

# PINEWOOD SITE



# Why We Are Here Today

To update you on the current status of the Pinewood Site and issues that we face concerning:

- ⦿ Completed Improvement Projects
- ⦿ Current and Future Leachate Management
- ⦿ Timeline Going Forward

# Site Closure

- The Site closed in 2003 when bankruptcy was settled
- Settlement Agreement created a Trust with DHEC as beneficiary
- Agreement named Kestrel Horizons as the Trustee
- Kestrel runs day-to-day closure operations at the Site with DHEC oversight

# What is Leachate?

- **Leachate:** Water that collects contaminants as it drips through waste in a Landfill
- Typically 90% water & 10% contaminants
- Contains solid particles such as sand
- Leachate is not contaminated groundwater
- **Leachate Collection System:** A system that collects leachate and pumps it out



# Completed Improvement Projects

- ① Undertook aggressive project to upgrade the Site's Operations and Maintenance including:
  1. Power System Upgrade
  2. Leachate Collection and Transfer Upgrades
  3. Computer Monitoring and Control System
  4. Leachate Storage and Transport System
  5. Stormwater Management



# Sump Top Before and After

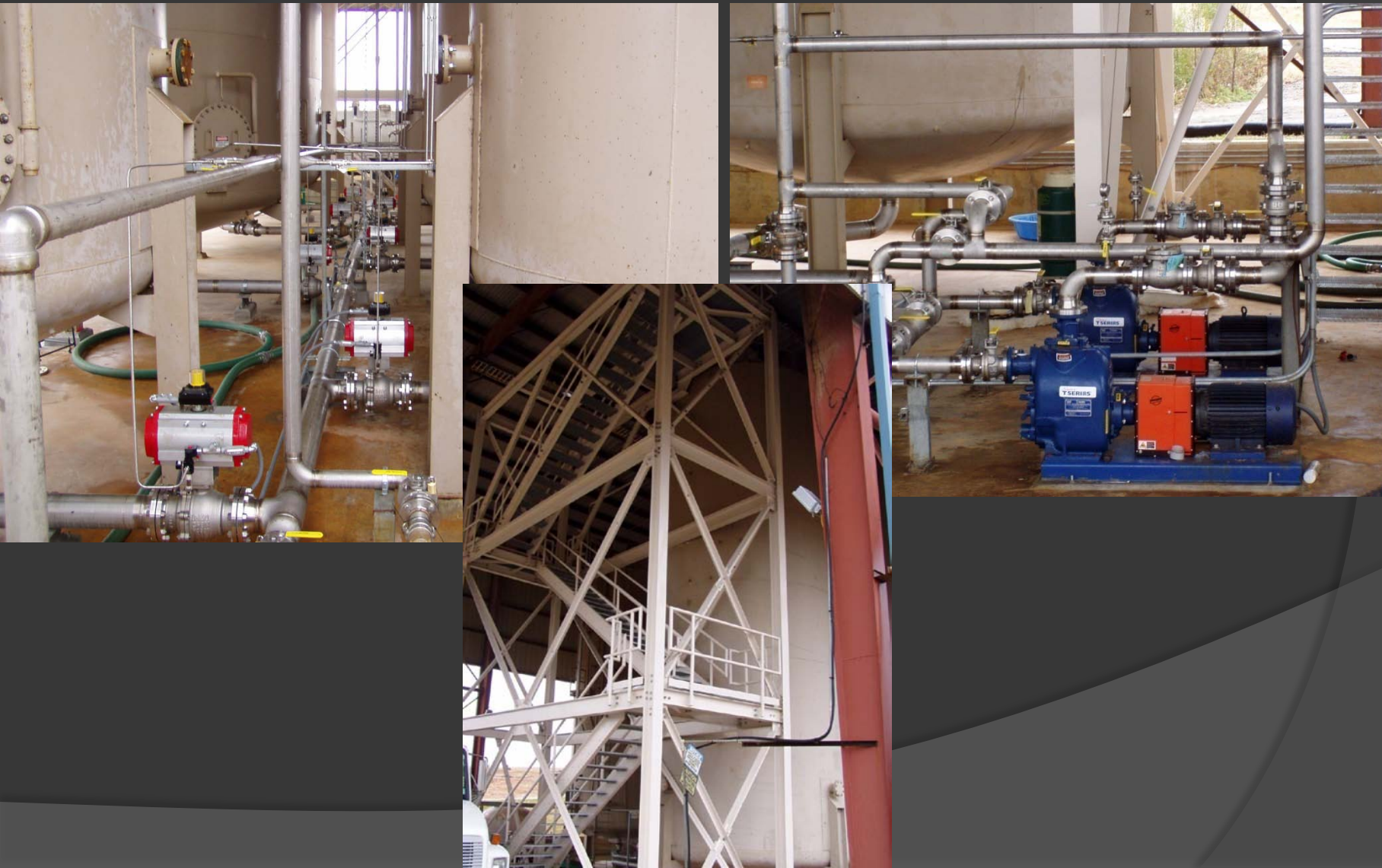


# New Air Compressor at Tank Farm





# Tank Farm Improvements







**First Flush Basin Valve**

# Improvement Projects Benefits


- Increased leachate system reliability and monitoring
- Reduced operation and maintenance costs
- Reduced potential for above ground spills
- Replaced aging leachate equipment and piping
- Improved health and safety conditions for workers at the Site



# Current Leachate Management

- Method for Leachate Disposal:
  - Filtered to remove solids
  - Trucked to DuPont in Deepwater, NJ for treatment/disposal
- Method for Solids Disposal
  - Trucked to Veolia - Port Arthur, TX & Waste Management - Emelle, AL
- In late 2008, DHEC and Kestrel began looking at other treatment options
- DuPont – gave notice in June 2011 that they will no longer treat Pinewood’s Leachate after March 2012. They decided that they will no longer treat any commercial waste.**



