

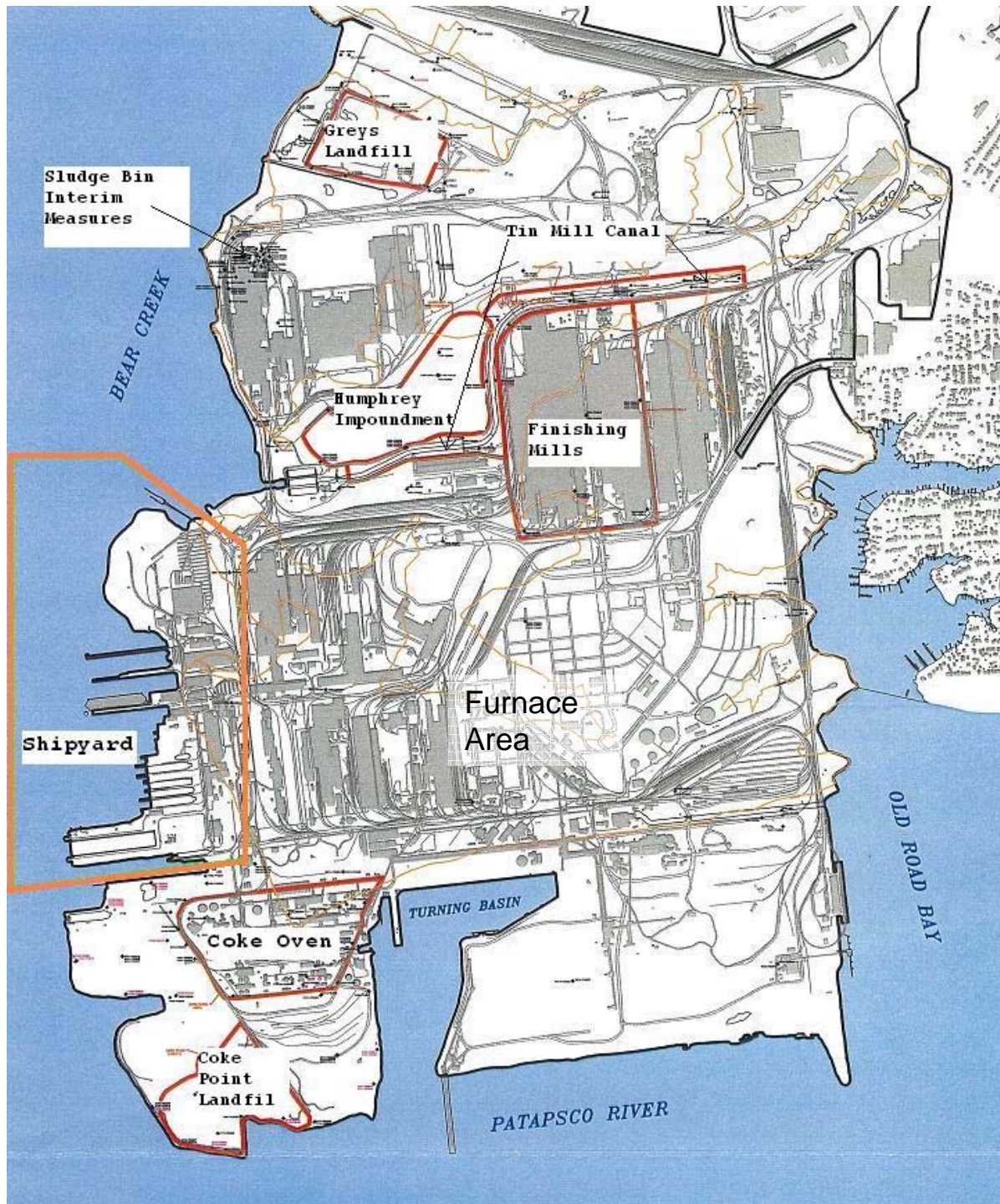


**Consent Decree Update**  
**Corrective Measures**  
**Sparrows Point Steel Mill**

**Andrew Fan**  
**June 24, 2010**

# Corrective Measures Scope of Work

- Conduct site-wide investigation to
  - identify the extent of contamination
  - assess human health risk
  - assess ecological risk
- Implement interim measures to address releases that require immediate attention
- Perform a Corrective Action Study to indentify a final remedy



Prioritize investigation in 5 Special Study Areas:

