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Canadian Overseas Petroleum

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Oil & gas

Canadian Overseas Petroleum (COPL) is a junior E&P company with principal focus offshore Liberia. COPL has brought in a strong working partner and operator in the shape of ExxonMobil (XOM), where play-opening exploration success in early 2014 could unlock substantial value for shareholders. COPL is also planning entry into Nigeria by acquiring producing/development assets to lower its wider portfolio exploration risk. Based on current Liberia drill activity our RENAV value of C$0.36/share implies 44% upside. However, taking into consideration the play-opening potential of its Liberia block, we anticipate a risked M&A valuation of C$1.60/share in the event of exploration success.

Year end	Revenue (C$m)	EBITDA (C$m)	PBT (C$m)	Debt (C$m)	Net (debt) cash (C$m)	Capex (C$m)
12/11	0.0	(54.3)	(53.4)	0.0	71.9	(35.3)
12/12	0.0	(56.6)	(56.7)	0.0	4.4	(0.4)
12/13e	0.0	(8.1)	(7.9)	0.0	4.0	(1.4)
12/14e	0.0	(8.2)	(8.2)	(5.1)	0.9	0.0

Unlocking Liberia

COPL's entry into Liberia was finalised in May 2013, with the company now holding a 17% stake in LB-13 in exchange for a C$120m gross carry that should see it drill two wells (including one sidetrack). Encouragingly, partner Exxon, aware of the fact that additional detailed seismic work has been completed by COPL to further delineate prospects, has already farmed into Block LB-13 offshore Liberia. In view of that work, we expect upside to existing CPR prospective resource estimates that currently sit at 2.6bnboe gross. The presence of Exxon gives a strong endorsement for the exploration acreage, and provides financial backing, technical expertise and scope to open up a new frontier basin in the event of exploration success.

Nigerian acquisitions

COPL is looking to increase its African exposure through entry in Nigeria via producing/and/or development assets. This would lower specific portfolio exploration risk in COPL, and may provide a useful source of income. COPL also has existing unconventional assets in New Zealand, where drilling is not planned until 2015.

Valuation: Exploration success key

Our DCF methodology results in a RENAV of C$0.36/share, which implies 44% upside; however, this is restricted to initial drill targets. COPL investors may ascribe value to the potential play opening economics of Liberia, although in the event of exploration success we consider there is still substantial upside, with M&A metrics suggesting a valuation of C$1.60/share. Getting to a drill-ready position has not been easy for COPL, having farmed out 83% of LB-13, although the terms of the deal are still above African industry metrics.

7 November 2013

Price	**C$0.24**
Market cap	**C$78m**
	C$1.03/US$
Net cash (C$m) as at end March 2012	4.3
Shares in issue	326m
Free float	99%
Code	XOP
Primary exchange	TSX-V
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(20.0)	33.3	23.1
Rel (local)	(23.7)	24.3	13.7
52-week high/low		C$0.32	C$0.12

Business description

Canadian Overseas Petroleum is an African-focused E&P with assets in Liberia and plans to expand into Nigeria. ExxonMobil is its operator and farm-in partner in Liberia Block LB-13.

Next events

Quarterly results	Q313
Exploration well LB-13	H114
Full-year results	Q214

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Edison profile page

Investment summary: Unlocking Liberia

Company description: Endorsed by Exxon

Canadian Overseas Petroleum Limited (COPL) is a TSX-V listed E&P company targeting deepwater exploration prospects offshore Liberia and unconventional resources in New Zealand. Its management team was derived from former UK North Sea-focused Oilexco, which was wound up in 2009. COPL initially tried to replicate Oilexco's North Sea focus, but without success the company has more recently pivoted to West Africa. A differentiating feature of COPL from other Africa juniors is its depth of experience in advanced seismic processing to delineate prospects. This has been applied across its Liberian acreage, enabling it to secure a farm-out deal with Exxon. We particularly highlight the progress that Exxon is making with drilling as a measure of it enthusiasim towards the project. Two exploration wells are planned for H114 in block LB-13, where COPL has a carry for $120m of gross drilling costs. The company also has a 50% interest in the eastern portion of the North Island of New Zealand, where the Whangai and Waipawa shale's exhibit Bakken type characteristics. As part of a wider strategy to lower its exposure to exploration risk, COPL has indicated its intention to expand further into Africa through acquiring producing/development assets in Nigeria.

Valuation: Exploration success key

We have valued COPL using three valuation methodologies. Our preferred valuation methodology of risked DCF RENAV analysis, which implies a value of C$0.36/share, is complemented by farm-out and M&A values, which give a range of C$0.11/share to C$1.60/share. We would expect interest and potential share price appreciation close to the pre-drill date with significant upside in the event of exploration success at COPL's primary exploration prospect in Liberia. In New Zealand where it has a 50% interest in Permit 53806 located in onshore North Island, this has minimal value at this point and we see it as non-core.

Financials: Full exploration carry by Exxon

COPL reported limited cash resources of C$8.5m, and we forecast FY13e cash of C$4.0m, given G&A costs of C$7.7m in FY13 related to headcount, analysis of seismic data in Liberia, as well as ongoing expansion plans in Nigeria. COPL is, however, carried for $120m of gross drilling costs. Cash burn does imply that existing cash will last only to mid-2014.

Sensitivities: Project phasing and future funding

The key risk factors that investors in COPL should be aware of are:

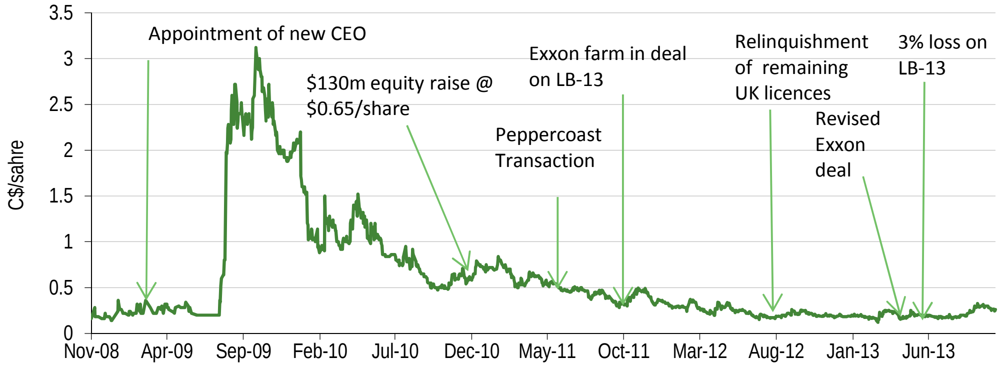
- Time to first oil production: Large deep water projects require substantial planning and are exposed to slippage both in terms of execution and other variables like the weather.
- Political risk: Several civil wars and low economic growth make for a relatively fragile democracy. This risk of a change in the political landscape could undermine confidence and foreign investment in the Liberia
- Funding risk: COPL is fully carried on $120m of drilling costs by Exxon, which we believe is sufficient for two wells, but beyond this it has limited access to sources of finance, having already farmed down 83% of LB-13 in offshore Liberia.