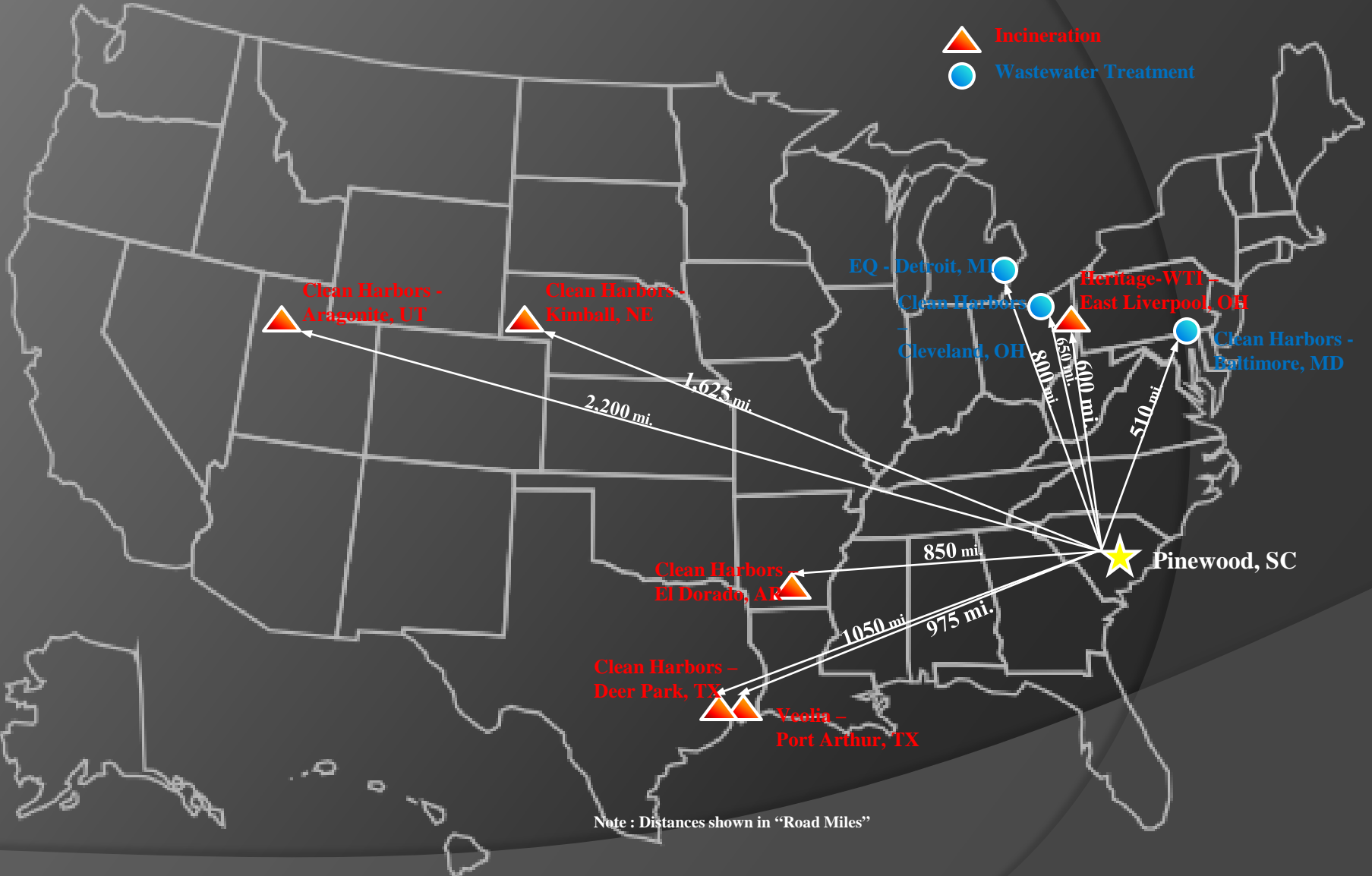


# Alternate Leachate Treatment Options Evaluated

- Offsite Treatment/Disposal –
  - Dig up Section 1 and dispose out-of-state – Total Cost \$ 1.7 Billion\* (Note: no current facility permitted to take the volume)
  - Look to finalize alternative disposal options for backup – however significant cost increase (greater than 250%)
  
- Onsite Treatment/Disposal
  - Treatment & Discharge to Lake Marion \$1.8 Million\*
  - Treatment & Discharge to on-site Infiltration Ponds \$2.3 Million\*
  - Treatment & Evaporation of Liquids \$ 2.1 Million\*

\*Note: these are initial construction costs only

# Potential Disposal Locations for Pinewood Leachate



Note : Distances shown in "Road Miles"

# Selected Treatment Option

- After evaluating technical and economical issues with each option, Onsite Treatment with Evaporation and Offsite Solids Disposal has been selected as best option



# Onsite Treatment System

- System will consist of:
  - mechanical filtration to remove solids (filter press)
  - Evaporation of the liquid (like boiling water)
  - Solids from both the filtration and evaporator will be collected and disposed of in Texas.

# Typical Filter Press



# Typical Evaporator





# Hazardous Waste Permit Changes

- ⦿ Add Filtration and Evaporation Equipment
  - Filter Press
  - Evaporator
- ⦿ Update
  - Contingency plan
  - Inspection Schedules
