		BDL	
DICHLOROBROMOMETHANE	µ g/l	BDL		BDL		BDL		BDL	
DIBROMOCHLOROMETHANE	µ g/l	BDL		BDL		BDL		BDL	
NAPHTHALENE	µ g/l	BDL		BDL		BDL		BDL	
TOTAL VOCs	µ g/l	107.6		104.3		100.6		94.3	
PHENANTHRENE	µ g/l	BDL		BDL		BDL		BDL	
FLUORENE	µ g/l	BDL		BDL		BDL		BDL	
PYRENE	µ g/l	BDL		BDL		BDL		BDL	
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
DI-N-OCTYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
DIMETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
DIETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
IRON, TOTAL	µ g/l	138.0		203.0		143.0		151.0	
MANGANESE, TOTAL	µ g/l	12.0		170.0		167.0		161.0	
SUM IRON & MANGANESE	µ g/l	150.0		373.0		310.0		312.0	
NICKEL, TOTAL	µ g/l	4.0		5.0		6.0		5.0	
ARSENIC, TOTAL	µ g/l	15.0		20.0		BDL		12.0	
ALUMINUM, TOTAL	µ g/l	BDL		9.0		BDL		12.0	
CHROMIUM, TOTAL	µ g/l	BDL		BDL		BDL		BDL	

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT

JULY 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 07/02/02	ONSITE 1B 07/02/02	OFFSITE 1A 07/09/02	ONSITE 1B 07/09/02	OFFSITE 1A 07/16/02	ONSITE 1B 07/16/02	OFFSITE 1A 07/23/02	ONSITE 1B 07/23/02	OFFSITE 1A 07/29/02	ONSITE 1B 07/29/02
FLOW, DAILY AVG	GPD	753681	0	746272	0	1145172	0	1235386	74057	1387000	129600
FLOW, DAILY MAX	GPD	878867	0	749950	0	1263900	0	1275100	129600	1392167	129600
VINYL CHLORIDE	µ g/l	BDL		BDL		BDL		3.4	BDL	2.6	BDL
1,1-DICHLOROETHANE	µ g/l	3.4		3.6		2.7		3.0	BDL	2.4	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	39.6		35.8		43.4		47.8	12.1	38.5	10.6
1,1,1-TRICHLOROETHANE	µ g/l	4.2		2.4		2.1		2.1	BDL	1.5	BDL
TRICHLOROETHYLENE	µ g/l	8.2		6.3		7.9		8.3	BDL	6.7	BDL
BENZENE	µ g/l	21.2		22.4		44.7		48.4	BDL	40.2	1.7
TETRACHLOROETHYLENE	µ g/l	37.6		28.7		32.6		30.3	BDL	28.2	BDL
TOLUENE	µ g/l	BDL		BDL		BDL		BDL	1.6	BDL	BDL
m,p-XYLENE	µ g/l	BDL		BDL		BDL		BDL	1.3	BDL	BDL
o-XYLENE	µ g/l	BDL		1.3		2.2		2.3	BDL	1.9	BDL
1,1-DICHLOROETHENE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	114.2		100.5		135.6		145.6	15.0	122.0	12.3
PHENANTHRENE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	1.1	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	1.5		1.2		BDL		BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	210.0		191.0		174.0		203.0	782.0	244.0	592.0
MANGANESE, TOTAL	µ g/l	188.0		182.0		193.0		118.0	9050.0	155.0	8950.0
SUM IRON & MANGANESE	µ g/l	398.0		373.0		367.0		321.0	9832.0	399.0	9542.0
NICKEL, TOTAL	µ g/l	7.0		6.0		6.0		3.0	5.0	6.0	5.0
ARSENIC, TOTAL	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	BDL		BDL		9.0		BDL	BDL	12.0	BDL
CHROMIUM, TOTAL	µ g/l	BDL		BDL		BDL		BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT AUGUST 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 08/06/02	ONSITE 1B 08/06/02	OFFSITE 1A 08/13/02	ONSITE 1B 08/13/02	OFFSITE 1A 08/20/02	ONSITE 1B 08/20/02	OFFSITE 1A 08/27/02	ONSITE 1B 08/27/02
FLOW, DAILY AVG	GPD	1250225		1262228		1274657		1235757	
FLOW, DAILY MAX	GPD	1303700		1278133		1278700		1278133	
VINYL CHLORIDE	µ g/l	2.7		2.8		BDL		BDL	
1,1-DICHLOROETHANE	µ g/l	2.4		2.5		2.8		2.6	
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL		BDL		BDL		BDL	
1,2(CIS)-DICHLOROETHYLENE	µ g/l	34.3		35.5		47.8		40.5	
1,1,1-TRICHLOROETHANE	µ g/l	1.8		1.8		BDL		BDL	
TRICHLOROETHYLENE	µ g/l	6.9		6.7		7.2		BDL	
BENZENE	µ g/l	34.0		33.0		36.4		46.6	
TETRACHLOROETHYLENE	µ g/l	34.0		29.4		37.8		29.5	
TOLUENE	µ g/l	BDL		BDL		BDL		BDL	
m,p-XYLENE	µ g/l	BDL		BDL		BDL		BDL	
o-XYLENE	µ g/l	1.7		1.7		1.9		1.7	
1,1-DICHLOROETHENE	µ g/l	BDL		BDL		BDL		BDL	
METHYL ETHYL KEYTONE	µ g/l	BDL		BDL		BDL		BDL	
ACETONE	µ g/l	BDL		BDL		BDL		BDL	
CHLOROFORM	µ g/l	BDL		BDL		BDL		BDL	
DICHLOROBROMOMETHANE	µ g/l	BDL		BDL		BDL		BDL	
DIBROMOCHLOROMETHANE	µ g/l	BDL		BDL		BDL		BDL	
NAPHTHALENE	µ g/l	BDL		BDL		BDL		BDL	
TOTAL VOCs	µ g/l	117.8		113.4		133.9		120.9	
PHENANTHRENE	µ g/l	BDL		BDL		BDL		BDL	
FLUORENE	µ g/l	BDL		BDL		BDL		BDL	
PYRENE	µ g/l	BDL		BDL		BDL		BDL	
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
DI-N-OCTYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
DIMETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
DIETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL	
IRON, TOTAL	µ g/l	525.0		600.0		214.0		219.0	
MANGANESE, TOTAL	µ g/l	154.0		150.0		144.0		176.0	
SUM IRON & MANGANESE	µ g/l	679.0		750.0		358.0		395.0	
NICKEL, TOTAL	µ g/l	6.0		7.0		5.0		6.0	
ARSENIC, TOTAL	µ g/l	BDL		BDL		BDL		BDL	
ALUMINUM, TOTAL	µ g/l	20.0		18.0		9.0		14.0	
CHROMIUM, TOTAL	µ g/l	BDL		BDL		BDL		BDL	

