# **Norwalk Tank Farm Update**

# Presented to the Norwalk Tank Farm Restoration Advisory Board

April 26, 2007

# **Presentation Overview**

### Topics to be Covered

#### Second Addendum to RAP Update

### **Remediation Operations Update**

Sentry Event Update

# Second Addendum to RAP Update Completed Activities

- The final document of the Second Addendum to RAP (Second Addendum) was submitted to the RWQCB in November 2006. The final document incorporated comments received from the RWQCB and RAB.
- The RWQCB granted approval on April 2, 2007 to implement the Second Addendum.
  - Total fluids pumps have been ordered and received.
  - Soil vapor extraction conveyance piping have been inspected and repaired.

# Second Addendum to RAP Update Tentative Implementation Schedule

#### <u>April – May 2007</u>

- Receive RWQCB approval for implementation of Second Addendum
- Plan and coordinate field work (retain subcontractors, coordinate offsite access, permitting, update health and safety plan)

#### <u>May – July 2007</u>

- Field work (pilot testing, well installation, well development, pump installation, system modifications)
- System startup and evaluation

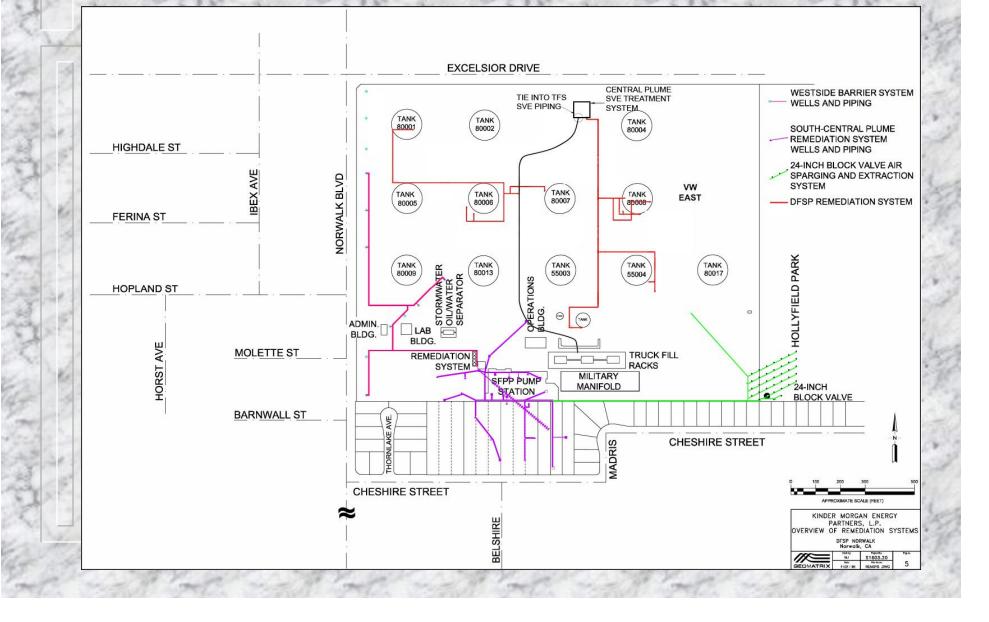
#### July 2007 - July 2008

Update RAB on a quarterly basis

#### August 2008

Submit first annual remediation system evaluation report

# **Map of Current Remediation Systems**



### **Groundwater/Product Extraction System**

- 8 groundwater extraction wells in the West Side Barrier area
- 6 total fluids (product and groundwater) extraction
  wells and 2 groundwater extraction wells in the
  South-Central Plume area
  - 2 total fluids (product and groundwater) extraction wells and 1 groundwater extraction well in the Southeastern 24-Inch Block Valve area

# Groundwater/Product Extraction System Operations Summary

- Total groundwater extracted since January 2007 RAB meeting:
  - South-Central Plume area: 281,100 gallons
  - Southeastern 24-Inch Valve area: 133,000 gallons
  - West Side Barrier area: 753,200 gallons
  - Manual product recovery: 13 gallons
- Total groundwater extracted since September 1995:
  - South-Central Plume area: 24.4 million gallons Southeastern 24-Inch Valve area: 7.6 million gallons West Side Barrier area: 25.6 million gallons Total groundwater extracted: 57.7 million gallons
    - 8,846 gallons free product removed

