PNG Chamber of Mines and Petroleum
Helping Papua New Guinea to Develop its Full Potential

Chamber e-newsletter **January/February 2014**

Executive Director comments

Commencement of LNG exports this year signals the biggest structural change in the Papua New Guinea economy in more than two decades.

When LNG exports commence in the second half of this year this will be the start of the most ambitious project ever undertaken in PNG, as highlighted by our recent conference theme, "Transforming the Economy - The Gas Era."

As a single, integrated resource project, LNG directly encompasses more than 70,000 landowners, five provincial governments and ten Local Level Governments, all of whom will be direct financial beneficiaries from royalties and a development levy.

Mining and oil companies have represented the second largest contributor after agriculture to the nation's gross domestic product.

When LNG exports start, the resource sector will overtake agriculture's contribution to PNG's total economic output. The resource's sector's share of PNG exports is forecast to rise from around 80% this year to 90% in 2015.

Although this is a single project involving several shareholders, including the PNG Government, the LNG impact will be comparable to the structural change in the early 1990s with the launch of the Hides gas to electricity project, Kutubu oil production and the Porgera gold mine.

Oil exports to reach highest level since 2001

Besides pioneering the export of natural gas from PNG, by-product condensate from the PNG LNG Project will boost the country's oil exports to 15.6 million barrels in 2015, its highest level since 2001 when 21.4 million barrels was exported, according to PNG Treasury projections.

Built at a cost of US$19 billion, the PNG LNG Project is nearing mechanical completion of all key components - the Hides Gas Condensation Plant, the gas pipelines and the LNG plant outside Port Moresby. Commissioning activities are underway at the LNG plant and at the HGCP.

The onshore gas pipeline to the HGCP has been welded to the offshore section to complete the gas transmission line as well as a fibre optic cable alongside the pipeline, which will greatly enhance the nation's information technology capacity.

Government needs to act on SWF and delivery mechanisms

The Department of Petroleum and Energy has recently admitted that it is not able to complete the Clan Vetting Exercise because there had been no allocation in the budget even though this had been requested.

The industry is concerned that although more than four years have passed since construction of the project commenced the government bureaucracy and institutions may not be fully prepared to deal with handling of royalty and development levy payments.

It is understood the long discussed Sovereign Wealth Fund may be passed by the PNG Parliament shortly. Hopefully it will incorporate adequate levels of governance and transparency and help to maximise PNG's growth potential in the years ahead.

Greg Anderson

Greg Anderson
Executive Director

CHAMBER DIARY 2014

April 10 - 12	MEDIA WORKSHOP (MADANG)
May 2	ANNUAL GENERAL MEETING (PORT MORESBY)
August 11 - 14	COMMUNITY AFFAIRS WORKSHOP (LAE)
December 1 - 3 -	13TH PNG MINING AND PETROLEUM INVESTMENT CONFERENCE IN SYDNEY, AUSTRALIA **THEME: 'PNG RESOURCES - EXPANDING HORIZONS'**

PETROLEUM SECTOR NEWS

PNG OIL PRODUCTION TO RISE AGAIN AFTER LONG DECLINE

The long term downward trend in PNG's oil production will be reversed this year as a result of condensate output from the PNG LNG Project.

In its December quarterly report, Oil Search said that due to the LNG project and strong operating performance from current oilfields, projected oil production this year has been raised from the previous estimate of 10 million to 13 million barrels oil equivalent to 12-15 million boe.

This contrasts with a more conservative PNG Treasury projection of total oil and condensate export of 8.2 million barrels this year, rising to 15.6 million barrels in 2015.

Oil Search share of oil production and gas-to-electricity at Hides last year amounted to 6.74 million boe compared with a current forecast of 6.3-6.8 million boe this year with an additional 1.3-1.8 million boe of condensate coming from the LNG project.

In his December quarterly report, Oil Search Managing Director Peter Botten said gas from Kutubu had been introduced to the Hides Gas Conditioning Plant (HGCP) following commencement of commissioning activities at the LNG plant in the third quarter of last year.

Other milestones reached by the LNG project:

- Welding of the main gas pipeline connecting the HGCP to the offshore pipeline was completed in the December quarter

- The condensate line linking Kutubu to the HGCP was also finished and temporarily used to supply commissioning gas from Kutubu to HGCP. Once LNG production commences, the pipeline will carry condensate to the Kumul oil export terminal in the Gulf of Papua.

- Installation of the pipeline gathering system linking the Hides production wells to the HGCP is making good progress. Drilling of the fourth Hides production well was completed during the last quarter.

