

MINING AND PETROLEUM Review

Vol 5 Issue 1
Jan - Feb 2017



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President's message



Gereia Aopi CBE

HELLO members,

Welcome to the first issue of our bi-monthly newsletter for 2017. I would like to thank all members for their support in 2016 and going forward in 2017.

It was not an easy year for the industry and for many of our members in 2016. Commodity prices, although improved, were still low, and most businesses were hard hit by the shortage of foreign exchange coupled with the economic downturn the country was going through. Although we have now progressed into a new year, these challenges remain very much alive. However, despite these challenges many of our projects performed significantly well. The *Executive Director's Viewpoint* will further highlight some of these positive developments.

2016 culminated with the Chamber hosting the 14th PNG Mining and Petroleum Investment Conference in Sydney, Australia. Over 1,100 delegates from 16 different countries attended the event which was themed '*Delivering on Growth Opportunities*'. It was a great success and the Chamber would like to thank all the delegates, the sponsors, the speakers, and most importantly the Prime Minister Peter O'Neill, State Ministers, Members of Parliament, Department heads and other State-owned enterprises for supporting the event.

This year, the Chamber will be hosting another important event, the PNG Mining and Petroleum Conference and Trade Fair at the Stanley Hotel in Port Moresby from November 28 - 30. Please contact the Chamber if you wish to attend or become a sponsor or exhibitor.

With that, I wish you all the best in 2017. Enjoy your reading and please do send us any feedback regarding this newsletter.

Executive Director's viewpoint



Greg Anderson

THE PNG mining and petroleum industry is going through a challenging period.

Although commodity prices have improved for PNG's resource commodities, including oil and gas, they are still relatively low.

This was reflected in Papua New Guinea's national budget passed in November 2016 which includes estimated company tax from the resource sectors of only K21.9 million.

Despite this, major positive developments were achieved last year.

Within a space of a month in June 2016, PanAust Ltd, the Australian miner owned by China's Guangdong Rising Assets Management Co Ltd, on behalf of its joint venture with Highlands Pacific applied to the Mineral Resources Authority (MRA) for a Special Mining Lease (SML) for its Frieda River Project in Sandaun, while the Morobe Mining Joint Venture made up of Newcrest Mining Ltd and Harmony Gold applied for a SML for their Wafi-Golpu Project in Morobe Province.

Although both projects are still awaiting approval from MRA which could happen within the next 12 months, they are still a long way from being developed. Both projects could progress into construction provided market conditions are favourable, and the legislative and fiscal regime welcoming. These projects are very critical to the PNG economy as existing mines like Ok Tedi, Porgera and Lihir are in a mature stage. Impacted communities and host provinces will also benefit significantly from these projects through employment, business and social benefits.

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Gold production, previously PNG's lead revenue earner, recovered well in 2016. The expectation was it would reach 57 tonnes by end of 2016 after significantly improved production at Lihir and Simberi. Output at Lihir at around 900,000 ounces was the highest ever achieved there. Newcrest Mining after achieving its target of an annualised mill throughput rate of 13 million tonnes per annum (mtpa) by December 2016, has set a new target of a sustainable mill throughput rate of 14mtpa by the end of December 2017. In parallel, projects and studies are underway to increase this further with an aspirational target of 17mtpa.

Lihir's operation achieved the significant increased production as a result of debottlenecking and improved efficiencies in the plant.

All in all, PNG mine production has improved significantly as a result of significant cost reductions, plant upgrades, rationalisation and restructuring that have been implemented in the producing mines.

Ok Tedi which only resumed operations a year ago after being suspended for almost 10 months due to an El Nino induced drought has employed significant cost reduction measures, rationalised its entire operations and restructured its workforce. Production at Ok Tedi is also expected to increase this year.

Simberi's increased performance is a result of continuous improvements in mine planning, equipment upgrade and improvements in equipment reliability and availability. The Kainantu mine in the Eastern Highlands Province also achieved a significant milestone



The PNG LNG plant located outside Port Moresby.

last year when it poured its first gold in October from its Iru-mafimpa deposit. This achievement was testament to the operator K92 Ltd who invested significant resources in rehabilitating the mine after taking over the project from Barrick Niugini in 2015. K92 is now planning on ramping up production to an annualised production rate of 52,000 ounces per annum.

The PNG LNG project continues to perform well above nameplate capacity since it began operation in 2014. In 2016, the project produced at an average rate of 7.9mtpa during the year, compared to nameplate capacity of 6.9mtpa.