Company description: Endorsed by Exxon

COPL is a junior E&P with former management derived from Oilexco, a UK E&P with assets in the North Sea. Oilexco was a successful E&P player with producing assets worth $3.8bn in mid-2008. Unfortunately Oilexco went bankrupt in 2009, with Premier Oil acquiring the entire asset base. COPL sought to repeat Oilexco's North Sea success by acquiring interests in exploration acreage. To date, COPL has not achieved commercial exploration success in the North Sea, and has now shifted its attention towards Africa instead. COPL entered Africa in May 2011, through the acquisition of Liberian offshore acreage in Block LB-13. The Liberian basin lies adjacent to Sierra Leone where a number of significant discoveries have been made. The first discovery in offshore Liberia was made by African Petroleum in February 2012 on the Narnia-1 prospect. Chevron has drilled Carmine-1 in Block 12, which lies adjacent to COPL's Block 13, although drill results have not been reported yet.

COPL also has unconventional assets in New Zealand, including the Whangai and Waipawa shales. As part of a wider strategy to lower its exposure to exploration risk, COPL indicated its intention to expand further into Africa through acquiring producing/development acreage in Nigeria.

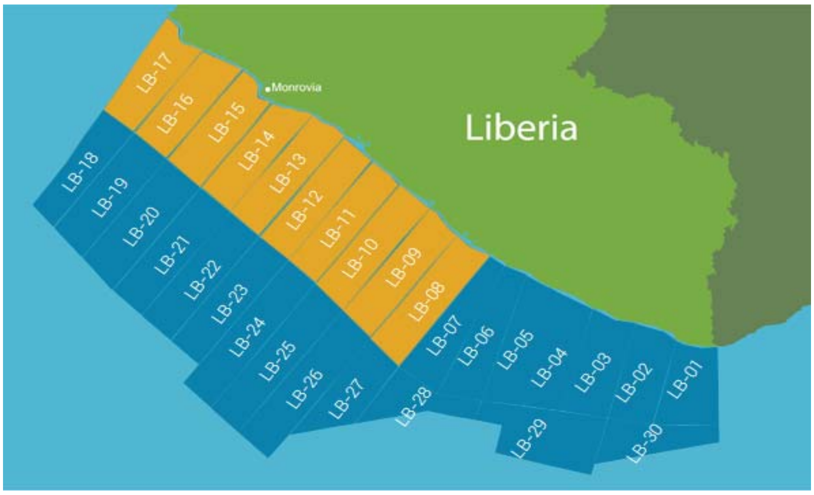
Exhibit 1: COPL five-year share price



Source: Bloomberg, Edison Investment Research

Liberia

Exhibit 2: Liberia offshore acreage (currently licensed in orange, unlicensed in blue)



Source: National Oil Company of Liberia

Liberia's offshore lies on the West African Transform Margin and could become a significant oil province in the future, reflecting the success achieved by Tullow, Kosmos and Anadarko in offshore Ghana at the Jubilee field.

The Liberian Basin consists of 30 concessionary blocks. Of this total, 17 are on the continental shelf (water depths 2,500m to 4,000m). These have all been licensed, and owners include Anadarko, Chevron, ENI, Repsol and Tullow, so COPL represents a rare pure-play entry into this area. The remaining 13 blocks are considered "ultra deep" with water depths of as much as 4,500m. The current technical limit for ultra deepwater rigs is 3,657m (12,000ft), which means most of the ultra deepwater blocks in offshore Liberia are currently not accessible.

Before 1985 drilling concentrated on the shelf and upper slope, in water depths of less than 500m, mostly targeting Albian and older intervals. Chevron drilled the IIB-1 deep well in Block 12, which proved to be dry. Since then a series of dusters was experienced by operators, with the trend being broken with African Petroleum's discovery in Block 9 (deepwater well Narnia-1) in February 2012, which has been further enhanced by Bee-Eater-1, announced as a discovery in February 2013, again in Block 9. These two discoveries are being used to delineate further exploration targets in Block 9.

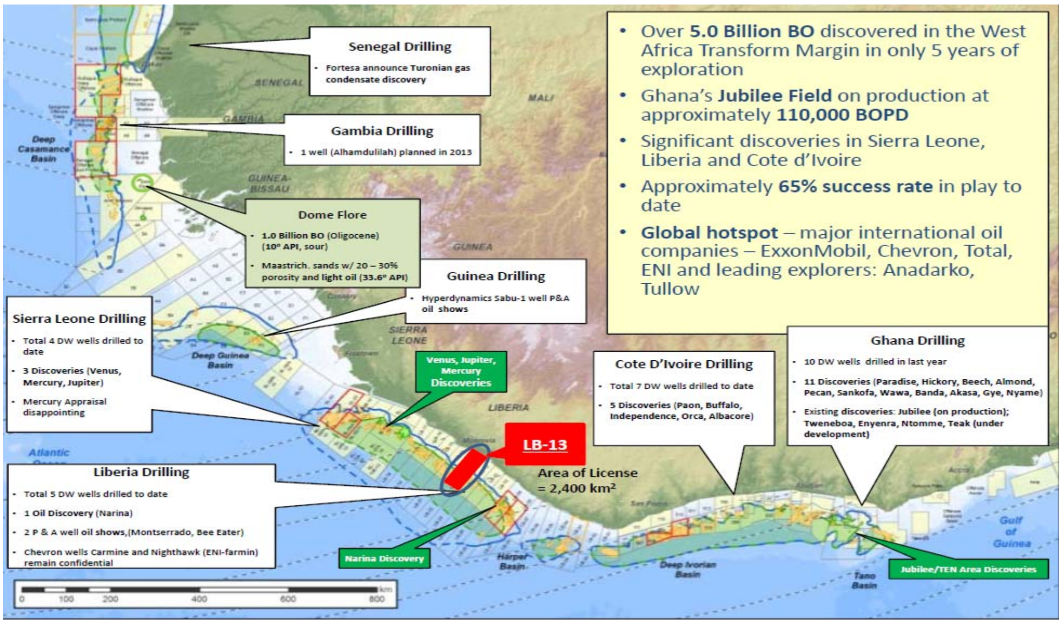
Exhibit 3: Historical drilling activity in offshore Liberia

