StockAnalysis

Written under AFSL: 259730

1 June 2017

By Peter Strachan

Indices and Prices	
All Ordinaries	5,756.00
Energy Index	9,456.70
Brent AU$/bbl	70.1836
AUS$/US$	0.7465
Live Gold/AU$	1,691.58
As at close 30 May 2017	

First published in StockAnalysis Issue 18, Volume 14 - 31 May 2017

Sacgasco Ltd

Gas for a premium Californian market

Capital Structure	
Code	SGC
Shares	197.3 m.
Options	34.6 m.
Price	$ 0.070
Market Cap	$ 13.8 m.
Cash (est Jun '17)	$ 1.1 m.

Recommendation: Sacgasco remains a speculative buy.

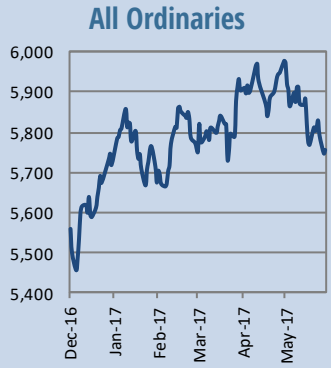
The company restructured and increased its ownership as well as expanding gross lease holdings over California's northern Sacramento Basin. Having completed a series of farm-out agreements the company is now funded to move ahead and drill the Dempsey well in July '17, targeting up to 1 Tcf of gas in over seven identified stacked zones to a depth of 3,200 metres.

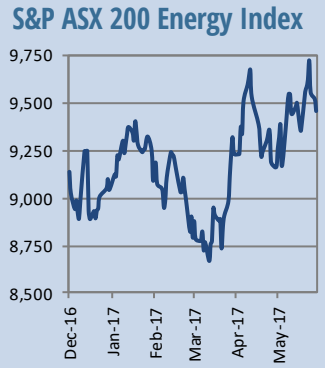
StockAnalysis estimates that discovery of 500 Bcf of gas at Dempsey would be worth 86 cents per share to Sacgasco, while discovery of 20 Bcf would support the company's current market capitalisation. StockAnalysis assesses a risked exploration value of $90 million or 26 cps on a diluted basis.

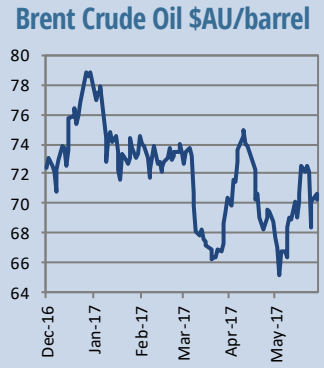
Funded for drilling at Dempsey gas target in July '17 . . .

Several +1 Tcf sized prospects mapped with structural closure & confirming seismic anomalism . . .

Tightly held gas exploration company **Sacgasco** (SGC) has farmed-out to fund drilling on the 1 Tcf Dempsey gas prospect in the Sacramento Basin while arranging funding or partial funding for additional wells along the Dempsey trend as well as for the 1.6 Tcf Alvares prospect, which may be able to be re-entered to deepen and test at low cost.







- Following a placement of new equity to raise $1.7 million in late March '17, and after payment for new exploration/development permits and gas production assets, Sacgasco is estimated to hold about $1.1 million of cash by June 30 '17. The company has sufficient funding to complete a well at Dempsey but should seek additional funding for ongoing projects.
- A fully completed, $6 million Dempsey well is now scheduled for drilling in July-August 2017. StockAnalysis estimates that SGC will pay no more than ~A$900,000 towards drilling and completion costs while retaining a 50% working interest in the project.
- Low cost well integrity tests are planned for the Alvares-1 well that was drilled in 1982. This work will proceed ahead of testing for gas and possible re-entry to side-track the well in order to test deeper structures in late H2 '17.

Revenue from gas sales rising . . .