(1) Greys Landfill

(2) Till Mill Canal /  
Finishing Mill Area

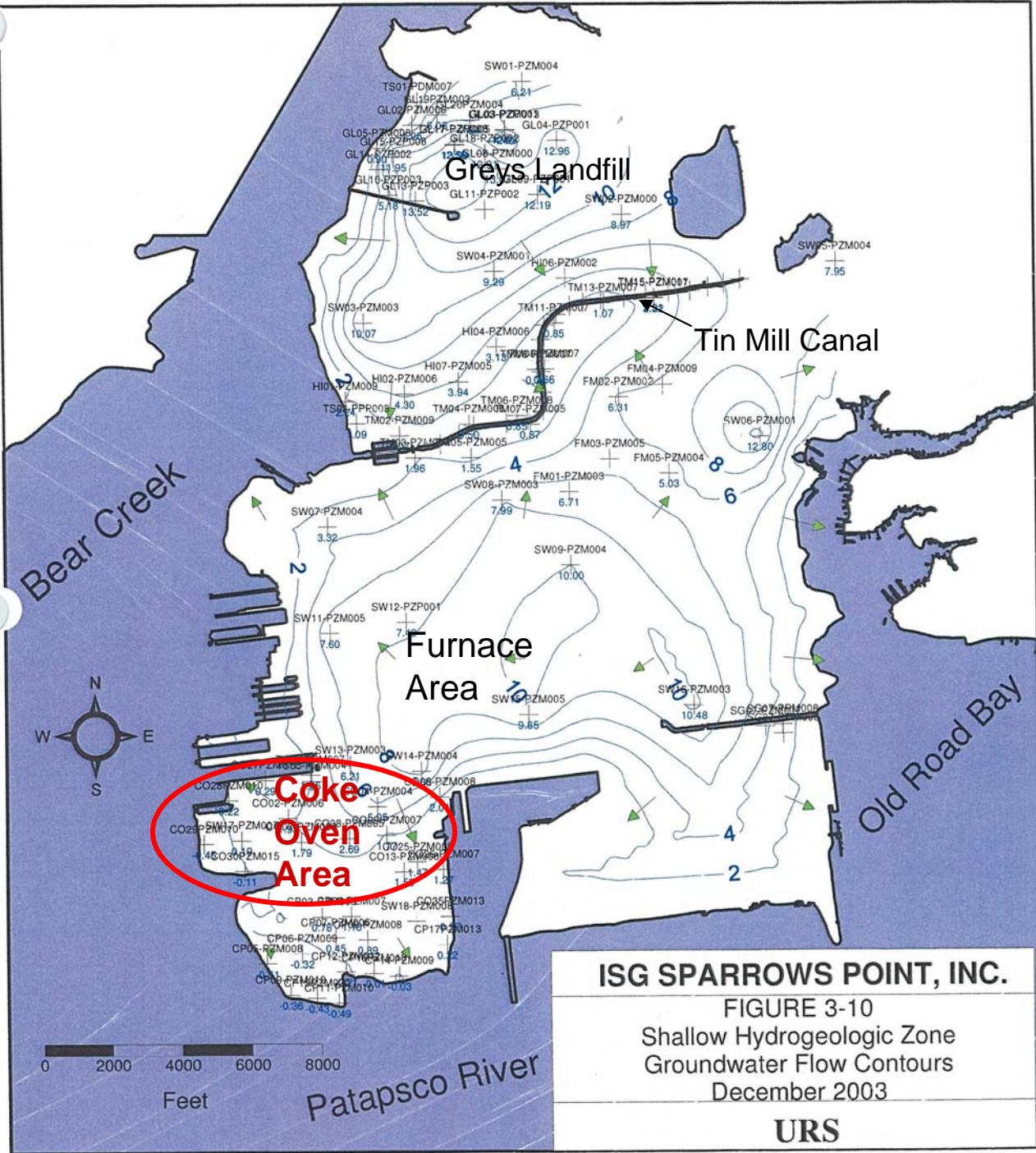
(3) Humphrey  
Impoundment

(4) Coke Oven Area

(5) Coke Point Landfill

# Site Wide Investigation Findings

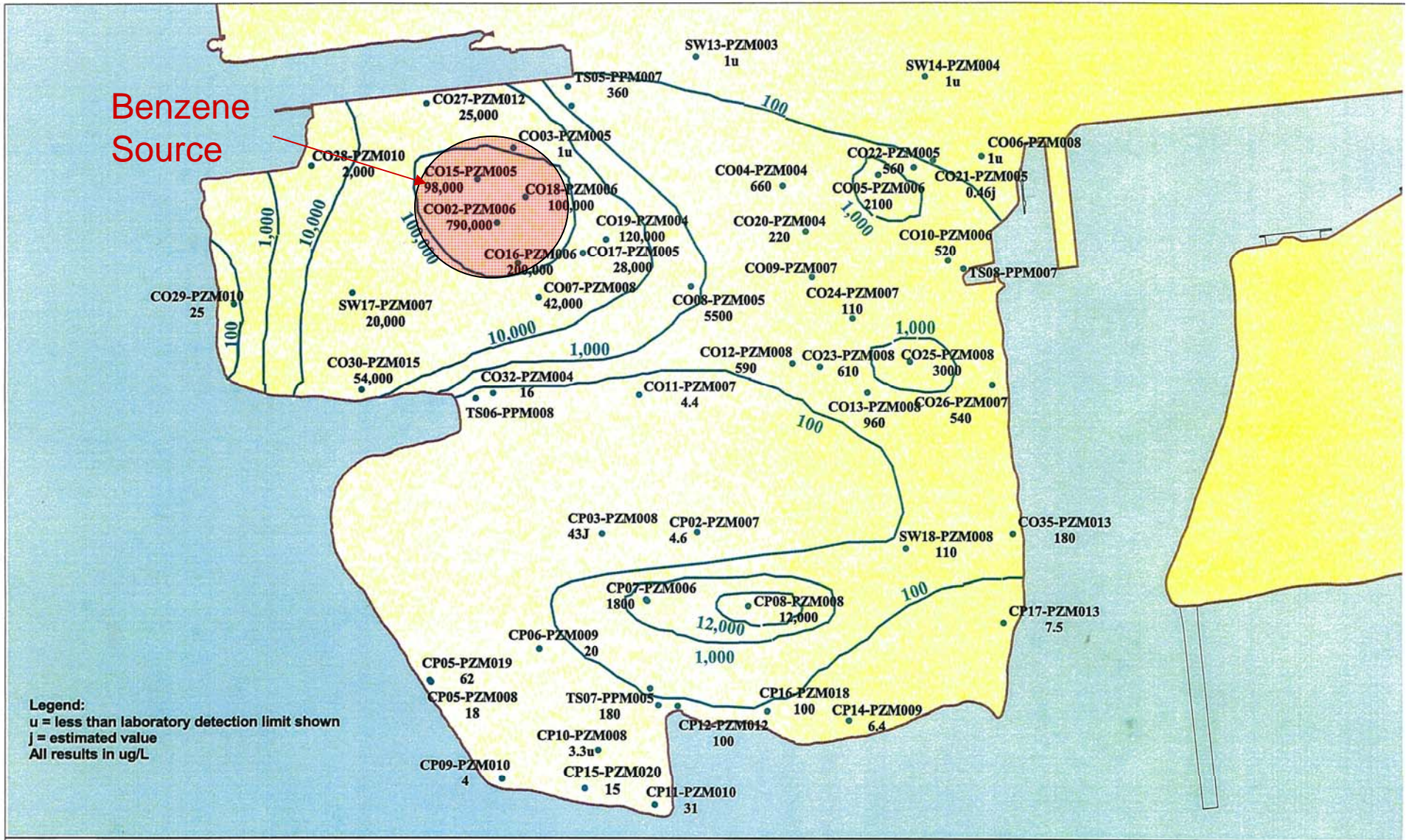
- Investigation of the 5 Special Study Areas was completed in 2006
- A hydrocarbon plume was identified at the Coke Oven Area seeping towards the bay that requires interim action
- The investigation has not revealed significant subsurface contamination in other areas that demand interim action



