

# Sandia National Laboratories

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**April 17, 2012**

**Long-term Stewardship (LTS)**

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Program Coordinator**



# Long-term Stewardship Program

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## LTS Program Mission:

**To protect human health /environment from hazards associated with residual contamination at former Environmental Restoration Project sites**

# LTS Environmental Monitoring

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The LTS Program conducts monitoring required by the New Mexico Environment Department (NMED) and Department of Energy (DOE).



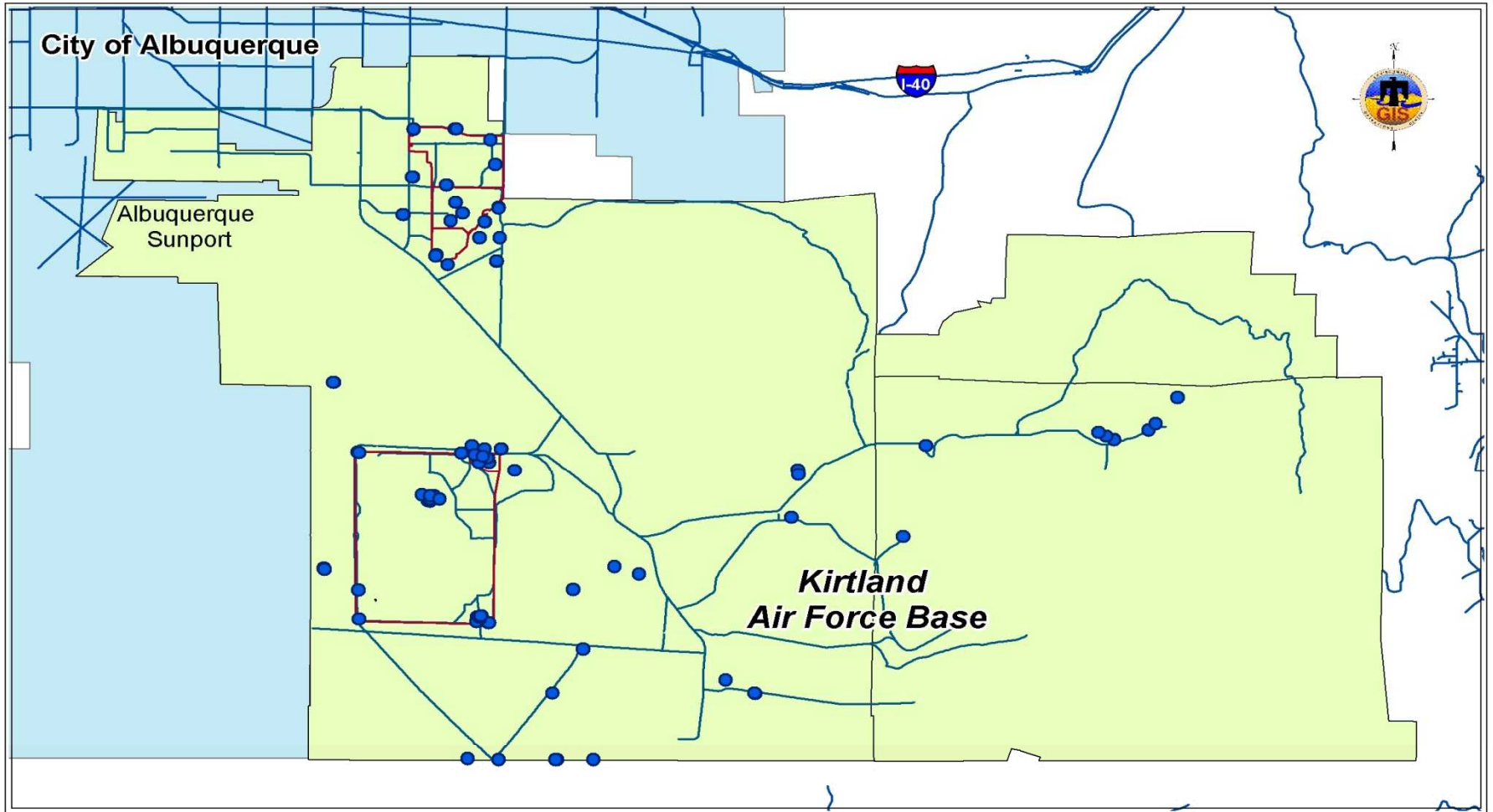


# Why Long Term Stewardship?

Legacy sites cleaned up to risk-based levels  
Most sites cleaned to levels suitable for residential use