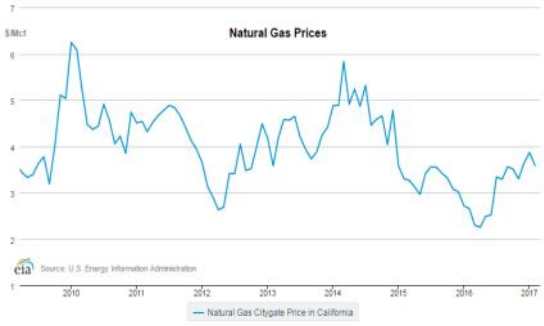
- Sacgasco is moving to bolster its gas revenue. Shut-in gas wells located on recently acquired leases will be reconnected for production, taking advantage of favourable pipeline logistics to lift gross gas output to over 2 mmcuft per day. Planned work-over and redrill activities on recently acquired gas production wells hold potential to lift output further, towards 5 mmcuft per day so as to boost revenue during H2 '17. StockAnalysis estimates that the company's share of revenue could initially rise to over A$160,000 per month from reconnections by October and double that by year's end if funding is available and well work-over activity is successful.

Rapid conversion of discovery to sales using existing infrastructure . . .

- A successful Dempsey well could rapidly be brought into production during H2 '17, utilising existing processing plant and transport pipelines. Additional funding would then be required to support a programme to follow-up with appraisal and development drilling over the structure.
- Depending on the level of success during 2018 and beyond, SGC plans to bring further gas production on-line from any discovery at the Alvares prospect, while also drilling prospects that have been identified and are in the process of being leased up.

Premium price in chronically under supplied Californian gas market . . .

- The price of gas in the USA has risen over the past year and the price paid by the Californian market sits at a significant premium to the Henry Hub marker price.



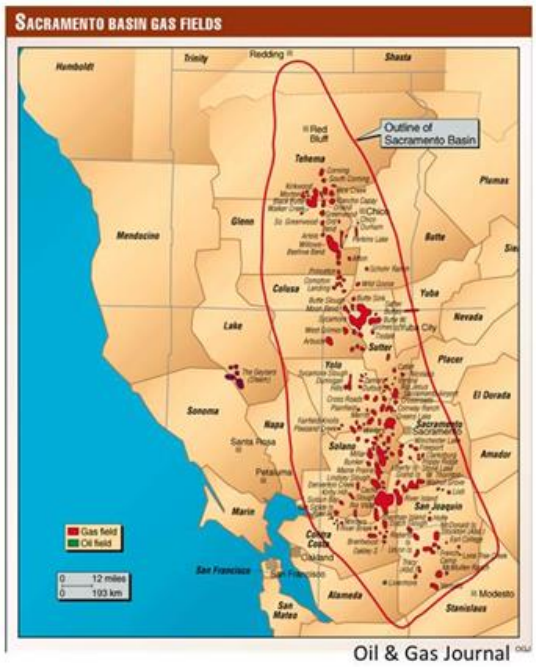
Forgotten Sacramento Basin

It is often said that the best place to find petroleum is where it has already been discovered. Very often, large fields lie hidden for decades before a change in technology or pure luck results in a new and massive discovery in an area that had previously been thought to have been well picked over and explored.

New thinking to find gas in known producing environment . . .

An excellent example is the recent discovery of a very large gas field at Waitsia in the Perth Basin by AWE and Origin Energy, +50 years after the first gas had been found. Here, reinterpretation of geological and geophysical data, plus new technology and a lot of luck, led to what is now looking like a field of over 700 Bcf of gas, right next to a transport pipeline!

