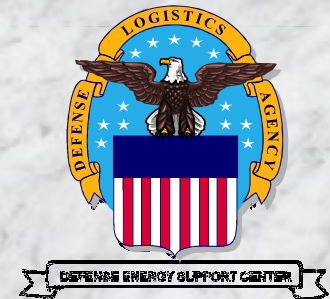


Norwalk Tank Farm Update

*Defense Energy Support Center-
Americas West
Norwalk Tank Farm
Restoration Advisory Board*

July 31, 2008



Presentation Overview

- General Site Activities
- Holifield Park Investigation Status
- Remediation System Update
- Historical Analytical Summary for Eastern Area
- Planned Activities

General Site Activities

- April 14 through 19 – Semiannual GWM Event
- April 22 – Began weed abatement



General Site Activities (continued)

- April 21 – Began groundwater treatment system (GWTS) start-up, evaluation, testing, and optimization
- April 22 through June 30 – Conducted weekly system inspections
- April 22, May 1, 15 & June 5, 12, 19 – System performance and compliance sampling
- April 28 & June 30 – Absorbent sock monitoring/change out
- May 1 & May 15 – TPH field test sampling
- May 15 – Submitted the 1st Quarter 2008 NPDES Discharge and Monitoring Report

Holifield Park Investigation Status

- April 22 – Submitted revised supplemental investigation and groundwater remediation work plan
- June 11 – Received approval from RWQCB to implement the work plan
- June 26 – Submitted an addendum to the revised work plan
- July 30 – Received conditional approval from RWQCB to implement the addendum work plan

Remediation System Update - Modifications

- Replaced level control sensor system in the surge tank
- Added manway to the top of the surge tank (in order to maintain AQMD permit compliance)
- Added and routed vapor hose to passively treat surge tank off-gas to a GAC unit
- Reconfigured water inlet to the surge tank (in order to reduce water agitation)
- Raised the piping at the outlet of the groundwater system

Remediation System Update - Operations Summary

- Total groundwater extracted and treated second quarter 2008:
 - 83,650 gallons
- Total groundwater extracted and treated since April 1996:
 - 42.9 million gallons
- GWTS Operations Summary:
 - April through May – Operated manually during system evaluation and optimization period
 - June 3 – Continuous operation commenced from GW-2 & GW-13 in the northwest corner and GW-15 in the eastern area

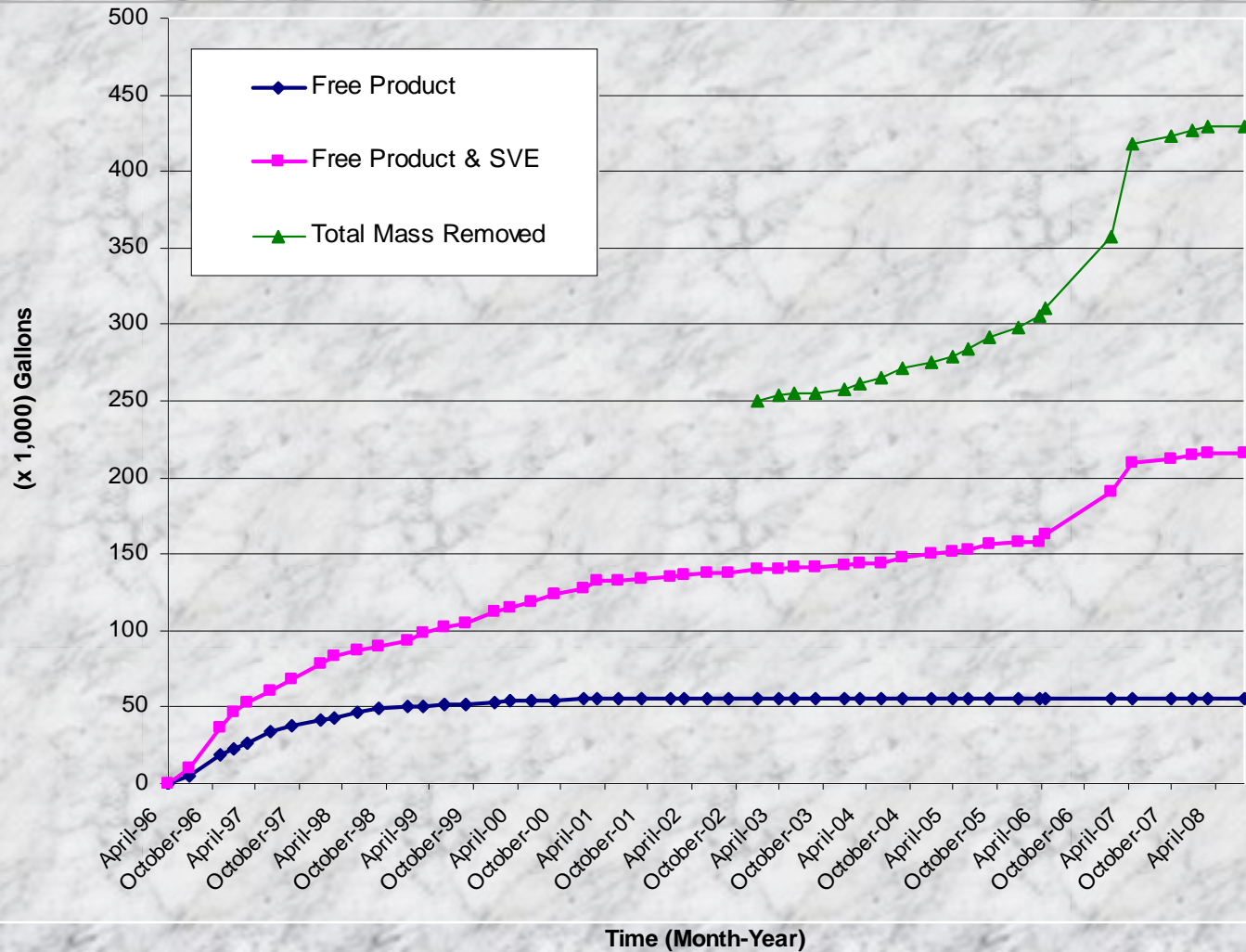
Remediation System Update - Performance Summary