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT SEPTEMBER 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 09/03/02	ONSITE 1B 09/03/02	OFFSITE 1A 09/10/02	ONSITE 1B 09/10/02	OFFSITE 1A 09/17/02	ONSITE 1B 09/17/02	OFFSITE 1A 09/24/02	ONSITE 1B 09/24/02
FLOW, DAILY AVG	GPD	741663	194650	1017443	211428	924057	192214	1141067	194914
FLOW, DAILY MAX	GPD	1026900	215400	1023200	213200	1016100	208267	1109300	206900
VINYL CHLORIDE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	µ g/l	3.6	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	48.8	8.5	36.9	7.3	32.6	7.1	38.1	7.1
1,1,1-TRICHLOROETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHYLENE	µ g/l	8.9	BDL	7.4	BDL	6.2	BDL	BDL	BDL
BENZENE	µ g/l	47.9	1.7	36.5	1.6	30.7	1.5	35.5	1.4
TETRACHLOROETHYLENE	µ g/l	37.1	BDL	35.1	BDL	26.8	BDL	34.6	BDL
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	4.4	BDL	3.2	BDL	3.2	BDL	3.5
o-XYLENE	µ g/l	2.4	BDL	2.4	BDL	BDL	BDL	1.6	BDL
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	148.7	14.6	118.3	12.1	96.3	11.8	109.8	12.0
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.1
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	237.0	385.0	215.0	438.0	250.0	354.0	316.0	226.0
MANGANESE, TOTAL	µ g/l	105.0	9250.0	172.0	8780.0	142.0	8140.0	123.0	8210.0
SUM IRON & MANGANESE	µ g/l	342.0	9635.0	387.0	9218.0	392.0	8494.0	439.0	8436.0
NICKEL, TOTAL	µ g/l	5.0	5.0	5.0	4.0	5.0	4.0	4.0	5.0
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	9.0	BDL	11.0	BDL	BDL	BDL	8.0	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	1.0	BDL	2.0