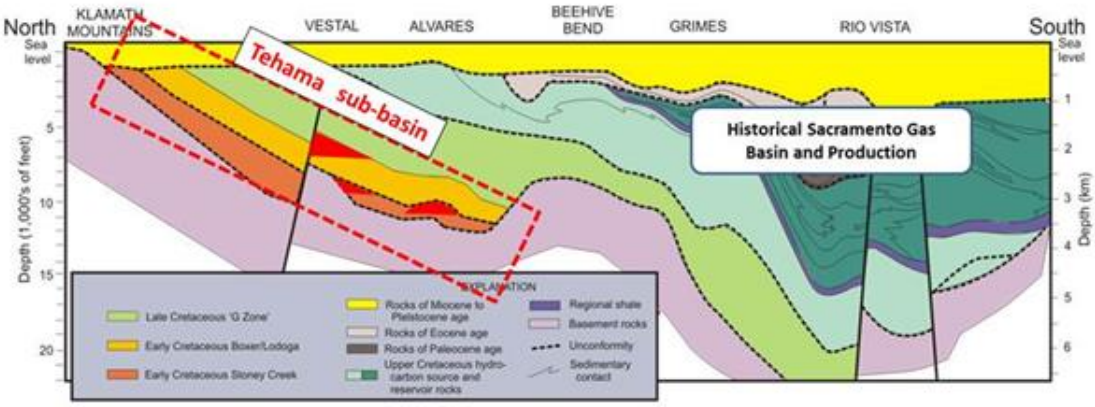
The Sacramento Basin sits inland from San Francisco and runs north towards Oregon State. The Basin has produced over 11 Tcf of gas from prolific sandstone reservoirs, mostly exploited from the centre of the Basin.



In recent times the industry has focused on oil production from the south of the State and there has been very little exploration in the region since the early 1980's.

Drilling on the flanks of the basin 30-40 years ago, focused on the potential for oil discovery. Shallow gas shows were produced but deeper sediments were largely ignored.

Sacgasco has identified targets along the Tehama sub-basin. Surprisingly, very little drilling has been carried out to date, even though thick gas columns were intersected. This is no better illustrated than at the Alvares prospect where over 1,500 metres of gas bearing sediments were found below a depth of about 2,500 metres.



Of the few previous wells drilled, only two are interpreted to have been drilled within structural closure and both these wells intersected up to 1,500 metres of gas shows, with samples indicating 'pipeline quality' dry gas.

Gas discovery at Tulainyo supports SGC's exploration thrust . . .

In early 2015, The California Resources Production Company and private partner Cirque Resources LP drilled the Tulainyo well in the basin, located on-trend and to the south of the Alvares prospect. As always in the US oil & gas game, drilling results are kept confidential even though gas was discovered below about 1,800 metres but could not be tested. Sacgasco's partner in the basin Bombora Natural Energy gained exclusive and confidential access to the technical data from Tulainyo and was so impressed that it has agreed to earn up to a 33.33% interest in the project under extraordinarily generous terms, by fully funding up to three wells on the prospect. This might also explain why Bombora was keen to farm in on Sacgasco's suite of prospects.

This sort of background activity for the basin supports the activities of Sacgasco as it continues to lease-up prospects that it is identifying off seismic data.

Gas production

Sacgasco has added to its gas production capacity through 2017. This groundwork will support anticipated success at its Dempsey-1 gas exploration well and also provides backup value should Dempsey turn out to be a duster, enabling the company to maintain solid focus on the under-supplied Californian gas market.

Following a recent purchase of 13 wells, Sacgasco has the rights to a total of 25 wells in the Sacramento Basin, including 10 gas producers and 15 that can be worked over and returned to production with some moderate investment.

Boosting gas production towards 2 mmcuft/day in a +7 Bcf/day market . . .

Through leasing activity in 2017, Sacgasco has secured gas processing plants, including meter stations and pipelines in the Rancho-Capay and East Rice Creek fields and adjacent to existing SGC producing assets at Rancho-Capay.

Gross gas production from all of Sacgasco's operating wells amounts to ~900,000 cubic feet per day. The company has identified shut-in wells for which it now controls infrastructure and pipeline access to reconnect for production, delivering a projected 1.5 mmcuft per day boost to gross gas sales.