Date	Operator	Well	Depth (m)	Block	Result
1970	Chevron	IIB-1	2,930	13	Dry
1972	Frontier Oil & Gas	Cestos-1	3,154	9	Dry
1980s	Amoco	S1-1	4,137	17	Dry
1985	Amoco	H2-1	457	12	Dry
Jun-05	Amoco	A2-1	78	14	Dry
Oct-10	Anadarko	Montserrado-1	5,400	15	Dry
Aug-11	African Petroleum	Apalis-1	3,665	9	Dry
Feb-12	African Petroleum	Narnia-1	4,850	9	Discovery, 32m net pay
May-12	Chevron	Nighthawk-1	4,785	11	Not reported
Jul-12	Chevron	Carmine Deep-1	4,693	12	Not reported
Feb-13	African Petroleum	Bee-Eater-1	4,100	9	Hydrocarbon shows, 135m net pay

Source: National Oil Company of Liberia

The wider West African region has seen activity levels increase as prospectivity has improved with success rates of 65%, and over 5bnbbl have been discovered in the past five years according to Tullow. Interest in Liberia also increased following the Venus discovery in Block SL 6/07 in September 2009 by Anadarko. Venus marked the first discovery in the Sierra Leone-Liberian Basin, with Anadarko describing the achievement as "established bookends spanning approximately 1,100 kilometres (700 miles) across two of the most exciting and highly prospective basins in the world." This referred to Jubilee in offshore Ghana and the Venus discovery in the West. Following on from this success, Mercury-1 was discovered in November 2010, 40 miles from Venus-1 in SL-07B-10. Jupiter-1 was discovered close by in SL-07B-11 by Anadarko, although oil/water contact was not established. All three discoveries have been made in Cretaceous type reservoirs and all are in deep water. The Cretaceous stratigraphy is applicable in Liberia, and this is something COPL is using to identify and map existing prospects in Block LB-13.

Exhibit 4: Drilling activity in wider West African region



Source: Canadian Overseas Petroleum

Block LB-13

Exhibit 5 shows the history of COPL's transactions related to block LB-13 since May 2011. The PSC was amended in March 2013, with the National Oil Company of Liberia (NOCAL) agreeing to fund the original COPL/Peppercoast deal and Exxon taking 80% for US$120m of gross drilling. This included a provision that a COPL local tax liability of US$7.2m, payable to the Liberian government by 20 June 2013, could be paid by Exxon with a forfeit of 3% (gross) on the stake of LB-13 from that date. This date passed without payment, so COPL's stake in LB-13 fell from 20% to 17%, therefore increasing Exxon's stake from 80% to 83%.

Exhibit 5: Timeline of transactions/deals on Block LB-13

Date	Event	Implied Value US$(m) (100% of LB-13 Block)	COPL stake	COPL Implied Value US$(m)	C$/share	Comment
May-11	Purchase of LB-13 from Peppercoast Petroleum for $85m	100	100%	100	0.30	Including $15m loan to Peppercoast
Nov-11	Initial Farm Out deal to Exxon over LB-13	250	30%	75	0.22	$36m carry (net), and $55m for 30% of PSC
Mar-13	Amended PSC with NOCAL and Exxon over LB-13 deal	219	20%	44	0.13	$120m carry and $55m both for 80% of PSC
Jun-13	Loss of 3% stake	233	17%	40	0.12	$7m for 3%
Now	Current situation	219	17%	37	0.11	$127m carry and $55m cash both for 83% of PSC

Source: Canadian Overseas Petroleum

Asset description

COPL has been working on this acreage for two and a half years since it first acquired it through Peppercoast Petroleum. Prior to finalising its acquisition of LB-13 and the subsequent C$8m equity offering completed in August 2013, a Competent Persons Report (CPR) was completed by DeGolyer & MacNaughton in May 2012 on all 13 prospects based on the available seismic. The results of this CPR are shown in Exhibit 6.

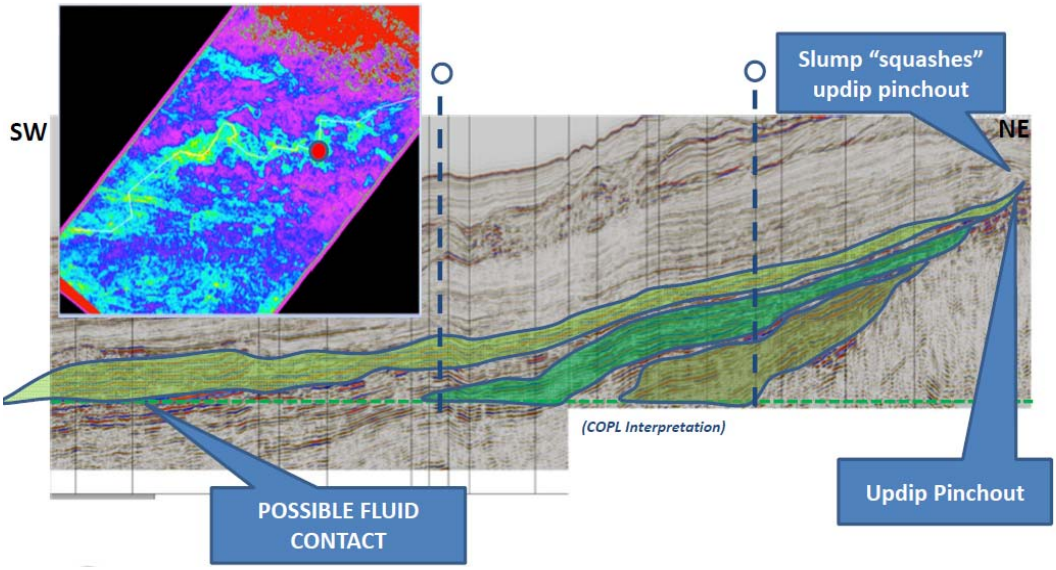
Exhibit 6: Prospective recoverable resources LB-13

(mmbbl)	P10	P50	P90
Gross	4,238.6	2,643.7	1,797.8
Net	720.6	449.4	305.6

Source: Canadian Overseas Petroleum

COPL has completed further extensive seismic analysis following D&M's report, and we believe therefore that these estimates could increase following this. Exhibit 7 shows some of this additional seismic work, with the primary prospect having an updip pinch-out point where there is evidence of slump or 'squashes' above the pinch-out point. This could indicate crushing, which effectively traps and seals the reservoir. An effective trapping mechanism is an important prerequisite for any viable reservoir.

