

Fuel for Thought

Mining for Greater Productivity

At QER we are constantly looking for better ways to do things and achieve outcomes which make our industry more efficient, and sustainable.

Over the past few years we've demonstrated a technology and processes to produce high quality fuels from oil shale, and do it in a clean and quiet way. Judging from people who've visited our site and those who've left comments in our visitor book the project has been very well received.

Along the way we've shown our plant runs efficiently without any noise or odour issues. We recycle gases to deliver greater energy efficiencies, and we've developed a world-leading water treatment process.

Recently we've been working on another initiative which represents an opportunity to make our project more productive and sustainable, and the results so far have been very promising.

We've tried some new mining equipment which could not only provide our planned commercial project with greater productivity, but also help to minimise noise and dust.

The trials involve the use of a surface miner, a mobile machine with a hydraulically-driven cutting drum, armed with 'teeth' that plough through the shale rock like a big rotary hoe.

The surface miner travels along the mine bench followed by a front-end loader which scoops the shale rock into a truck.

The trials have indicated the surface miner can boost productivity by eliminating the need for primary and secondary crushing, and we've been getting better than expected results in reducing the amount of 'fines' ore in the mining process.

The miner removes the need for drilling and blasting the shale. It is laser-controlled to ensure an even cutting surface, resulting in neat mine benches, and it enables us to mine very precisely so we can maximise the grade from the pit.

The trials have shown that the machine seems to work very well within our ore type. One day in the not too distant future we'd love to see two surface miners working away on a commercial new fuels project.

QER's regular Fuel for Thought columnist Bruce Andersen is on annual leave



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Creating new fuels for Australia

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