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT

OCTOBER 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 10/01/02	ONSITE 1B 10/01/02	OFFSITE 1A 10/08/02	ONSITE 1B 10/08/02	OFFSITE 1A 10/15/02	ONSITE 1B 10/15/02	OFFSITE 1A 10/22/02	ONSITE 1B 10/22/02	OFFSITE 1A 10/29/02	ONSITE 1B 10/29/02
FLOW, DAILY AVG	GPD	991128	189086	957929	186457	824871	155571	961914	188086	1003800	193629
FLOW, DAILY MAX	GPD	1003800	191700	975800	188400	1024500	190200	1054900	193800	1046200	194867
VINYL CHLORIDE	µ g/l	2.2	BDL	BDL	1.1	3.9	1.5	60.4	BDL	66.2	BDL
1,1-DICHLOROETHANE	µ g/l	1.8	BDL	BDL	BDL	2.5	BDL	4.4	BDL	7.4	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	33.3	5.9	35.7	BDL	42.2	6.0	71.1	10.6	BDL	13.7
1,1,1-TRICHLOROETHANE	µ g/l	2.1	BDL	2.2	BDL	2.4	BDL	3.8	BDL	6.5	BDL
TRICHLOROETHYLENE	µ g/l	6.2	BDL	BDL	BDL	7.2	BDL	BDL	BDL	24.1	BDL
BENZENE	µ g/l	30.9	1.1	30.2	1.2	36.4	1.2	71.2	2.7	BDL	4.2
TETRACHLOROETHYLENE	µ g/l	31.2	BDL	BDL	BDL	35.1	BDL	63.9	BDL	BDL	BDL
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5.5	BDL	3.7
o-XYLENE	µ g/l	BDL	BDL	BDL	BDL	1.4	BDL	BDL	BDL	2.1	BDL
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	BDL	BDL	1.4	BDL	BDL	BDL	12.2	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	107.7	7.0	68.1	2.3	132.5	8.7	274.8	18.8	118.5	21.6
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	283.0	376.0	166.0	219.0	295.0	338.0	294.0	317.0	237.0	445.0
MANGANESE, TOTAL	µ g/l	128.0	8430.0	102.0	6760.0	134.0	8010.0	135.0	8070.0	126.0	7290.0
SUM IRON & MANGANESE	µ g/l	411.0	8806.0	268.0	6979.0	429.0	8348.0	429.0	8387.0	363.0	7735.0
NICKEL, TOTAL	µ g/l	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	NA	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	27.0	NA	26.0	12.0	20.0	BDL
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	2.0	BDL	1.0	1.0	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT NOVEMBER 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 11/06/02	ONSITE 1B 11/06/02	OFFSITE 1A 11/12/02	ONSITE 1B 11/12/02	OFFSITE 1A 11/19/02	ONSITE 1B 11/19/02	OFFSITE 1A 11/26/02	ONSITE 1B 11/26/02
FLOW, DAILY AVG	GPD	962913	185900	924667	190500	804657	185400	867729	189986
FLOW, DAILY MAX	GPD	1031000	192700	929900	191100	929900	191367	934600	191200
VINYL CHLORIDE	µ g/l	2.7	BDL	3.2	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	µ g/l	3.1	BDL	3.6	BDL	2.7	BDL	3.6	BDL
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHYLENE	µ g/l	35.4	3.8	40.3	3.5	BDL	3.4	40.7	BDL
1,1,1-TRICHLOROETHANE	µ g/l	2.4	BDL	2.5	BDL	2.6	BDL	BDL	BDL
TRICHLOROETHYLENE	µ g/l	6.5	BDL	BDL	BDL	6.5	BDL	6.7	BDL
BENZENE	µ g/l	19.8	0.9	21.3	0.9	14.5	0.7	21.4	BDL
TETRACHLOROETHYLENE	µ g/l	BDL	BDL	25.3	BDL	33.6	BDL	27.6	BDL
TOLUENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
o-XYLENE	µ g/l	BDL	BDL	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	µ g/l	BDL	BDL	1.3	BDL	1.3	BDL	BDL	BDL
METHYL ETHYL KEYTONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACETONE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs	µ g/l	69.9	4.7	98.8	4.4	61.2	4.1	100.0	0.0
PHENANTHRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FLUORENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	µ g/l	348.0	558.0	218.0	416.0	282.0	407.0	288.0	416.0
MANGANESE, TOTAL	µ g/l	65.0	6950.0	61.0	7170.0	75.0	6840.0	72.0	6420.0
SUM IRON & MANGANESE	µ g/l	413.0	7508.0	279.0	7586.0	357.0	7247.0	360.0	6836.0
NICKEL, TOTAL	µ g/l	6.0	6.0	5.0	6.0	5.0	6.0	5.0	5.0
ARSENIC, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	µ g/l	16.0	BDL	12.0	11.0	14.0	17.0	13.0	8.0
CHROMIUM, TOTAL	µ g/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY INFLUENT MONITORING REPORT