- Soil vapor extraction system was not in operation this quarter
- System Performance since April 1996 through June 2008
 - Total Hydrocarbons Mass Removed: 428,716 gallons
 - Approx. 215,865 gallons recycled and destroyed
 - Estimated 212,850 gallons of hydrocarbons destroyed due to enhanced biodegradation

Remediation System Update - Performance Summary (continued)

- Detailed breakdown of the 215,865 gallons that has been recycled and destroyed:
 - 55,567 gallons of free product recovered and recycled (including absorbent sock recovery)
 - 1,400 gallons of dissolved-phase hydrocarbons recovered and treated through onsite treatment system
 - 158,900 gallons of volatile hydrocarbons recovered through SVE and treated through onsite treatment system

Remediation System Update - Hydrocarbon Mass Removed



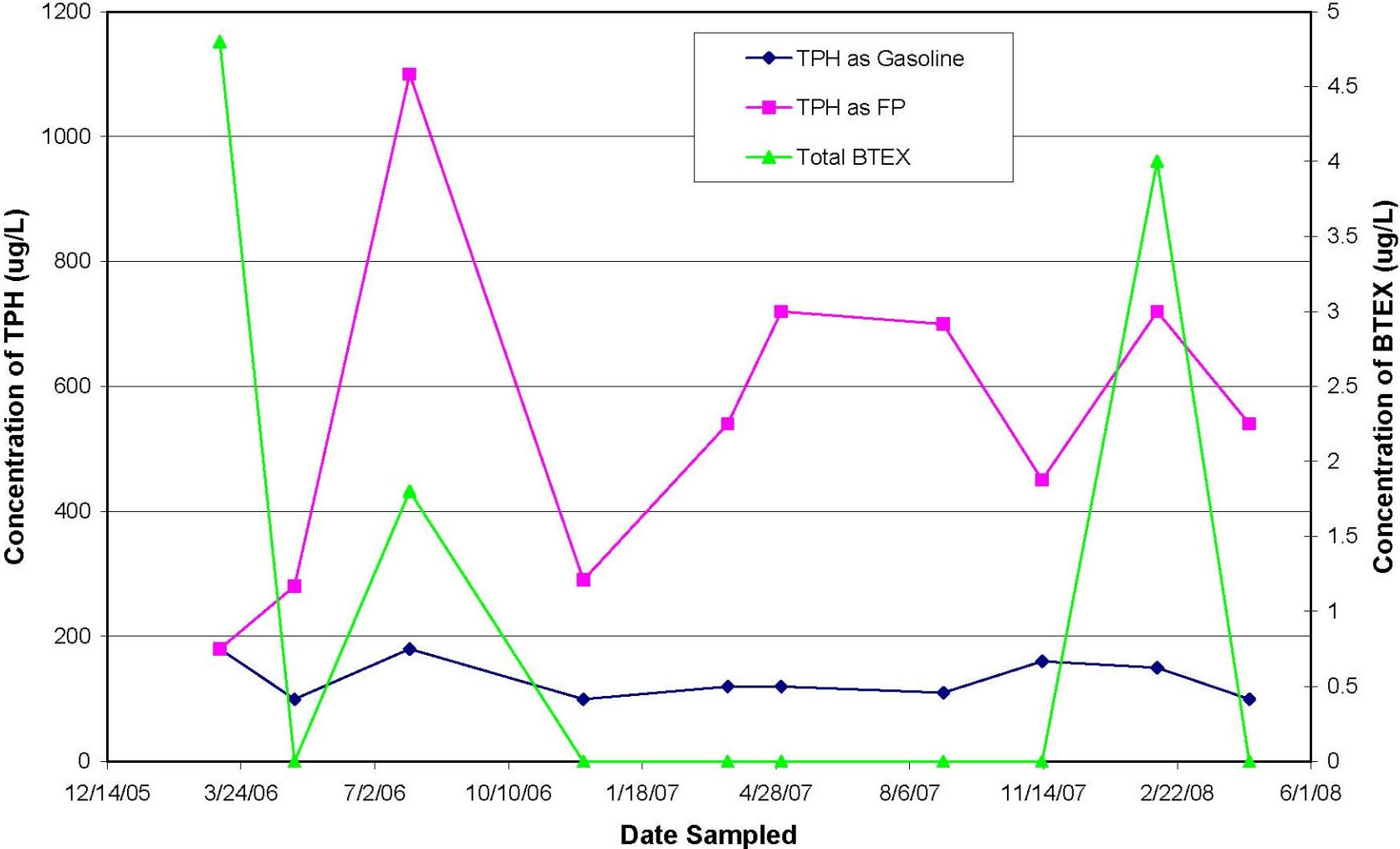
Historical Analytical Summary for Eastern Area