**ISG SPARROWS POINT, INC.**

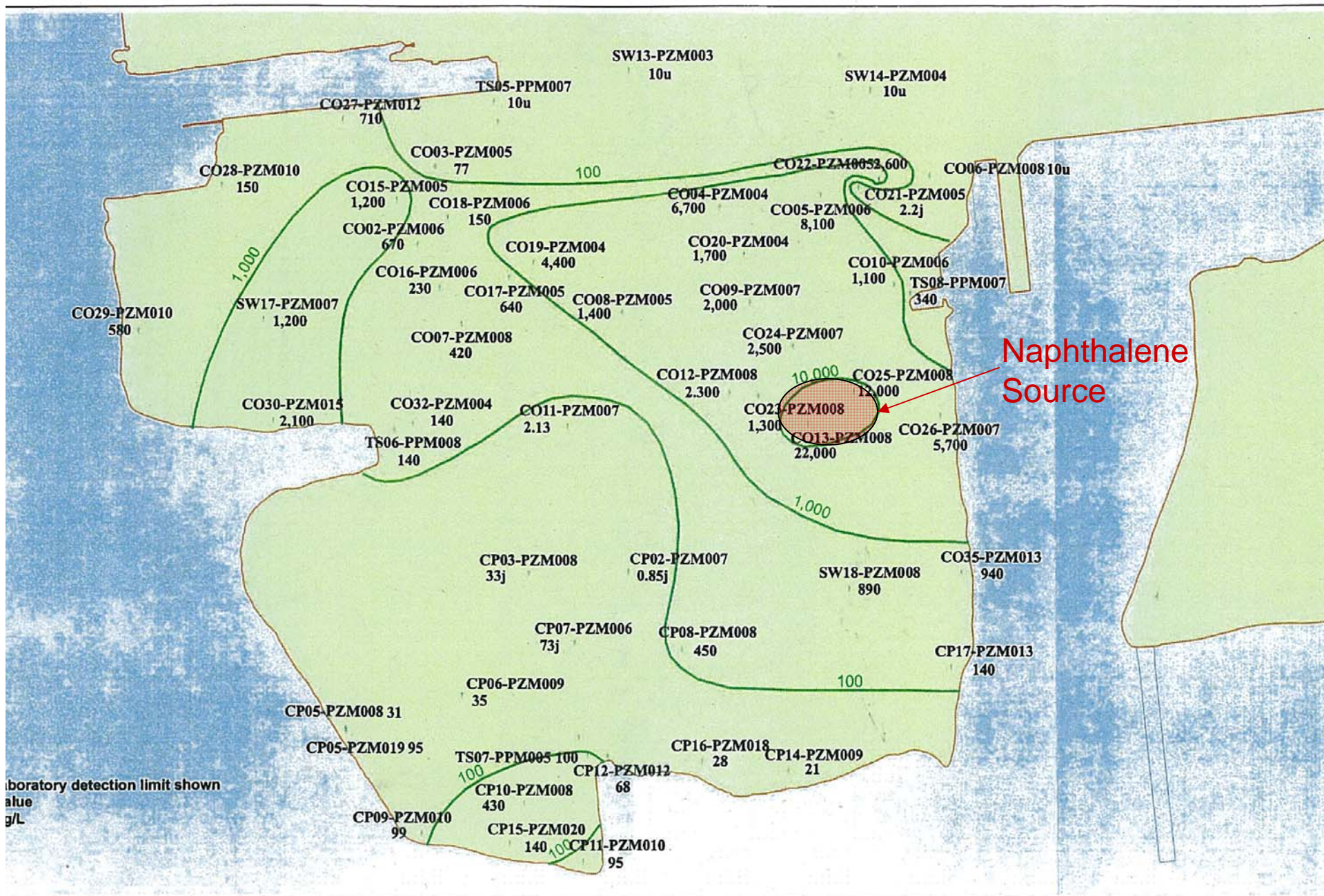
FIGURE 3-10  
 Shallow Hydrogeologic Zone  
 Groundwater Flow Contours  
 December 2003

**URS**



Shallow Zone Locations:  
 Coke Oven and Coke Point  
 Benzene Iso Concentration, ug/L (Parts per Billion)

Figure  
 1



laboratory detection limit shown  
value  
ug/L

300 0 300 600 Feet



Shallow Zone Locations:  
Coke Oven and Coke Point  
Naphthalene Iso Concentration, ug/L (Parts per Billion)

