

Spar Group Mine Safeguard Project



The Spar Group Mine Safeguard Project is located east of the Little Florida Mountains in Luna County approximately 10 miles east of Deming on federal and state trust land. Construction took place in 2003.

This project involved the following work:

- Backfilling of 17 stoped shafts and four pits using mine waste;
- Construction and Installation of concrete and steel bat compatible cupolas on four stoped shafts (two of the cupolas are also owl compatible);
- Construction and Installation of a concrete and steel bat compatible cupola with a removable hatch at one concrete lined shaft;
- Construction of an earthen berm along a portion of the road;
- Seeding of all areas disturbed by construction.

Also, included in the work was the backfilling of a shaft in the Flourite Ridge area, approximately five miles northeast of Deming. The shaft had previously been backfilled and had since subsided to a depth of about 27 feet.

The site was an old fluorspar mine which operated intermittently from 1890-1960. The openings were left in a very dangerous condition, very deep with only a barbed wire fence in need of repair. Some of the openings were connected underground and tended to promote bat and owl use by their layout.

Bat biologist Scott Altenbach surveyed the mine features on behalf of the AML Program. He recommended that certain features be safeguarded using a bat compatible closure method. Others were approved to be backfilled because of their lack of wildlife use and the inability to construct a bat closure in an economically feasible way.

The contractor was J&H Services based in Albuquerque, NM. This was the company's first experience with abandoned mine safeguarding work.

Year Completed: 2003

Cost: \$91,527.81

Project Engineer: Richard Stafford, P.E. and Mike Tompson

Project Manager: Randall Armijo

BEFORE



Opening to flourspar mine. The cavity was 42 ft deep immediately underneath and connected to other openings in the area.

AFTER



A bat cupola over the opening. The vertical bars above the cupola were built for and are being used as barn owl perches.

The large concrete slab was deemed necessary by the project engineer due to the unknown limits of the mine cavity.



This shaft is 150 ft deep and connects to a large, multi-level stope system.

The stope system provides maternity and hibernation habitat for *Corynorhinus townsendii* bats.

Backfilling of AML 1-6



A new concrete support wall was placed around the old one. A cupola for bat passage was placed on top. The flat portion is covered with steel grating that can be removed for entry by bat biologists.

Barn owls are sharing the feature with the bats.



Stope openings that are 50-100 ft deep. These opening did not serve as significant wildlife habitat and were therefore backfilled.



Backfilled stope openings before extreme roughening and seeding.