



#### Eco (Atlantic) Oil & Gas Ltd

25<sup>th</sup> January 2022

Highly successful explorer in frontier regions in Guyana, Namibia and South Africa where preparations for further drilling have begun

Eco started trading on the TSX-V in 2011 with Namibian oil interests. In 2016, Eco teamed up with Tullow to acquire a licence in Guyana to explore similar basins in the margins on the other side of the Atlantic Ocean, ahead of becoming dual-listed in 2017. The shares began rising on Eco's announcement to drill and climbed to 190p+ following the drilling of two discovery wells in Guyana which confirmed the prospectivity of the upper & lower Tertiary fairways. However, the stock price fell by two thirds in a matter of days following Tullow's announcement that the wells contained heavy oil disappointing the market and since then the stock has remained unloved.

#### Prolific hydrocarbon provinces where Eco teams up with oil majors

The acreage in Guyana, South Africa and Namibia has huge potential and Eco has a good track record of being able to successfully negotiate farm out deals with majors to develop its projects. Eco is in good shape, with US\$6 million of cash, no debt and proven backing of major shareholders like Africa Oil.

Next door in Guyana, ExxonMobil has discovered more than 10 billion boe June/July 2022 could see Eco's partners in the Orinduik Block unveiling a decision to resume drilling into light oil Cretaceous targets, the source of ExxonMobil's huge success on the adjoining Stabroek Block where the 120,000 bopd Liza Field went into production in late 2019, following discovery in 2015.

# Plenty of potential catalysts for wider regional success in SA and Namibia Eco's strong strategic positioning in Namibia could rapidly become more valuable on rumours of Shell discovering light oil at its Graff-1 exploration well. Namibia could become one of the hottest global plays — so a good time for Eco to up its interest by acquiring Azinam. This deal also adds two South African

to up its interest by acquiring Azinam. This deal also adds two South African Orange Basin blocks, Block 3B/4B, that is directly correlated to Graff-1 and Block 2B, a shallow water block with previous light oil discovery.

## Big disconnect in share price - our risked NPV revealing 383% upside Our highly conservative, heavily risked NPV shows the opportunity. We update coverage of Eco with a target price of 114.65p and Conviction buy stance.

Table: Financial overview. Source: Company accounts & Align Research										
Year to end March	2020A	2021A	2022E	2023E						
Revenue (C\$'000)	378	47	20	20						
PTP (C\$'000)	(20,073)	(3,680)	(2,843)	(23,729)						
EPS (C\$)	(0.11)	(0.02)	(0.01)	(0.09)						

This investment may not be suitable for your personal circumstances. If you are in any doubt as to its suitability you should seek professional advice. This note does not constitute advice and your capital is at risk. This is a marketing communication and cannot be considered independent research.

## CONVICTION BUY Price target – 114.65p



#### **Key data**

EPIC ECO
Share price 23.75p
52 week 33.20p/17.00p

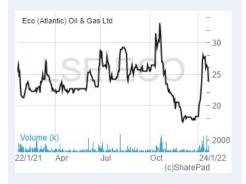
high/low

Listing AIM & TSX-V Shares in 202.69m

issue

Market Cap £50.5m Sector Oil

#### 12 month share price chart



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#### **Business overview**

#### Eco (Atlantic) Oil & Gas Operations

Eco (Atlantic) Oil & Gas Ltd is an international oil and gas exploration and development company that has a strategic portfolio of offshore projects in Guyana and Namibia and South Africa in partnership with major oil companies and large independents.