- Analytical summary tables have been prepared for wells GMW-57 through GMW-62 from March 2006 through April 2008 and include the following constituents:
 - TPH as gasoline
 - TPH as fuel product
 - BTEX compounds
 - Total BTEX

Historical Analytical Summary for Eastern Area – GMW-57

| Date Sampled | TPH as Gasoline | TPH as FP | Benzene | Toulene | Ethylbenzene | Total Xylenes | Total BTEX |
|--------------|-----------------|-----------|---------|---------|--------------|---------------|------------|
| 3/8/06 | 180 | 180 | 4.8 | < 0.5 | < 0.5 | < 1 | 4.8 |
| 5/3/06 | < 100 | 280 | < 0.5 | < 0.5 | < 0.5 | < 1 | 0 |
| 7/28/06 | 180 | 1100 | 1.8 | < 0.5 | < 0.5 | < 1 | 1.8 |
| 12/5/06 | < 100 | 290 | < 0.50 | < 0.50 | < 0.50 | < 1 | 0 |
| 3/23/07 | 120 | 540 | < 0.50 | < 0.50 | < 0.50 | < 1 | 0 |
| 5/2/07 | 120 | 720 | < 0.50 | < 0.50 | < 0.50 | < 1 | 0 |
| 8/31/07 | 110 | 700 | < 0.50 | < 0.50 | < 0.50 | < 1 | 0 |
| 11/13/07 | 160 | 450 | 0.72 | < 0.50 | < 0.50 | < 1 | 0 |
| 2/7/08 | 150 | 720 | 4 | < 0.50 | < 0.50 | < 1 | 4 |
| 4/16/08 | <100 | 540 | < 0.50 | < 0.50 | < 0.50 | < 0.50 | 0 |