The steady improvement of the PNG LNG project has also helped Oil Search achieve a historical performance for 2016. Its annual production of 30.24 million barrels of oil equivalent (mmboe) and sales of 30.59 mmboe were the highest in the company's history, up 3 per cent and 6 per cent, respectively, on last year. This reflected an excellent performance from the PNG LNG Project, as well as better than expected production from the mature oil fields.

Just before the end of 2016, an exciting gas discovery was made at Muruk 1 exploration

well. The discovery was big news as it holds a lot of promise for the expansion of the current LNG project.

Oil Search stated in its 2016 results that Muruk, which is located along trend from the Hides field, has the potential to further increase the resources available for expansion and has upgraded several exploration prospects nearby. Given Muruk's proximity to infrastructure, unit technical costs are likely to be low, which, with appropriate field phasing, could potentially improve expansion economics.

So despite the many challenges, PNG could still benefit significantly from the many positive developments that are happening in the industry, provided commodity prices improve and there is stability in government policies.

Stability in the fiscal, legislative and regulatory regime underwrote the robust period of growth enjoyed by PNG's resource sectors during the period of high commodity prices from 2003 to 2012 and will be critical to driving a resurgence in the resource sectors when commodity prices recover.

Landowner business guide launched

A guide that will assist resource companies, government organisations and community representatives establish and manage resource landowner businesses has been launched.

'A Guide to the Establishment and Support of Landowner Businesses Associated with Resource Projects in PNG' was published by the PNG Chamber of Mines and Petroleum in November 2016 and launched by Prime Minister Peter O'Neill at the 14th PNG Mining and Petroleum Investment Conference in Sydney in December.

The guide is the second of a

two-part study undertaken by Professor Richard Jackson, an international consultant specialising in social and community affairs.

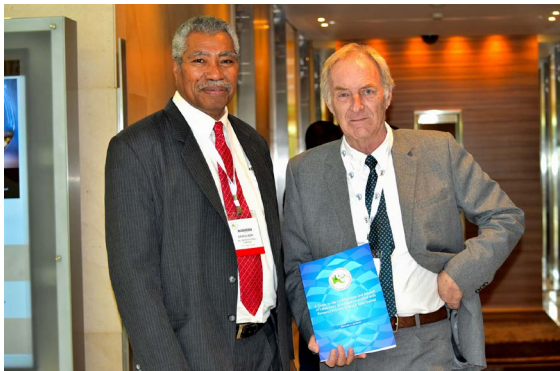
Prof. Jackson was commissioned by the Chamber to compile an analysis of landowner businesses at PNG resource projects. The study focused on the magnitude, scope, and contribution of the resource project landowner companies and businesses as well as an assessment of issues and challenges common to these operations with recommendations for possible improvement.

The first report titled 'The De-

velopment and Current State of Landowner Businesses Associated with Resource Projects in Papua New Guinea' was completed and published in August 2015.

The second report which was compiled into a guide provides a template and guideline for resource company management and business development officers, government officers, landowner directors and leaders; basically anyone responsible for establishing, managing or regulating resource landowner businesses.

Copies of both reports can be purchased from the Chamber by contacting +675 321 2988 or emailing info@pngchamberminpet.com.pg.



Left: Prof. Jackson and President of the PNG Chamber of Mines and Petroleum Gerea Aopi showing a copy of the guide that was recently launched. Right: Copies of the two reports which are now on sale at the Chamber.

Win inspires Kamasua to teach others about writing

A winner in the 2016 Crocodile Prize says he is now more determined and motivated to teach children and young adults about writing.

John Kamasua, currently a lecturer at the University of Papua New Guinea, was selected as the winner for the *Essay and Journalism* category sponsored by the PNG Chamber of Mines and Petroleum.

He was among eight other winners who won in different

categories.

The winners were announced at a presentation held at the Australian High Commission in Port Moresby on February 16.

"It (the award) will be a source of motivation for my children and a sense of accomplishment for myself. I will continue to write and encourage many more students that I teach at the university to write. On behalf of my family, and myself, I wish to sincerely thank the Chamber," Mr Kamasua said.



Mr Kamasua speaking at the presentation night.

Chamber staff farewelled

THE PNG Chamber of Mines and Petroleum has farewelled one of its long serving staff.

Emmanuel Powuh David who worked with the Chamber for eight years as a Projects Officer and later as the Senior Projects Officer was farewelled on March 24.

Mr David started with the Chamber in September 2008 after graduating from the University of Papua New Guinea with a Bachelor in Economics.

He contributed greatly to the Chamber, performing various duties including organising conferences and workshops, project management, editing Chamber publications, and representing the Chamber on various programmes.

Mr David will be undergoing further studies in Australia to attain his Masters in Project Management.

