

# Corrective Action Activity (and more) St. Paul Island, Field Season 2002

RAB Meeting February 2003

Nir Barnea, NOAA



# Corrective Action Overview

■ PCS

● UST

Decommissioned  
Power Plant  
(Site 9c)  
UST Removed

Former Alaska Dormitory  
UST (Site 9h)

Former Power Plant  
Former Post Office  
(Site 9b)

Old Movie Theater  
(TPA Site 9a)

Lot 101 UST

Lot 103 UST



# Old Movie Theater

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- Diesel contamination from tank used for heating the building
- Small, simple site, chosen to build expertise and confidence
- Less than 30 CY PCS removed and treated



# Former Power Plant (Duna's Kitchen)

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- Diesel contamination from fuel tanks used for power generation
- Nearly 400 CY removed and treated
- Restoration included a rock wall to support the road



# Site restored

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# Decommissioned Power Plant: PCS removal

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- Total of ~250 CY removed to be treated
- Tank found under the building, contained oil
- Site restored until UST is removed



# The building on the tank

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# Site restored to grade

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# UST 101, 103

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- 300 gallon tanks, some leakage and contamination
- Sites excavated, fuel pumped out, UST removed, cleaned, scrapped
- All PCS removed to the extent possible
- Sites restored



# Removing UST 103

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# Alaska Dormitory (TDX Building)

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- 2,000 gallon UST removed, cleaned, scrapped
- PCS excavated as much as possible, 140 CY removed. Groundwater surfaced from walls and bottom of excavation.
- A water line was broken and repaired a week later. Site was restored.



# “Lake Lindsay”

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# DPP UST – Demolition begins

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Demolition continues





Concrete floor removed

Water pumped out



# Tank removed

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Residual PCS excavated



# E-shed roof replacement

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Before



After

# Salt Lagoon Sampling, St. Paul Island

RAB Meeting, February 13, 2003



Nir Barnea, Paula Souik, Laura Murray  
NOAA PPO

# Objective

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“To evaluate risk to the marine environment posed by possible subsurface contamination migrating from TPA Site 13 to the Salt Lagoon.”



# Methods

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- Sediment chemistry analysis for PAH and DRO
- Amphipod bioassay to evaluate survival
- Benthic invertebrate community structure to evaluate chronic effects of contaminated sediments on infauna.



## Methods (cont.)

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- SPMDs to evaluate PAH concentrations in the water column and to discern contaminate gradients that may be due to the Diesel Seep Site or the harbor.

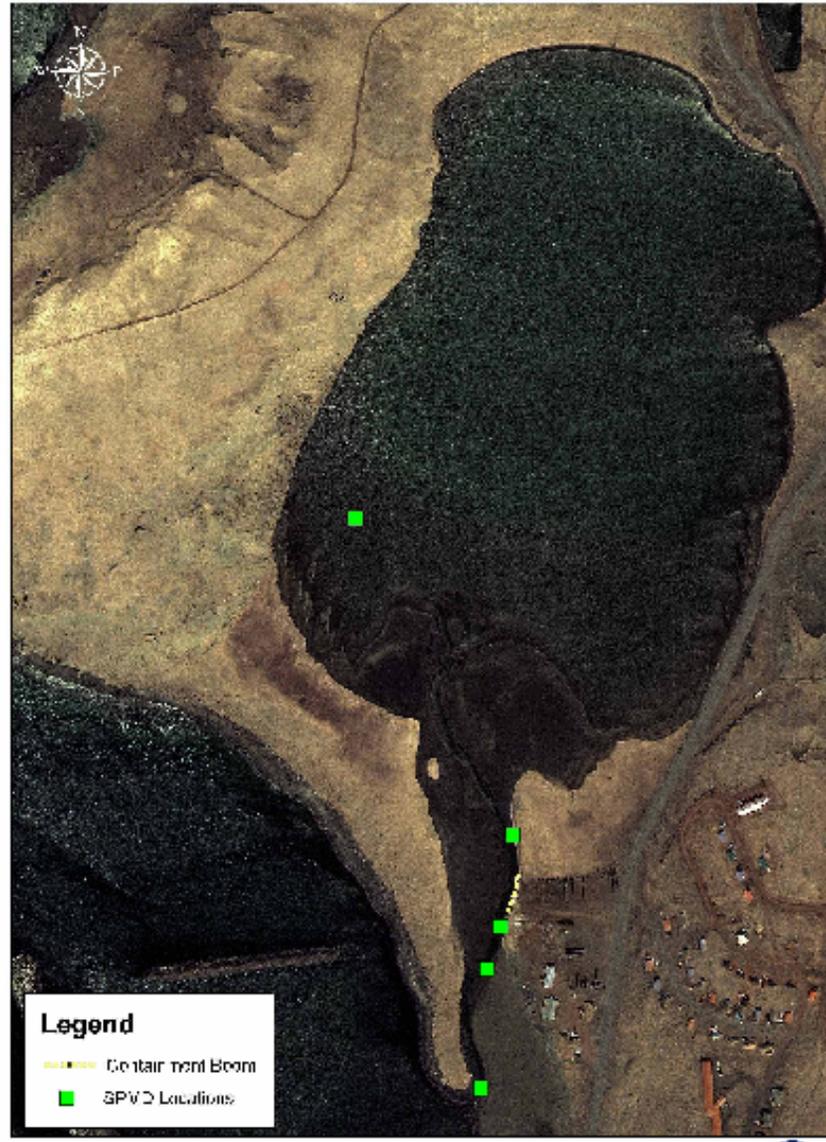


Salt Lagoon Sample Locations  
September 2002



200 100 0 200 Meters

Salt Lagoon SPMD Locations  
September 2002



**Legend**  
--- Containment Boom  
■ SPMD Locations

200 100 0 200 Meters

# Preliminary results

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- Sediment chemistry
  - DRO: Most samples low, all below ADEC sediment benchmark of 100mg/kg
  - Highest DRO reading near diesel seep, 80 mg/kg
  - PAH: All samples below reporting limit
- Amphipod bioassay
  - Survival rate high (97-100%) in all sites
- SPMDs
  - Very low (1/thousands of typical US rivers)
  - Channel higher than salt lagoon
- Full report due in spring, 2003

## **Credits, Salt Lagoon Sampling**

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**BSE: Julie Shane, Walter Shane**