- Guyana In partnership with Tullow Oil and TotalEnergies/Qatar Petroleum, Eco holds a 15% working interest in the 1,800km² Orinduik offshore block in the shallow to medium depth water of the prospective Guyana-Suriname basin. The licence area is adjacent to ExxonMobil's multiple world class discoveries on the Stabroek Block where recoverable resources of more than 10 billion barrels of oil have been estimated. First production began in late-2019 from the Liza Field. In 2019, Eco was able to announce a significant oil discovery on the Orinduik Block from the Jethro-1 exploration well. The discovery has been estimated to contain over 100 million barrels of oil, above the pre-drill estimates, followed by a further discovery at the Joe-1 exploration well. June 2021 saw Eco acquire up to a 10% interest in JHI which has a 17.5% working interest (WI) in the ExxonMobil-operated Canje Block.
- Namibia The company is the majority stakeholder and Operator of four prospective licence blocks in the Walvis Basin called Sharon, Cooper, Guy and Tamar. This licence area (the second largest in Namibia after Exxon) is estimated to contain 2.36 billion barrels of net prospective resources. The Walvis Basin is a proven petroleum system and Eco is working in partnership with NAMCOR on these projects within the region. In January 2022, Eco announced the signing of a binding Memorandum of Understanding (MOU) to acquire a 100% interest in Azinam which served to increase Eco's WI in Petroleum Exploration Licenses (PEL) #97, #98 and #99 to 85% on completion, the same WI which the company has at PEL #100.
- South Africa The acquisition of Azinam announced in January 2022 also took Eco into the frontier region of South Africa. The deal added interests in two Orange Basin blocks in South Africa just south of the border with Namibia. Block 3B/4B, which is directly correlated to the Graff-1 prospect currently being drilled by Shell and Block 2B which is a shallow water block with a previous light oil discovery. Eco and the other licence partners plan to drill up-dip of the A-J1 oil discovery, with the well targeting 349 mmbo which is planned to be drilled in H2 2022.
- Renewables The company has a 50% stake in Solear, a company which sources, acquires and develops an exclusive pipeline of potential high yield solar projects in southern Europe. Over a number of years the Solear management team has built up an impressive project pipeline and is targeting development capacity of up to 2 GW by the end of 2024.



#### ATLANTIC MARGINS

Continental drift, plate tectonics and subsequent deposition and associated subsidence have created the geological setting for oil and gas deposits around the edge of the Atlantic Ocean. Transform faults lie at the plate boundaries and its motion is predominately horizontal as two tectonic plates slide past one another. The transform margin is the area where the continents meet these transform faults.

Oil is found in these locations due to a combination of reasons. Firstly, transform margins are often characterised by having little oceanic circulation. Secondly, anoxic conditions exist whereby the sea water is depleted of dissolved oxygen, which means that organic material remains well preserved. Thirdly, provided that this organic material gets buried sufficiently deep enough, hydrocarbons will be generated.



Opening of the central Atlantic Ocean by plate tectonics.

Note: Yellow circles highlight Eco Atlantic's exploration projects in Suriname-Guyana basin, Guyana;

Walvis basin, Namibia; and Orange Basin, South Africa. Source: Company

Plate tectonics has revealed that South America and North America were a nice cosy fit with Africa and Europe before the continents drifted apart. Similar basins have been developed on both side of the Atlantic Ocean and plate tectonic concepts are being reassessed along the Atlantic Margin, which represents a vast area. Most notably the MSGBC Basin (Mauritania, Senegal, The Gambia, Guinea Bissau and Guinea Conakry) off the West African coast and the Guyana-Suriname Basin in South America have been shown to share some big similarities.

Both these basins on either side of the Atlantic are seen to be two of the most exciting, underexplored frontier oil exploration areas today. The MSGBC basin has been the home to some world-class discoveries and has emerged as one of Africa's E&P hotspots, although it still remains massively underexplored. The same can be said of the Guyana-Suriname Basin which since 2015 has seen ExxonMobil and Tullow Oil make a long list of discoveries. The reinterpretation of plate tectonic concepts seems to really be paying dividends.

