While Territorians await the final report from the inquiry into hydraulic fracking, to be released next month, the NT's largest onshore gas producer is ramping up production.

Central Petroleum will be drilling up to four new wells in March, in an effort to source gas to fill the Northern Gas Pipeline.

The $800 million pipeline will run from Tennant Creek to Mt Isa, and is due to pipe its first gas at the end of the year.

As Central Petroleum use conventional methods to extract the gas, rather than unconventional extraction, or 'fracking', the current NT moratorium in place does not apply to their wells.
Two of the new wells will be created on the company's major operation, the Mereenie field, located on Aboriginal land about 250 kilometres west of Alice Springs.

The field has gone through a number of changes in its 30 years, more recently company Santos sold half of the venture to Central Petroleum in 2015, and then sold the other half to Macquarie in 2016.

In Central's words the field had been "capital starved" for a few years, but the company said that would soon change, with new markets opening up and a supposed gas shortage looming.

How the gas is extracted

ABC Rural was granted access to the Mereenie field, to see how the gas is extracted and processed.

Standing at East Mereenie number 7 well, Central's operations manager James van Rooyen said because of the geology and where the gas was located, the company did not have to stimulate the rock.

"The simplest analogy is a whole series of steel casings, and the final tubing acts like a straw," he said.

"We effectively drill into the sandstone, we then reduce the pressure at surface, and the natural reservoir pressure drives the hydrocarbon into the steel tubing, and [then] out [again]."
"We don't need to pump it, we don't need to frack it, it's conventional so in reality we don't have to do the hydraulic stimulation that everyone's talking about here."

However, Mr van Rooyen said hydraulic fracturing had been trialled on the site in the past, but there were no plans to use the method in the future.

"At this present time, we have no intention of stimulating the reservoirs, because the reservoirs are flowing naturally... nature's done a much better job than we could ever do," he said.

How the gas is processed

The pipes from the wells then feed into the processing plant, where the gas, oil and water that has been extracted is separated.

To separate the products, the plant uses a few different methods, including gravity and also temperature.

According to Mr van Rooyen, after separation the gas pressure is modified to make it suitable for the Amadeus pipeline, which runs from Central Australia to Darwin.

"We're currently supplying the McArthur River mine, from one of our other fields. We're also supplying the Owen Springs Power Station in Alice Springs, so it goes along to a few customers along the way," he said.

About 15 terajoules of gas a day is sent through the pipeline from Mereenie.

To put that into perspective, according to Central Petroleum, that's enough gas to supply three towns, about the size of Alice Springs, for the day.

Fracking inquiry

The panel for the fracking inquiry visited the Mereenie field, to examine what impact the gas field had had on the environment.

According to the final draft report from the NT fracking inquiry, released last December, approximately one third of the wells on Mereenie had already been hydraulically fractured.

It also stated that the Amadeus Basin, south of Alice Springs, has had the highest levels of exploration in the Northern Territory.

With the only producing conventional petroleum fields onshore in the NT, the report also stated that there was potential in the basin for unconventional gas exploration, but exploration and development in the region was likely to continue to focus on conventional methods.

Jumping hurdles for expansion

With a new gas market emerging with the Northern Gas Pipeline, Central's plan is to increase the production from 15 terajoules a day to more than 60.

But managing director Richard Cottee said there were a few hurdles to jump before upgrades could begin, including joint marketing approval from the ACCC, to allow Mereenie to be sold as one unit.

"It'll produce about 20 petajoules into the eastern seaboard market, which is a market of 2,000 petajoules, so it's about 1 per cent of the market," he said.

"That's a hurdle that will hopefully go away at the end of the month."
If all goes to plan, the site will produce 63 terajoules a day, which is more than the 50 terajoules it was producing at its peak in 2009.

Another hurdle is getting rid of a gas flare that's been burning at Mereenie for 30 years.

According to Central Petroleum, this is because previous companies found the gas needed to be flared as it could not be put to use.

But Mr Cottee said in six months' time, that flare will be gone.

"Technology has moved since [back] then, so it is possible [now] to harvest the LPG [liquefied petroleum gas] and condensate out of it, and co-mingle the condensate with the crude that we're selling."