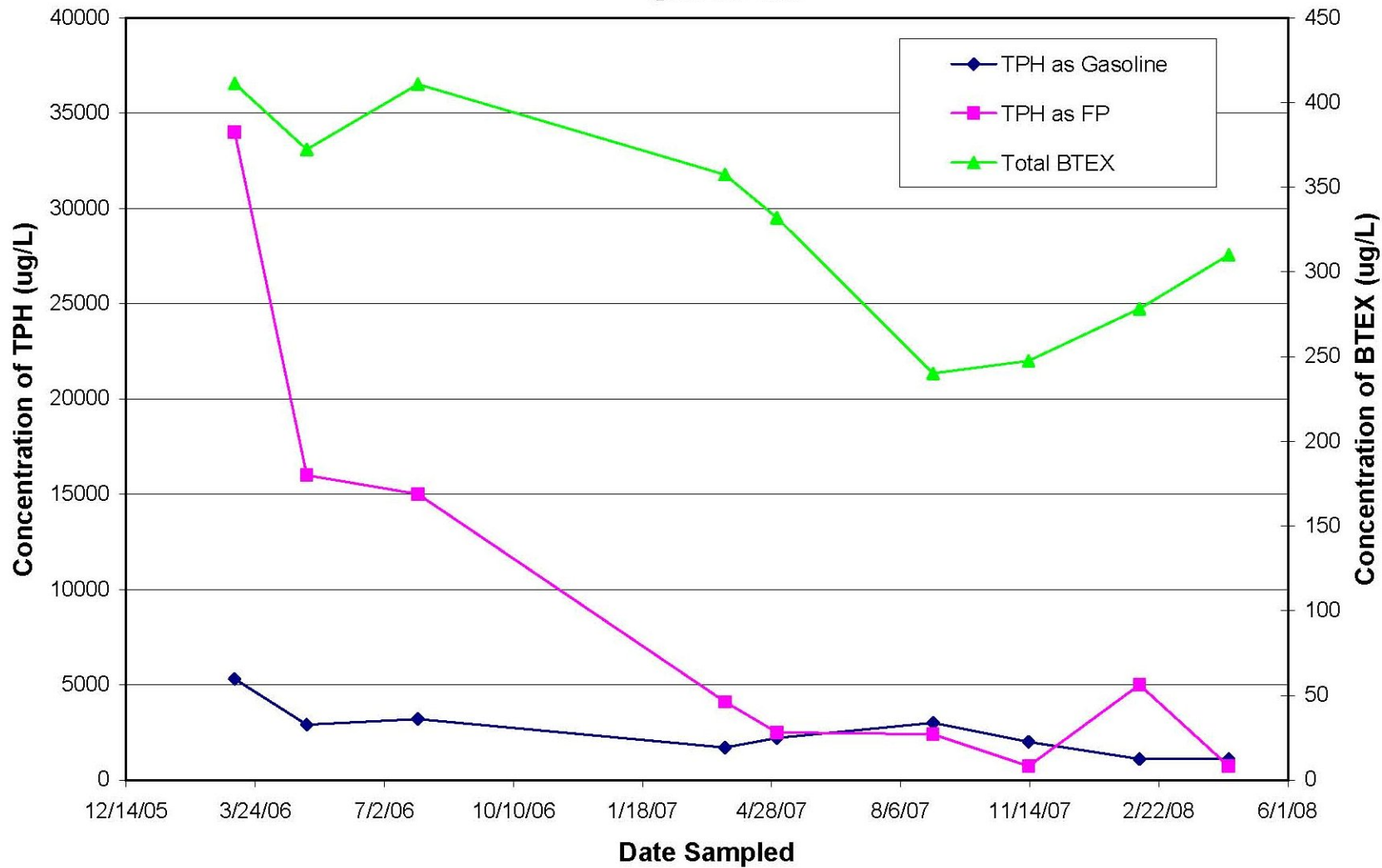
GMW-57



Historical Analytical Summary for Eastern Area – GMW-58

| Date Sampled | TPH as Gasoline | TPH as FP | Benzene | Toulene | Ethylbenzene | Total Xylenes | Total BTEX |
|--------------|-----------------|-----------|---------|---------|--------------|---------------|------------|
| 3/8/06 | 5300 | 34000 | 250 | < 2.5 | 140 | 21.1 | 411.1 |
| 5/3/06 | 2900 | 16000 | 260 | < 1 | 85 | 27.3 | 372.3 |
| 7/28/06 | 3200 | 15000 | 310 | < 1 | 78 | 22.7 | 410.7 |
| 3/23/07 | 1700 | 4100 | 350 | < 1.0 | 5.9 | 1.5 | 357.4 |
| 5/2/07 | 2200 | 2500 | 320 | < 1.0 | 9.5 | 2.4 | 331.9 |
| 8/31/07 | 3000 | 2400 | 240 | < 2.5 | < 2.5 | < 5 | 240 |
| 11/13/07 | 2000 | 720 | 240 | < 1.0 | 7.4 | < 2 | 247.4 |
| 2/7/08 | 1100 | 5000 | 270 | < 1.0 | 1.8 | 6.4 | 278.2 |
| 4/16/08 | 1100 | 720 | 310 | < 2.5 | < 2.5 | < 2.5 | 310 |