With current net revenue interest in its wells averaging about 70%, before an Xstate option to take between 10% and 30% of Sacgasco's 50-100% working interests in the new leases, the company is in the process of boosting its share of monthly net revenue to over A$160,000.

California consumes an average of around 7.2 Bcf of gas daily through the year with about 90% imported from interstate. This year, following a crippling blow-out at the Aliso

Canyon gas storage facility, California faces a significant gas shortage and higher pricing during the winter months commencing in November. Cold weather typically sees Californian gas demand rise to as much as 11 Bcf per day, which will not be available while the storage facility is offline.

Dempsey prospect

Target +5 zones of 100 to +300 Bcf gas at Dempsey . . . plus shallow 3 Bcf targets . . .

The Dempsey natural gas prospect is Sacgasco's flagship prospect and remains the focus of the Company's near-term development plans. The prospect has the potential for near-term natural gas production because it is located below the company's existing production facilities.

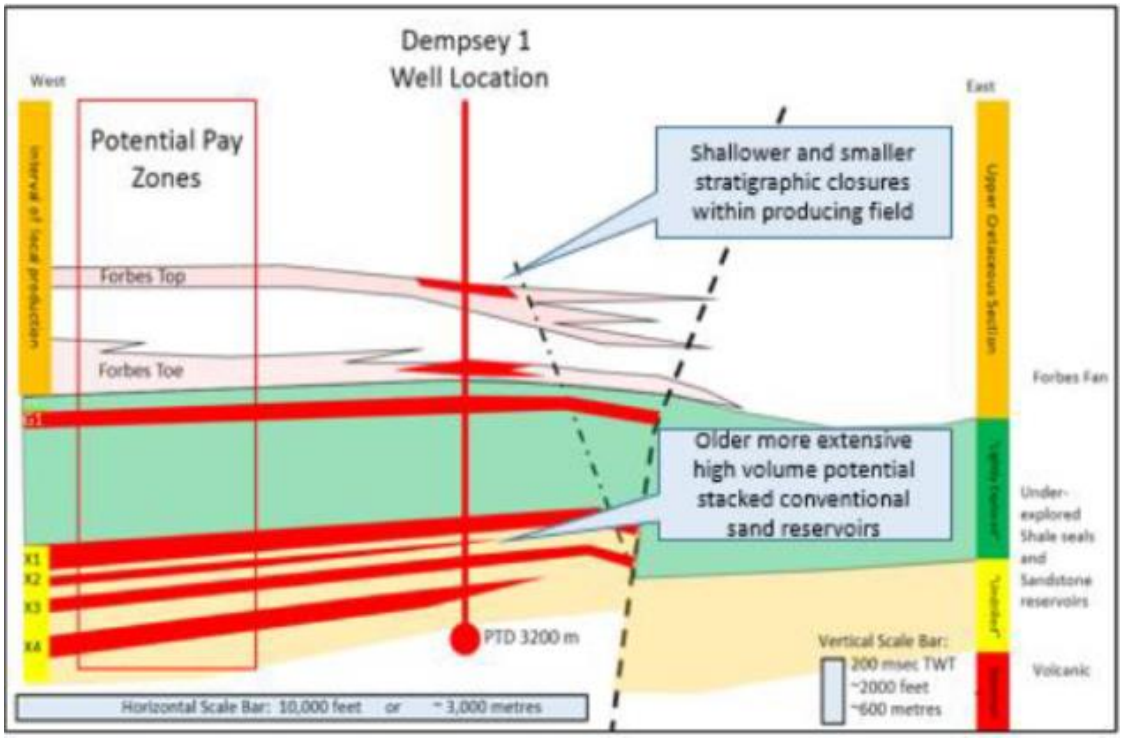
After farming-out a 50% working interest in the upcoming Dempsey-1 gas well to three incoming partners, Sacgasco retains a 50% working interest and has a commitment to spend approximately US$420,000 for an 11% paying interest in Dempsey's 'dry-hole' drilling cost. Assuming a total cost for drilling and well completion of ~US$4.5 million, StockAnalysis calculates that the company will be required to fund ~US$650,000 for the project if it is successful.

