

General

# Material Disposal Areas Presentation to CAB

---

February 12, 2001

Paula Bertino, LANL  
Mark Coffman, NMED  
Neelam Dhawan, NMED  
Eliza Frank, NMED  
John Hopkins, LANL  
Diana Hollis, LANL  
Woody Woodworth, DOE



13477



**Los Alamos**  
NATIONAL LABORATORY

Slide 1



ER2001-0113

# Background and Status of MDAs

---

- Between 1945 and 1986, LANL disposed of its process waste in 26 material disposal areas (MDAs)
- Most of the former disposal sites are currently under investigation as solid waste management units by the Laboratory's Environmental Restoration Project





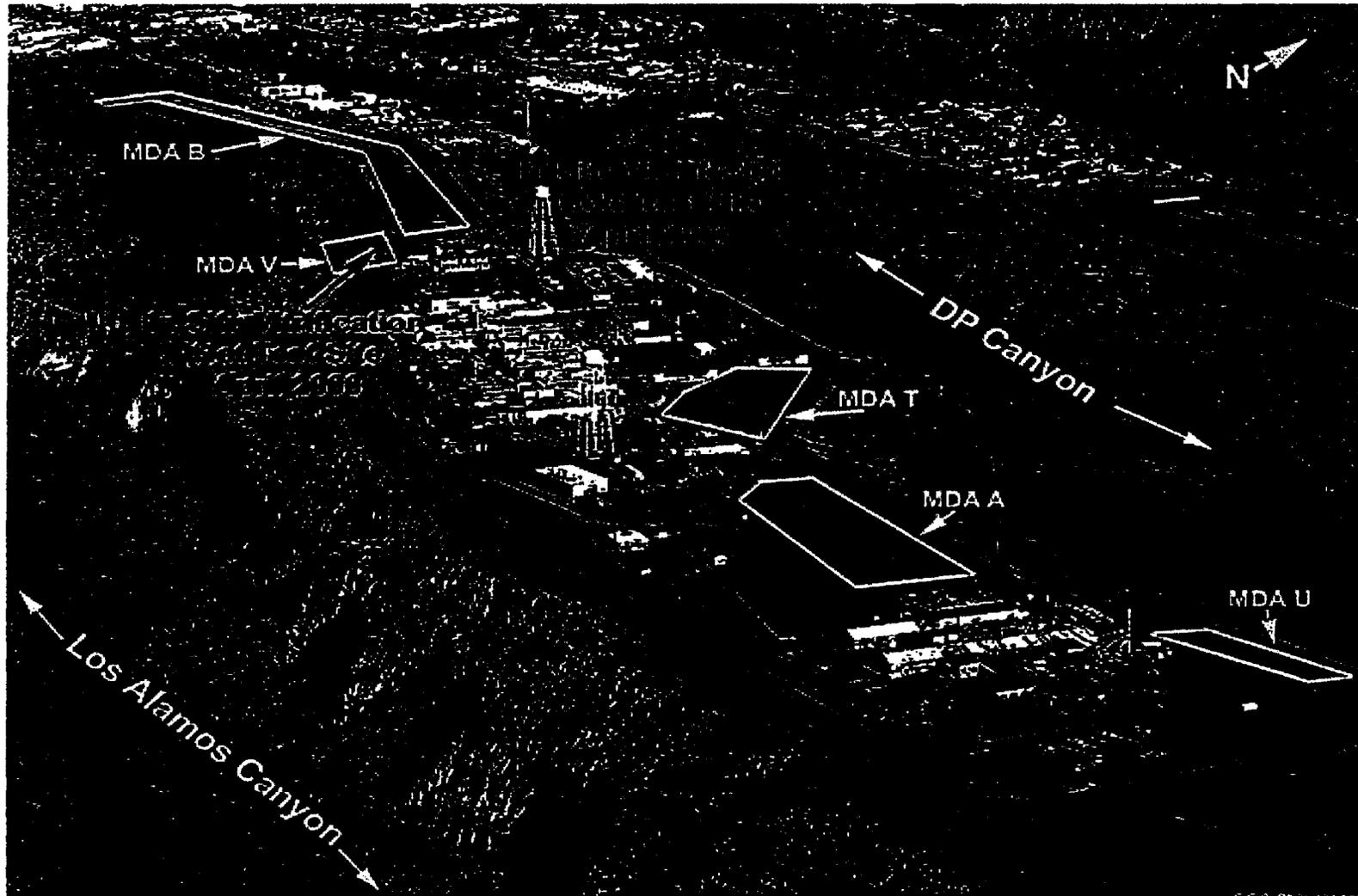
# Subsurface Mesa-Top MDAs

---

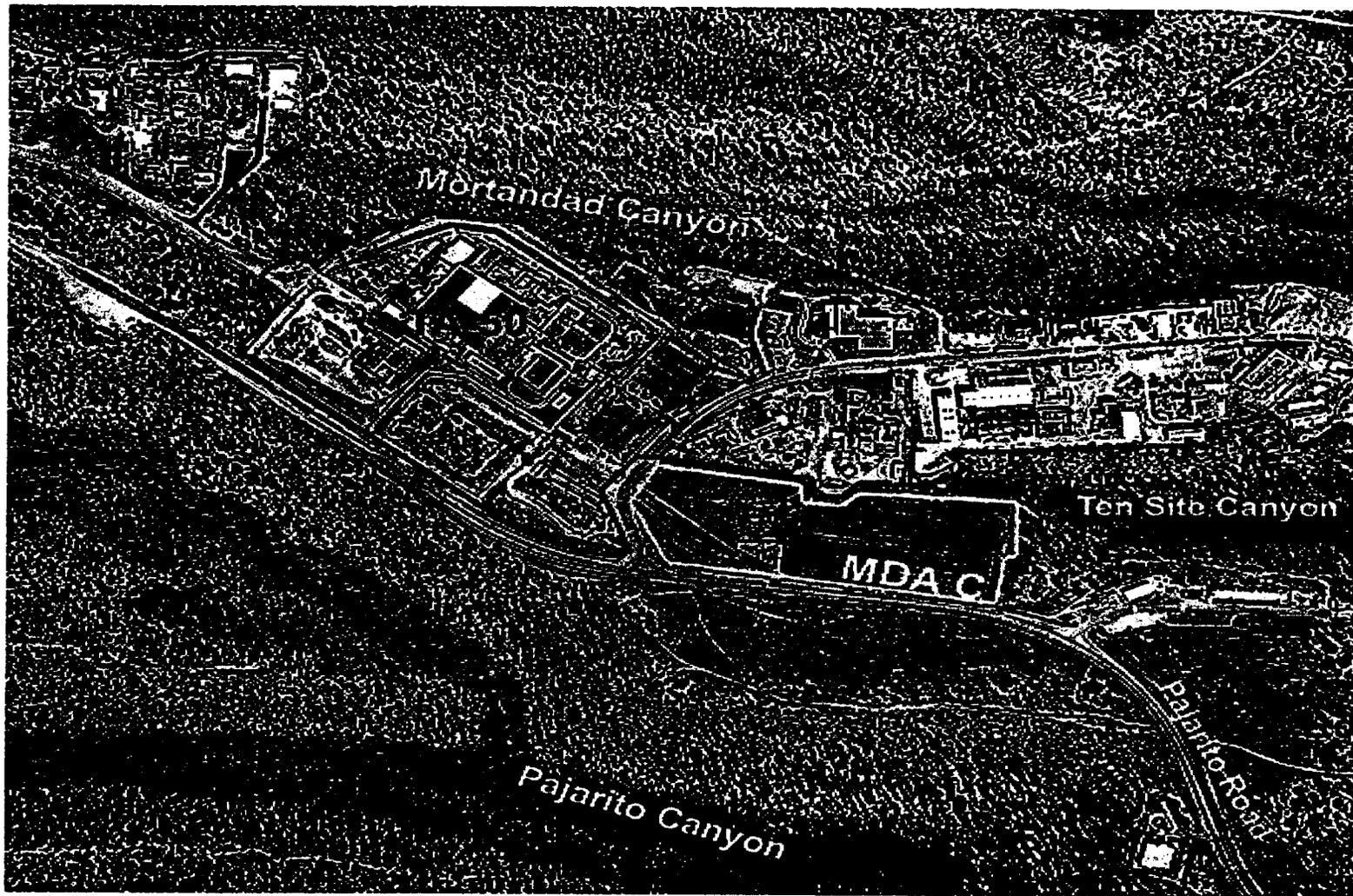
- The majority of the Laboratory's radioactive and hazardous waste are contained in 10 subsurface MDAs
  - MDAs A, B, T, U, V at TA-21
  - MDAs G, H, L at TA-54
  - MDA C at TA-50
  - MDA AB at TA-49