- Scoping studies are continuing on the P'nyang field with a view to submitting a development licence application early next year. New seismic is being shot over P'nyang and Juha fields.

Meanwhile, the PDL licence application for Mananda 5 and 6 has been submitted to the Department of Petroleum with expectations that the current Manada 7 drill hole will be incorporated into the licence if it is successful.

APPROVAL NEARING FOR STANLEY GAS-CONDENSATE PROJECT

Horizon Oil has announced that negotiations with the PNG Government relating to the PDL application for the Stanley field in Western Province has been completed and the Gas Agreement is with the State Solicitor for formal legal clearance prior to submission to the PNG Cabinet.

The Landowner Development Forum will commence once Cabinet approves the Gas Agreement.

Once the Stanley PDL is approved, Horizon will receive an initial payment of US$74 million plus completion adjustments estimated at US$20 million for sale of 40% of its PNG licence interests to Osaka Gas. Total consideration for the sale was US$204 million, including US$130 million on completion of the final investment decision for an LNG project.

A 33,000 barrel condensate tanker was launched on December 18 and is in the process of being fitted out. Custom designed by P&O, it will have ocean going capacity and be able to traverse the Fly River to a mooring point facility near Kiunga, where it will pick up condensate piped from Stanley.

Technical and commercial issues regarding the sale of gas to Ok Tedi Mining Ltd have been resolved, subject to final agreement on price.

The Tingu-1 exploration well, 9.2km northwest of Elevala-2 and east of Stanley, flowed at 48 million cfd on a 72/64" choke with an average 65 barrels of condensate per million cubic feet of gas. Tingu is of a similar size to Elevala's 400 bcf field with 22 million barrels condensate.

HERITAGE PLANS WILDCAT AT BANAM ANTICLINE NEAR MADANG

UK-listed Heritage Oil has announced plans to drill the large Banam anticline near Madang with wildcat wells at the Kwila and Raintree prospects in PPL 337, where it has farmed into an area held by Kina Petroleum since 2009.

At PPL 437, Heritage is remapping the existing database along with a planned seismic program with the aim of drilling two wells within the next two years. The area is highly prospective, located to the east of the Stanley gas field and directly north of Elevala, Ketu and Tingu.

Heritage will initially earn a 30% stake in PPL 437 with an option for a further 20% as well as operatorship. The licence is current held by Kina Petroleum (80%) and Cott Oil (20%).

The area has many oil seeps with a potential for Pliocene/Miocene reef structures.

COTT OIL AND GAS WINS 40% IN PANDORA FILED

Cott Oil and Gas announced that it has been granted a 40% interest in a new PRL 38 licence area which contains the 792 BCF Pandora gas field in the Gulf of Papua.

The Cott stake is held by its wholly-owned PNG subsidiary, Wondecla Ltd. The licence area comprises nine graticular blocks covering about 765 sq km.

The licence holders are Wondecla Ltd (40%), Kina Petroleum (25%), Talisman Energy Niugini (25% and operator), Barracuda Ltd (10%, a subsidiary of Santos).

Cott said the two discovered Pandora fields, 200km west of Port Moresby in the Gulf of Papua, are at a water depth of 110m. They were discovered in 1988 and 1992.

Under the PRL the joint venture is committed to conducting an overall review and to carry out domestic gas commercialisation studies in the first three years.

This will be followed by engineering and environmental studies and, contingent on confirmation of a potential development, to carry out appraisal and development drilling and front end engineering studies.

"Cott believes that, with currently available technology, the Pandora gas fields are of a sufficient size to justify development as a stand-alone field," the company said.

MINING SECTOR NEWS

HIDDEN VALLEY REDUCES LOSSES IN DECEMBER QUARTER

Morobe Mining Joint Venture has had major success in reducing production costs at its Hidden Valley gold-silver operation in Morobe Province, according to Newcrest Mining's December quarterly.

All in sustaining cost of production had fallen to A$1,343 per ounce of gold compared with the September quarter's A$1,889 even though production remained at similar levels with the latest quarterly output at 24,792 ounces of gold and 272,710 ounces of silver.

This was helped by improved recoveries of gold and silver with the latter resulting in 8% increase in production with recovery up 11%.

The company said it received an average gold price of A$1,372 an ounce with the total production cost below the average realised gold price at each of its operations. However, Newcrest reported earnings before interest and tax for Hidden Valley represented a loss of A$9 million during the half year to December compared with a A$10 million loss in the previous corresponding half year.

Newcrest said the 29% drop in total production costs was primarily due to lower stripping costs, increased silver by-product credits, lower capital expenditure and cost reduction efforts.