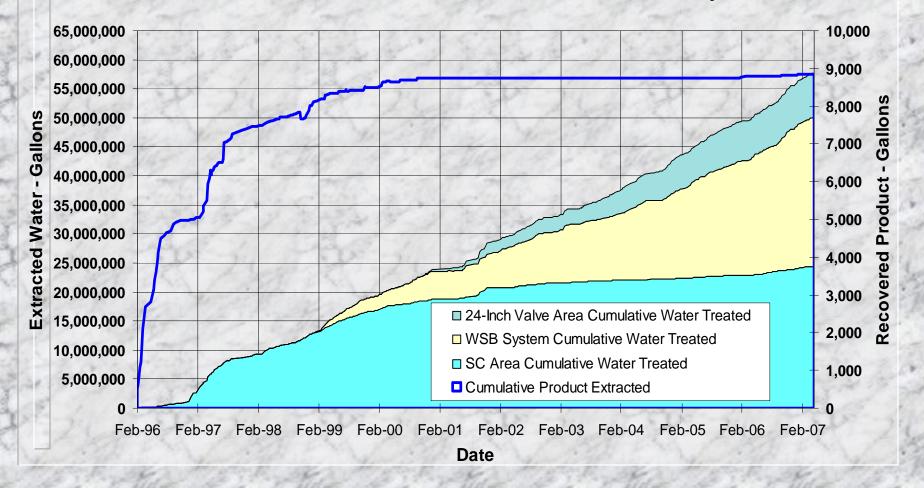
# Groundwater/Product Extraction System Operations Summary

The groundwater/product extraction system operated continuously during the first quarter 2007 with the following exceptions:

- pump maintenance
- air compressor service
- Percent operation: 88%

# Groundwater/Product Extraction System Operations Summary

**Producted Extracted and Water Treated Summary** 



### **Soil Vapor Extraction System**

17 onsite and 5 off-site vapor extraction wells in the South-Central Plume area.

2 vapor extraction wells in the Southeastern24-Inch Block Valve area.

Approximately 300 gallons equivalent of fuel removed from soil and destroyed by catalytic oxidation since the January 2007 RAB meeting.

Approximately 451,500 gallons equivalent of fuel removed from soil and destroyed by catalytic and thermal oxidation since September 1995.

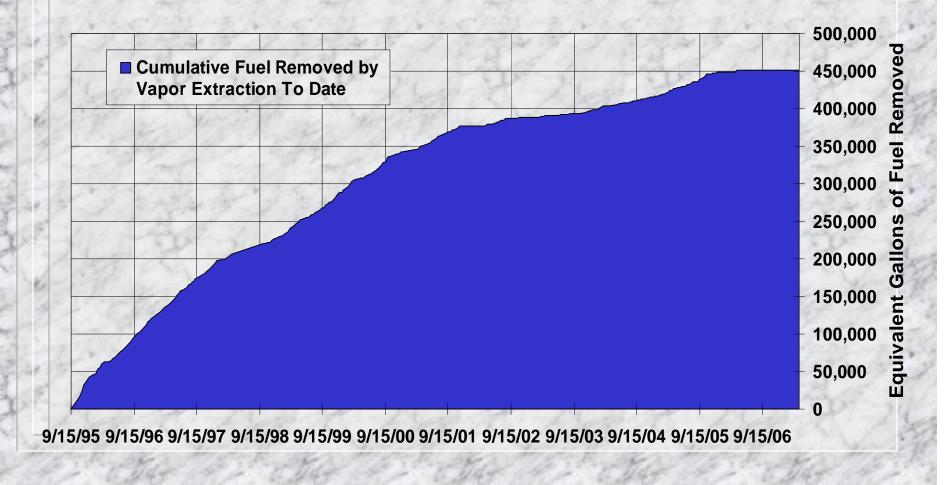
Approximately 54,829 hours of operation since September 1995.