Response To C

(Contours based on original Figures 4-

## Interim Measures (Coke Oven Area)

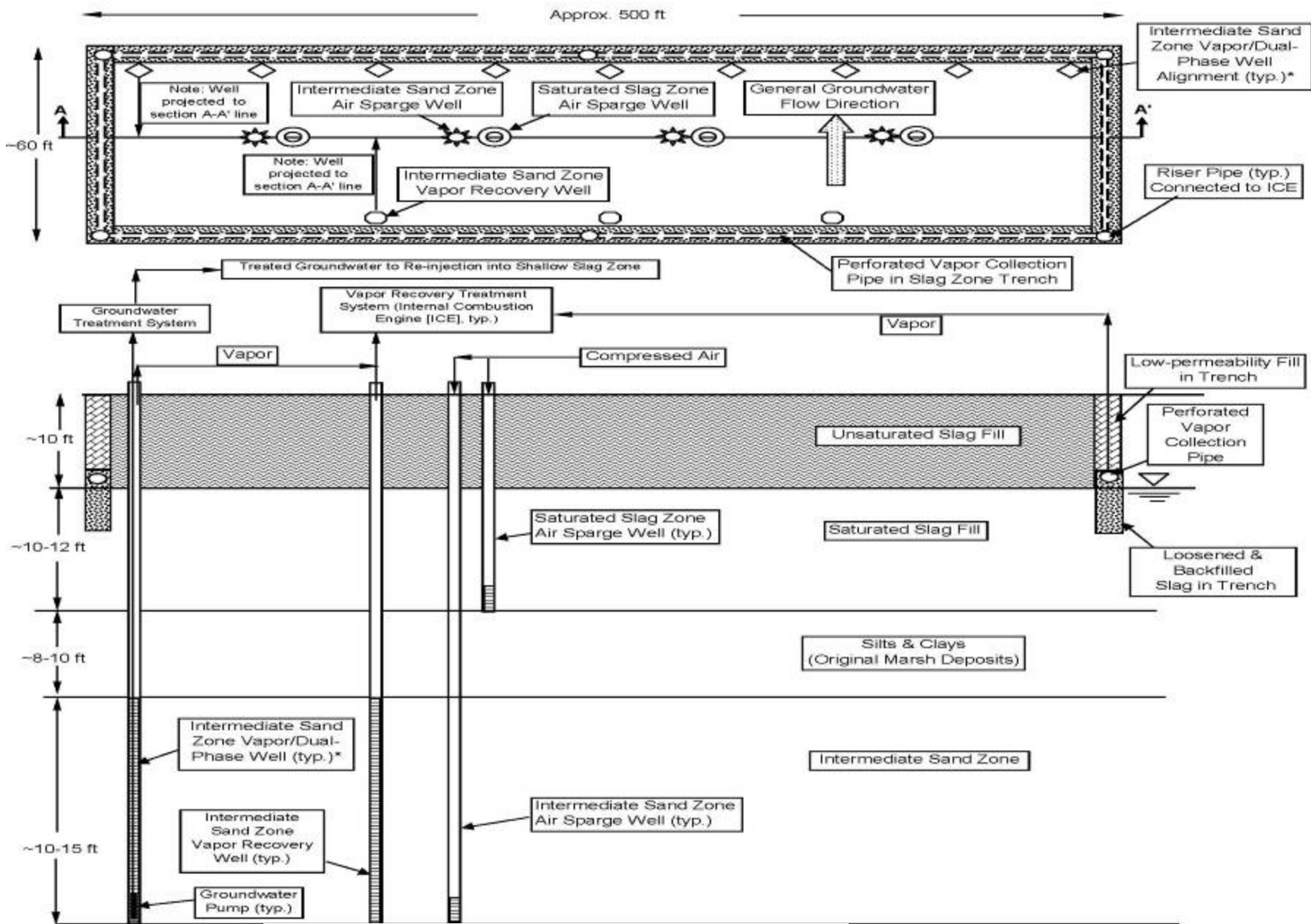
- In 2007, a skimmer was installed in one well to recover hydrocarbon product, but the recovery rate was slow and ineffective
- In February 2009, EPA required Severstal to implement more aggressive measures to recover and contain the hydrocarbon plume



# Interim Measures (continue)

- In response to EPA's demand, Severstal is finalizing an interim measures plan to install 6 prototype remediation cells
  - The remediation cells employ a combination of technologies: groundwater pumping, vapor extraction, product skimming, air sparging, groundwater reinjection, and enhanced bioremediation