  - Groundwater monitoring program changes

# Air Permit

- Site currently exempt
- A proposed evaporator would require a construction permit

# Evaporation vs. Incineration

## ● Evaporation

- Liquid is removed by evaporation to leave solids
- Propane flame does not directly contact the waste
- Operating Temperature 212 F- 250 F
- Emissions include: Volatile organic compounds and minimal other pollutants
- The majority of the inorganic material (metals, sediment, etc.) will remain in the slurry.

## ● Incineration

- Combusts waste to reduce
- Waste is the fuel
- Operating Temperature approx 1600 F
- Emissions include: particulate matter, acid gases, dioxin and furans, heavy metals, etc.
- Material not combusted becomes ash or leaves as particulate matter in the flue gas





# Air Permit

- Step 1: Pre-application meetings
- Step 2: Application receipt and technical review
- Step 3: Public input
- Step 4: Review comments, make permit decision
- EPA oversight
  
- Ambient monitoring

# Timeline Going Forward

- Hazardous Waste and Air permit applications will be submitted in mid-September 2011
- Draft permits ready for public input in early 2012
- Public Meeting/Hearing on draft Permits early 2012
- If approved, Construction of the treatment system would take 6 to 9 months

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**For more information:**

**<http://www.scdhec.gov/Pinewood>**