The SVE system operated continuously during the first quarter 2007 with the following exception:

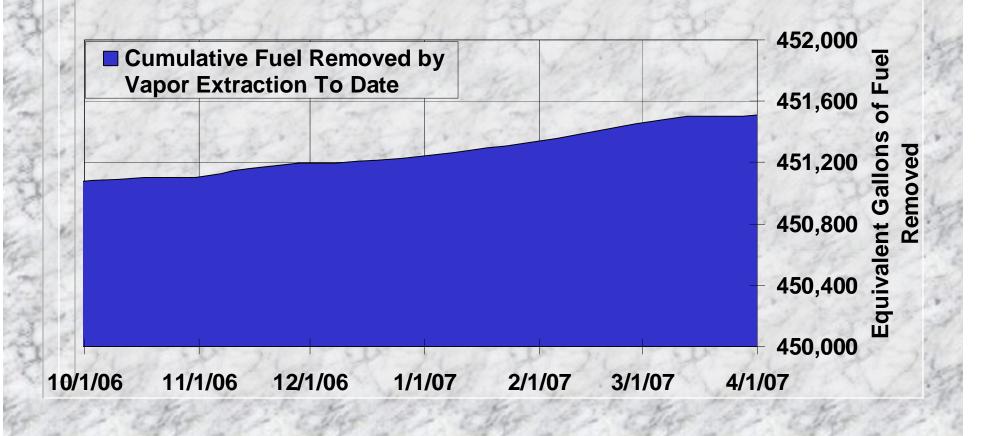
Replacement & upgrade of belts and pulleys on the SVE blower/motor assembly

Percent operation: 70%

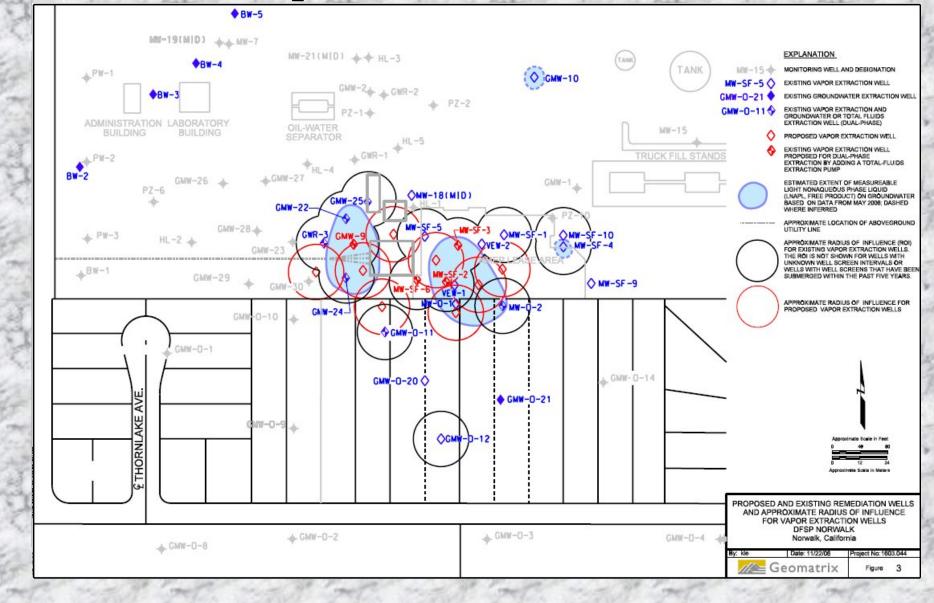
**Cumulative Fuel Removed by Vapor Extraction To Date** 



Cumulative Fuel Removed by Vapor Extraction - Past Six Months



#### **Proposed Remediation Wells**



### **Sentry Event Update**

- 20 wells sampled, including 4 Exposition wells.
- Groundwater elevations generally decreased since December
   2006 in the uppermost aquifer beneath the site.
- No VOCs detected in Exposition wells.
- In the south-central area, VOC concentrations decreased or remained similar to those observed in the same wells in December 2006.
  - In the southeastern area, free product was again not detected in GMW-36. MTBE concentrations similar to December 2006 results in other wells sampled in southeastern area.
  - In western off-site area, 1,2-DCA and MTBE detected in one well (WCW-7) at concentrations below RBCA levels.