# TA-21 Aerial Photo



# MDA C Aerial Photo



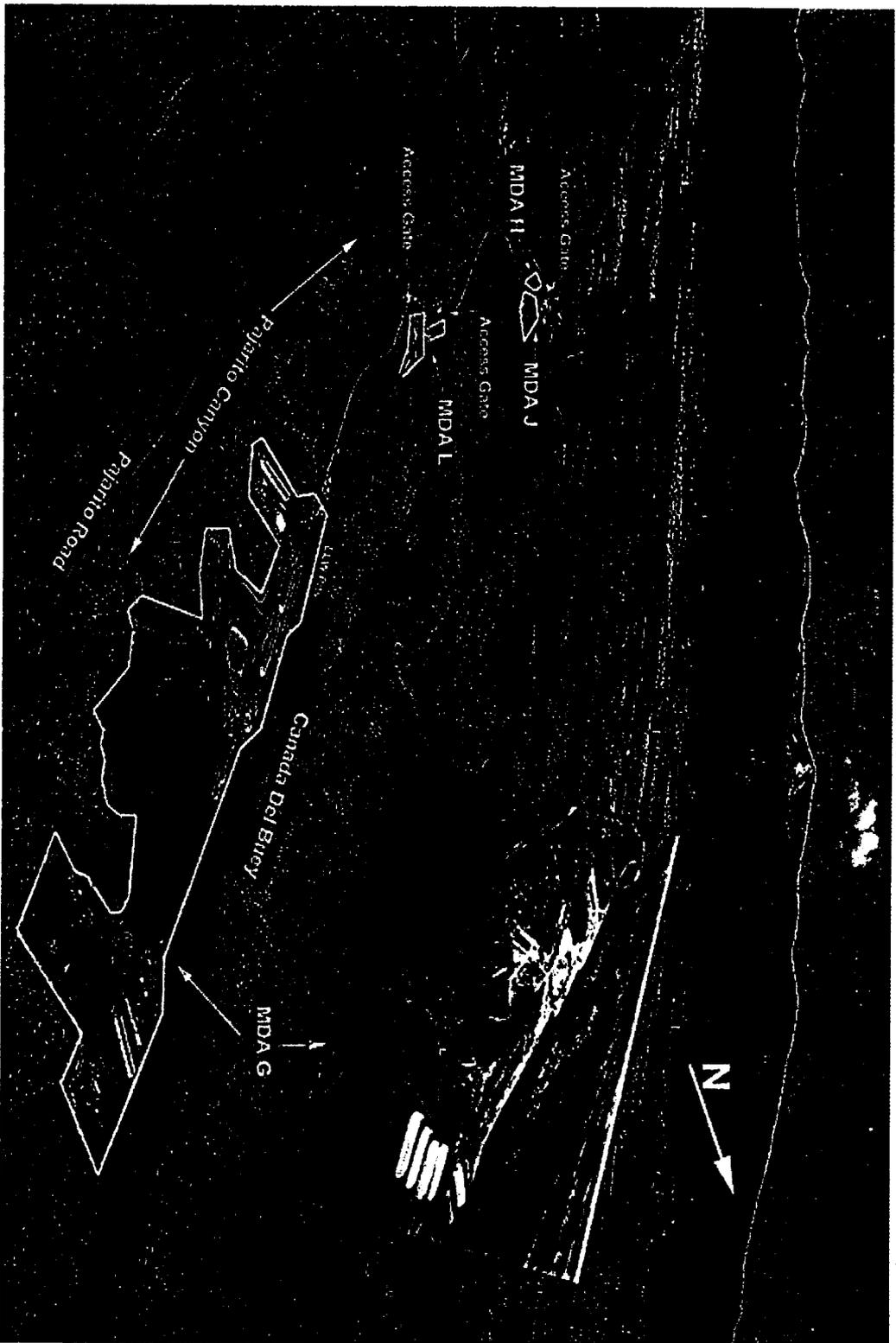
**Los Alamos**  
NATIONAL LABORATORY

Slide 6

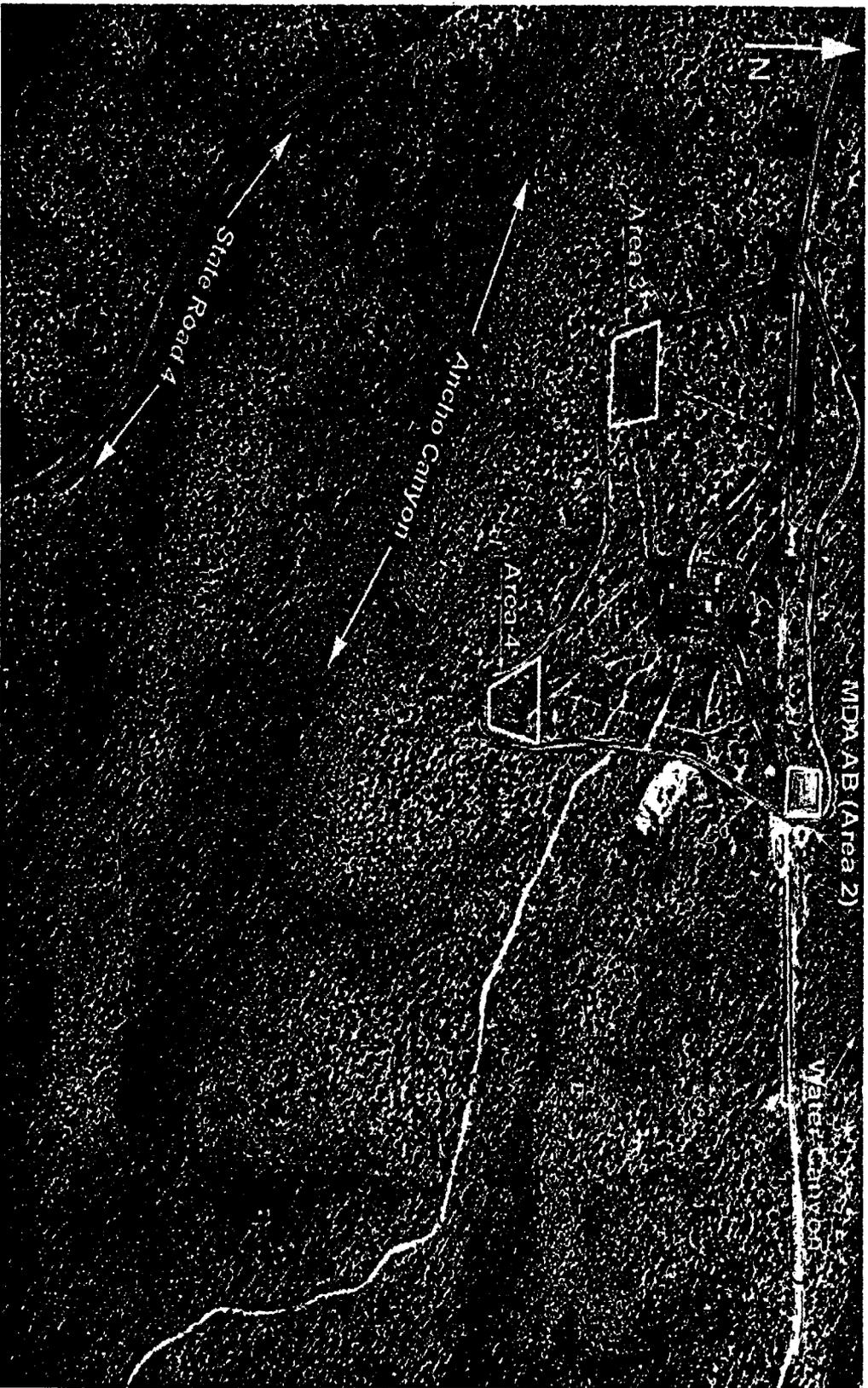
ER2001-0113



# TA-54 Aerial Photo



# TA-49 Aerial Photo



**Los Alamos**  
NATIONAL LABORATORY

ER2001-0113

Slide 8



# Example of MDA Characterization:

---

## MDAs G, H and L at TA-54

- RFI work plan for investigations developed and approved in 1992
- Field Work conducted between 1993 and 1999
- MDA H Draft RFI Report will be submitted to NMED in March 2001
- MDAs G and L Draft RFI report will be submitted to NMED in December 2001



# Data Quality Objectives

---

- DQO Process - procedure for focusing the objectives of the field investigation to ensure that data collection activities are developed from and tie back to decision criteria.
- Primary data quality factors relate to
  - Site Characterization
  - Risk Assessment (human and ecological)



# Data Quality Objectives (cont.)

---

- Samples from all media were analyzed
  - Air
  - Surface soil
  - Stormwater
  - Subsurface rock
  - Subsurface pore gas (in progress)
  - Groundwater (regional well - in progress)



# MDA H Background

---

- MDA H used between 1960 and 1986 for disposal of security-classified solid-form waste
- Residual radioactivity and chemicals remained on some waste forms disposed of at MDA H
- Dominant waste forms include
  - Unreacted research-reactor fuel pellets
  - Inert (plastic and metal) weapons mock-ups (“shapes”) and scrap materials
  - Classified documents and images
  - Graphite