The Chamber believes this is the first time the Hidden Valley mine, owned equally by Newcrest and South Africa's Harmony Gold, has reduced total production costs below the average realised gold price for the quarter. The mine began commercial production in September 2010.

At Newcrest's fully owned Lihir mine total production costs during the quarter edged up a little from A$1,152 in the September quarter to A$1,253 in the December quarter after processing of low grade stockpiles went from 80% to 88% of the feed into the flotation plant.

Gold production at Lihir fell by 4% during the quarter. Mill feed rose 2% but was offset by a 2% fall in gold grade and a 4% drop in gold recovery.

Newcrest and its shareholders would be breathing easier in the New Year after the troubles of 2013 which saw the Newcrest share price crash below A$7 in December. In less than two months it has made a recovery to over A$11.

SIMBERI MINE'S GOLD EXPANSION CIRCUIT SHOULD LOWER PRODUCTION COSTS

St Barbara Ltd announced that the 3.5 million tonnes a year oxide gold expansion circuit at its Simberi mine in New Ireland was undergoing commissioning in December as "a vital step towards establishing a profitable and sustainable operation".

It said the tailings thickener and detoxification unit was expected to be commissioned in January.

The PNG Department of Environment and Conservation has granted a variation to Simberi's licence conditions to allow the processing volume to be increased from two million tonnes a year to 3.5 million tonnes and a variation approval is currently awaited from the Mineral Resources Authority.

Due to delays in commissioning the new processing plant and poor reliability of the old grinding circuit, Simberi's gold production fell to 8,908 ounces in the December quarter from 11,741 ounces in the September quarter.

"With processing volume and gold production expected to lift through the March quarter, at current gold prices Simberi is expected to be cash flow positive from April 2004," St Barbara said.

The company's production summary showed that 'all-in-sustaining cost' for the Simberi mine had risen to A$2,920 an ounce in the December quarter, up from A$2,031 in the September quarter. Total operating costs have risen from A$1,917 an ounce in June quarter last year to A$2,709 in the September quarter and A$2,770 in the December quarter.

HIGHLANDS PACIFIC STUDIES JV POSSIBILITIES FOR STAR MOUNTAINS ELs

Highlands Pacific is studying joint venture possibilities for its Star Mountains exploration leases with a view to conducting an accelerated exploration program later this year, according to Managing Director John Gooding.

Gooding said he was hopeful this program would "realise the great potential of this new copper-gold prophyry province".

The company has four licence areas covering 515sq km just 25km from the Ok Tedi mine, which are presently under care and maintenance. The acreage contains 17 identified copper-gold targets with preliminary drilling undertaken on six.

Highlands is awaiting the outcome of a bid by PanAust to conclude its share and purchase agreement with Glencore Xstrata over its stake in the Frieda River copper-gold project. It has signed a framework agreement with PanAust, which has taken a 7.5% stake in Highlands.

As part of the deal, Highlands will regain a 100% stake in its Star Mountains exploration leases, where Glencore Xstrata previously had farm-in rights.

In another development, Highlands announced that the Ramu Nickel project, in which it has a 8.56% interest, had managed a 50% production rate in the December quarter and had achieved rates of 60% in January.

INDOCHINE TARGETS HIGH-GRADE MILLION OUNCES AT MT KARE

Indochine Mining says it is planning a "rapid advance" on development of a portal and adit for a proposed underground exploration program at Mt Kare in Enga Province.

This follows the validation of landowner boundaries by landowner clan groups and the government. The company is targetting to prove up more than a million ounces at a grade of 10 grams a tonne gold in the next six to nine months.

If everything goes to plan, Indochine hopes to establish a 200,000 ounce/year operation based on high grade gold zones at Mt Kare within 18 to 24 months at a development cost of around US$100 million.

CRATER MOUNTAIN PLANS MINING LEASE APPLICATION

Crater Gold Mining expects to submit a Mining Lease application to the Mineral Resource Authority later this year following confirmation of high gold grades in numerous structures.

The company's December quarterly report said a drilling program would commence in February.

Crater decided in early 2013 to assess the potential of the high grade zone to fast track a small to medium sized gold mining operation and to reinvest the profits into exploration of the larger scale Nevera Prospect.

It received approval from MRA to drive an exploration adit below former artisanal workings with cross cuts and underground drilling to delineate the potential resource to a depth of 100 metres. The development of the adit commenced in August last year.

Mining is being carried out with simple rock drill, blasting and hand mucking methods with wheelbarrows used to push the material out of the workings for possible later recovery.

An underground diamond drill rig is expected to commence drilling in February with a total of ten holes to provide potential coverage for 120 metres of strike and 100 to 120 metres of dip extension of the projected mineralised zone.

