Norwalk Tank Farm Update

Defense Energy Support Center-

Los Angeles

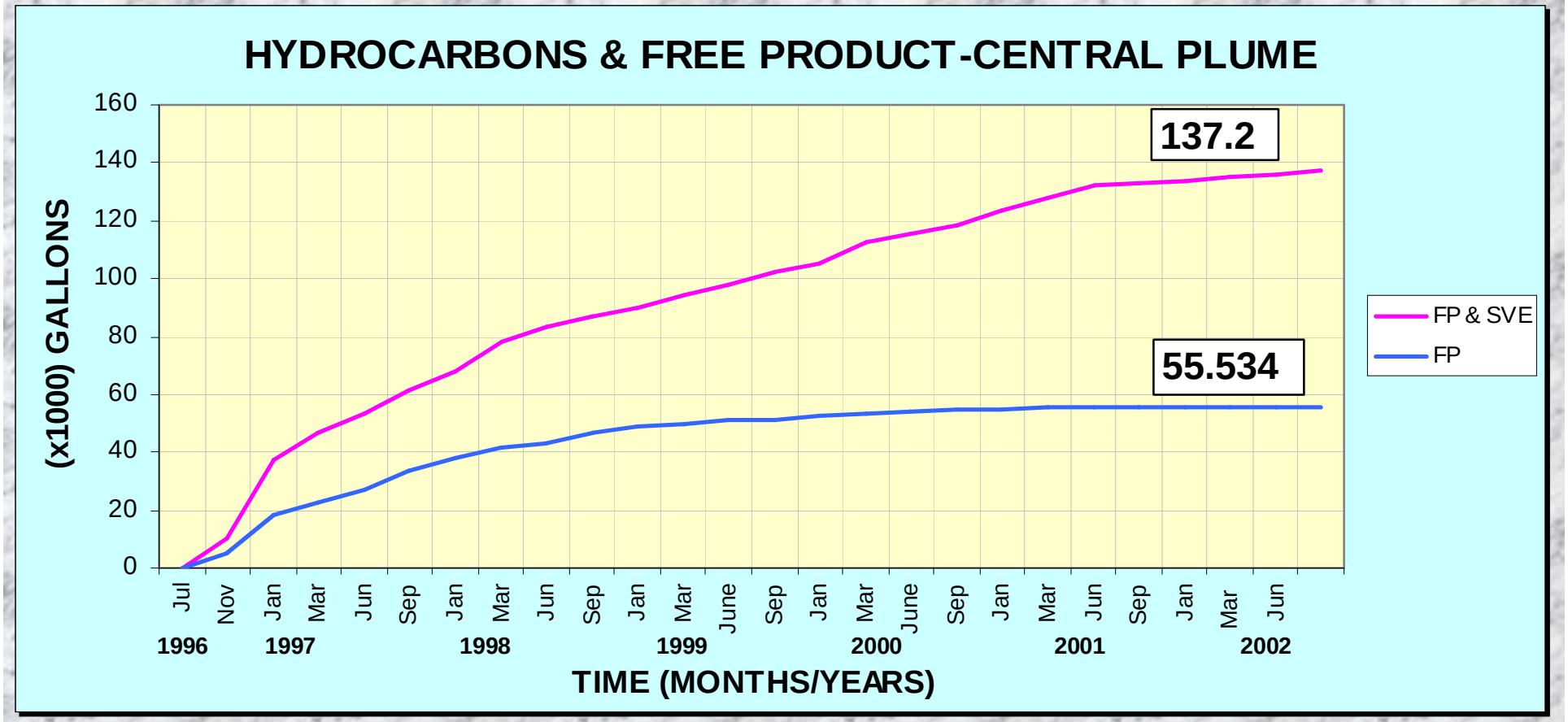
Norwalk Tank Farm

Restoration Advisory Board

July 25, 2002

Central Plume Remediation

- System performance since April 1996
  - Approx. 137,209 gallons recycled and destroyed
    - 55,534 gallons of free product recovered
    - 80,288 gallons of volatile hydrocarbons recovered through soil vapor extraction
  - 38.0M gallons of water treated
  - 1,387 gallons of dissolved phase hydrocarbons recovered