Exhibit 7: Seismic Map of Block LB-13 Turonian to Intra Campanian

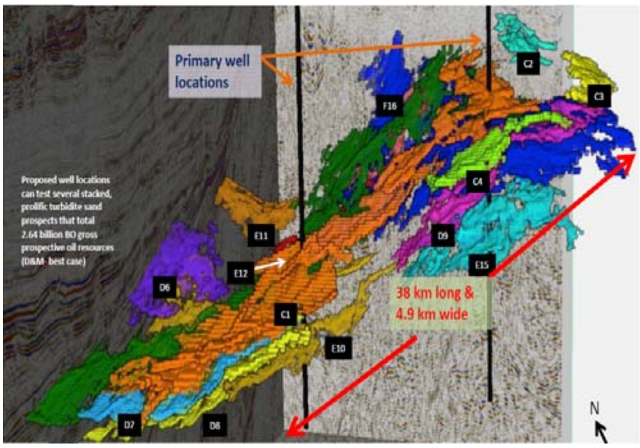


Source: Canadian Overseas Petroleum

COPL's technical team has extensive experience with advanced seismic AVO analysis to differentiate oil from water in stratigraphic turbidite fan systems and channel prospects. The technology essentially involves a sophisticated manipulation of existing AVO analysis known as Extended Elastic Impedance (EEI). Seismic amplitudes are converted into acoustic impedance values through the process of seismic inversion, which then is used in the interpretation of lithological and fluid information. The EEI processing on Block LB-13 was carried out for COPL by Ikon Science, a private company formed by Tullow Oil in 2001 through the demerger of Troy Ikoda. In 2002 Enterprise Oil took a 15% stake to form Shell Technology Ventures, and developed the EEI algorithm for application in its Nelson field in the North Sea to try to maximise recovery and the ultimate life of the field.

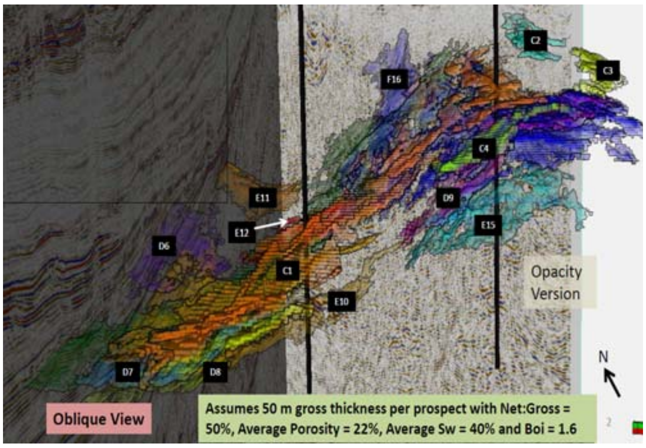
The COPL team has previous experience of using EEI successfully with Oilexco in the North Sea, for example on the Brenda field in 2004. The technique works most effectively in light oil reservoirs with porosities greater than 20%, so is only suitable for good-quality reservoirs. And although EEI is a known technique in seismic interpretation, it is not universally supported across the industry.

Exhibit 8: Liberia LB-13 (oblique view)



Source: Canadian Overseas Petroleum

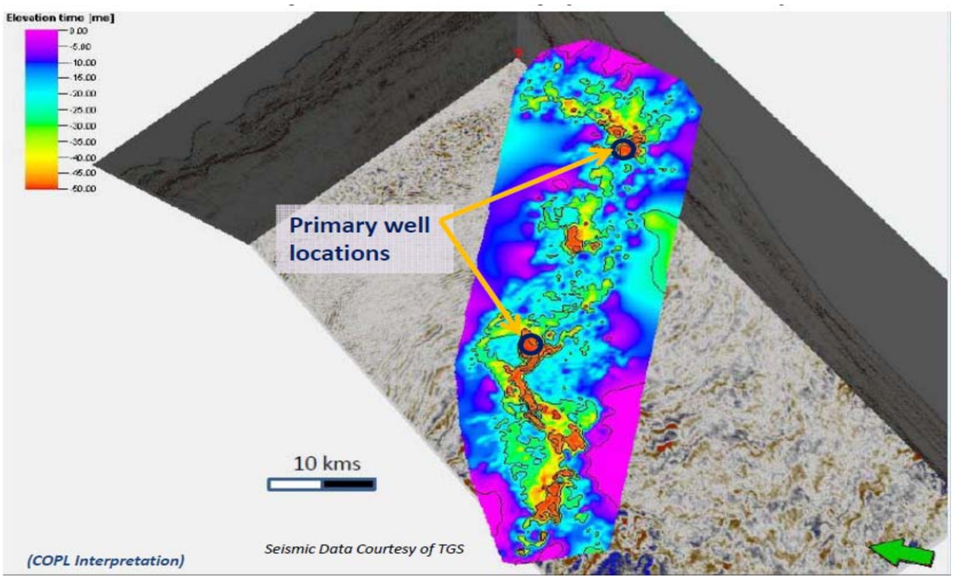
Exhibit 9: Liberia LB-13 (opacity view)



Source: Canadian Overseas Petroleum

Exhibits 8 and 9 show the use of EEI using an initial oblique view highlights areas with oil-bearing potential. The picture is then viewed using an opacity version, which strips out some of the areas highlighted using the oblique view to help to further delineate prospects. In effect it removes the 'noise' from traditional AVO pictures. One of the drawbacks is that although it is good at identifying water from oil areas, it is less useful for distinguishing gas from oil, although the AVO response tends to be stronger for gas than oil and relative brightness can be used as a guide.

