

# Terrace Mine



Left: Terrace Underground Mine, Reefton: (L-R) Mark Sheary, Patrick McKenzie, Phil Hamill and John White; Top right: Roof bolting.

Terrace Underground Mine is located on the northeast edge of Reefton township near the southern limit of Reefton coalfield on the West Coast of the South Island. The mine began as a private mine in the early 1900s when it produced 5,000 tonnes of coal per annum.

Terrace was purchased by Solid Energy in 1988. It now produces between 65,000 and 100,000 tonnes of coal per annum, an increase from the 25,000 tonnes, produced in 2000. Mining at Terrace can reach depths below the surface of 230 metres and beyond.

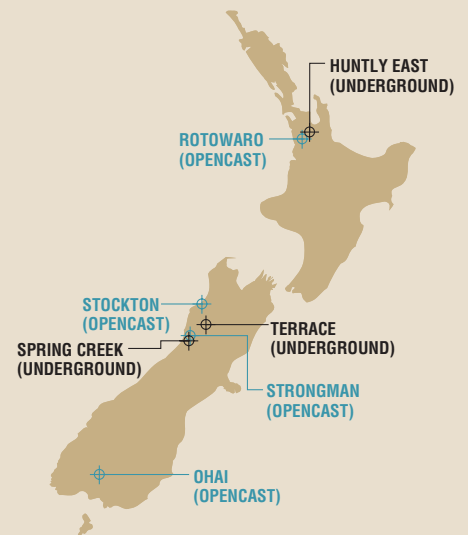
The coal is mined by a hydraulic monitor which cuts the coal onto the mine floor and with the water forms a coal/water slurry. The coal is transported inside a series of flumes to a central coal pumping station located at the deepest part of the mine where it is crushed and pumped to the surface. From here it goes through to a screening (dewatering) plant.

The coal is then dispatched to a distribution centre by truck and the water is re-circulated underground to continue the cutting cycle.

Coal is transported from Solid Energy's Reefton Distribution Centre by either truck or train. Reefton is ideally located as a coal distribution centre due to its proximity to the main roads to Blenheim, Nelson and Christchurch, and the main trunk railway line to Canterbury.

Terrace Underground Mine has potential access to approximately 700,000 tonnes of coal and Solid Energy has an exploration programme underway to identify further reserves.

## SOLID ENERGY CURRENT MINES





Left: Hydraulic monitor, underground; Right: The roadheader used underground.

## Specifications of Terrace Coal

Terrace coal is high sub-bituminous rank with low ash and moderate sulphur.

## Markets for Terrace Coal

### Industrial

The high qualities of sub-bituminous coal are sought after by meatworks, timber processing plants, hospitals, cement manufacturers and the dairy industry. A small proportion is bagged for household use.

### Environmental

Among other issues, Solid Energy is responsible for ensuring that mine water exiting Terrace Mine is in compliance with resource consents.

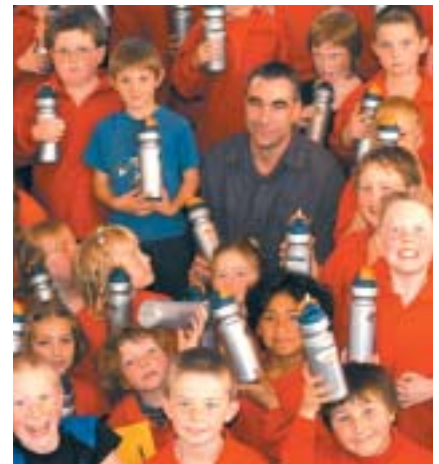
This is ensured by treating all mine water through primary settling ponds, followed by a lamella thickener. This is a system that pumps the mine water into the top third of the thickener, allowing solid materials to slide to the bottom while clean water reaches the top. The water is discharged into a polishing settling pond before it exits the site.

It is important that the potential for dust and noise at Terrace is minimised, particularly as Terrace Mine is right next to the township of Reefton. There is an active dust suppression sprinkler system in the surface mine compound and dust monitors on and off site are checked monthly to ensure compliance. Noise issues are minimised on site by an earth bund, or barrier, that has been constructed around the surface compound.

## Community Commitment

Solid Energy employs approximately 35 staff at Terrace Mine to extract the coal. The company provides training and work experience opportunities for young people. Goods and services supplied to the company, including coal haulage and transportation, provide additional employment and contracting opportunities.

Solid Energy recognises its commitment to its local communities through sponsorship programmes and regular consultation with community groups and other key stakeholders. Sponsorship for the local area includes support for schools, sporting groups and community organisations.



Children at Reefton Primary School presented with drink bottles by Terrace Mine Manager, Kevin Pattinson.



Grant May, Surface Controller, checks the coal before distribution.