The partners at the Dempsey project are tabulated, showing working and approximate paying interests with amounts in USD for a dry hole as well as costs for a well that is tested and completed for production.

Dempsey	WI	Pay	Total cost USD m. Dry hole		Completed	
	%		$	3.8	$	4.5
Sacgasco	**50%**	**11%**	$	0.42	$	0.65
Empyrean	25%	46%	$	1.76	$	2.00
Bombora	10%	20%	$	0.76	$	0.85
Xstate	10%	10%	$	0.38	$	0.47
Magnum	5%	13%	$	0.48	$	0.53
Total	100%	100%	$	3.80	$	4.50

Cashed-up former Eagle Ford Shale player, AIM listed **Empyrean Energy** (EME: LN) has joined **Bombora Natural Energy** and **Magnum Gas and Power** (MPE) as partners with **Xstate Resources** (XST), agreeing to pay US$1.6 million plus some back-costs, to earn a 25% WI in the project, in a deal that is effectively paying 1.7% of the cost for each percentage point of interest earned in the well. Magnum will pay $650,000 or better than a 2 for one farm-in ratio, for a 5% working interest in the project while early entrant Bombora is paying 2:1 for its 10% working interest.

Sacgasco has identified two suitable drill rigs and is now seeking regulatory approvals ahead of drilling, expected in early July '17. While an assessed drilling cost of about US$3.8 million or A$5.1 million has been estimated, some further cost reduction might be expected in the current depressed operating climate where wages, equipment lease rates and cost of consumables are very competitive.



Sacgasco interprets 7 stacked target gas reservoir units at the Dempsey prospect where drilling will be designed as a combined appraisal and exploration well, drilled to a total depth of 3,200 metres.

The location and extent of each target zone is based on structural and seismic stratigraphic interpretation and good quality 3D seismic, integrated into regional 2D seismic and well information.

The company rates probability of success in a range of 40% to 10% for the individual prospective zones.

Individual, un-risked Deterministic Prospective Resources for the primary targets range from 116 Bcf to 352 Bcf of recoverable gas. Should all the stacked reservoirs be full of gas, a cumulative un-risked recoverable Prospective Resource within the prospect could exceed 1 Tcf. Several shallow Forbes Formation sandstone targets sit above ~1,800 metres, with each zone likely to hold 1-3 Bcf of gas, but the first major target zone should be reached at ~2,100 metres.

Importantly, seismic amplitude anomalism has been found to be highly diagnostic for the presence of gas in the basin. Primary target zones seen at Dempsey are interpreted to sit in a series of Cretaceous sandstone units that exhibit structurally coincident amplitude anomalies similar to those that are observed on seismic data elsewhere in the Sacramento Basin, where conventional sandstone reservoirs have trapped natural gas in mapped structural closures. This coincidence of structure, known reservoir units and seismic anomalism works to de-risk the project.

Key risks to the project going forward include:

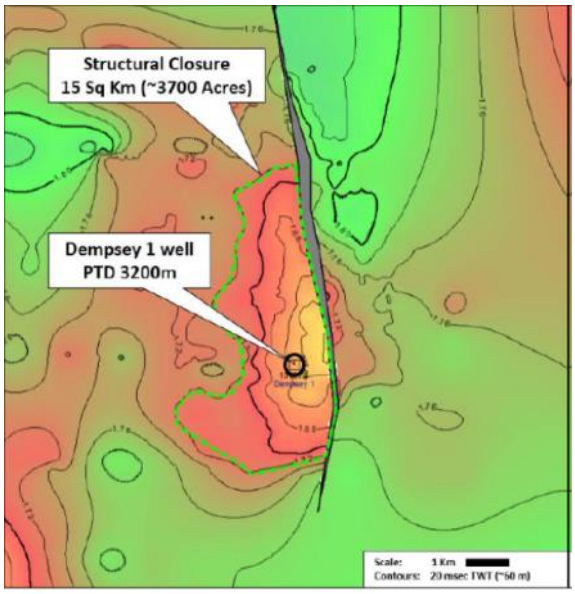
- Engineering risks associated with being able to drill a well and effectively test zones of interest.
- Unexpected zones of high reservoir pressure, which could impact on an ability to drill.
- The presence of gas in the target zones, though seismic data gives strong support.
- The quality of reservoir units intersected, which may prove to have low permeability and may thus not flow gas at a commercial rate.

A positive result at Dempsey, no matter how small, would improve the prospectivity for identified leads and prospects that could subsequently become drilling targets. At a minimum, the work has a high probability of finding enough shallow gas to repay drilling costs.

Several follow-up prospects identified . . .

Additionally, Sacgasco owns gas processing and transport facilities near Dempsey that would enable the joint venture to rapidly move into production from any gas found.

The location and extent of each zone is based on structural and seismic stratigraphic interpretation and good quality 3D seismic, integrated into regional 2D seismic and well information.



Structure Map near Top X1 Reservoir

Sacgasco has identified several additional prospects in the Sacramento Basin that might be considered as Dempsey look-a-likes. Empyrean has agreed to earn a 25% WI in the first three targets selected by paying 50% of the cost of the first well and 37.5% of the cost of the subsequent two wells.

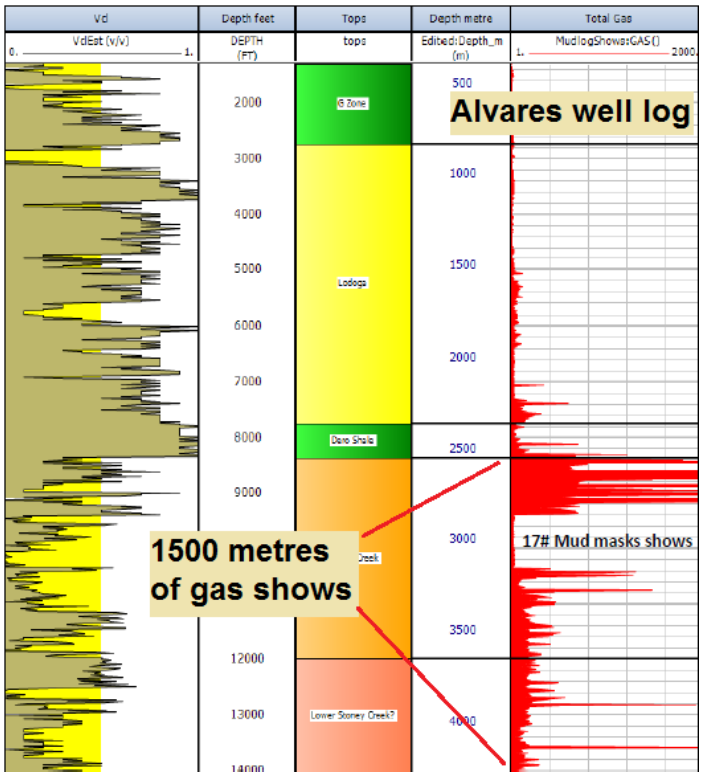
Alvares

Alvares is a large structure mapped on 2D seismic. Sacgasco interprets the prospect to hold prospective resources of over 2 Tcf of estimated potential recoverable gas. A well drilled by American Hunter Exploration Limited in 1982 exploring for deeper oil, intersected over 1,500 metres of gas shows. No valid flow test was conducted due to equipment limitations and a failure to find oil. However minor gas flows to surface were recorded even with these limitations.