He thanked the Chamber including the Executive Director, Greg Anderson, and Leah Warupi-Morlin for mentoring and supporting him in his career growth.

Mr Anderson thanked Mr David during a small farewell *kaikai* for his contribution to the Chamber



Mr David, centre, flanked by Mr Anderson (left) and Mrs Warupi-Morlin.

saying he was an integral part of the Chamber team and someone who was dedicated, hard working and professional in his work.

The Chamber wishes him the very best in his studies.

PanAust, Interplast complete surgical assessments

PANAUST and Interplast Australia and New Zealand recently completed surgical assessments of villagers living in communities close to the Frieda River project.

The team comprising of a plastic and reconstructive surgeon and a nurse from Interplast and PanAust Community Affairs personnel, visited the villages of Paupe, Wabia, Ok Isai, Oum 3, Iniok, Sokamin,

Fiak and Telefomin and carried out surgical assessments of villagers who had conditions relating to plastic and reconstructive surgery.

The program was the continuation of a successful partnership between PanAust and Interplast since 2012 in Laos where PanAust runs two mining operations.

PanAust General Manager

Government and Community Relations (PNG), Glen Connell said: "As a mining company operating in developing countries, PanAust is in a position to make a significant contribution to improving the standard of living for current and future generations. We are pleased that we can play a role in bettering the lives of those living close to where we operate."



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PNG's gas must be cost competitive

PAPUA New Guinea faces stiff competition from other world gas suppliers as the global demand for energy increases.

This is according to Professor Peter McCabe, Head of the Australian School of Petroleum at the University of Adelaide who spoke at the 14th PNG Mining and Petroleum Investment Conference in Sydney, Australia last December.

"There has been a huge increase of gas supply in the



Prof. McCabe speaking at the conference.

United States," he said.

"China is understood to be developing its own resource, so China will compete and will do its best to increase production. Australia has the North West shelf and will soon be the largest LNG exporter in the world," he added.

Prof. McCabe also said PNG's gas reserves were relatively small and that the country's challenge moving forward will be to ensure its gas is cost competitive.

Huge potential for alluvial mining

THE alluvial mining sector has the potential to directly benefit people living in the rural areas, according to the Mining Minister Byron Chan.

Mr Chan told delegates at the 14th PNG Mining and Petroleum Investment Conference that there has been a marked increase in applications made to the Mineral Resources Authority for alluvial mining leases.

"The last few years have seen an increase in applications for alluvial mining leases; and efforts are being made to properly regulate this sector and increase greater levels of mechanisation," he said.

The minister said it was estimated that by the end of 2016, total income from alluvials would exceed K330 million.



Alluvial mining can benefit many rural people if regulated properly

PAPUA NEW GUINEA MINING AND PETROLEUM CONFERENCE 2017

and Trade Fair

28 - 30 November

The Stanley Hotel, Port Moresby



The three-day Mining and Petroleum Conference will provide a comprehensive technical update and offer an excellent opportunity to meet all the players in the PNG mining and petroleum industry, including Government, and for joint venture discussions, networking and promotions.

The event will inform delegates on current activities in the PNG mining and petroleum industry highlighting new developments, advanced prospects, new discoveries and exploration as well as economic and social achievements.

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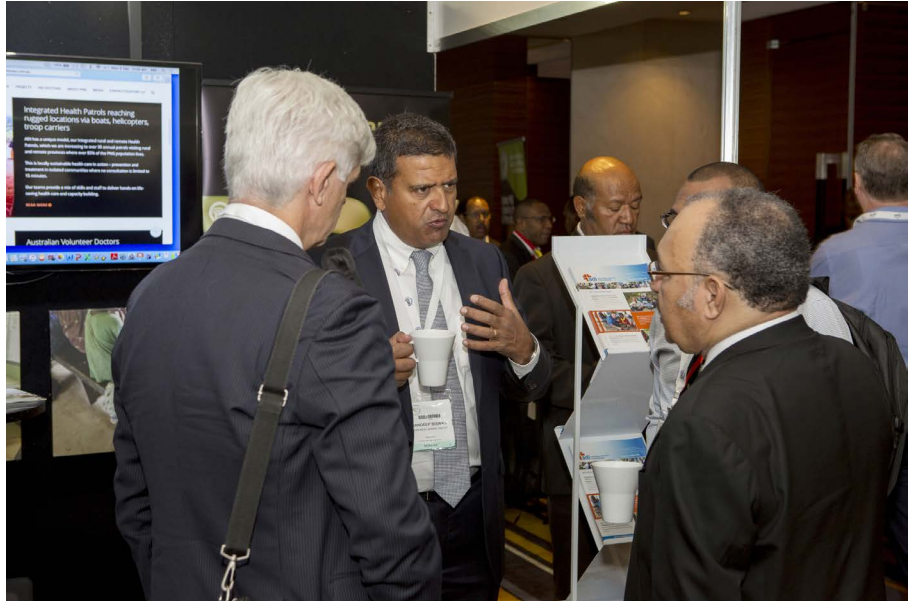
Govt wants key resource projects developed

THE Government will continue to support key projects that are in an advanced stage such as the Wafi-Golpu, and the Frieda River projects.

