

Petrodel: committed to Tanzania

By DR PHILIP NELSON

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began his career as a geologist with the British Antarctic Survey in 1959. Following a career with Shell which spanned 28 years and sojourns in countries as diverse as Nigeria, Norway, Turkey and the Netherlands he joined Petrodel Resources Limited in 2006 to spearhead the company's exploration activities in Tanzania and East Africa. He is a firm believer that Tanzania can and will become an important oil producer in the near future.

Petrodel Resources Limited (PRL) operates in over 20 countries and is one of Africa's leading oil exploration and trading companies and one of the few African owned and led. PRL was established 15 years ago and our focus is to bring value added to the oil and gas sector, primarily in sub-Saharan Africa. The driving force and visionary behind Petrodel is Nigerian, Michael J. Prest.

PRL has been active in exploring for oil and gas in Tanzania since 2006, when it was invited by the Tanzania Petroleum Development Corporation (TPDC) to negotiate a production sharing agreement (PSA) for the 9,418 square kilometre offshore/onshore Latham/Kimbiji block. PRL has another PSA covering land and offshore acreage around Tanga.

As Director of Exploration and Production, and with nearly 45 years experience as an oil geologist, I initially told Petrodel to "stay away" from Tanzania, as I did not believe the country had enough potential. However, for whatever reason, Chief Executive Michael J. Prest insisted that East Africa and Tanzania was the 'new frontier' and he was determined that Petrodel would find hydrocarbons there. As he saw it, he felt strongly that I had the experience and the love of Africa to prove him right.

In retrospect, my fears about Tanzania were unfounded. On my very first day reviewing legacy data (archived data from previous companies' surveys and drilling), with the help of the very hospitable staff at TPDC, I started to see features on old seismic sections (some of the best from 1970) that reminded me of the very positive signs visible in most seismic lines over the Niger Delta in Nigeria. There, in most instances, by studying DHIs (Direct Hydrocarbon Indicators) it is normal to be able to identify the presence of oil and gas before drilling.

I was fairly confident that I was seeing DHIs in the data stored at TPDC, so with their generous help we made fresh paper prints from TPDC's original films, converted the images to digital, then processed the data with special computer software to derive enhanced images. These clearly revealed DHIs very similar to those seen in Nigeria.

Encouraged by this, in February 2008, PRL – together with our partner Heritage Oil Ltd – conducted a marine 2D seismic survey in the waters north of Mafia Island. A couple of months later,

processing of the recorded data had reached a positive stage, at which the presence of oil and/or gas could be reasonably interpreted from the new seismic profiles. It is PRL's intention first to increase the definition of these encouraging signs on 2D seismic by shooting a 3D seismic survey.

I believe that it should be possible to make an educated guess as to the total volume of hydrocarbons present before drilling, and gain some idea of the relative abundance of gas versus oil. This is very important, as drilling a well in deep water (500 metres plus in this case) is expensive and can cost one million dollars a day. One must also take into account that a drilling team can expect to be on location for up to 60 days or more!

In PRL's other PSA, the Tanga Block, 1,200 kilometres of new 2D marine seismic were acquired by the company in December 2008. These data have also revealed a fascinating but complex potential oil and gas accumulation. Here too, PRL intends to acquire a 3D seismic survey – of the same dimensions as in Latham.

For the last four years PRL has continued to enjoy the hospitality and support of TPDC and the Ministry of Energy and Minerals, as well as the people of Tanzania, wherever it goes.

In my time here, I cannot speak highly enough of the stewardship of the country under President Jakaya Kikwete. Tanzania is truly a beautiful country with some of the warmest and friendliest people I have had the good fortune to meet. It is also a great place to work and the President has created the right enabling environment to do good business. Petrodel is determined to find – and eventually produce – Tanzania's oil and gas for the benefit of the people of Tanzania. Over the years of working in many countries in Africa I have developed a deep fondness for the peoples of Africa. I hope that the discovery of oil – and its exploitation for the benefit of the people – will allow me to remain in Tanzania for many years.

At least 13 multinationals have been engaged in oil and gas exploration in the country since the 1950s. Tanzania has yet to discover oil, but abundant natural gas has already been discovered in several parts of the country. Examination of the data already acquired in offshore Tanzania shows that it is possible to achieve a commercial discovery of oil, and more gas, as early as 2011. **F**