DECEMBER 2002

INFLUENT PARAMETER	UNITS	OFFSITE 1A 12/03/02	ONSITE 1B 12/03/02	OFFSITE 1A 12/10/02	ONSITE 1B 12/10/02	OFFSITE 1A 12/17/02	ONSITE 1B 12/17/02	OFFSITE 1A 12/23/02	ONSITE 1B 12/23/02	OFFSITE 1A 12/31/02	ONSITE 1B 12/31/02
FLOW, DAILY AVG	GPD	658685		657143		638786		837550		856963	
FLOW, DAILY MAX	GPD	657883		666600		659200		960900		985467	
VINYL CHLORIDE	µ g/l	2.9		BDL		2.8		1.8		2.0	
1,1-DICHLOROETHANE	µ g/l	4.1		3.9		4.3		2.9		2.9	
1,2(TRANS)-DICHLOROETHYLENE	µ g/l	BDL		1.6		BDL		BDL		BDL	
1,2(CIS)-DICHLOROETHYLENE	µ g/l	40.5		37.1		BDL		30.4		29.5	
1,1,1-TRICHLOROETHANE	µ g/l	2.8		2.6		44.8		2.2		1.9	
TRICHLOROETHYLENE	µ g/l	7.3		6.8		7.8		5.1		5.5	
BENZENE	µ g/l	13.8		13.2		12.6		10.3		12.0	
TETRACHLOROETHYLENE	µ g/l	31.2		30.2		BDL		26.2		27.2	
TOLUENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
m,p-XYLENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
o-XYLENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
1,1-DICHLOROETHENE	µ g/l	1.3		1.2		1.4		BDL		BDL	
METHYL ETHYL KEYTONE	µ g/l	BDL		BDL		BDL		BDL		BDL	
ACETONE	µ g/l	BDL		BDL		BDL		BDL		BDL	
CHLOROFORM	µ g/l	BDL		BDL		BDL		BDL		BDL	
DICHLOROBROMOMETHANE	µ g/l	BDL		BDL		BDL		BDL		BDL	
DIBROMOCHLOROMETHANE	µ g/l	BDL		BDL		BDL		BDL		BDL	
NAPHTHALENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
TOTAL VOCs	µ g/l	103.9		96.6		73.7		78.9		81.0	
PHENANTHRENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
FLUORENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
PYRENE	µ g/l	BDL		BDL		BDL		BDL		BDL	
BIS(2-ETHLHEXYL)PHTHALATE	µ g/l	BDL		BDL		BDL		BDL		BDL	
DI-N-OCTYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL		BDL	
DIMETHYL PHTHALATE	µ g/l	BDL		BDL		BDL		BDL		BDL	
DIETHYL PHTHALATE	µ g/l	1.4		1.2		1.3		BDL		1.0	
IRON, TOTAL	µ g/l	181.0		240.0		203.0		277.0		315.0	
MANGANESE, TOTAL	µ g/l	29.0		30.0		30.0		40.0		40.0	
SUM IRON & MANGANESE	µ g/l	210.0		270.0		233.0		317.0		355.0	
NICKEL, TOTAL	µ g/l	4.0		4.0		4.0		4.0		4.0	
ARSENIC, TOTAL	µ g/l	BDL		BDL		BDL		BDL		BDL	
ALUMINUM, TOTAL	µ g/l	11.0		11.0		9.0		BDL		24.0	
CHROMIUM, TOTAL	µ g/l	BDL		BDL		BDL		BDL		BDL	