Prime Minister Peter O'Neill told delegates at the 14th PNG Mining and Petroleum Investment Conference in Sydney in December that the Government is fully committed to these two mining projects including others that are at various stages of development and approval processes.

"There are a number of reforms that are underway in our resource sectors as we seek to increase productivity in the tough global economy," Mr O'Neill said.

In the petroleum sector, Mr O'Neill said the government's focus was on domestic market



Newcrest Mining Managing Director and Chief Executive Officer Sandeep Biswas speaking to Mr O'Neill during the conference.

obligations.

"We are working to ensure that some of our gas is used for domestic use and downstream processing. We will allow for third

party access to the pipeline, as stated in the Oil and Gas Act and our national content must be taken into account so that we can improve local participation," he said.

Papua LNG a top priority for the government



A roadshow organised by TOTAL E & P in Port Moresby last year provided its stakeholders an extensive update on the Papua LNG project.

THE Government believes development of the Papua LNG project will unlock many benefits for Gulf Province and the rest of Papua New Guinea.

Petroleum and Energy Minister Nixon Duban said this when speaking at the PNG

Mining and Petroleum Investment Conference in December last year.

He said the Government will continue to support the TOTAL SA-led project despite its many challenges as it has the potential to benefit the lives of many people and also transform PNG's LNG market.

"The successful realisation of this project will be a significant milestone for PNG as the country will export LNG from two separate LNG projects. Producing and exporting from two successful LNG projects will also elevate the profile of PNG as a safe investment destination," Mr Duban said.

"The project partners have announced a certified gas reserve estimate of 6.5 trillion cubic feet (tcf), however work is continuing in the Elk/Antelope fields and we anticipate positive results of an upside, which may be higher than anticipated," he added.

Mr Duban said the Elk/Antelope fields could have a combined resource of between 4.8 - 9.0 tcf of gas and 98 - 128.9 million barrels of condensate.

Total is the operator of the Petroleum Retention Licence 15 Elk/Antelope fields. It holds the largest shareholding of 31.1 per cent interest, alongside partners Oil Search (17.7%) and ExxonMobil (28.3%), post the government back-in right of 22.5%.

Environment Impact Statement for Frieda mine lodged

PANAUST has submitted to PNG's Conservation and Environment Protection Authority Frieda River's Environmental Impact Statement (EIS).

The EIS which was submitted late last year was the statutory basis for the environmental assessment of the project and was in line with the project feasibility study which was lodged together with its application for a Special Mining Lease on 24 June 2016.

The EIS, prepared by Coffey Environment Australia Pty Ltd incorporated the results of numerous surveys covering both social and environmental aspects of the project, including what is arguably the single most inten-

sive biodiversity survey ever undertaken in PNG; a significant addition to the existing scientific body of work on PNG biodiversity.

PanAust Managing Director, Dr Fred Hess said the project's EIS demonstrated the company's world-class, best-practice environmental management standards.

He said it also indicates its ongoing commitment to respecting the natural environments in which PanAust operates.

"PanAust is an internationally recognised leader in environmental management and sus-

tainability, with well-established, proven environmental management standards," he added.

"We recognise the importance of the Sepik River basin to PNG, both from an environmental perspective and the valuable contribution it makes to peoples' lives and livelihoods.

"PanAust's proven excellence in the management of tailings and waste rock in similar conditions in Laos will guide the company's environmental management programs at Frieda River, ensuring that impacts to natural environments, including local waterways, are minimised," Dr Hess said.

20 million ounces and going strong

THE Porgera gold mine in Enga Province reached a significant milestone in March when it achieved 20 million ounces in gold production since the mine started operation in 1990.

The project which is a joint venture between Barrick Gold Corporation, Zijin Mining Group and Mineral Resources Enga (MRE) Limited reached the milestone on March 6 when 7,044 ounces was produced for the particular day.

And to mark its significance, six of its longest serving employees, including some of the production and processing staff were invited by the mine's management to witness the historic gold pour event.