Exhibit 10: Geobody C1 isochron map



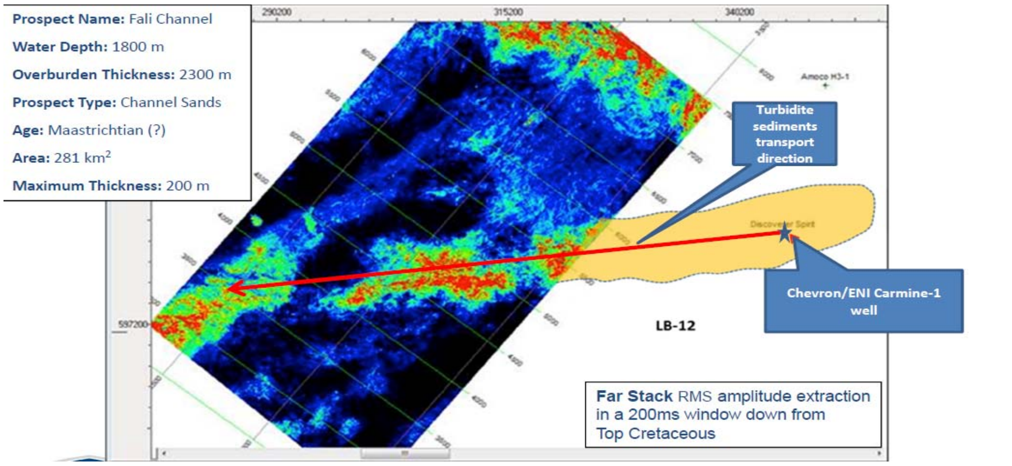
Source: Canadian Overseas Petroleum

Using Petrel E&P software, COPL has modelled several geobodies that can show the relative thickness of sand within the structure. At the core prospect (C1), COPL has generated isochron maps to analyse each stacked geobody within the turbidite sands across 'meander loops', the latter being former alluvial streams. Thick sand could indicate a good trapping mechanism. As well as the primary area, a secondary prospect area has been identified, which could be similar to LB-12.

Chevron's Camine Deep-1 exploration well is located in LB-12 and there is strong geological evidence from the current seismic that turbidite sediments were transported west through a channel system. These sediments are younger Maastrichian type sands similar to those found at the Teak offshore field in Ghana. To date Chevron has not revealed the result of Carmine Deep-1 well, however it has opened up a supply base in South East Liberia, which is four hours' sailing time from

Block 12. This activity could be related to ongoing appraisal activities in Block 12, as well as plans to drill in Blocks 11 and 14. According to COPL, Chevron has expressed an interest in its acreage, which may indicate success at Carmine Deep-1 given its proximity. Exhibit 11 shows where the secondary prospects lie in relation to LB-12. These have total estimated prospective resources of 1.2bnboe (D&M best case) across an area 40km long and 4.5km wide.

Exhibit 11: Secondary prospects LB-13 and LB-12 Channel



Source: Canadian Overseas Petroleum

New Zealand

COPL first entered New Zealand in November 2012, with the award of unconventional oil resource assets in Permit 53806, East Coast New Zealand, where it has a 50% JV with Marauder Resources (TSX-listed, market cap C$6m). It is targeting two shales, Waipawa and Whangai, which are Tertiary and Cretaceous aged respectively. Total gross prospective resources are 142mmbbls (P50) according to DeGolyer & MacNaughton's report dated 1 May 2013. Recovery factors are estimated by D&M to be 4.7-12%, with a risk factor of 5%. This implies net risked recoverable barrels for COPL of between 0.17-0.43mmbbl, which is small when compared to its Liberian resources.

The main target lies in the Whangai shale, which reaches thicknesses of 600m, with numerous oil seeps scattered throughout the region. The formation has been linked to many onshore oil and gas seeps, validating its potential as an unconventional reservoir. In addition, the formation is heavily fractured, providing natural pathways for enhanced flow rates. The Whangai formation is some 20 times thicker than the Waipawa formation, making its recoverable resources estimates significantly higher. Both formations have similar geological characteristics to the Bakken shale, with light oil and a high total organic content (TOC); however, the primary difference to the Bakken is that measured porosities in Waipawa and Whangai formations are significantly higher. Exhibit 12 shows the main geological differences between the Bakken and New Zealand shale plays. Companies active in East Coast New Zealand include TAG Oil and New Zealand Energy, with COPL's acreage lying on trend between the companies. TAG Oil has a two well exploration programme planned for 2013, with the first exploration well being spudded in April 2013 (Ngapaeruru-1) with a target depth of 1,800m. COPL is planning to drill in its acreage in 2015.

Exhibit 12: Bakken vs New Zealand shale play geological characteristics

Unit	Bakken	Waipawa	Whangai
Depth	2700-3500	0-5000	0-5000
Net thick (m)	10-50	10-60	300-600+
Primary perm (microdarcies)	40-50	10-200	10-110
Tmax	420-450	430-445	420-445
TOC %	1.1-12	3.0-12	0.2-1.7
Quartz content %	20-68	40-80	40-80
Vit Refl R	0.3-1.2	0.3-0.4	0.4-1.4
Total porosity %	8-12	9-23	16-31

Source: TAG Oil

In New Zealand, valuing shale assets is challenging given the early stage of development. We have opted to apply a $/acre multiple to estimate the value of the asset base based on M&A deals. Exhibit 13 shows that historic $/acre values in 2012 on New Zealand transactions have averaged $1.82/acre, which implies that COPL's 236,132 acres (gross) is worth $0.43m (gross), or $0.22m (net), which implies negligible value in terms of our NAV risked/unrisked values. In view of the immateriality of the New Zealand assets we have excluded them from our valuation section.

Exhibit 13: New Zealand shale deals

Date	Seller	Buyer	Asset	Price $m	Size of acreage (millions of acres)	$/acre
4 June 2012	Rawson Resources & Zeanco	TAG	PEP 38346	2.3	2	1.15
9 October 2012	Westech	NZ Energy Corp	PEP 38451	0.7	0.27	2.71
11 October 2012	Global Resource Holdings, Randall Thompson	NZOG	PEP 52181	9.5	4.0	2.35
19 December 2012	STP Energy	Loyz Energy	PEP 38479	6.5	4.12	1.58
Total				19.0	10.43	1.82

Source: Company announcements, Edison Investment Research

Other growth areas

COPL has stated its desire to expand its West African portfolio by expanding into offshore Nigeria. It would like to access proven reserves or resources, which require appraisal and/or development in order to realise near-term cash flow. The strategic thinking behind this is to lower the specific exploration-based risk of the current business model and provide longer-term stability to the company, as well as the ability to access debt financing through producing assets in the longer term. Nigeria is a proven oil province with a favourable taxation regime designed to encourage investment through various capital and investment allowances, which vary according to water depth.

UK assets and Oilexco

COPL's history in the UK North Sea has been a challenging one, given Arthur Milholland's former position as president and CEO of Oilexco, a UK E&P with assets in the UK North Sea that went bankrupt in January 2009. Oilexco faced the perfect storm of a global credit crisis combined with falling oil prices, which reduced from $147/bbl in mid-2008 to $34/bbl in late 2008. Efforts to raise funds via a bond and equity issue in November failed, and Oilexco was unable to finance itself as a going concern. The former assets of Oilexco were worth $3.8bn in mid-2008 based on market capitalisation. They were sold in March 2009 to Premier Oil for $505m by the administrators. Premier Oil subsequently went on to make significant discoveries on Oilexco's former assets.

