

Glenaras a laboratory for Galilee Basin CSG

THERE was no one-size-fits all in mining and going from exploring to developing a deposit meant understanding all the problems posed by the particular site.

“If engineering is about finding the best solution to a particular problem, then the first production CSG wells in the Galilee Basin at Glenaras Station were certainly coming up with some unique challenges, according to Cam Rathie, director of Galilee Energy which is in a farm in arrangement with AGL which is operating the site.

Mr Rathie was at the AGL, Galilee Energy stand at this year's Longreach Show with company's managing director Glen Haworth and AGL staff who were showing young people how to measure the salinity in a variety of liquids, including soft drinks, river water and the water from GSG wells.

What AGL and Galilee were learning about

the Galilee Basin and CSG extraction at this site would benefit every other development, Mr Rathie said.

The coal seams targeted for CSG production were deeper than most CSG bores around the world, he said.

Typically CSG was extracted from seams from 300-600m underground, but in the Galilee Basin they sat at 800-850m.

While there was plenty of coal seam gas in the seams it wasn't in a concentrated form, he said.

“Galilee coal seams aren't saturated with gas, in fact the quantity of gas is low,” Mr Rathie said.

“But the seams are so thick and there's more gas overall, though it will take longer to get it.”

The amount of water in the coal has been the source of ongoing problems at the site and it appeared there was water flowing in conglomerate just above the coal seams (but



Cam Rathie and Glen Haworth of Galilee Energy with Jessica Ray, a scientist with AGL at the Longreach Show last week.

well below the Great Artesian Basin and the impermeable layers between the two).

It was possible to pump like crazy and dry the coal seam enough to extract the gas, but efforts to trial this with the production wells failed earlier this year when the pumps broke

down, he said.

That failure was caused by another property of the Glenaras field - it was over a hot spot in the earth's crust, Mr Rathie said.

“Normally the temperature rises 1.6°C for every 100 ft down you go, but in parts of the Galilee Basin the gradient is

closer to double that,” Mr Rathie said.

“The heat and the fines - minute particles of rock or coal - can knock out the pumps.

“Then it's a matter of climate and distance,” he said. “The seams can recharge with water while you're waiting for parts to arrive.”