A major U.S. mine operator needed to replace some of the brakes on one of their
draglines which removes overburden to expose coal deposits. The 8,000-ton
dragline features a large boom and a massive bucket, with a capacity of approx.
110 cu.yds. The bucket is lowered over the desired area, dragged along the surface
until full, then lifted and swung to a designated dumping area.

Powered by a high voltage cable, connected directly to a power grid, the dragline
utilizes a series of electric motors with brakes to drive the hoist rope, drag rope, and
propel and swing movement. Industrial Clutch was selected to provide replacement
spring-set, pneumatically-released brakes on some of the hoist and drag drives. Under
the tough mine operating conditions brakes typically last between 4-5 years before they
need to be replaced.

Working closely with their distributor partner, Rocky Mountain Brake, Industrial Clutch
supplied LKB 325 brakes, with 300,000 in.lb. torque capacity, for the dragline’s hoist
motors and drag rope drives.

Heavy-duty LKB brakes feature high-energy metallic linings with large swept areas
ensuring excellent heat dissipation, uniform stopping distances and long lining life.
Units also feature high-strength alloy steel drive studs, actuation springs sized
for maximum life, and long-life piston seals. Long spline lengths on the brake discs
maximize load-carrying capacity.