

6.4.4 Exhibit D

Mining Plan

The Pioneer Farm Quarry is a topsoil and backfill source quarry that was initially permitted in 2000. The current 112 Permit area encompasses 310 acres. Approximately 11 acres were recently encumbered by a solar farm with a 10-year lease. This portion of the permitted area will not be mined for at least 10 years. Truck scales and scale house are located in the southeast corner of the permitted area. This area will remain for the life of the mine.

The target deposit is the sandy loam that is an ideal construction backfill material. Currently the material is mined to approximately eight feet below ground surface. Sandy loam lies below the current target material. The sandy deposit is found at 30 feet below ground surface and likely extends substantially further.

Mining Operation

This surface mine progresses from south to north and east to west, across the permitted area. The top six to eight inches of topsoil are salvaged and stockpiled to be used during reclamation. Any additional topsoil is screened and mixed with the loam to produce topsoil for landscaping. The sandy loam is screened and stockpiled to produce construction material. Mining relies on a loader and a screen.

The affected area will be bonded and mined as one operational unit of 60 acres. The topsoil removed from an undisturbed area is placed on a mined out area, smoothed out and prepared for the farm to plant. Depending on the seasonality of the crop, acres may be graded but not planted. Slopes will be contoured to 3H:1V if necessary.

Mining equipment includes a loader and a water truck will be used to maintain roads and mitigate dust.

The mine floor is sandy loam that is very permeable. Surface water as precipitation and snow melt infiltrates within 72 hours. Perimeter berms are constructed along the edge of the mine area.

6.4.5 Exhibit E Reclamation Plan

Post-mining land use is cropland with the landowner, the farmer, planting the crop i.e. revegetating. Surrounding land use is agriculture. Historically the land has produced winter wheat. The lease agreement states that the operator will prepare the mined out and graded area for cultivation.

Salvaged topsoil material will be replaced to an average depth of six inches. Stockpiled topsoil that isn't immediately used will be stockpiled, appropriately posted and segregated for use in reclamation. The placed topsoil will be roughened for erosion control or prepared for immediately cultivation, depending on the season. Every effort will be made to coordinate topsoil preparation with the farmer's planting season in the fall. Soil fertilizing and cultivation methods will be at the landowner's discretion.

Upon completion of mining, compacted areas including the interior haul road and high traffic area around the scale house will be ripped to a depth of eight inches and graded. The area will then be prepared as described in the preceding paragraph.

To address the potential for erosion during reclamation, contour furrows will be shaped into the surface at 50 foot intervals, perpendicular to the slope. The contour furrows will be approximately 20 ft. long and spaced approximately 50 ft. apart.