

# Joshua Tree National Park Physical Science Branch AML Program



**Luke Sabala**

**Physical Scientist / Geologist**

# Background

## Experience and education

- 3 ½ years as the physical scientist and AML coordinator at JTNP
- 18 years in the geotechnical engineering field (landslides/rockslides, subsidence and construction defect issues)
- Education geology & business
- Machinist / welder



Laguna Niguel, CA  
March 1998



Laguna Niguel, CA  
July 1999

# Joshua Tree NP AML Program Partners with the State of California

- Partners with the State of CA AML Unit since 2004
- State of CA is willing to fund 50% of the cost for mine closures
- 13 mines have been closed under this program
- State budget is \$400,000 per year on a first-come-first-served basis
- The CA AML Unit's primary objective is effectiveness at the highest level of cost efficiency

# Joshua Tree National Park

## As a service provider

- Cost efficient mine closing
- Full machine shop capabilities
- Prefabrication of sub-assemblies
- On-site installation of bat gates at drive-up and remote locations
- Polyurethane (Puf) service for drive up locations
- Complete restoration for smaller sites (including re-vegetation with plants grown at JTNP's nursery).
- Training and support

# Joshua Tree AML Program

## Prefabricated sub-assemblies



# Joshua Tree National Park Airborne Cradle





# Joshua Tree National Park AML Program

**Morgan-Kimbal Mine**

**April 2006**

**Joshua Tree National Park  
AML Program**

**Pistol Range staging area**

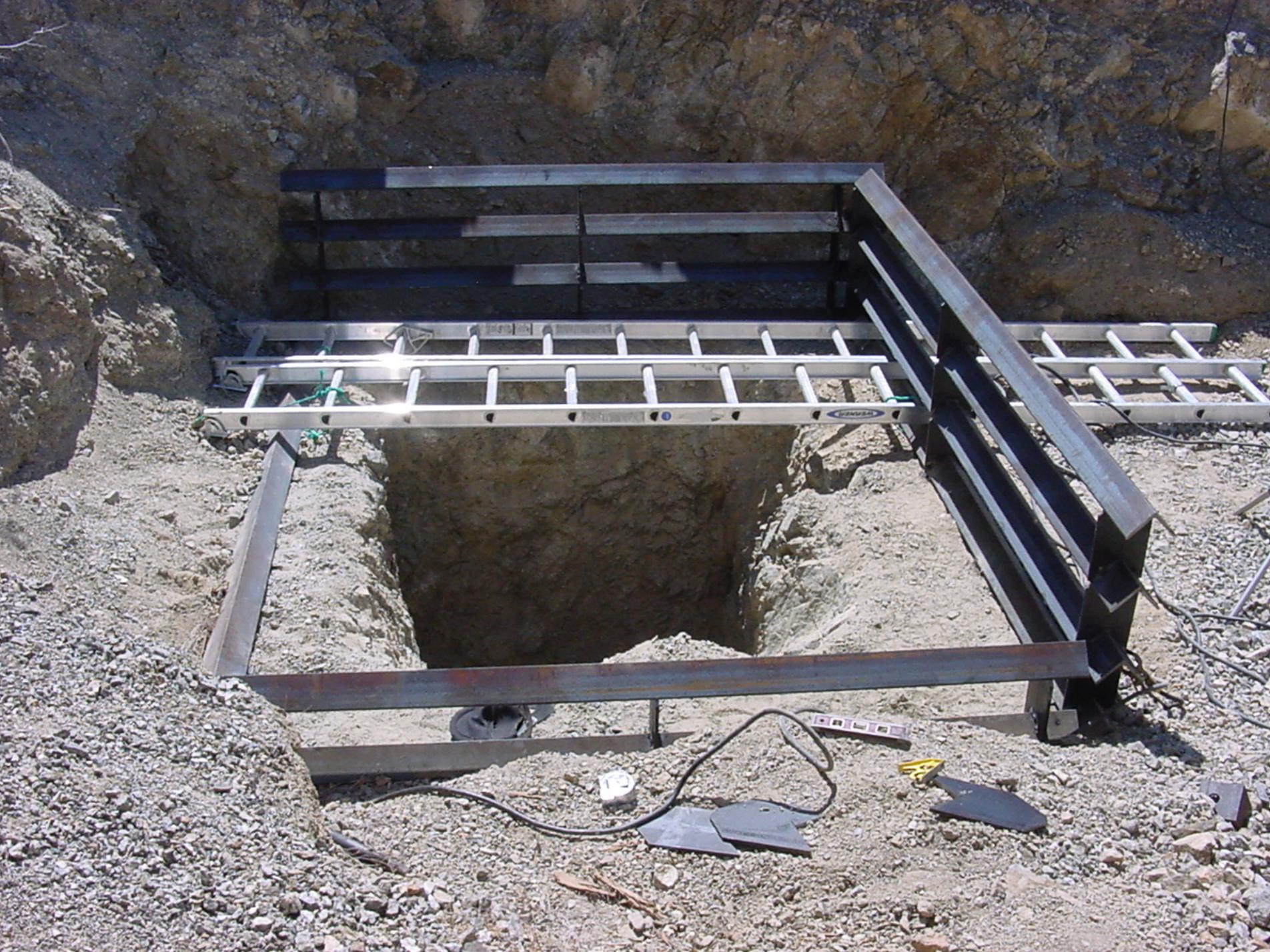
















## Joshua Tree National Park AML Program

Golden Bell Adit  
with tortoise gate

# Joshua Tree National Park

## AML Program

### **Future Goals**

- Inter-agency mutual agreement to provide services
- Simplified accounting/billing system
- Programmatic agreement with SHPO for mine closing