

2007 Vidler Tunnel Repairs

Flossie Vein Collapse Area

And

East Portal Rebuild

The old east portal structure viewed from the north



The roof of the east portal was made of boxcar side panels and was collapsing, allowing vandals to enter and presenting a danger to City workers.



The Flossie Vein crosses the Vidler Tunnel at an angle of about 45 degrees at approximately 800 feet from the East Portal

- Mining was performed up to 90 feet above the main bore, 140 feet to the left and 160 feet to the right. The area where the mining was done was shored up with timber in the late 1800s.(Photo in 2003)
The wooden chutes are where the silver ore was dropped into mine carts.



In the Fall of 2006 we installed a 30" pipe through the Flossie Vein intersection to allow water to flow in case of a collapse and the following winter the roof began to come down.



The time had come for much needed repair and Hayward – Baker began construction.

- There would be need for a one yard LHD, a medium size excavator, and a front end loader.



First the old portal structure was removed to allow access for equipment.



Rebuilding the portal structure



- The entrance had to be excavated back to solid rock for the “brow” of the tunnel.



- Next 9 foot diameter CMP was installed as the new portal structure.

Partial completion of the Portal

- With the first 50 feet of CMP in place it was safe to begin the repairs on the Flossie Vein intersection 800 feet from the portal.
- The portal would be completed after the internal repairs were made.



The first setback in the Flossie Vein



Material coming in from above

- After installing the first 3 steel sets to allow removal of debris from the tunnel floor, material (referred to as “muck”) began sloughing in from the roof and right side.
- Over 100 tons of material had to be removed before the next steel set could be placed.



First Muck and then Timber



- After removing the muck which had come in from the right another steel set was placed and timber started coming in from above.

The timber and then more muck



- The timber was removed and three more steel sets were placed when the muck started coming in from the left.
- Another 100 tons

Nearing the end with steel sets

- The last few steel sets were put in place on September 18, 2007. Notice the smaller steel channels bending



After all of the steel sets were in place wooden and steel lagging was installed to keep loose material from slipping into the tunnel



Expanding foam was pumped into the cavity and loose debris above the main drift to stabilize the muck and timber and the floor of the mine was cleaned up.



The last few sections of the portal were installed
and the 36" discharge pipe was laid



Finishing touches

- The hole in the bottom of the portal allows water to flow into the 36" discharge pipe.
- The doors and lock system were installed and the job was just about done



The area was cleaned up on September 21,
2007 and the Hayward – Baker crew went
home

