APPENDIX 14-12

UNDERGROUND WATER BUDGET -JANUARY 15, 1991

CRANDALL CANYON MINE: UNDERGROUND WATER BUDGET

Current mine water inflow: Total: approximately **100 gpm**

Water volumes exiting mine and consumed in mine:

Coal: 27.5 gpm

coal moisture content = 5.5% by weight
current daily production = 3000 tons
- 0.055*(3000 tons/day)*(2000 lbs/ton)*(gal/8.3453 lbs) *(day/1440 mins) = 27.5 gpm

Evaporation due to mine ventilation: 50-60 gpm ±10%[a]

Infiltration (approx.) along mine floor and sump(s): 10 gpm[a]

Underground mine consumption: 7.6 gpm

continuous miner - (15 gpm)*(4 hrs/shift)*(2 shifts/day) *(240 days/yr)*(yr/8760 hrs) = 3.3 gpm
roof bolter - (13 gpm)*(5 hrs/shift)*(2 shift/day) *(240 days/yr)*(yr/8760 hrs) = 3.6 gpm
belt lines - (0.25 gpm)*(3 locals)*(6 hrs/shift)*(2 shift/day) *(240 days/yr)*(yr/8760 hrs) = 0.2 gpm
bath house - (1000 gal/day)*(240 days/yr) *(yr/525,600 mins) = 0.5 gpm

Total: approximately **100 gpm**

(a) Estimate based on professional judgement and experience at other mines.