Porgera Joint Venture (PJV) General Manager Operations, Damian Shaw on behalf of the PJV management commend-

ed the efforts of those who had been involved with the operation since the first pour in 1990 and those who were still with the project working safely, 20 million ounces later.

"This has been a great effort by everyone; the employees, the

community, the government and all other stakeholders. To those who work behind the scene to make it possible to achieve this result, congratulations. Not many mines meet 20 million ounces....it is a rare achievement," Mr. Shaw said.



PJV staff together with some of the mines longest serving employees including Mr Shaw (standing, 4th from right) celebrate with gold bars produced on the day.

St Barbara wins award for third consecutive year

THE operator of the Simberi gold mine in the New Ireland Province, St Barbara has been awarded the 'Employer of Choice for Gender Equality' for a third consecutive year by the Workplace Gender Equality Agency (WGEA).

St Barbara Managing Director and Chief Executive Officer Bob Vassie said the award shows that it is possible to address gender equality in what has traditionally been a male-dominated industry.

The WGEA is an Australian

Government statutory charged with promoting and improving the role of gender equality in Australian workplaces. It collaborates with employers by providing advice, practical tools and education to help them improve their gender performance.

To qualify for an award, organisations must demonstrate how they are addressing various benchmarks for gender equality such as leadership, learning and development, gender remuneration gaps, flexible working and other initiatives to support family responsibilities, employ-

ee consultation, preventing sex-based harassment and discrimination, and targets for improving gender equality outcomes.

St Barbara has set targets for the representation of women across the company, as well as in leadership roles and Board representation.

The company also provides industry best practice parental leave and return to work provisions, and special paid leave for domestic violence victims.

High speed broadband for Lihir gold mine

NEWCREST has partnered with telecommunications and technology company, Telstra to become the first gold miner in the southern hemisphere to deliver O3b's high-speed broadband through its new 100 megabits per second (Mbps) satellite link to the Lihir gold mine in New Ireland Province.

The new medium-earth-orbit (MEO) satellite link, which has increased bandwidth to Lihir by over 600 per cent, is the result of a partnership between Newcrest, Telstra and satellite service provider O3b Networks.

"Newcrest is proud to make use of this innovative new service to significantly improve the network experience at Lihir," Chief Information Officer Gavin Wood said.

"As well as enabling better IT and digital solutions for our operation, the new link will help make Lihir a better place to work and live for our workforce," he added.

Executive General Manager Ca-



Newcrest's Lihir gold mine in New Ireland Province. *Picture courtesy of Newcrest Mining Ltd.*

dia and Lihir, Craig Jetson said that the Lihir workforce and communities were already benefiting from the improved technology.

"This new satellite service has provided us with the opportunity to access technologies that are reliant on high bandwidth platforms. This further streamlines our operations, making us more efficient and cost effective," he said.

Under the agreement, Newcrest's Wide Area Network service will be extended by Telstra via a constellation of MEO satellites. This new satellite service is an exciting addition to Telstra's world-class network and will see enhanced connectivity delivered to more remote locations around the world.

ExxonMobil takes over InterOil after months of delay

EXXONMOBIL Corporation, the world's largest listed oil and gas company has acquired InterOil Corporation.

The takeover was finally approved by the Supreme Court of Yukon in February which granted a final order approving the arrangement between the two companies.

The arrangement was approved by more than 91 per cent of the shares voted at a Special Meeting on February 14, 2017.

InterOil Corporation was an independent oil and gas company with a sole focus on Papua New Guinea. InterOil's assets include one of Asia's largest undeveloped gas fields, Elk-Antelope, in the Gulf Province, and exploration licences covering about 16,000sqkm.

Its main offices were in Singa-

pore and Port Moresby. InterOil was listed on the New York and Port Moresby stock exchanges.

In July 2016, former chairman and chief executive of ExxonMobil, Rex Tillerson, now the United States Secretary of State announced it would cost ExxonMobil more than US\$2.5 billion to acquire InterOil.

"This agreement will enable ExxonMobil to create value for the shareholders of both companies and the people of Papua New Guinea," Mr Tillerson said.