Crater said the company has generated sufficient geological and assay information to complete a successful pre-feasibility study as a precursor to the Mining Lease application.

WOODLARK GETS IN-PRINCIPLE ENVIRONMENTAL APPROVAL

Kula Gold has received written Environmental Approval in principle from the Minister for Environment and Conservation, John Pundari, and expects to receive an environmental permit in the current March quarter for its Woodlark gold project.

The Mining Lease Application is with the Mining Advisory Council for final recommendations to the Minister for Miing, Byron Chan.

A feasibility study completed in September 2012 defined a resource of 2.1 million ounces and a reserve of 766,000 ounces based on an optimised gold price of US$1,200 an ounce.

AMAZON BAY IRON SANDS TAKES STOCK IN CENTRAL PROVINCE

Foyson Resources has been making good progress with its Amazon Bay iron sands project (EL 1396), having successfully completed the Mining Wardens' hearing. It lodged an exploration renewal application that contains plans for completion of a definitive feasibility study.

The company's December quarterly report said the project had received strong Government support following the presentation of a scoping study to the Mineral Resources Authority.

Foyson commissioned a smelting technology review that has identified various direct reduction techniques as suitable for treatment of concentrate from Amazon Bay.

The study by Electrum Pty Ltd concluded that Amazon Bay concentrate was suited to DRI (Direct Reduction Iron) technology with the high titanium and vanadium content making it attractive in a number of markets.

Foyson's quarterly said a number of Chinese parties had expressed interest in Amazon Bay and due diligence studies were continuing. This has involved sampling of iron sands at various sites and product testing at laboratories in Beijing.

Foyson said its current focus on the iron sands project has led it to relinquish exploration licences covering the Golden Peak and North New Britain properties with discussions underway on potential farm-in opportunities for the Atui copper project (EL 1642) in South New Britain.

GOVERNMENT NEWS

PRIME MINISTER O'NEILL: 'HISTORIC LNG SALES REQUIRE WISE USE OF REVENUES'

Prime Minister Peter O'Neill told the PNG Leaders' 2014 Summit on Feb 10 that the next 12 months "will be historic" for the PNG economy with the start of LNG revenues to the government and landowners.

"LNG exports to the world is an exciting opportunity for PNG. We must manage wisely the revenue that will flow to governments and landowners and pursue other oil and gas and downstream projects," O'Neill said.

The Prime Minister raised the possibility that LNG exports will lift PNG's gross domestic product growth rate in 2015 to "the highest in the world".

He told Cabinet Ministers, Provincial Governments and heads of various National Government departments the country now needed to diversify the economy from "over dependency on the mining and gas sectors".

Among the government priorities in the coming year was the need for direct government investments in agriculture; fast tracking of infrastructure developments; building capacity for higher education while entrenching "compulsory free education and further improvements in the health sector and law and order.

TREASURY SECRETARY SAYS CONDENSATE EXPORTS COULD START SOON

Treasury Secretary Daire Vele told the PNG Leaders' 2014 Summit condensate exports from the PNG LNG Project could commence in a few weeks, prior to the export of liquefied natural gas.

Vele made the comment while noting that Treasury was currently looking at ways to broaden the country's tax base in the face of deficit budgets in the last two years.

"Our No 1 priority is economic growth - growth feeds us. Ten years ago we did not think about economic growth," he said, adding that the 9% average GDP growth rate in recent years has enabled the government to increase spending on infrastructure and improved service delivery.

Vele said the dramatic increase of National Government funding at the district level has helped with decentralisation so "growth is more broad-based" with more of the population benefitting from development programs.

While emphasising that government partnership with the private sector was important, Vele noted that the budget framework had to take into consideration "must do items" such as the 2015 Pacific Games in Port Moresby, tuition-free education, and the National Government decision to host the 2018 APEC Summit.

There is already a K250 million shortfall in budget expenditure for the Pacific Games in the next two years, adding that the upgrading of Port Moresby's road network was necessary for the SP Games as well as the APEC Summit.

Macroeconomic stability and fiscal growth are major government requisites in terms of managing the economy.

Fiscal discipline in managing the K15 billion budget this year was important but it was also important to manage public sector borrowing well to avoid the "crowding out" effect on the private sector.

"Money is not our problem but our ability to efficiently spend; having more money is not going to fix your problems. We need to face up to our implementation shortcomings," he said.

MINISTER DUMA BRIEFS PNG LEADERS' ON LNG AND PETROCHEM VENTURES

Petroleum and Energy Minister William Duma told the PNG Leaders' 2014 Summit the US$19 billion PNG LNG Project will make its first LNG export shipment in the third quarter of this year.

