WILLIAMSON COUNTY BIOREACTOR FACT SHEET

- Waste footprint = 6 acres (2.43 hectares) at base

- Maximum waste depth is approximately 40 feet (12.2 meters)

- Total original waste tonnage = 69,880 short tons or 63,394 Mg

- Site is currently closed; received wastes from 1995 to 1998
Shape of subject area resembles a truncated pyramid with steep sideslopes (Avg 1.5:1)

Retrofit operation only. No pre-processing of wastes occurred before placement. No new waste placement is taking place.
Site has been operating continuously as a forced-aeration bioreactor landfill since October 17, 2000 (with periodic shut-downs for maintenance and repair).

Leachate, and occasionally storm water, is pumped into the mass via vertical screened wells.

This is a “temperature-feedback” operation.
SYSTEM LAYOUT

- Monitoring Locations For Leachate Head
- Mix Tank For Leachate Injection
- LCS Manhole
- Data Collection Trailer
- Air
- Blowers
- Leachate
- Storm Water Pond
Three 1000 acfm (28.3 m³/min) blowers are utilized on-site.

Compressed air is injected into the waste via vertical screened wells.

Preliminary figures: Average air injection as of Feb 2003 = *27.5 acfm per well (95% C.I. = [20.78, 34.15])

* Based on most recent operations when system was running effectively.
OPERATIONAL ZONES
(JULY 2002 TO JANUARY 2003)
ZONE C TEMPERATURE PROFILE

Temperature vs Depth
Zone C

Temperature °F

Depth (Feet below ground surface)

Peak Temperature To Date
At HDPE Liner = 78°F
LEACHATE INJECTION AND COLLECTION

- Composite-lined base with a granular-material underdrain LCS

- All leachate flow drains towards the southeast corner of the footprint

- Injected volume of leachate/storm water to date is approximately 4.8 million gallons (18.2 million liters)

- Leachate injection rate has varied from 0.01 to 0.07 gallon/cy waste/day (0.05 to 0.35 liters/m³ waste/day)
LEACHATE HEAD ON LINER

Sample Dates

HEAD (INCHES)
WATER BALANCE

- Roughly 10% of injected leachate has emerged via the leachate
- Data suggests that gas and compressed air injection pressures are influencing moisture routing throughout waste matrix
- Surface lysimeters are being influenced by upward movement of internal leachate
- Exit gas has had saturated humidity levels since the start of air injection