APPENDIX C

MONTHLY EFFLUENT MONITORING REPORTS

2002

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001

JANUARY 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 01/02/02	WEEK 2 01/08/02	WEEK 3 01/15/02	WEEK 4 01/22/02	WEEK 5 01/30/02
FLOW, DAILY AVG	MONITOR	GPD	NA	624250	534633	547257	605629	507387
FLOW, DAILY MAX	MONITOR	GPD	NA	624250	589200	624800	613200	607400
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	5.8	7.7
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	66.0	87.0	63.0	63.0	49.0
MANGANESE, TOTAL	600	µ g/l	1.0	2070.0	1890.0	1870.0	1990.0	2030.0
SUM IRON & MANGANESE	1000	µ g/l	NA	2136.0	1977.0	1933.0	2053.0	2079.0
NICKEL, TOTAL	2000	µ g/l	5.0	4.0	4.0	4.0	4.0	3.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001 FEBRUARY 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 02/05/02	WEEK 2 02/11/02	WEEK 3 02/19/02	WEEK 4 02/26/02
FLOW, DAILY AVG	MONITOR	GPD	NA	603033	573567	452550	392700
FLOW, DAILY MAX	MONITOR	GPD	NA	609900	598200	506600	458700
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	5.8
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	50.0	46.0	47.0	52.0
MANGANESE, TOTAL	600	µ g/l	1.0	2020.0	2700.0	2750.0	2890.0
SUM IRON & MANGANESE	1000	µ g/l	NA	2070.0	2746.0	2797.0	2942.0
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	1.0	BDL	BDL
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	62.0	114.0	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	1.0	4.0	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001 MARCH 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 03/05/02	WEEK 2 03/12/02	WEEK 3 03/19/02	WEEK 4 03/26/02
FLOW, DAILY AVG	MONITOR	GPD	NA	339186	416743	471343	
FLOW, DAILY MAX	MONITOR	GPD	NA	346100	474000	495000	
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	5.8
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	42.0	48.0	62.0	42.0
MANGANESE, TOTAL	600	µ g/l	1.0	3120.0	1990.0	1440.0	1920.0
SUM IRON & MANGANESE	1000	µ g/l	NA	3162.0	2038.0	1502.0	1962.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	3.0	11.0	3.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	144.0	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	6.0	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
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OUTFALL 001 APRIL 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 04/01/02	WEEK 2 04/08/02	WEEK 3 04/16/02	WEEK 4 04/23/02
FLOW, DAILY AVG	MONITOR	GPD	NA	777633	770014	755250	738314
FLOW, DAILY MAX	MONITOR	GPD	NA	798800	779100	776600	784267
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	19.0	31.0	15.0	24.0
MANGANESE, TOTAL	600	µ g/l	1.0	1410.0	1370.0	1430.0	259.0
SUM IRON & MANGANESE	1000	µ g/l	NA	1429.0	1401.0	1445.0	283.0
NICKEL, TOTAL	2000	µ g/l	5.0	4.0	2.0	5.0	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	10.0	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
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OUTFALL 001

MAY 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 05/01/02	WEEK 2 05/07/02	WEEK 3 05/14/02	WEEK 4 05/21/02	WEEK 5 05/28/02
FLOW, DAILY AVG	MONITOR	GPD	NA	590288	722550	395057	241343	347114
FLOW, DAILY MAX	MONITOR	GPD	NA	781700	730300	693300	356600	356700
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	30.0	25.0	32.0	33.0	46.0
MANGANESE, TOTAL	600	µ g/l	1.0	244.0	235.0	29.0	30.0	23.0
SUM IRON & MANGANESE	1000	µ g/l	NA	274.0	260.0	61.0	63.0	69.0
NICKEL, TOTAL	2000	µ g/l	5.0	6.0	5.0	3.0	2.0	3.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	13.0	BDL	12.0
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
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OUTFALL 001 JUNE 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 06/04/02	WEEK 2 06/11/02	WEEK 3 06/18/02	WEEK 4 06/25/02
FLOW, DAILY AVG	MONITOR	GPD	NA	346000	640257	884843	877567
FLOW, DAILY MAX	MONITOR	GPD	NA	348700	899000	903200	887800
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	91.0	30.0	40.0	44.0
MANGANESE, TOTAL	600	µ g/l	1.0	28.0	161.0	169.0	163.0
SUM IRON & MANGANESE	1000	µ g/l	NA	119.0	191.0	209.0	207.0
NICKEL, TOTAL	2000	µ g/l	5.0	2.0	4.0	BDL	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	20.0	BDL	20.0
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
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OUTFALL 001 JULY 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 07/02/02	WEEK 2 07/09/02	WEEK 3 07/16/02	WEEK 4 07/23/02	WEEK 5 07/29/02
FLOW, DAILY AVG	MONITOR	GPD	NA	753681	746272	1145172	1245667	1245443
FLOW, DAILY MAX	MONITOR	GPD	NA	878867	749950	1263900	1275100	1262567
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	1.5	1.3	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	27.0	26.0	32.0	52.0	40.0
MANGANESE, TOTAL	600	µ g/l	1.0	185.0	184.0	193.0	751.0	717.0
SUM IRON & MANGANESE	1000	µ g/l	NA	212.0	210.0	225.0	803.0	757.0
NICKEL, TOTAL	2000	µ g/l	5.0	5.0	6.0	5.0	4.0	5.0
ARSENIC, TOTAL	50	µ g/l	48.0	13.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
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MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001 AUGUST 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 08/06/02	WEEK 2 08/13/02	WEEK 3 08/20/02	WEEK 4 08/27/02
FLOW, DAILY AVG	MONITOR	GPD	NA	1311613	1270560	1274657	1262628
FLOW, DAILY MAX	MONITOR	GPD	NA	1462300	1278133	1278700	1278133
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	65.0	105.0	58.0	138.0
MANGANESE, TOTAL	600	µ g/l	1.0	154.0	159.0	153.0	1170.0
SUM IRON & MANGANESE	1000	µ g/l	NA	219.0	264.0	211.0	1308.0
NICKEL, TOTAL	2000	µ g/l	5.0	6.0	6.0	5.0	5.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	11.0	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	13.0	BDL	10.0	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001 SEPTEMBER 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 9/3/2002	WEEK 2 09/10/02	WEEK 3 09/17/02	WEEK 4 09/24/02
FLOW, DAILY AVG	MONITOR	GPD	NA	841367	1228872	1116271	1189686
FLOW, DAILY MAX	MONITOR	GPD	NA	1213100	1228900	1226300	1316000
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	23.0	73.0	71.0	43.0
MANGANESE, TOTAL	600	µ g/l	1.0	1800.0	1230.0	1070.0	1030.0
SUM IRON & MANGANESE	1000	µ g/l	NA	1823.0	1303.0	1141.0	1073.0
NICKEL, TOTAL	2000	µ g/l	5.0	5.0	5.0	4.0	3.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	BDL
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001 OCTOBER 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 10/1/2002	WEEK 2 10/08/02	WEEK 3 10/15/02	WEEK 4 10/22/02	WEEK 5 10/29/02
FLOW, DAILY AVG	MONITOR	GPD	NA	1180214	1144386	980442	1150000	1197429
FLOW, DAILY MAX	MONITOR	GPD	NA	1195500	1162200	1213000	1248700	1241000
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	66.0	64.0	49.0	31.0	45.0
MANGANESE, TOTAL	600	µ g/l	1.0	1080.0	952.0	1020.0	1060.0	893.0
SUM IRON & MANGANESE	1000	µ g/l	NA	1146.0	1016.0	1069.0	1091.0	938.0
NICKEL, TOTAL	2000	µ g/l	5.0	4.0	4.0	6.0	5.0	6.0
ARSENIC, TOTAL	50	µ g/l	48.0	7.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	22.0	BDL	13.0
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	1.0