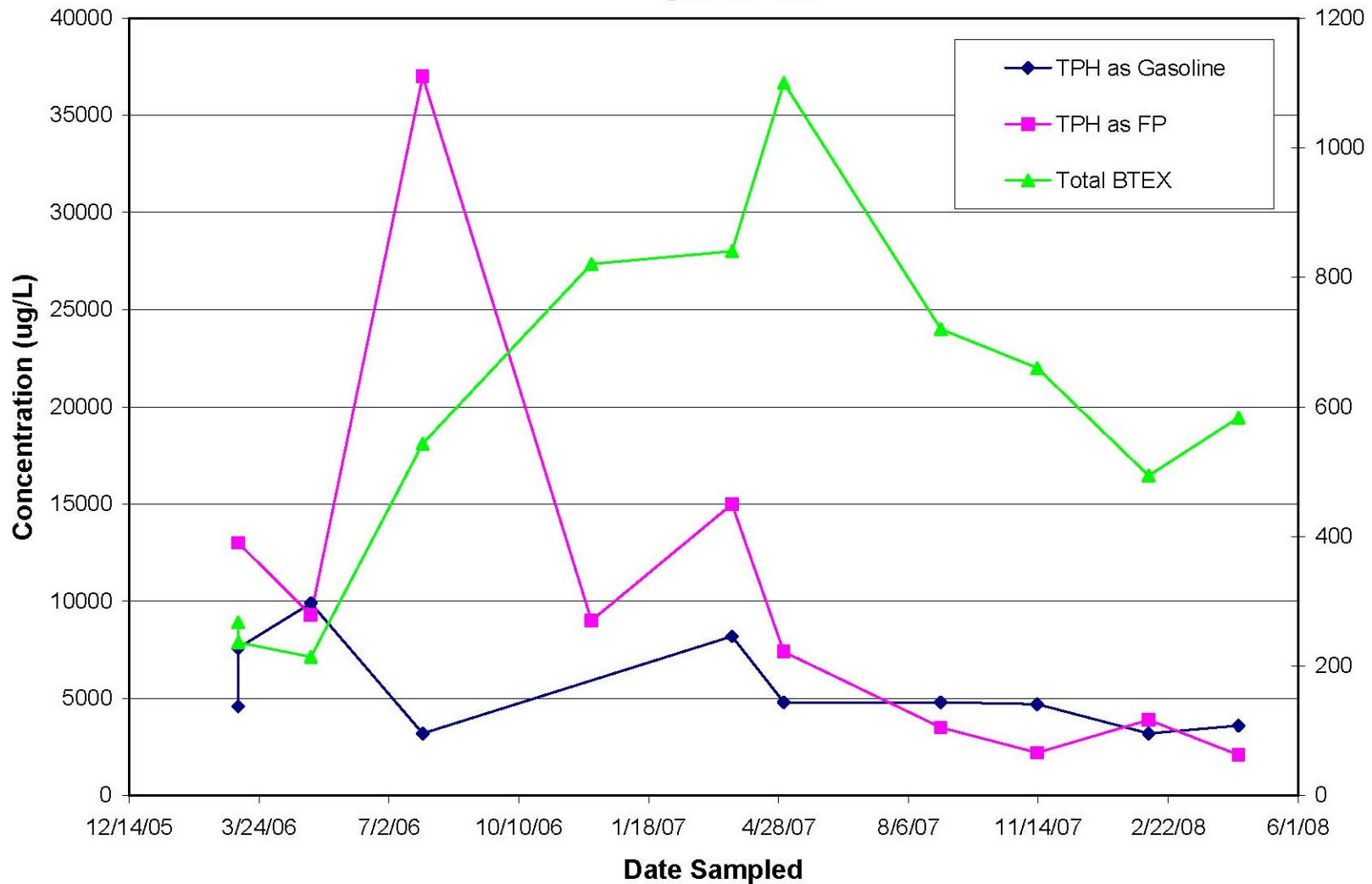
GMW-58



Historical Analytical Summary for Eastern Area – GMW-59

| Date Sampled | TPH as Gasoline | TPH as FP | Benzene | Toulene | Ethylbenzene | Total Xylenes | Total BTEX |
|--------------|-----------------|-----------|---------|---------|--------------|---------------|------------|
| 3/8/06 | 4600 | 13000 | 260 | < 1 | 7.4 | < 2 | 267.4 |
| 3/8/06 | 7600 | 13000 | 230 | < 1 | 6.7 | < 2 | 236.7 |
| 5/3/06 | 9900 | 9300 | 210 | < 1 | 4 | < 2 | 214 |
| 7/28/06 | 3200 | 37000 | 540 | < 1 | 3.1 | < 2 | 543.1 |
| 12/5/06 | --- | 9000 | 800 | 4.3 | 5.2 | 11 | 820.5 |
| 3/23/07 | 8200 | 15000 | 840 | < 2.5 | < 2.5 | < 5 | 840 |
| 5/2/07 | 4800 | 7400 | 1100 | < 2.5 | < 2.5 | < 5 | 1100 |
| 8/31/07 | 4800 | 3500 | 720 | < 2.5 | < 2.5 | < 5 | 720 |
| 11/13/07 | 4700 | 2200 | 660 | < 5.0 | < 5.0 | < 10 | 660 |
| 2/7/08 | 3200 | 3900 | 490 | < 2.5 | 3.8 | < 5 | 493.8 |
| 4/16/08 | 3600 | 2100 | 580 | < 2.5 | 3.5 | < 2.5 | 583.5 |