Some sites have residuals present  
Monitoring assures environmental protection

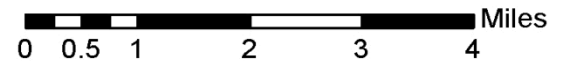




**Legend**

- SNL Monitor Well
- SNL Technical Area
- Major Road
- Kirtland AFB
- City of Albuquerque

**SNL Monitoring Wells**



Sandia National Laboratories  
Environmental Geographic Information System

# LTS FY 2012 Mid-year GW Monitoring Status

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- **Groundwater sampling –**
  - 2012 sampling completed on schedule first 2 quarters
  - Wells sampled at various intervals, for multiple constituents
  - Annual Groundwater Monitoring Report for 2011 in process



# View of Technical Area V Groundwater Site

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# View of Tijeras Arroyo Groundwater Site

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# View of Burn Site Groundwater Site

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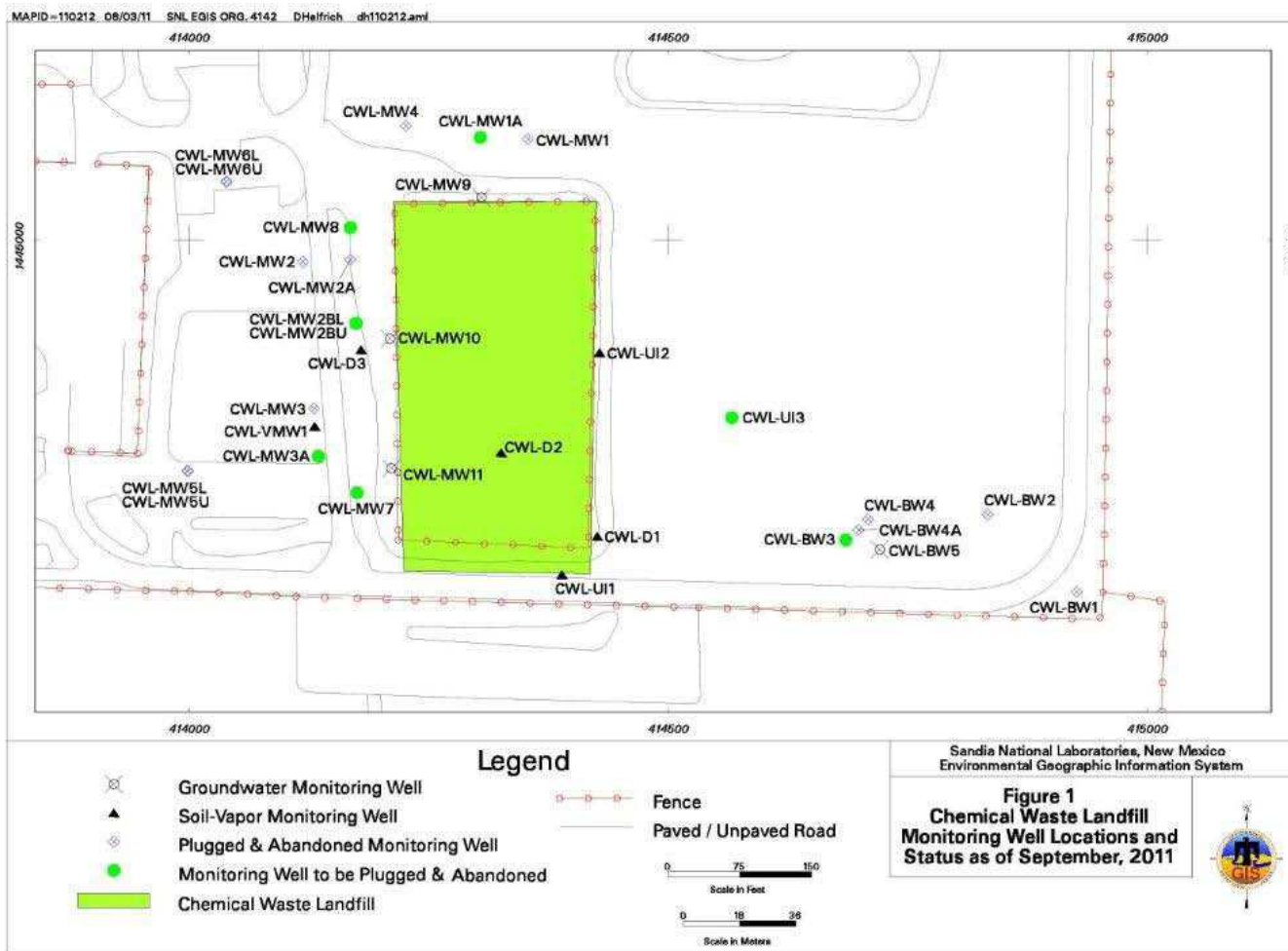