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
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OUTFALL 001 NOVEMBER 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 11/6/2002	WEEK 2 11/12/02	WEEK 3 11/19/02	WEEK 4 11/26/02
FLOW, DAILY AVG	MONITOR	GPD	NA	1124717	1115167	990057	1017614
FLOW, DAILY MAX	MONITOR	GPD	NA	1195533	1117125	1118100	1105800
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	25.0	35.0	87.0	57.0
MANGANESE, TOTAL	600	µ g/l	1.0	923.0	884.0	1060.0	843.0
SUM IRON & MANGANESE	1000	µ g/l	NA	948.0	919.0	1147.0	900.0
NICKEL, TOTAL	2000	µ g/l	5.0	6.0	4.0	4.0	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	BDL	13.0
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL

NASSAU COUNTY FIREMAN'S TRAINING CENTER
GROUNDWATER REMEDIATION FACILITY
MONTHLY EFFLUENT MONITORING REPORT
OUTFALL 001 DECEMBER 2002

EFFLUENT PARAMETER	DISCHARGE LIMITATIONS	UNITS	COMP'T MDL	WEEK 1 12/3/2002	WEEK 2 12/10/02	WEEK 3 12/17/02	WEEK 4 12/23/02	WEEK 5 12/30/02
FLOW, DAILY AVG	MONITOR	GPD	NA	657833	657143	638786	837550	837686
FLOW, DAILY MAX	MONITOR	GPD	NA	657833	666600	659200	960900	985467
VINYL CHLORIDE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(TRANS)-DICHLOROETHENE	5	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
1,2(CIS)-DICHLOROETHENE	5	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	5	µ g/l	1.4	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
BENZENE	0.7	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
TOLUENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
m,p-XYLENE	5	µ g/l	2.4	BDL	BDL	BDL	BDL	BDL
o-XYLENE	5	µ g/l	1.3	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	5	µ g/l	1.2	BDL	BDL	BDL	BDL	BDL
METHYL ETHYL KEYTONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
ACETONE	50	µ g/l	10.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	7	µ g/l	1.1	BDL	BDL	BDL	BDL	BDL
DICHLOROBROMOMETHANE	50	µ g/l	0.9	BDL	BDL	BDL	BDL	BDL
DIBROMOCHLOROMETHANE	50	µ g/l	0.7	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE	10	µ g/l	1.7	BDL	BDL	BDL	BDL	BDL
TOTAL VOCs		µ g/l	0.0	0.0	0.0	0.0	0.0	0.0
PHENANTHRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
FLUORENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
PYRENE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHLHEXYL)PHTHALATE	4.3	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DI-N-OCTYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIMETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
DIETHYL PHTHALATE	50	µ g/l	1.0	BDL	BDL	BDL	BDL	BDL
IRON, TOTAL	600	µ g/l	2.0	61.0	50.0	31.0	70.0	53.0
MANGANESE, TOTAL	600	µ g/l	1.0	62.0	47.0	47.0	55.0	49.0
SUM IRON & MANGANESE	1000	µ g/l	NA	123.0	97.0	78.0	125.0	102.0
NICKEL, TOTAL	2000	µ g/l	5.0	3.0	3.0	4.0	4.0	4.0
ARSENIC, TOTAL	50	µ g/l	48.0	BDL	BDL	BDL	BDL	BDL
ALUMINUM, TOTAL	2000	µ g/l	40.0	BDL	BDL	9.0	4.0	19.0
CHROMIUM, TOTAL	50	µ g/l	2.0	BDL	BDL	BDL	BDL	BDL