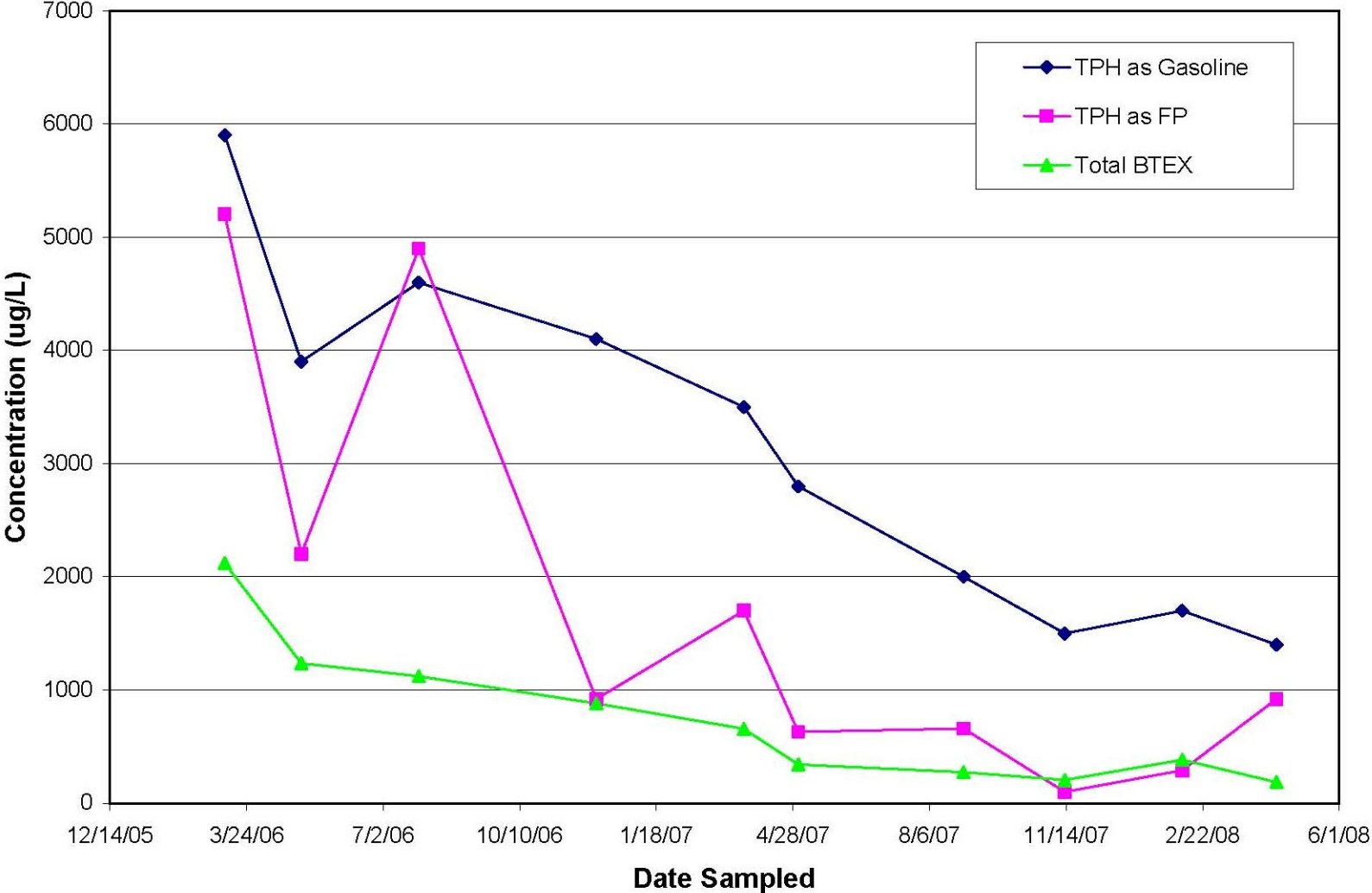
GMW-59



Historical Analytical Summary for Eastern Area – GMW-60

| Date Sampled | TPH as Gasoline | TPH as FP | Benzene | Toulene | Ethylbenzene | Total Xylenes | Total BTEX |
|--------------|-----------------|-----------|---------|---------|--------------|---------------|------------|
| 3/8/06 | 5900 | 5200 | 680 | < 5 | 640 | 800 | 2120 |
| 5/3/06 | 3900 | 2200 | 770 | < 5 | 230 | 235 | 1235 |
| 7/28/06 | 4600 | 4900 | 850 | < 5 | 170 | 102 | 1122 |
| 12/5/06 | 4100 | 920 | 660 | < 5.0 | 130 | 92 | 882 |
| 3/23/07 | 3500 | 1700 | 490 | < 2.5 | 87 | 80 | 657 |
| 5/2/07 | 2800 | 630 | 300 | < 2.5 | 18 | 23 | 341 |
| 8/31/07 | 2000 | 660 | 250 | < 2.5 | 18 | 5.9 | 273.9 |
| 11/13/07 | 1500 | < 100 | 180 | < 0.50 | 21 | 4.3 | 205.3 |
| 2/7/08 | 1700 | 290 | 270 | 0.8 | 65 | 47.9 | 382.9 |
| 4/16/08 | 1400 | 920 | 160 | < 1.0 | 24 | 2.6 | 186.6 |