Arthur Millholland and former technical staff members joined Velo Energy in August 2009. Velo Energy changed its name to COPL in August 2010. The UK's Department for Energy and Climate Change (DECC) refused consent to allow the transfer of North Sea Oil Exploration licences to Velo Energy, which included the Caledonia, Sheryl and Catcher blocks in the UK North Sea, a move that was symptomatic of government concerns post Oilexco's failure. The DECC subsequently agreed to allow this transaction to proceed but only on the basis that Velo would not be operator of the assets. In 2010 COPL launched an equity offering of $130m at $0.50/share, having increased the size of the offering from $60m originally. This was to acquire 50% of two blocks in the North Sea and a 40% interest in the Bluebell prospect in Blocks 15/24c and 15/25f, the latter proving to be dry in March 2012. COPL subsequently used $25m of the proceeds of the equity offering to enter Liberia.

BG as operator made a commercial discovery in the North Sea in 2012. A dispute over an escrow account set up to fund the costs of the exploration well led to BG terminating its agreement with COPL. A subsequent High Court ruling decided against COPL for the release of $16.1m in escrowed funds in October 2012.

COPL's exit from UK exploration was marked by the relinquishment of the Fulla/Freya development, which was farmed into in June 2010 for 60% of drilling costs carried and a 50% stake, with Faroe Petroleum remaining the operator (50% stake). COPL wrote off $20.9m related to Fulla/Frey as non-commercial and abandoned the project.

Management

COPL is led by Arthur Millholland (president and CEO) and Chris McLean (CFO). The company has two board members and four non-executive directors, and follows a North American structure with a governance board rather than a management board. Arthur is very much the driving force behind the company, having led Oilexco previously, and he has substantial geoscientific experience in advanced seismic AVO techniques.

- **Harald Ludwig (chairman and non-executive director)** – Harald is on the board of two NYSE-listed companies, including West Fraser Timber, one of North America's largest timber companies, which is also TSX-listed.
- **Arthur Millholland (president and CEO)** – Former President and CEO of Oilexco, a North Sea focused company that went bankrupt in June 2010. He has 25 years' experience as a professional geologist.
- **Chris McLean (CFO)** – Founder of Stonechair Capital Corporation and has been involved in venture capital projects for the last 10 years.

Sensitivities: Legacy issues and Liberia

Apart from the inherent risk that all E&Ps have in terms of exploration risk, the key sensitivities that investors should be wary of when investing in COPL are as follows:

Political risk in Liberia: Liberia ranks 116th out of 140 countries in terms of political risk according to the PRS Group and is therefore defined as being 'high risk' when compared to the global index. Two civil wars from 1989-96 and 1997-2003, combined with low GDP growth equate to what is still a fragile democracy. A change in the political backdrop could delay planned work programmes or capital investment.

Fiscal risk: The fiscal terms in Liberia are good, reflecting the frontier nature of the region. However, any change in the fiscal structure in Liberia could affect COPL's valuation given the large component Liberia has within the valuation methodology.

Drilling delays: The West African drilling market is tight and dominated by larger players. Any delay in drilling COPL's first exploration target in LB-13 could have a detrimental effect on COPL. In New Zealand, environmental permitting could delay the exploration process.

Operator Risk: Exxon, as operator of LB-13, could decide to delay or defer drilling any exploration wells.

Limited financial resources: COPL has limited financial resources of C$6.2m (forecast Q313e) and this means it has limited flexibility to finance acquisitions in Nigeria, or finance a drilling programme in New Zealand.

Valuation: Liberian risk priced in

Despite the fact that the key drill target identified in Block LB-13 is offshore Liberia, we believe that the presence of ExxonMobil as working partner and operator has mitigated specific country risk. We have valued COPL using three valuation methodologies. Our preferred valuation methodology of risked DCF RENAV analysis is complemented by farm-out and M&A values, which give a range of C$0.11/share to C$1.60/share.

Fundamental DCF economics

In terms of economics, Liberia offers attractive fiscal terms designed to stimulate exploration and development, notably in the deep water offshore where royalty rates are only 5%, with an 80% cost recovery ceiling being applied. As mentioned previously, COPL has done significant work since the last CPR, which could suggest upside to existing recoverable resource estimates. Based on our DCF model, a 500mmbbl oil discovery at Block LB-13, and a side track and drill string test (DST) well targeting 250mmbbls would both be worth $4.3/bbl. We have assumed these reserves based on the current estimates for Jubilee (700mmboe P50 reserves), and with COPL indicating that a commercial threshold of 300mmbbls is required for commercial development. We have used a real oil price assumption of $80/bbl, and first oil in 2020. We apply a 12.5% discount rate to reflect Liberian country risk balanced by the stability implied by Exxon's involvement in the project. This implies a valuation of $81m net risked, or C$0.26 per share for the initial exploration well and C$0.13/share for the subsequent apprasisal well. Total drilling costs are estimated to be $100m for both wells.

Exhibit 14: COPL DCF valuation

Asset				Recoverable reserves			Net risked	Value per share	
	Country	Diluted WI	CoS	Gross	Net	NPV/boe	value	Risked	Unrisked
		%	%	mmboe	mmboe	$/boe	$m	C$/share	C$/share
Net cash/(debt)							6	0.02	0.02
SG&A							-14	-0.04	-0.04
Core NAV							-8	-0.02	-0.02
Exploration (2014)									
Block LB13	Liberia	17%	23%	499	85	4.3	81	0.26	1.14
Block LB13	Liberia	17%	23%	250	43	4.3	41	0.13	0.57
PEP 53806	New Zealand	0.5					0.43	0.001	0.001
RENAV							115	0.36	1.68

Source: Edison Investment Research

We believe the ultimate end game for COPL in the success case is to sell individual assets or potentially the whole company after drilling one or two exploration wells on LB-13. Ascribing a price on what the company could achieve if its main target were successful is difficult. However, as shown in Exhibit 15, deals have been reached on frontier acreage where a discovery has been made to open up the play fairway ranging from sub-$10/boe to more than $50/boe, with an average value of $28/boe. Clearly COPL is seeking to replicate this. If we apply the average $28/boe value to COPL's estimated gross prospective recoverable resource of 500mmbbls (gross), this implies a value of C$1.60/share based on a chance of success of 23% from D&M's CPR report in May 2012.