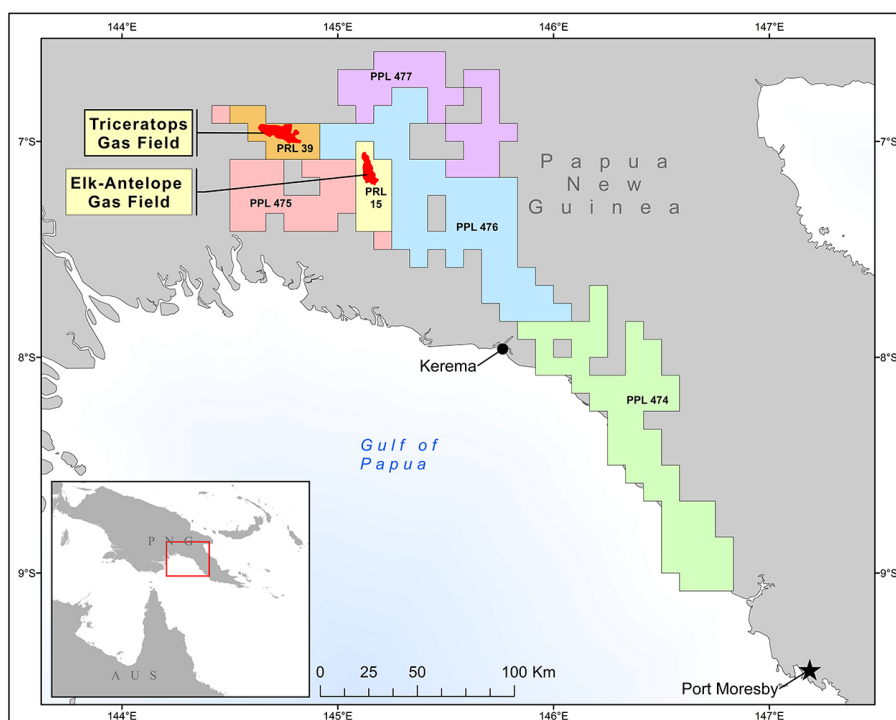
"InterOil's resources will enhance ExxonMobil's already successful business in Papua New Guinea and bolster the company's strong position in liquefied natural gas."

Under the terms of the agreement with ExxonMobil, InterOil shareholders would receive:

- A payment of US\$45.00 per share of InterOil, paid in ExxonMobil shares, at closing. The number of ExxonMobil shares paid per share of InterOil will be calculated based on the volume weighted average price of ExxonMobil shares over a measuring period of 10 days ending shortly before the closing date (Share Consideration).
- A Contingent Resource Payment (CRP), which will be an additional cash payment of US\$7.07 per share for each trillion cubic feet equivalent (tcfe) gross resource certification of the Elk-Antelope field above 6.2 tcfe, up to a maximum of 10 tcfe. The CRP will be paid on the completion of the interim certification process in accordance with the Share Purchase Agreement with Total SA, which will include the Antelope-7 appraisal well, currently in progress. The CRP will not be transferable and will not be listed on any exchange.

The takeover will now give ExxonMobil access to InterOil's resource base, which incorporates interests in six licences in PNG including the Elk-Antelope field in Petroleum Retention Licence 15 which is the anchor field for the proposed Papua LNG project operated by Total SA.

InterOil was founded in 1997 by Phil Mulacek who was at the helm of the company as chief executive officer until he was replaced in 2013.



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Date: 10/10/2014 Author: S. Rothwell

A map showing the InterOil petroleum licenses and gas fields.

New exciting gas discovery at Muruk

A new gas discovery made at Muruk 1 late last year could contribute significantly to expansion of the current LNG project.

In December last year, ExxonMobil announced that a new gas/condensate discovery was made at the Muruk-1 exploration well, about 21 kilometers northwest of the Hides Gas Field.

“We are excited by the results of the Muruk-1 exploration well, which confirms the presence of hydrocarbons in the same high-quality sandstone reservoirs as the Hides field that underpins the PNG LNG

project,” said Steve Greenlee, president of ExxonMobil Exploration Company.

“Over the coming months we will work with our co-venturers to better determine the full resource potential. ExxonMobil has been involved in exploration in Papua New Guinea since the 1930s,” Greenlee added.

The Muruk exploration success demonstrates the strength of ExxonMobil’s long-term investment approach and reaffirms its commitment to Papua New Guinea.”

The well is located in Petroleum Prospecting Licence 402, which covers 510 square kilometers.



The Muruk 1 well. *Picture courtesy of Oil Search.*

The well is currently being sidetracked to determine the hydrocarbon - water contact.

Santos farms into Muruk days before discovery

SANTOS recently announced that it had signed an agreement to farm-in for a 20% interest in Petroleum Prospecting Licence (PPL) 402.