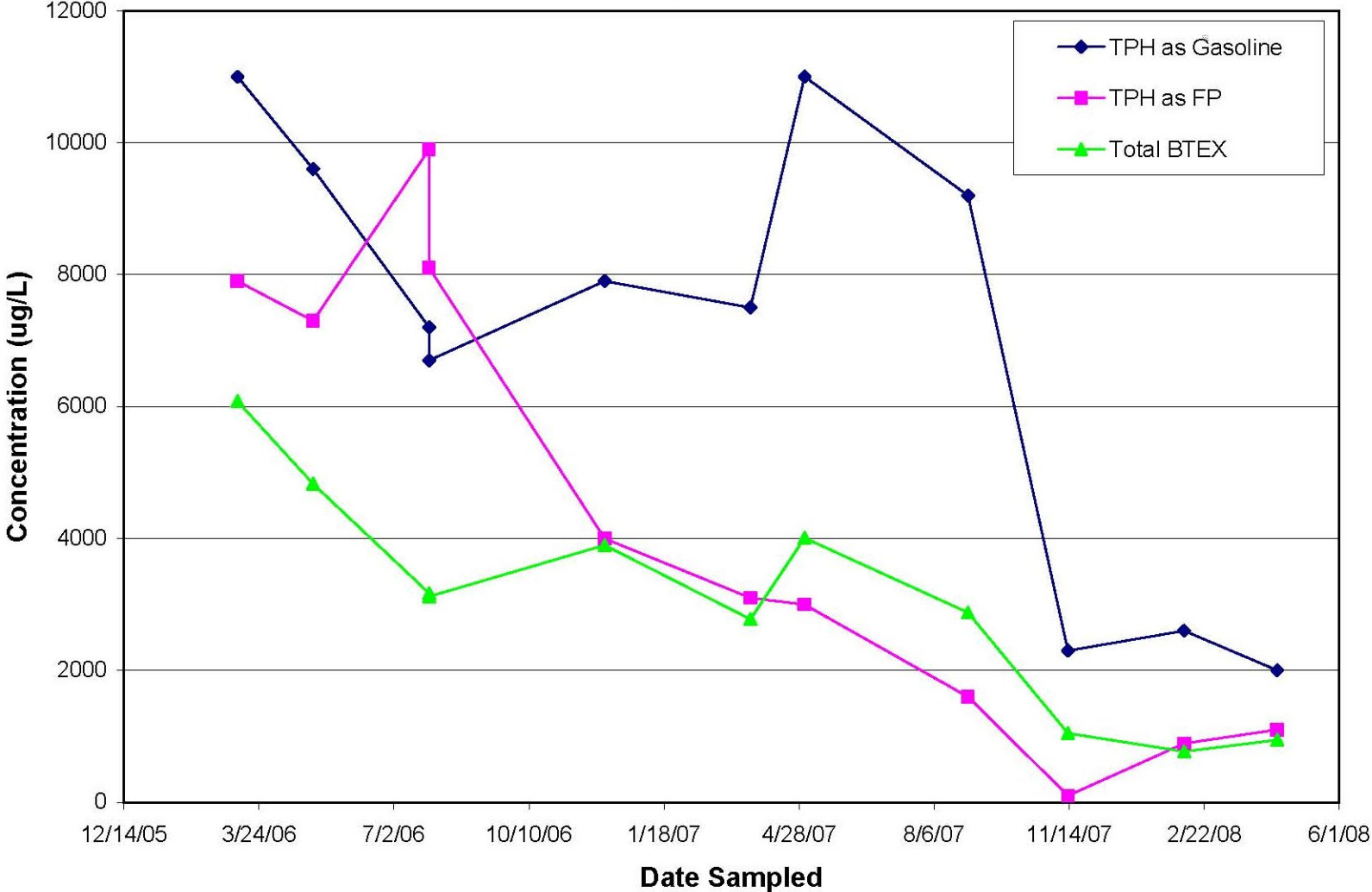
GMW-60



Historical Analytical Summary for Eastern Area – GMW-61

| Date Sampled | TPH as Gasoline | TPH as FP | Benzene | Toulene | Ethylbenzene | Total Xylenes | Total BTEX |
|--------------|-----------------|-----------|---------|---------|--------------|---------------|------------|
| 3/8/06 | 11000 | 7900 | 2100 | 280 | 1000 | 2700 | 6080 |
| 5/3/06 | 9600 | 7300 | 1900 | 89 | 810 | 2030 | 4829 |
| 7/28/06 | 7200 | 9900 | 1400 | 20 | 460 | 1290 | 3170 |
| 7/28/06 | 6700 | 8100 | 1300 | 19 | 470 | 1330 | 3119 |
| 12/5/06 | 7900 | 4000 | 1500 | 19 | 330 | 2050 | 3899 |
| 3/23/07 | 7500 | 3100 | 1200 | 16 | 220 | 1340 | 2776 |
| 5/2/07 | 11000 | 3000 | 1600 | 27 | 290 | 2090 | 4007 |
| 8/31/07 | 9200 | 1600 | 1500 | 17 | 190 | 1170 | 2877 |
| 11/13/07 | 2300 | < 100 | 580 | 6.3 | 99 | 360 | 1045.3 |
| 2/7/08 | 2600 | 890 | 330 | 8.6 | 70 | 363 | 771.6 |
| 4/16/08 | 2000 | 1100 | 480 | 5 | 64 | 399 | 948 |