**Prototype Remediation Cell 2**

Silts & Clays

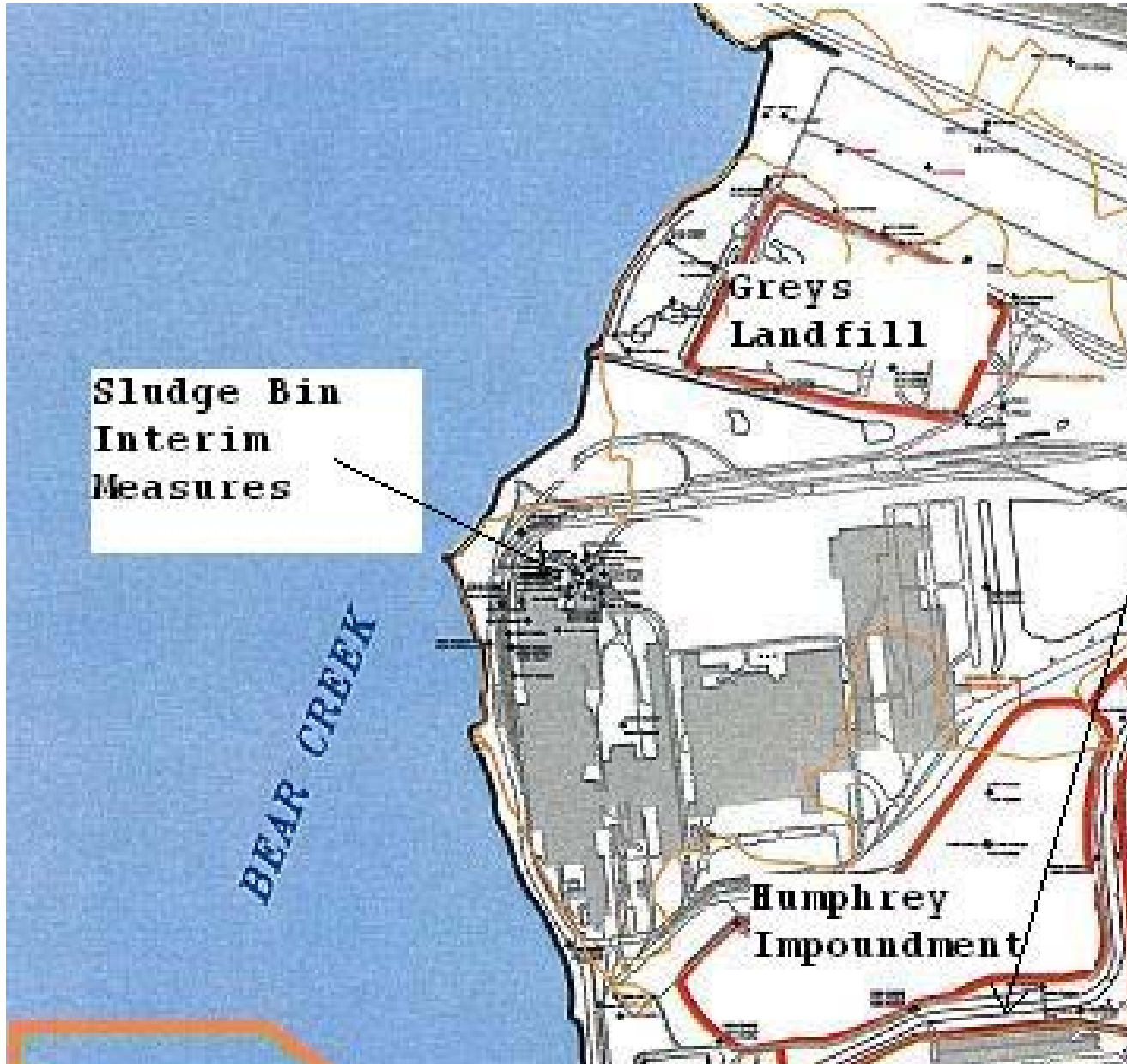
# Solar-Operated Skimmer



- Construction of the first cell has begun this week
- Installation of all 6 cells will phase in by July 2011



# Interim Measures (Rod & Wire Mill)



# Interim Measures (Rod & Wire Mill)

- In 2001, the existing pump-and-treat system at the former Rod and Wire Mill was upgraded to more effectively recover cadmium and zinc in groundwater
- The upgraded system continues to operate



# Next Steps

- Develop offshore sampling plan for implementation in 2011
- Severstal has disputed its obligation to perform this offshore sampling.
- EPA and Severstal are currently engaged in the dispute resolution process to resolve this matter
- Pending on the dispute resolution, Severstal is to complete the ecological and human health risk assessments to conclude the site-wide investigation by 2012