Potential low cost re-entry at Alvares well if well integrity test is positive . . .

Empyrean Energy has agreed to pay 13.33% of the dry hole well costs in the next appraisal well to earn a 10% WI in the Alvares prospect. Dry hole costs include all costs up until testing and setting of production casing or abandonment. Empyrean's 13.33% earn-in is capped at a total well cost for Alvares of US$10,000,000, after which Empyrean will pay 10% of the costs moving forward. Empyrean has also agreed to pay US$20,000 upon signing of the deal.

The current status of the Alvares project sees SGC holding a 49% working interest, Xstate retaining 21%, while Bombora, Magnum and Empyrean are each earning a 10% working interest.



Alvares	WI	Pay %
Sacgasco	**49%**	**43%**
Xstate	21%	17%
Empyrean	10%	13%
Bombora	10%	13%
Magnum	10%	13%
Total	100%	100%

Assuming that Sacgasco retains a 27% WI on final drilling of a 780 Pj discovery at Alvares, StockAnalysis calculates a value to Sacgasco of $210 million could accrue if gas has an insitu value of A$1 (US$0.74) per Gj.

As currently structured, discovery of 120 Pj of gas at Dempsey would be worth $72 million to SGC, both of which compare favourably to the company's current market capitalisation of ~$14 million.

Joint venture partners will examine potential to use an existing well bore at Alvares to sidetrack and get a valid flow test, thus reducing costs for an initial test.

Valuation

Risked valuation of ~25 cents per share with upside towards $1 . . .

StockAnalysis assesses a risked value target for Sacgasco of 25 cps. This estimate is based on risked value for initial targets of 340 Bcf at Dempsey and 560 Bcf at Alvares, after diluting for all options and an additional $5 million of new equity at the current market price.

Taking a view of the company's entire lease portfolio, a risked value of close to $1 per share might be inferred.

As previously mentioned StockAnalysis assesses a value of $262 million or 86 cps for the company's 50% working interest in discovery of 500 Bcf at Dempsey.

Valuation	SGC	
	$ m.	$ / shr
Cash	1	$0.004
Options	5	$0.015
New Equity	5	$0.016
Dempsey	45	$0.148
Alvares	24	$0.080
Corporate	-4	-$0.013
Total	**$76**	**$0.250**

Source: Strachan Corporate

Leadership

Experienced oil & gas professionals . . .

Chairman Andrew Childs is also a Non-Executive Director of ADX Energy Ltd, and Principal of Resource Recruitment.

Managing Director Gary Jeffery graduated with a BSc in Geology and Geophysics from the University of New England and now has many years of project development, operations and exploration experience in the oil, gas and mining and energy utilities industries. He is an experienced director of public companies in Australia, Uganda and Canada, and has broad international experience in resources, and provides consulting services on energy and resource related matters.

Non Executive Director Philip Haydn-Slater was co-founder and director of HD Capital for over 5 years and has worked throughout his 36-year career within institutional sales for a number of well-known financial institutions. Prior to HD Capital he spent eight years as Head of Corporate Broking at WH Ireland Ltd in its London office. There he was responsible for originating and managing the sales process for a significant number of transactions.

Philip has worked in both London and Sydney for financial organisations, including ABN Amro, Bankers Trust, James Capel & Co and Bain Securities (Deutsche Bank) Sydney.

Company Secretary David McArthur is a Chartered Accountant, with over 28 years' experience in the accounting profession. He has been actively involved in financial and corporate management of a number of public listed companies over the past 28 years.