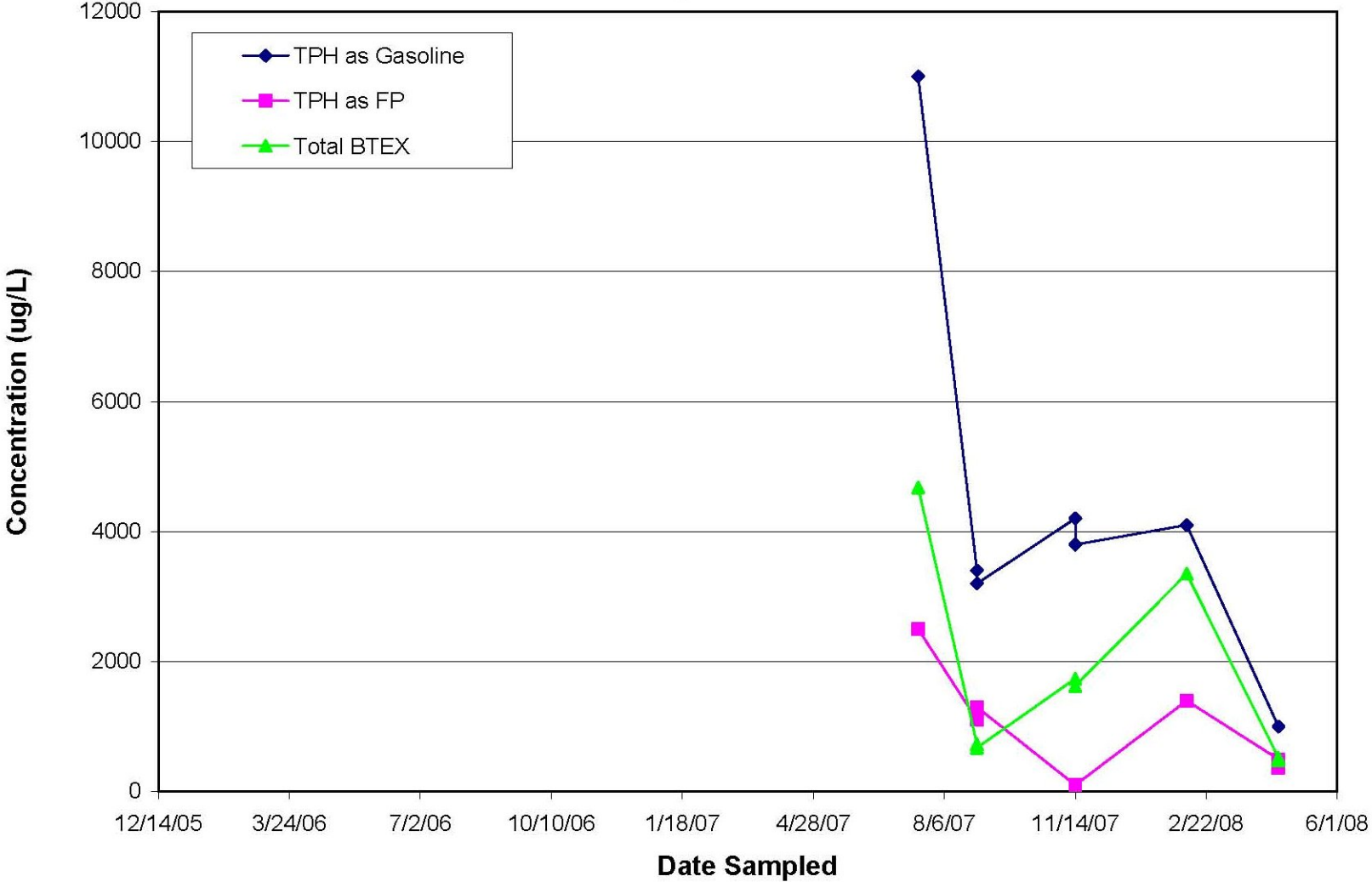
GMW-61



Historical Analytical Summary for Eastern Area – GMW-62

| Date Sampled | TPH as Gasoline | TPH as FP | Benzene | Toulene | Ethylbenzene | Total Xylenes | Total BTEX |
|--------------|-----------------|-----------|---------|---------|--------------|---------------|------------|
| 7/17/07 | 11000 | 2500 | 1400 | 1200 | 360 | 1720 | 4680 |
| 8/31/07 | 3400 | 1100 | 400 | 96 | 45 | 188 | 729 |
| 8/31/07 | 3200 | 1300 | 380 | 89 | 41 | 164 | 674 |
| 11/14/07 | 4200 | < 100 | 1400 | 85 | 160 | 92 | 1737 |
| 11/14/07 | 3800 | < 100 | 1300 | 84 | 150 | 92 | 1626 |
| 2/7/08 | 4100 | 1400 | 2100 | 190 | 450 | 610 | 3350 |
| 4/17/08 | 1000 | 500 | 430 | 15 | 50 | 23.9 | 518.9 |
| 4/17/08 | 1000 | 360 | 400 | 13 | 48 | 23.3 | 484.3 |

GMW-62



Historical Analytical Summary for Eastern Area - Conclusions

- At GMW-57 through GMW-62 concentration trends showed the following:
 - TPH as gasoline decreased for all wells
 - TPH as fuel product decreased for 5 wells and increased at 1 one well, GMW-57:
 - although the overall TPHfp concentration at GMW-57 has decreased by about 50% from July 2006
 - Total BTEX decreased for 5 wells and increased at 1 one well, GMW-59:
 - although the overall BTEX concentrations at GMW-59 are lower now then one year ago

Planned Activities

- Continue weekly system inspections, required sampling, evaluation, and optimization
- Conduct eastern boundary aquifer test
- Conduct vapor respiration test and evaluation
- Implement addendum work plan at Holifield Park that will include additional groundwater investigation and additional monitoring wells along the school

Discussion