

**TWO MINING ALTERNATIVES UPON  
ENCOUNTERING A CBM WELL IN #8 COAL SEAM**

**BUYOUT**

**Advantages**

- MSHA allows the well to be plugged, abandoned and mined through according to MSHA standards
- Coal is not bypassed or wasted

**Challenges**

- Reaching buyout agreement between Richardson & San Juan
- Moderate costs of plugging and abandoning
- Residual permanent fractures and water damage in coal, roof and floor from hydrofracing
- Increasing the number of wells increases the cost and risk

**BYPASS**

**Advantages**

- Without buyout (and plugging and abandoning the well) bypass is the only way to comply with MSHA regulations

**Challenges**

- Great amount of coal is bypassed with associated lost royalty to New Mexico and US
- High cost and down time for disassembly, moving and reassembly of the longwall miner
- Difficulties in meeting scheduled coal deliveries to generating station
- Bypasses of coal may result in insufficient coal supply within San Juan mine plan to meet needs of long term coal sales contract with generating station
- Increasing the number of wells increases the cost, waste of coal and risks