

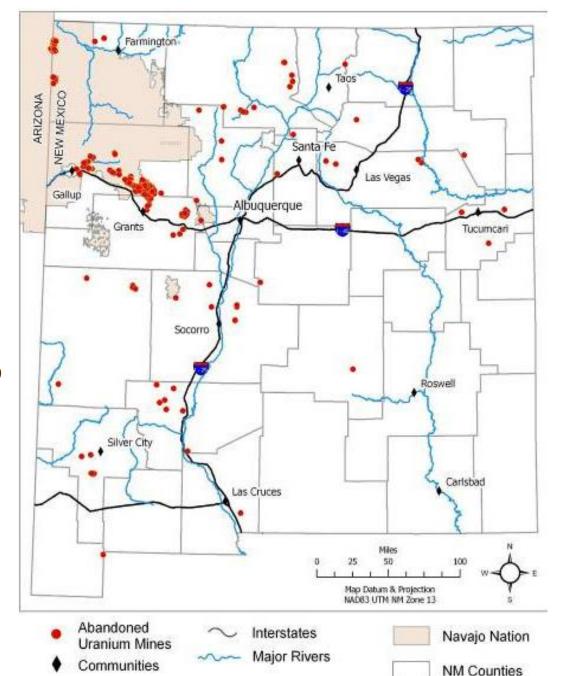
Legacy Uranium Mine Site Reconnaissance & Assessments

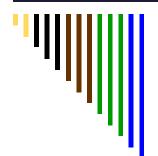
Uranium Contamination Stakeholders Workshop
Abandoned Uranium Mines – Information Gathering
Tuba City, Arizona
September 15, 2010

Susan A. Lucas Kamat New Mexico Mining & Minerals Division

Legacy Uranium Mine (LUM) Inventory

- 207 out of 259 mines statewide have been assessed
- 98 out of 137 mines statewide have been assessed, excluding Navajo Nation, Laguna Pueblo, Zia Pueblo and Environmental Protection Agency (EPA) Region 9 5-Year Plan
- 62 out of 79 mines in the Grants Mineral Belt, excluding Laguna Pueblo and Zia Pueblo



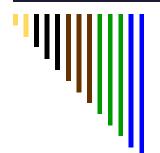


Programs Performing & Overseeing LUM Field Work

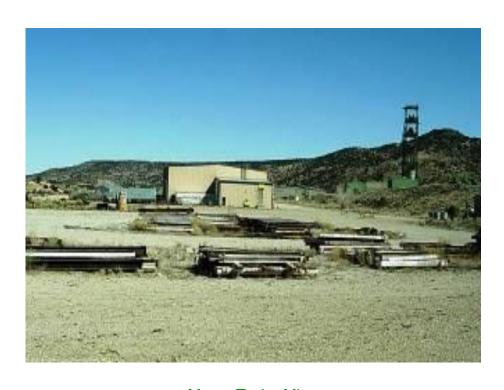
- Mining Act Reclamation Program (MARP)
- Abandoned Mine Land (AML)Program
- Mine Registration & Reporting Program (Mine Reg)



Schmidt decline, Dog Mine

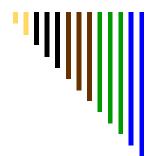


LUM Assessment Protocol: Mining Act Reclamation Program



Mount Taylor Mine

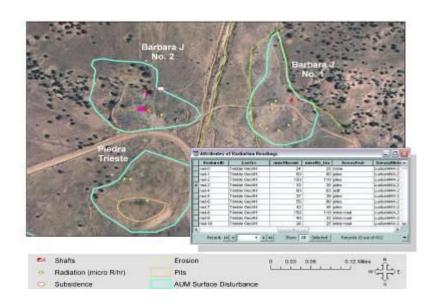
- LUMs that had 2 years of production after January 1, 1970.
- □ Permits require a Reclamation Closeout/Closure Plan (CCP) and financial assurance based on gamma survey(s) and soil samples.