# LTS Requirements at the CWL under the Post Closure Care Permit

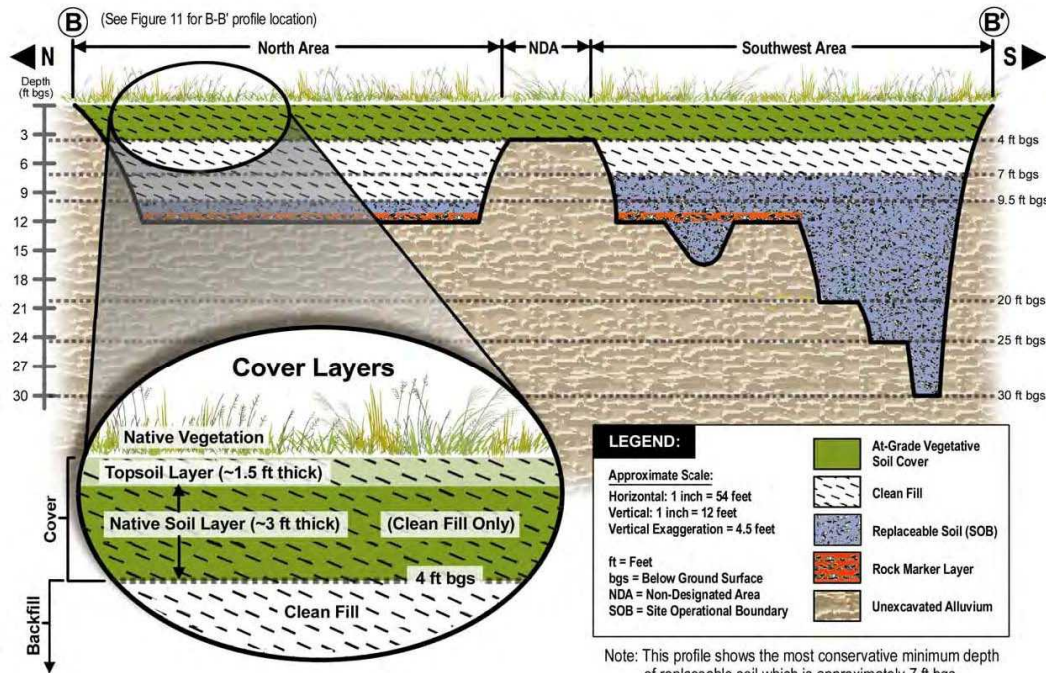
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- Semi-annual groundwater monitoring at 6 wells  
(TCE, Chromium, Nickel; plus 5 other volatile organic  
compounds annually)**
- Annual soil-gas monitoring at 5 multi-port monitoring wells  
(21 sample ports, for 50 volatile organic compounds)**
- Landfill Cover and Site Inspection, Maintenance, and Repair**
- Annual Reporting of all monitoring results**
  - statistical analysis requirements**
  - quarterly inspection/maintenance/repair activities**

# CWL Monitoring Well Locations



# CWL Engineered Evapotranspirative Cover



-Cover engineered to prevent moisture percolating into former disposal area

-Layers constructed for stability

-Native vegetation is maintained by weeding and provides erosion control & transpiration

-Cover surface and vegetation are inspected quarterly; repairs are performed as needed

**CWL was excavated 9/98 through 2/02 as part of Landfill Excavation Voluntary Corrective Measure**



# LTS FY 2012 CWL Status

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**-CWL monitoring ongoing in compliance with Post Closure Care Permit**

**-All post-closure care activities are on schedule**

**-CWL Annual Report for CY 2011 completed and sent to NMED on schedule (March 2012)**

**-Nov. 2011 Permit Modification approved by NMED in Feb. 2012**

**-All changes minor and approved as Class 1 modifications**



# LTS FY 2012 CAMU Status

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- Leachate from monitoring system pumped weekly
- All 1<sup>st</sup> and 2<sup>nd</sup> quarter sampling completed on schedule
- CAMU Annual Vadose Zone Monitoring System Annual Monitoring Results Report in progress



# Important Links

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- UNM Zimmerman Library

Lobo Vault SNL/NM collection –

<http://repository.unm.edu/handle/1928/10963>

- NMED SNL/NM information -

<http://www.nmenv.state.nm.us/HWB/snlperm.html>