Duma said there were many exciting projects under consideration. "Why do they come here and invest?" he asked, adding: "We have one of the best fiscal regimes in the region; we must not forget that, but we are also competing with Australia and the United States in the market. Unless we seize the opportunities we will always regret it."

Minister Duma said he was reviewing the recent InterOil agreement with Total to see if it meets the requirements of the 2009 Gas Agreement with the PNG Government. "If it does I will ask Total to expedite it (the LNG project)."

Other projects referred to by the Minister included:

- Stanley Gas-Condensate Project: The first hydrocarbon project in Western Province, costing some US$700 million, is designed to produce electricity for Ok Tedi and condensate for sale to refineries. Duma anticipated Cabinet approval soon followed by negotiations on an Integrated Benefits Package.

- Ketu-Elevala-Tingu Project: Minister Duma anticipated Cabinet approval for a PDL later this year with the prospect of a sign off prior to the 2015 budget in November.

- A Methanol-DME Project: The PNG Government has received a thorough proposal from Japan's Mitsubishi Chemical and Itochu for a US$2 billion project.

- A Methanol-Urea Plant: Minister Duma said a Japanese company, Sojitz Corporation, has expressed interest in such a plant and Government Ministers have visited a similar facility in Indonesia.

Duma said the two petrochemical projects would give PNG its first opportunity to become involved in the downstream processing of gas.

DPE SAYS IT HAS NO FUNDING TO ASSESS ONGOING PROJECTS

The Secretary for Petroleum and Energy, Rendle Rimua, told the PNG heads of department meeting on Feb 4 that budget funding had not been provided for his department to commence any review of the Mananda PDL application.

He also indicated that plans for completion of the clan vetting exercise linked to the PNG LNG Project has been stalled because the budget allocation had not been approved for the second phase of that exercise.

He said DPE had also not received any government funding for its exercise to convert the Department of a Petroleum and Energy into an Authority since this exercise got underway in 2010.

Rimua said managing staff at the department was "a nightmare" because they were spread out in four different locations.

He said the only funding provided in the PNG budget for project work by DPE was for development of an Electricity Industry Policy.

The Chief Secretary, Sir Manusupe Zurenoec, in his closing remarks said the funding issues of DPE needed to be looked at.

TREASURY PREDICTS RECORD REVENUES FROM LNG

The PNG Government's 2014 PNG Budget released last November has forecast that revenue from LNG exports, anticipated to commence in the second half of this year, will be valued at around K1.8 billion in 2014.

This will rise next year (2015), the first full year of production, when exports are anticipated at 6.9 million tonnes of LNG annually valued at more than K10 billion to become the country's dominant export earner.

Gold, traditionally the No 1 export commodity, will be valued at almost half this amount with PNG Treasury forecasting gold export revenues of K5.8 billion in 2015, up from K5.4 billion in 2014.

The export of oil will also fall in significance compared with condensate or light crude oil from the PNG LNG Project. Oil export this year was forecast to be worth K1.2 billion from 5.5 million barrels, falling to just over K1 billion from 4.4 million barrels next year.

Condensate, which will also be piped through the Kumul oil export terminal in the Gulf of Papua, will amount to 2.7 million barrels worth K491 million rising to 11.2 million barrels worth almost K2 billion in 2015.

OVERSEAS NEWS

INDONESIAN REVENUES HURT BY EXPORT BAN ON UNPROCESSED MINERALS

The export of copper concentrates and other unprocessed minerals has ground to a halt in Indonesia since January 12 following implementation of a law passed by the Indonesian Government in 2009.

According to Reuters News Service export of unprocessed minerals is worth US$500 million monthly. Indonesia is the world's largest nickel exporter and the Freeport's Grasberg mine in West Papua is the world's fifth biggest copper mine.

Reuters quoted the government's finance minister as saying that government revenue would fall by as much as US$820 million this year as a result of the export ban.

In recognition of the severe financial impact Indonesian President Susilo Bambang Yudhoyono relaxed the ban on export of copper concentrates at the last minute but imposed an export tax that rises from 25% this year to 60% in 2016.

This has halted all copper concentrate exports. The Freeport mine said it would cut production by 60% since it already processes 40% of mine output at its smelter, the only copper smelter in Indonesia.

Newmont has also halted shipments from its big Batu Hijau copper mine, which together with Freeport's operation produce 97% of Indonesia's copper.

A recent issue of the Economist magazine, published an article titled, "Smeltdown: The government risks an export slump to boost the metals-processing industry."