2.7.3 Coal Characteristics

Major mineable coal seams at Trapper Mine may include H, I, K, L, M, Q, and R, and their associated splits. Mineability is dependent upon the thickness of the coal seam within a given pit, and its overall quality. Other minor seams may be mined, when encountered. Figure 2.7-5 gives an approximation of the coal seam and interburden stratigraphy of the major coal seams at Trapper Mine.

The overburden depth varies from zero at the outcrop to depths in excess of several hundred feet. In general, interburden between the F and G coal seams ranges between 100 and 130 feet; interburden between G and H seams ranges from 150 to 200 feet; interburden between H and I seams ranges from 10 to 40 feet. Although K-L-M is unpredictable, I/K, K/L, and L/M interburden ranges between 10 and 40 feet, 15 and 65 feet, and 15 and 80 feet, respectively. These interburden depths do vary from one end of the property to the other, as does the coal thickness.

The Q and R seams are more predictable then their rider counterparts. The M/Q and Q/R interburden ranges between 20 and 65 feet, and 15 and 45 feet, respectively. The interburden between the rider and main Q and R seam is about five feet.

The coal at the Trapper Mine is ranked as a high volatile class C bituminous. The coal averages 0.5% sulfur. Tables 2.7-9 and 2.7-10 show analyses of Trapper Mine coal. The low sulfur content of the coal, combined with the fact that the overburden and interburden material is also low in pyritic sulfur content (Section 2.7.2), means that acid drainage is not anticipated during the mining operations. This expectation is supported by Trapper's actual experience, to date.

Although other seams exist between R seam and the underlying Twenty Mile sandstone, the Trapper Mine does not have sufficient data to describe these strata. Drill-hole data from the Trapper Mine have been submitted to the U.S. Geological Survey (USGS) and are available in their files for review, if needed.

Nine strikes and dips were calculated from the drill-hole data and placed on the drill-hole maps (see Map M11 and Table 2.7-11). The outcrops of the five major coal seams, as well as the location of all drill holes, are also shown. Strikes were computed by the triangulation method using drill holes which were 1,000 to 2,000 feet apart. After the strike direction was computed, the dip (perpendicular to the strike) was calculated using hole data approximately 2,000 feet away. The average strike and dip of the mine property is N 84^{o} E, and 8^{o} N (14% N), respectively. Local variation does occur.

Map M11-A gives the A-A' geologic cross-section, the location of which is given on Sheet 1 of Map M11. Map M11-B gives the B-B' and C-C' geologic cross-sections whose locations are also shown on Sheet 1 of Map M11. Map M11-C gives a composite stratigraphic section of Trapper Mine coal seams.