

Building and Site Status During Phases of Re-entering Mine

The Homestake Mine surface facilities and real estate associated with the mining operations which will be transferred to the South Dakota Science and Technology Authority (Authority) are in general good repair for their age. Many of the buildings are over 50 years old and exhibit good potential for use in the immediate future as part of the mine re-entry process and as a base for immediate science needs. Several of the buildings will need minimal efforts to return them to service for the mine re-entry process. As science needs continue to grow, the buildings may be re-evaluated for future use.

Homestake Mining Company has taken very good measures to moth ball the facility and preserve the assets for future use by the Authority. The domestic water and sewer service systems have been drained and blown out to protect them from freezing. The steam heating system was disconnected at critical points, drained and blown out to protect it from freezing. In most cases the electrical main distribution system is in place, including light circuits and normal wall outlets in all areas. There are many systems specific to mining that have had special care given to preserve and protect them for future reactivation at minimal expense. These systems include the hoists, motor generator sets, compressors, pumps, transformers, and various other pieces of equipment through out the facility, both above ground and from within the mine.

To facilitate opening the mine as soon as possible, minimal efforts would be expended to reopen only required operations buildings and services to the mine. The efforts would include securing the buildings, cleaning up of the floors and work areas, restoring services (water, sewer, power, heat, communications and other mine related services) to the buildings and patching and repairing needed roofs, building exteriors and interior pipe insulations. Site security would also be reviewed and implemented as needed.

Although both the Yates and Ross shafts will be placed back in service, the Ross facilities will be the primary location of mine re-entry efforts and mine dewatering process. The Yates shaft will be maintained as a second means of egress for mine safety. The mine dewatering process should not increase the need for other facilities to be brought back on line or the need to upgrade any of the existing facilities.

Reactivation of the various systems will include a basic cleaning of the areas, visual inspection of all systems, minor repairs and maintenance service work as needed to restore function, re-activation of the system and verification that all parts of the system are performing as expected. Systems may be truncated at various points to eliminate services to areas not required as part of the reactivation. Each building will be reviewed for safe egress, building shell weather tightness, structural integrity, and any potential hazardous materials issues. Repairs will be made as necessary. It is not the intent of the initial phase of mine re-entry to improve efficiencies or update systems to modern standards. This will be started in later phases of the project. It should be noted however that considerable updating will be done with the mining related systems as part of the mine re-entry. This would include hoist automation, pumping and fan controls and security.

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During the dewatering phase or maintenance of water lever phase, the facility will be maintained in a holding mode, with only required maintenance to systems being done.

As future phases site occupancy and mining needs emerge, the facilities and real estate will need to be reviewed for continued service as maintenance and operations centers for the mine, future science storage, staging and assembly areas and as valuable assets to aid the mining functions as construction begins for new science areas in the mine.

As Science ramps up with on site experiments, the facility will be re-evaluated for both the science needs and the mine maintenance and construction needs. The Yates facility will be considered as the primary science site or campus and the Ross facilities will be used for the mining operations and maintenance functions. The Ross facility will also be the construction site to facilitate excavation of new caverns for science and other needs.

At this time the Ellison Entrance area should be developed and the roads and parking areas within the site resurfaced. Reducing the grade of the Ellison Road will be part of this phase. In doing so, it will allow all traffic including large delivery trucks to enter the site directly rather than going through the city of Lead. It will also improve site security. Buildings and other mine structures that are no longer needed should be demolished or removed from the site.

It is also expected that a Science and Visitor Center would be constructed at the current Ellison Site to create a campus entrance point. This Center would be separately funded and serve many purposes. It would provide valuable historical and educational areas for the general public as well as an entrance/security/ receiving point for the campus.

As part of the Science ramping up, the Yates Dry building could be renovated to serve as office areas, conference and meeting rooms, general education areas, limited dorm area, new dry areas for science, and laboratory areas depending upon the needs of the science program. The renovation would include elevator service to all floors and the Yates Ramp. All areas would be ADA accessible. The Administration building could also be renovated to serve the needs of mine site and science administration.

As Science continues to grow, it would be expected that the area to the North and West of the Administration building would be the site of a future Science Building to serve the many functions of the facility.