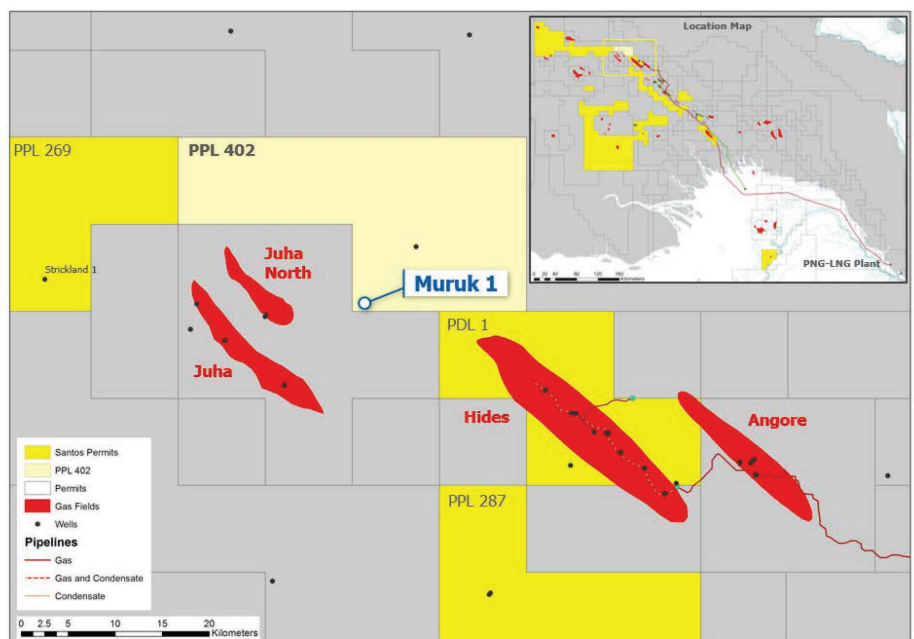
The interest was acquired from both Oil Search and ExxonMobil.

PPL 402 is located approximately 40 kilometres northwest of the Hides gas field and production facilities, and within the highly prospective thrust and fold belt trend. The licence covers an area of 510 km².

The farm-in resulted in Santos’ participation in the recently completed Muruk 1 exploration well.

The Muruk 1 well targeted the Toro Formation, which is gas bearing in the nearby Hides and Juha fields, and was originally estimated by Oil Search to contain a potential gas resource of about two trillion cubic feet.

Santos Managing Director and



Chief Executive Officer Kevin Gallagher said Santos had a long and successful working relationship with both Oil Search and ExxonMobil.

Mr Gallagher said the agreement demonstrates Santos’ commitment to growing its position in Papua New Guinea and working with its long-term

partners to explore and develop. Completion is subject to customary regulatory approvals.

The terms of the agreement are confidential. The PPL 402 participants are; affiliates of Santos (20%), affiliates of ExxonMobil (42.5%), and Oil Search (37.5%, operator).

Oil Search production rises but sales revenue drops

OIL Search reported in its 2016 Full Year Results that oil and gas production was up by 3 per cent to 30.24 million barrels oil equivalent (mmboe) and sales rose by 6 per cent to an all-time high of 30.59 mmboe.



However, total company revenue fell 22 per cent to US\$1,235.9 million in the same period. The drop in revenue was a result of lower oil and gas prices with the average oil and condensate price down 12% to US\$45.04 a barrel, while the LNG and gas price dropped by a steep 33% to US\$6.36 per million Btu.

This resulted in a net profit after tax of US\$89.8 million compared to a loss of US\$39.4 million in 2015. The latest figure included a profit, after costs, of US\$18.7 million received as a break fee from ExxonMobil over the InterOil takeover transaction. Oil Search said this was offset by a one-off, non-cash restatement of a deferred tax balance of US\$35.6 million, following a reduction in oil field tax rates from 50% to 30%.

The company reported an overall company tax payment in 2016 of US\$95.24 million which included a deferred tax expense of US\$90.56 million. This was a sharp fall from 2015 when the total tax payment was US\$147.6 million, including a deferred tax amount of US\$133.56 million. The deferred tax payment was largely due to expenditure on exploration, development and production in 2016 amounting to US\$89.9 million compared with US\$139.8 million in 2015.

Oil Search's increased production was due to an excellent performance by the PNG LNG Project, which produced at an average rate of 7.9 million tonnes a year compared to nameplate capacity of 6.9 million tonnes/year. Unit production costs fell from US\$10.08 per barrel oil equivalent (boe) in 2015 "to a very competitive US\$8.50 per boe", reflecting a

30 per cent fall in production costs since production commenced in 2014.

The annualised rate of production of 7.9 million tonnes annually reflected a progressive improvement in the LNG plant performance during the year, which reached an annualised production rate of 8.3 million tonnes in the fourth quarter, the highest since production began.