# MDA H Background (cont.)

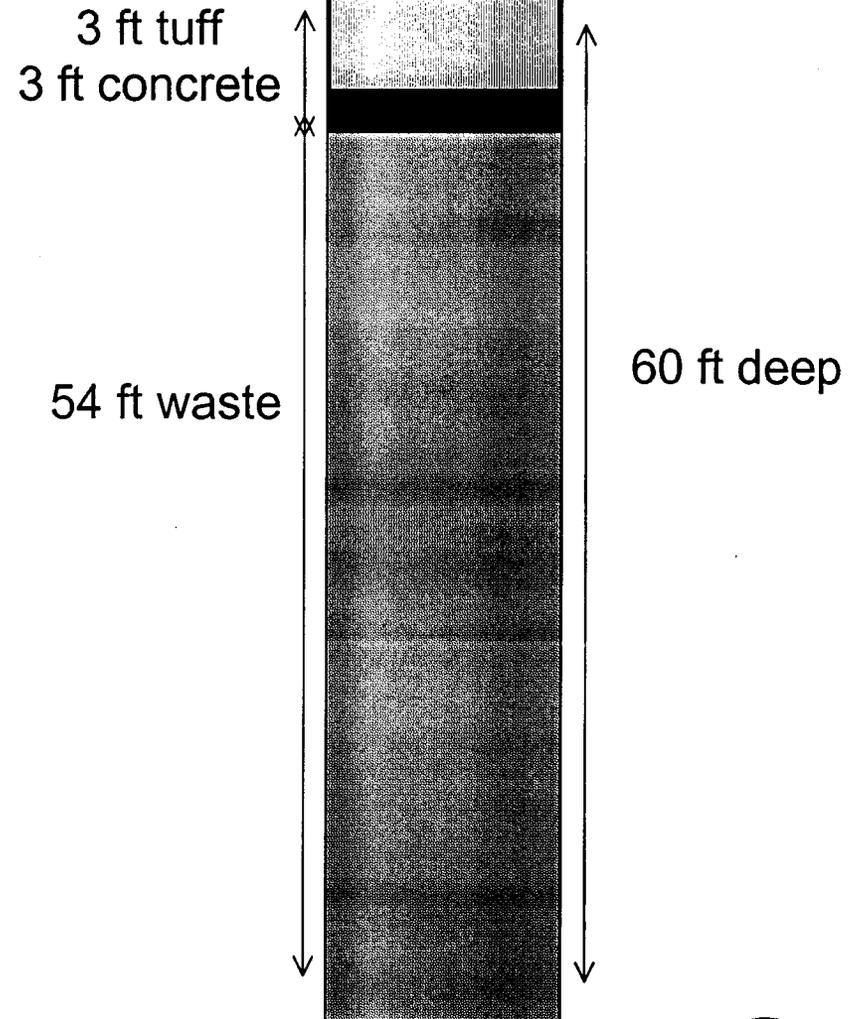
---

- One “tritium-classified unit” in inventory
- Significant inventory of depleted uranium



# MDA H Background

- MDA H includes 9 vertical disposal shafts within a 0.3 acre (70 x 200 ft) area



# MDA H RFI Results

---

- Site sampled for surface and subsurface releases
- Subsurface tritium release identified, associated with tritium-contaminated waste
- Surface methoxychlor identified, not known to be associated with disposals (present over entire mesa)
- Assessment of present-day risk indicates no imminent hazard to humans or the environment



# MDA H Plan

---

- NMED-HWB requested Corrective Measures Plan and Study to evaluate alternatives to minimize potential for future releases
- A CMS Plan (describing the alternatives evaluation) is being prepared and comments will be solicited from the public (Public Involvement Plan under draft)
- Long-term human (workers and public) and ecological risk will be evaluated as part of the alternatives evaluation in the CMS
- Remedy likely to incorporate long-term monitoring and stewardship



# MDA Team

---

- MDA Team with representatives from LANL, DOE and NMED-HWB formed 1 year ago
- The Team attended a workshop on effective participation on High Performing Teams
- Team's mission is to expedite corrective actions for mesa-top MDAs by reaching interim agreements on projects and thereby reducing lengthy review cycles
- Team selected MDA H as the first mesa-top MDA evaluated for closure
- Team plans "aggressive" public outreach to ensure technical rigor, credibility and transparency in decision-making process



# MDA Team Schedule for MDA H

---

RFI Report Finalized 4/1/01

CMS Plan Completed 3/31/01

Draft CMS Report Completed 6/02

Public outreach initiated 2/12/01

Public Comment Period Initiated on CMS 8/1/02

Public Comment Period Completed 10/01/02



**Los Alamos**

NATIONAL LABORATORY

Slide 18



# Areas for CAB Involvement

---

## SHORT-TERM ISSUES AND RECOMMENDATIONS

### CMS Plan Input

- Objectives for Remedy Selection
- Alternatives to be Evaluated
- Review of Public Involvement Plan

### CMS

- Remedy Selection
- Long-Term Monitoring Plan and Stewardship

### Long-Term Issues

How to Streamline the CMS Progress