HYDROCARBONS & FREE PRODUCT-CENTRAL PLUME
(x1000) GALLONS
160
140
120
100
80
60
40
20
0
137.2
55.534
FP & SVE
FP
Jul
Nov
Jan
Mar
Jun
Sep
Jan
Mar
Jun
Sep
Jan
Mar
June
Sep
Jan
Mar
June
Sep
Jan
Mar
Jun
Sep
Jan
Mar
Jun
1996
1997
1998
1999
2000
2001
2002
TIME (MONTHS/YEARS)

Truck Fill Stand Area Assessment

- Performed September 17 through 19, 2001 to evaluate Truck Fill Stand (TFS), vehicle maintenance, vapor recovery UST, and septic tank areas. 15-direct push (continuous core) sample locations were advanced to a maximum depth of 28ft BG.
- 47 soil samples were retained from 12 borings (for TPH, JP-4, 5, 8, and TPH-g analysis) using EPA 8015 (modified) and selected samples were analyzed for VOCs using EPA method 8260.
- 3 Samples; TRDP-03 (5-6ft); TRDP-03 (19-20ft); and TRDP-03 (27-28ft) were used for soil physical properties analysis (PTS Laboratories).

Truck Fill Stand Area Assessment (cont.)

- Boring TRDP-15 was advanced in the **Vehicle Maintenance Area**
- Boring TRDP-13 was advanced between the truck fill stand thermal oxidizer and the slab, near the **Vapor Recovery UST.**
- Boring TRDP-14 was advanced west of **Septic Tanks Area** (No evidence of contamination).

Data interpretation indicates that plumes near the TFS and the water tank area are separated (no significant overlap).

Truck Fill Stand Area Assessment

Summary and Conclusions

- Western and Central Truck Fill Stand (TFS) revealed evidence of past fuel releases. Shallowest impacted soil was observed in the western end of the truck fill stand. Soil data East of TFS does not indicate past releases.
- Neither **Benzene** nor **MtBE** were detected in soil samples. Toluene, ethylbenzene, and xylenes were detected at low concentrations. Lacking MtBE and Benzene indicate older releases.

Truck Fill Stand Area Assessment
Summary and Conclusions (cont.)

- No indication that groundwater flowing beneath the truck fill stand is receiving TPH, BTEX of MTBE concentrations (based on Wells GMW-4 and MW-9 (upgradient) and wells MW-15 and GMW-14 (downgradient).
- Geotechnical analysis of wet soil showed 92.5% saturation with water and 7.8% saturation with product. Product fingerprinting might be needed to identify the source/s of hydrocarbon release.

Bulk Fuel Tanks Assessment
Summary and Conclusions

- Assessment Performed February 11 to March 5, 2002 to screen Petroleum Hydrocarbon in soils beneath the Tanks.
- 21-hand auger locations in 12 Bulk Fuel Tanks Investigated. 1-Central location of each eight perimeter tanks and four locations within three central tanks, 80006, 80007, and 80008.
- Soil Sampled every 5ft; a total of 65 samples were retained for chemical analyses.
- Groundwater was encountered in 6 borings at depths ranging from 27.5 to 28.8 ft bgs.
- Free Product was observed under Tank 80008 at 28.6ft bgs. and a sheen was observed on groundwater under Tank 80013

Bulk Fuel Tanks Assessment
Summary and Conclusions (cont.)

- 3 Samples were analyzed for VOCs using EPA Method 8260
- Lab. Results showed TPH >1,000 mg/kg in shallow soils of Tank 80001 (NW) and Tank 80009 (Central), at intermediate soils of tanks 80007 and 80008, and at deeper soil (near groundwater) of tanks 80001, 80008, and 80013. TPH <1,000 mg/kg was found under tank 55004 (SE).
- Soil under Tanks 80001, 80007, 80008, AND 80009 indicated Fuel contamination from ground surface to groundwater.
- Tank 80013 Shallow soils impacted by TPH and groundwater impacted by MTBE, (probably not from the tank).