Besides a strong contribution of 6.83 million boe from the PNG oilfields attributed to reservoir management and well interventions at Kutubu and Moran, higher third party gas sales were also made from the SE Gobe field to the PNG LNG Project, along with increased gas sales to the Hides gas-to-electricity project for the Porgera gold mine.

The excellent results were achieved despite the LNG plant experiencing an unplanned shutdown during the June quarter and a small reduction in gas flows and LNG production in the third quarter due to a landowner protest at the Hides Gas Conditioning Plant.

Oil Search quits Middle East and North Africa

OIL SEARCH has confirmed its decision to exit from the Middle East - North Africa region and to maintain its focus "on its high-returning business in PNG."

The company's 2016 results announcement said Oil Search had relinquished its interest in the Taza production sharing contract in the Kurdistan region of Iran and was progressing the sale of the company's interests in Yemen.

The Taza interest was relinquished last year following a comprehensive review and continuing uncertainties about the resource. All operational sites have been remediated and will be returned to landowners and the Oil Search office in Kurdistan has been closed.

Sale of the company's Yemen entity, which holds a 34 per cent interest in Block 7, to a subsidiary of Petsec Energy Ltd is ex-

pected to be completed early this year. This decision had a small impact on the company's oil and gas resources with removal of 21.9 million barrels of oil and 6.3 billion cubic feet of gas relating to Taza and Block 7, Yemen.

Oil Search drilled its discovery well in Taza in 2013 and followed up with two appraisal wells in a block covering 511 square kilometres.

Higher gas reserves underpin LNG production

A recertification and upgrading of natural gas reserves in the PNG LNG Project area has provided flexibility to the consortium to sustain higher rates of production beyond the 8 million tonnes a year currently being achieved by the project, according to Oil Search Limited (OSL).

The company's 2016 Financial Report said the recertification of resources in all PNG LNG fields by Netherland, Sewell and Associates Inc (NSAI) had increased OSL reserves in the proved category (1P) by 50% to 2.14 trillion cubic feet at the end of last year. Proven oil and condensate reserves were increased to 62.3 million barrels from 57.5 million barrels in 2015.

Oil Search said that besides providing flexibility for production of more than 8 million tonnes annually, the increased reserves "also allows for the optimal placement of production above existing long term contracts into additional mid or long term contracts or within the spot market".

The company said there was approximately 10 trillion cubic feet (tcf) of discovered undeveloped proven and probable gas in the Elk-Antelope and P'nyang fields which could support two additional trains of four million tonnes each annually.

It said: "The recent exciting gas

discovery at Muruk, which is located along trend from the Hides field, has the potential to further increase the resources available for expansion and has upgraded several exploration prospects nearby.

"Given Muruk's proximity to infrastructure, unit technical costs are likely to be low, which, with appropriate field phasing, could potentially improve expansion economics."

Oil Search said it believed new LNG trains in PNG were expected to be among the most competitive new LNG developments globally adding that "LNG expansion in PNG is a compelling proposition".

"Oil Search remains committed to driving forward its high value, cost competitive LNG developments in a timeframe to capitalise on the expected opening in LNG markets in the early 2020s," the company said.

Although crude oil prices have strengthened considerably in the past year and currently sits at around US\$50 a barrel, Oil Search said it expects spot LNG prices to soften from current levels this year. Nevertheless, it said the long term LNG market fundamentals remain strong, with major Asian buyers expected to have substantial new LNG requirements early next decade.



The Hides Gas Conditioning Plant

About Us:

The PNG Chamber of Mines and Petroleum is a non-profit, peak industry association that represents the interests of the mining and petroleum industry and associated industries in Papua New Guinea.

The Chamber has a membership of over 230 companies. This includes most of the mining and petroleum companies active in PNG who comprise the Full Members. Associate and Service Members make up the balance of the membership and these are support companies with business connections to the mining and petroleum sectors in PNG.

About the publication:

The *Mining and Petroleum Review* is a bi-monthly e-newsletter that aims to inform Chamber members, the private and public sectors including the Government, interested groups and the general public about developments happening within the PNG resources industry.

General enquiries:

The Chamber commissions and publishes a wide range of reports on the mining and petroleum industry in the country. A number of these reports can be downloaded for free from the Chamber website while others can be purchased by completing an order form which is available on the website. Forms can be returned to info@pngchamberminpet.com.pg or can be dropped off at Level 1, The Lodge, Brampton Street, Port Moresby.

Media enquiries and contributions:

For enquiries regarding articles in this newsletter or contributions, please contact Mackhenly Kaiok on email MKaiok@pngchamberminpet.com.pg or you can call +675 321 2988.

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