APPENDIX D

GOUNDWATER MONITORING REQUIREMENTS

2002

Appendix D

GROUNDWATER MONITORING REQUIREMENTS

1.0 Quarterly and Annual Groundwater Monitoring Well Sampling and Testing Procedures

1.1 Sampling Equipment:

- Grundfos Redi-flo Variable Performance Pump installed in well.
- BMI/MP1 - 115V Converter with a motor lead extension cable.
- Generator or power source that provides 115 volts
- Solinst water level meter
- Discharge hose stored in the port opening of the well cap
- Discharge hose stand
- Stop watch and a bucket with a known volume.
- Disposable latex or vinyl sampling gloves.
- Cooler with ice packs.
- Sample containers with labels.
- Field book and pen.

1.2 Sampling Procedures:

- Open the well cover, unscrew and remove the discharge hose from the port opening. Confirm the well number on the metal tag or label.
- Take the depth to water reading through the port opening. Measure from the top edge of the well cover. Use well records to obtain the total depth of the well and calculate the fluid volume in the casing.
- Start the generator and allow it to idle until it runs smoothly. Connect the converter to power source.
- Connect the converter to the well cover receptacle using the motor lead extension cable. Connect the discharge hose to the well cover and position it in the desired direction of flow using the discharge hose stand.
- Select RF2M with the mode selection knob on the converter. The frequency display should read 0.0 (zero). Set the VFD speed dial to the midpoint (12 o'clock position) or approximately 220 Hz.
- Start the pump by moving the start/stop switch to the start position.

- Adjust the flow rate by turning the speed dial until the desired performance is attained. (48 Hz for minimum pumping to 400 Hz for maximum pumping)
- Use a stopwatch and a bucket of known volume to measure the rate of discharge in gallons per minute.
- Calculate the minimum pumping time by multiplying the fluid volume in the casing by three to obtain the volume to be purged and dividing by the flow rate. While purging continues measure the flow rate several times to insure the discharge rate is stable. All pertinent information must be recorded in the field book.
- Once the required volume is purged, label the sample containers. Decrease the flow rate to an appropriate sampling flow. Put on disposal latex or vinyl sampling gloves and fill the containers as per laboratory requirements. Place the samples in a cooler with ice packs.
- To stop the pump move the start/stop switch on the converter box to stop. Unplug all connections and then stop the generator. Return the discharge hose to the port, recap the connections and lock the well cover in place.

1.3 Quarterly and Annual Analytical Tests and Methodologies

All laboratory analyses to monitor the groundwater conditions for the FTC remediation project were conducted at the Nassau County Department of Public Works, Special Projects Laboratory located at Cedar Creek Waste Water Treatment Facility in Wantagh, New York (NCDPW-Lab). The NCDPW-Lab is a New York State Department of Health, Environmental Laboratory Approval Program (ELAP) certified laboratory for all of the analytical tests performed for the monitoring program.

Analysis of collected groundwater samples for the groundwater monitoring program included:

- VOCs (EPA 601/602); detailed list of parameters found in Table 1
- Semi-VOCs (625); detailed list of parameters found in Table 1
- Metals (EPA 200.7, 206.2, 239.2)
- Field parameters (pH, conductivity and temperature)
- Water quality parameters (alkalinity, biochemical oxygen demand [BOD], chemical oxygen demand [COD], hardness, nitrite, nitrate, phosphorus, sodium, total kjeldahl nitrogen [TKN], ammonia sulfate, chlorides, total organic carbon [TOC], total dissolved solids [TDS], and total suspended solids [TSS]).