CONTACT

Peter Strachan: Peter@stockanalysis.com.au www.stockanalysis.com.au

Pex Publications: oilinfo@pex.com.au www.pex.com.au

PO Box 813, Mt Lawley, WA 6929 Tel: 08 9272 6555 Fax: 08 9272 5556

Disclaimer

The information or advice (including any financial product advice) herein is believed to be reliable and accurate when issued however, Strachan Corporate Pty Ltd ABN 39 079812945; AFSL 259730 ("Strachan"), does not warrant its completeness, reliability or accuracy. Strachan, its Directors and their Associates from time to time may hold shares in the securities mentioned in this report and therefore may benefit from any increase in the price of those securities. Opinions and estimates constitute Strachan's judgment. The author certifies that the views expressed in this document accurately reflect the analyst's personal views about the subject company and are subject to change without notice. Strachan, its officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The investments and strategies discussed herein may not be suitable for all investors. In preparing such general advice no account was taken of the investment objectives, financial situation and particular needs of a particular person. Therefore, before acting on the advice, you should consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. There may be a product disclosure statement or other offer document for the securities and financial products we write about in StockAnalysis. You should obtain a copy of the product disclosure statement or offer document before making any decision about whether to acquire the security or product. If you have any doubts you should contact your investment advisor. The investments discussed may fluctuate in price and changes in commodity prices and exchange rates may have adverse effects on the value of investments.

Recent Strachan Corporate commissioned research or corporate advisory services have been supplied to the following companies, for which it has received a fee. Xstate, Sacgasco, Rox Resources, Rawson Resources, Incremental Oil & Gas, Peel Mining, Mining Projects Gp, Horizon Oil, Kingston Resources, Aurora Minerals, Real Energy Jacka, Carnarvon Petroleum, Lion Energy, FAR Ltd, Galaxy Resources. In addition, over that period Strachan Corporate has delivered lectures at several Universities, provided expert witness statements and confidential financial services and advice to listed companies, several private investment companies and institutions as well as private investors. Disclosure of interests in these confidential actions by Strachan Corporate is only appropriate should Strachan Corporate determine a potential for conflict of interest.

The author has small holdings in shares of SUN, SGC, modest holdings in IGO, AZZG, TDO, SRI, ADX, ANZ, NAB, PTM, FAR WSA & WPL and larger holdings in RFX, AWE, FZR, RIC, HAV, IDR.

StockAnalysis

SUBSCRIBE NOW FOR ONLY $450 AUD

YOUR WEEKLY MARKET ANALYSIS

StockAnalysis is a weekly evaluation of the companies most likely to provide a healthy return on your investment. Presented by respected analyst Peter Strachan, BSc, SF Finsia. StockAnalysis aims to help you outperform the market by identifying undervalued, growth companies with a focus on the energy sector.

- Assessment of the big issues facing the stock market
- Stock recommendations with specific analysis
- Company analysis and performance results
- Comment on economic environment
- Takeovers, mergers and new floats
- Stocks to watch

SUBSCRIBE NOW

Subscribe online at www.stockanalysis.com.au or fill out the form below and either fax it to us at **+61 8 9272 5556**, scan and email to **info@stockanalysis.com.au**

Yes, I would like to subscribe to StockAnalysis

Your StockAnalysis will be available via the website with a secure login.

I would like to subscribe for: 12 months ($450): ☐ 6 months ($250): ☐ 3 months ($150): ☐

Name: .....

Address: .....

.....

Phone no: ..... email: .....

Where did you hear about StockAnalysis?: .....

Promo code (if applicable): .....

PAYMENT OPTIONS = EFT / Mastercard / Visa / Amex / Deposit to our account

Please note that we do not accept cheque payments by mail. No additional fees are charged for credit card payments.

Invoice me: ☐

Credit card: ☐ MasterCard: ☐ Visa: ☐ Amex: ☐

Card name: .....

Card number: ..... Exp date:___/___

EFT deposit: ☐

Bank: National Australia Bank, Melbourne Victoria 3000

Account: BSB: 083 004 Account # 56 951 8410 Account name Pex Publications Pty Ltd

Please fax to +61 8 9272 5556, scan and email to info@stockanalysis.com.au, call 1300 661 553, or go to: www.stockanalysis.com.au