Exhibit 15: Post-discovery/pre-development asset deals

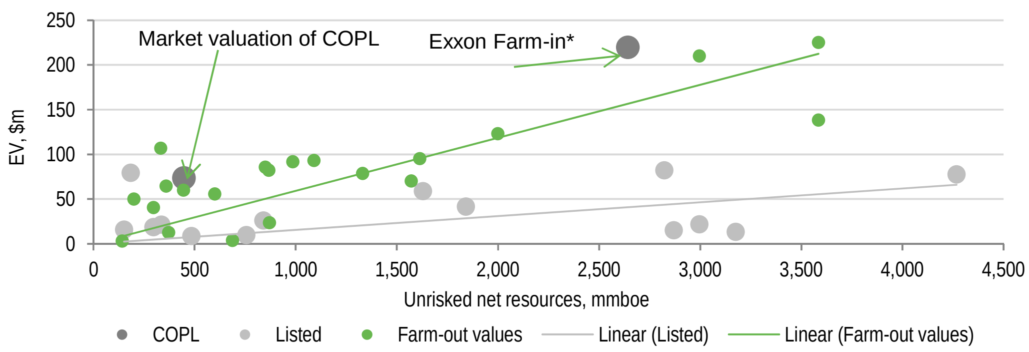
Date	Seller	Buyer	Field/block	Est value ($m)	Resources (gross) at time of sale mmboe	% WI	$/boe	Notes
2010	Kosmos Energy	Exxon	Jubilee	4,000	700	24.10%	23.7	Rumoured deal only – late development
2012	Cove Energy	PTTEP	Rovuma Basin	1,900	2,833	8.50%	7.9	17tcf resource estimates quotes by Cove management shortly before takeover
2012	Wessex Exploration	TOTAL	Guyane Maritime	115	175	1.25%	52.6	In-house P50 resource estimate for Zaedyus based on TLW 700mmboe P10 estimate
Average							28.1	

Source: Regulatory announcements, press reports, Edison Investment Research

Farm-out economics

Exhibit 16 shows an analysis of African E&P farm-in deals on an EV/resources basis, with the Exxon farm in deal being valued at C$0.08/bbl. The implied value of LB-13 based on Exxon's $127m in costs plus $55m in cash to acquire an 83% interest is $219m (gross), with COPL's 17% stake therefore valued at $73m. This analysis indicates the farm-out was executed at a level below the current share price; this again shows that the market is pricing in some potential of the play opening economics of this basin.

Exhibit 16: Africa farm-in deals on EV/resources (unrisked)



Source: Edison Investment Research. Note: *Calculated on a gross basis.

Sensitivity analysis

The DCF value of COPL is sensitive to ultimate recovery factors from our assumed 500mmbbl recoverable resource estimate. Exhibit 17 shows recovery factors from various deepwater fields globally, three of which lie on the West African Transform Margin (Girassol, Bonga and Okhuma). The data here was compiled from Tullow Oil stated analogues to the Jubilee field. Currently the Jubilee field has an estimated recovery rate of 35%, however we know that it has similar geological characteristics to offshore Liberia given the presence of large turbidite fan systems. The key to this lies in whether porosity and permeability exist and if the sands are compartmentalised due to existing faults. Exhibit 18 shows that a significant increase in value can be achieved on recovery factors at LB-13, where we have assumed a 30% recovery factor in line with D&M's report (May 2012).

Exhibit 17: Recovery factors on deep water fields globally		
Country	Field	Recovery factor (%)
US	Mars	25
Brazil	Marlin	33
Equatorial Guinea	Okhuma	35
Nigeria	Bonga	40+
Angola	Girassol	45
UK	Schiehallion	55

Source: Tullow Oil

Exhibit 18: Recovery factors and implied NPV		
Recovery factor	NPV (C$m)	Cents/share (unrisked)
20%	152	48
25%	257	81
30%	327	103
35%	349	110
40%	401	126
45%	453	142
50%	461	145

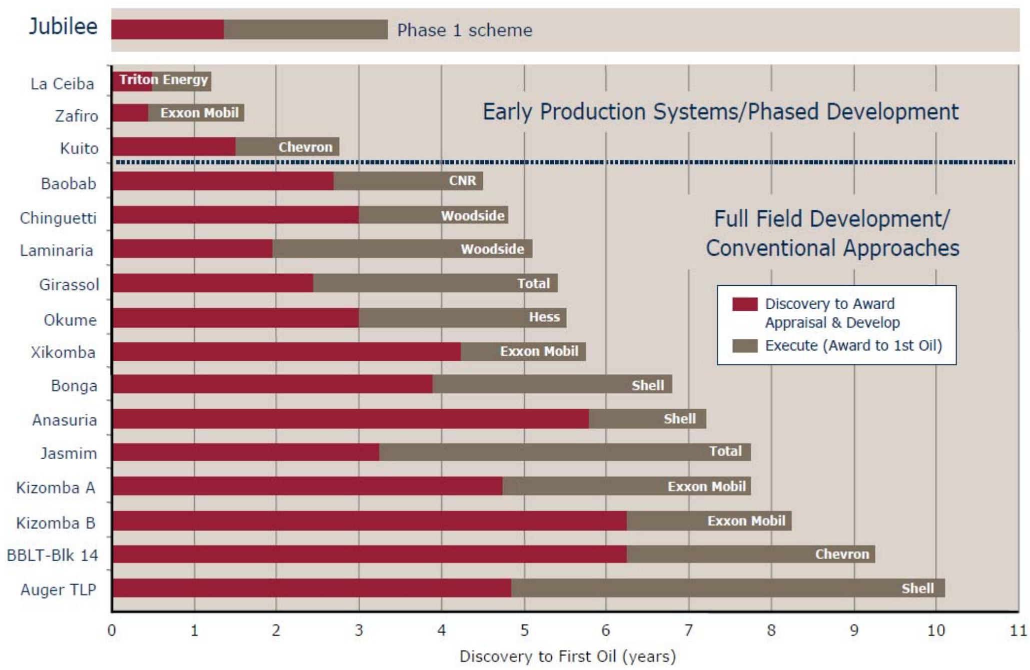
Source: Edison Investment Research

Timing from discovery to first oil is crucial. In our existing valuation we have assumed a six-year period, from first discovery in 2014 to first oil in 2020. Exhibit 19 shows that if we vary this by one year either way using our original DCF, which assumed first oil in 2020, it can have a significant effect on implied valuations. Exhibit 20 shows that this is about average when compared to other global projects, but if a phased approach is adopted like Jubilee then project times would be cut dramatically.