1.4 Quarterly and Annual Floating Product Wells and Monitoring Procedures

All groundwater monitoring wells that have historically been impacted by floating petroleum product (No. 2 fuel oil, gasoline) have been included in the monitoring program. Product, if present, is measured in each well using the following procedures:

- Each well is located and identified on a site map.
- The well is opened at the surface and the self-sealing plug is removed.
- An electronic interface probe is introduced into the well and slowly lowered to the oil/water interface.
- Product is identified by an audible solid tone; the depth to product is then measured from the top of the casing to an accuracy of (+/-) .01 feet.
- The interface probe is then slowly lowered until an audible beeping tone is detected. The depth to water is then measured from the top of the casing to an accuracy of (+/-) .01 feet.
- The measurements are repeated to assure accuracy and the interface probe is removed.
- The self sealing cap is replaced and the well is closed.

1.5 Quarterly and Annual Hydraulic Control Monitoring

In addition to the recovery of volatile organic contamination within the FTC plume, an equally important factor is the hydraulic containment of the site's plume. In order to monitor the hydraulic containment of the FTC plume, the measurement of water levels are necessary to establish the groundwater flow direction(s) and gradient(s). From this information, the remediation's recovery well system can be monitored to confirm the effectiveness of the hydraulic containment under various conditions and to adjust and modify the recovery well system pumping to maintain hydraulic plume containment until remediation termination criteria are met.

Water levels were measured using a steel tape and chalk or with an electronic water level meter. All water level measurements are referenced to msl, as an elevation in feet (ft). The water level elevations are plotted on a site base map, according to depth. Contour lines, indicating areas of equal elevation are then drawn, from which groundwater flow direction(s) and gradient(s) can be established.

1.6 Groundwater Cleanup Criteria

The FTC Record of Decision (ROD) established the Groundwater Cleanup Criteria that need to be met for the FTC site to be deemed remediated. The FTC Site's specific list of compounds and their required concentrations to achieve the remediation's goals can be found in Table 2.

Table 1

Volatile Organic Compound Analysis

(EPA Method 524)

List Of Analytes

Dichlorodifluoromethane
Chloromethane
Vinyl Chloride
Bromomethane
Chloroethane
Trichlorofluoromethane
1,1-Dichloroethene
Methylene Chloride
t-1,2-Dichloroethene
1,1-Dichloroethane
2,2-Dichloropropane
c-1,2-Dichloroethene
Chloroform
Bromochloromethane
1,1,1-Trichloroethane
1,1-Dichloropropene
Carbon Tetrachloride
1,2-Dichloroethane
Benzene
Trichloroethene
1,2-Dichloropropane
Bromodichloromethane
Dibromomethane
c-1,3-Dichloropropene
Toluene
t-1,3-Dichloropropene
1,1,2-Trichloroethane
1,3-Dichloropropane
Tetrachloroethene
Dibromochloromethane

1,2-Dibromoethane
Chlorobenzene
1,1,1,2-Tetrachloroethane
Ethyl Benzene
m,p-Xylene
o-Xylene
Styrene
Isopropylbenzene
Bromoform
1,1,2,2-Tetrachloroethane
1,2,3-Trichloropropane
n-Propylbenzene
Bromobenzene
1,3,5-Trimethylbenzene
2-Chlorotoluene
4-Chlorotoluene
t-Butylbenzene
1,2,4-Trimethylbenzene
sec-Butylbenzene
p-Isopropyltoluene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
n-Butylbenzene
1,2-Dichlorobenzene
1,2-Dibromo-3-Chloropropane
1,2,4-Trichlorobenzene
Hexachlorobutadiene
Naphthalene
1,2,3-Trichlorobenzene
Methyl tertiary-Butyl-Ether (MTBE)

Analyses conducted by NCDPW Environmental Laboratory

Table 2

NASSAU COUNTY FTC
GROUNDWATER CLEANUP CRITERIA

Constituents Identified In Risk Assessment	NYS State Groundwater Standards 6 NYCRR 703.5 (ug/l)
Volatile Compounds	
Benzene	0.7
Toluene	5
Ethyl Benzene	5
Xylenes (each Isomer)	5
Acetone	50*
Methyl Ethyl Ketone	50*
Carbon Disulfide	50*
Vinyl Chloride	2
Methylene Chloride	5
1,1-dichloroethene	5
1,1-dichloroethane	5
trans-1,2-dichloroethene	5
1,1,1-trichloroethane	5
Trichloroethene	5
Tetrachloroethene	5
2-hexanone	50
Total Volatiles	50
Semi-Volatile Compounds	
Phenanthrene	50*
Fluorene	50*
Naphthalene	50*
di-n-octyl phthalate	50*
2-methylnaphthalene	50*

* - NYS Drinking Water Standards 10 NYCRR 5-1 (ug/l)