LUM Assessment Protocol: Abandoned Mine Land Program

Reconnaissance Phase

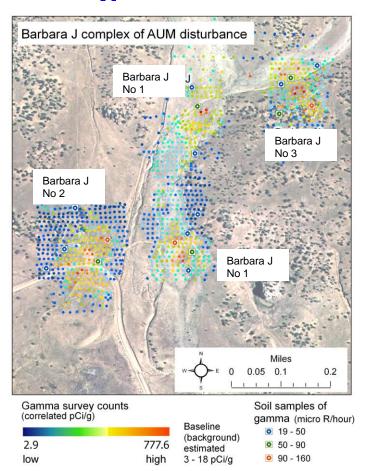
- Establish realty
- □ Locate (with GPS) all mine features, rock piles, cultural sites, access roads, and residential/ commercial structures and wells within a mile
- Gamma readings (μR/hr) at ground and 1 meter (random survey)
- Narrative report including geology, hydrology, mining history, land use, vegetation and maps/tables of collected data



Field data from Poison Canyon Area, Ambrosia Lake



LUM Assessment Protocol: Abandoned Mine Land Program



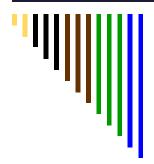
Engineering/Design Phase

- Gamma readings (μR/hr) (grid survey)
- Surface soil data (ρC/g) of rock piles and soils
- Photogrammetry to produce topographic contours (2 ft countours)



Previous Assessment Work

- Project assessment and maintenance of previous New Mexico Abandoned Mine Land (AML) projects.
 Surveyed 14 mines in the Poison Canyon area north of Milan.
- Reconnaissance of mines for possible inclusion in future New Mexico Abandoned Mine Land (AML) projects.
 Surveyed 14 mines on federal and private lands located throughout New Mexico.
- 2008 federal and state lands field survey. Industry-sponsored survey of 22 mines on Federal and State lands located throughout New Mexico.

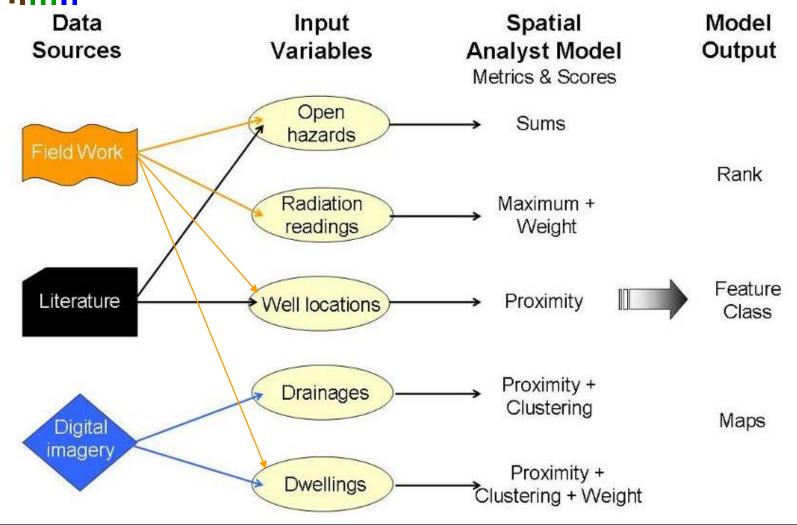


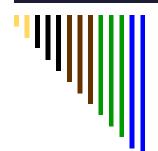
Current Assessment Work

- AML and Mine Reg field work
- MARP permit activities (reclamation and close-out plan approval)
- Professional Services Contract with INTERA Engineering to assess 65 mines on private, state and federal lands in New Mexico (approximately 17 mines left)
- Future contract to complete engineering reclamtion design assessments for all LUMs on Bureau of Land Management lands

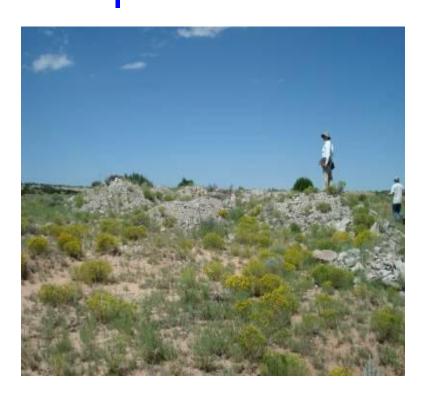


LUM Prioritization Model



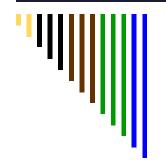


Safeguarding & Surface Reclamation



T-20 Mine

- Engineered closures of physical hazards.
- Avoidance of cultural resources.
- On-site engineered cover.







New Mexico Mining and Minerals Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505 (505) 476-3400

http://www.emnrd.state.nm.us/MMD/index.htm

John Pfeil, Uranium Point of Contact John.Pfeil@state.nm.us

Susa Lucas Kamat, Uranium Data Manager Susan.LucasKamat@state.nm.us