Exhibit 19: First oil and implied NPV values		
First oil	NPV value (C$m)	Cents/share (unrisked)
2019	414	136
2020	327	103
2021	176	58

Source: Edison Investment Research

Exhibit 20: Jubilee Phase 1 schedule benchmarking



Source: Tullow Oil

Valuation summary

Our preferred DCF methodology results in a RENAV of C$0.36/share, although we note farm-in values imply as little as C$0.08/share, while M&A metrics suggest possible upside to C$1.60/share should exploration be successful. Interest in the Sierra Leone-Liberian Basin is increasing as exploration success by majors continues apace. Exxon's expertise and financial backing helps to substantially de-risk COPL's exploration plans in LB-13, where investors can leverage on a fully exposed E&P player in the Liberian section of the West African Transform Margin.

Financials: Fully carried

Following a C$8.5m (gross) placing in Q313, we forecast $4.0m of cash at year end 2013. A 100% carry on the first prospect in Liberia for $120m (gross) of total gross drilling costs was agreed with Exxon as part of the farm-in agreement signed in March 2013. COPL's immediate drilling costs are covered, however with forecast G&A of over C$7m in FY13, we forecast that cash will run out by mid-2014.

COPL has already farmed out a large percentage of the Liberian block and therefore has limited scope for further value realisation through a farm-out without losing upside from any exploration success. As such, further funds may have to be raised from equity holders.

Exhibit 21: Financial summary

	C$'000s	2011	2012	2013e	2014e
Year end 31 December		IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Revenue		0	0	0	0
Cost of Sales		0	0	0	0
Gross Profit		0	0	0	0
EBITDA		(54,297)	(56,558)	(8,128)	(8,155)
Operating Profit (before amort. and except.)		(54,327)	(56,612)	(8,187)	(8,201)
Intangible Amortisation		0	0	0	0
Exceptionals		328	(146)	268	0
Other		0	0	0	0
Operating Profit		(53,999)	(56,758)	(7,919)	(8,201)
Net Interest		593	57	16	8
Profit Before Tax (norm)		(53,734)	(56,555)	(8,171)	(8,193)
Profit Before Tax (FRS 3)		(53,406)	(56,701)	(7,903)	(8,193)
Tax		0	0	0	0
Profit After Tax (norm)		(53,734)	(56,555)	(8,171)	(8,193)
Profit After Tax (FRS 3)		(53,406)	(56,701)	(7,903)	(8,193)
Average Number of Shares Outstanding (m)		424.9	434.5	478.1	478.1
EPS - normalised (cs)		(12.6)	(13.0)	(1.7)	(1.7)
EPS - normalised and fully diluted (c)		(12.6)	(13.0)	(1.7)	(1.7)
EPS - (IFRS) (c)		(12.6)	(13.0)	(1.7)	(1.7)
Dividend per share (cents)		0.0	0.0	0.0	0.0
Gross Margin (%)		N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	N/A
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	N/A
BALANCE SHEET					
Fixed Assets		36,119	15,191	17,357	17,312
Intangible Assets		20,594	0	17,136	17,136
Tangible Assets		227	218	170	125
Investments		15,298	14,973	51	51
Current Assets		72,533	4,823	4,234	1,153
Stocks		0	0	0	0
Debtors		446	237	69	69
Cash		71,924	4,374	4,018	937
Other		163	212	147	147
Current Liabilities		(35,048)	(3,194)	(4,175)	(4,175)
Creditors		(35,048)	(3,194)	(4,175)	(4,175)
Short term borrowings		0	0	0	0
Long Term Liabilities		0	0	0	(5,100)
Long term borrowings		0	0	0	(5,100)
Other long term liabilities		0	0	0	0
Net Assets		73,604	16,820	17,416	9,189
CASH FLOW					
Operating Cash Flow		(16,764)	(66,251)	(7,233)	(8,189)
Net Interest		0	0	0	0
Tax		0	0	0	0
Capex		(35,257)	(405)	(1,357)	0
Acquisitions/disposals		0	0	0	0
Equity financing and convertible debt		86,542	(894)	8,234	8
Dividends		0	0	0	0
Net Cash Flow		34,521	(67,550)	(356)	(8,181)
Opening net debt/(cash)		(37,373)	(71,924)	(4,374)	(4,018)
HP finance leases initiated		0	0	0	0
Other		(143,818)	0	0	0
Closing net debt/(cash)		(71,924)	(4,374)	(4,018)	4,163

Source: Canadian Overseas Petroleum accounts, Edison Investment Research

EDISON

Contact details	Revenue by geography
3200 715 – 5th Avenue SW Calgary, Alberta Canada TP2 2X6 +1 403 262 5441 www.canoverseas.com	N/A

CAGR metrics		Profitability metrics		Balance sheet metrics		Sensitivities evaluation	
EPS 10-14e	-39.5%	ROCE 13e	-59.9%	Gearing 13e	-23.2%	Litigation/regulatory	◖
EPS 12-14e	-65.8%	Avg ROCE 10-14e	N/A	Interest cover 13e	312	Pensions	○
EBITDA 10-14e	-4.8%	ROE 13e	-40.7%	CA/CL 13e	1.0	Currency	◖
EBITDA 12-14e	-64.2%	Gross margin 13e	N/A	Stock days 13e	N/A	Stock overhang	◖
Sales 10-14e	N/A	Operating margin 13e	N/A	Debtor days 13e	N/A	Interest rates	○
Sales 12-14e	N/A	Gr mgn / Op mgn	N/A	Creditor days 13e	N/A	Oil/commodity prices	●

Management team

Chairman: Harald Ludwig	President and CEO: Arthur Millholland
Harald is on the board of two NYSE-listed companies, including West Fraser Timber, one of North America's largest timber companies, which is also TSX-listed.	Arthur Millholland is former president and CEO of Oilexco, a North Sea focused company that went bankrupt in June 2010. He has 25 years' experience as a professional geologist.
CFO: Chris McLean	
Chris McLean is founder of Stonechair Capital Corporation and has been involved in venture capital projects for the past 10 years.	

Principal shareholders	(%)
Columbia Wanger Asset Management	11.1%
Rosseau Asset Management	10.8%
Capital Group	4.5%

Companies named in this report

African Petroleum, Anadarko, BG, Chevron, Exxon Mobil, Kosmos, Marauder Resources, New Zealand Energy, Premier Oil, Royal Dutch Shell, TAG Oil, Tullow, Wessex Exploration, Woodside Petroleum