#### **Background**

Eco Oil and Gas Ltd. was incorporated as a private company in the British Virgin Islands in 2011 to identify, acquire, explore and develop petroleum interests. After acquiring five petroleum exploration licences in Namibia, the company completed a merger with Goldbard Resources Inc, a wholly owned subsidiary of Goldbard Capital Corporation in 2011. On completion of the merger, Goldbard Capital changed its name to Eco (Atlantic) Oil & Gas Ltd and was re-admitted to trading on the TSX-V market.

Progress over the years has been pretty rapid. In 2012, Eco agreed farm-out arrangements with NAMCOR and Azinam whereby Azinam acquired a 20% interest in Eco's Namibia licences. A 2014 farmout deal allowed Tullow to gain a 25% WI in the Cooper Licence for carrying Eco for its share of the cost of a 3D seismic acquisition programme. Late-2014 saw the farmout deal with Azinam resulting in the following interests: Cooper Licence (Eco 32.5%, Tullow 25%, Azinam 32.5%, and NAMCOR 10%), Guy Licence (Eco 50%, Azinam 40%, and NAMCOR 10%) and Sharon Licence (Eco 60%, Azinam 30%, and NAMCOR 10%).

In 2015, Eco began negotiating the application for the Orinduik Block in Guyana. Finally in 2016, after the Liza discovery, Eco and Tullow were jointly awarded the Guyana Licence and entered into the Guyana Joint Operating Agreement (JOA) where Eco had a 40% interest and Tullow Guyana, which was the Operator, with a 60% interest.

The terms of the farmout deal with Tullow were amended in early 2017 and reduced some of Tullow's obligations to carry Eco on an exploration well on the Cooper Block. Eco started trading on AIM in February 2017 following a placing where £5.1 million was raised at 16p per share, giving an initial market capitalisation of £18.9 million. The placing allowed Eco to enhance its seismic exploration programme on its 1,800km Orinduik Block in Guyana.

In November 2017, the company announced a Strategic Alliance Agreement with Africa Oil Corp. to identify new projects to add to Eco's portfolio. Africa Oil also invested C\$14 million at 22.25p in Eco for a then 19.77% shareholding. September 2018 brought news of Total farming into the Orinduik Block, taking a 25% WI by paying US\$13.5 million. This allowed Eco to be fully funded for the 2019 drilling programme where two discoveries were made in offshore Guyana by encountering high quality reservoirs at the Jethro-1 and Joe-1 wells.

Stock market excitement following these successes propelled the shares to in excess of 190p, but this was to be short lived. In November 2019, the shares fell on news out of Tullow that some samples from the Guyanese wells showed that the oils recovered were heavy crudes with high sulphur content.

In June 2021, Eco closed a transaction to acquire up to a 10% interest in a private Canadian company called JHI Associates Inc. (JHI). This brought the company immediate exposure to a then currently active drilling programme in the ExxonMobil-operated Canje Block offshore Guyana, where JHI has a 17.5% WI.

January 2022 saw the company announce the signing of a binding Memorandum of Understanding (MOU) to acquire a 100% interest in Azinam Group Limited which brings into Eco Azinam's entire offshore asset portfolio. This is in return for a 16.65% equity stake in the enlarged company on completion of the acquisition. Azinam's portfolio consists of a material offshore petroleum exploration asset base in Namibia and South Africa with an exploration well planned to be drilled on Block 2B (SA) in H2 2022.

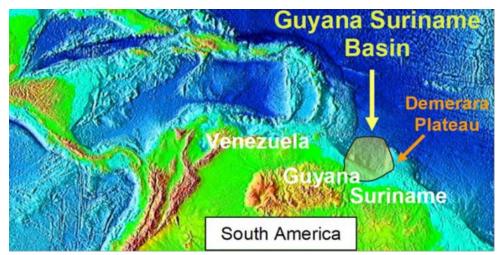


#### **Operations**

Eco has a strategic portfolio of offshore projects in Guyana and Namibia in partnership with major oil companies and large independents.

#### Guyana

Eco has a 15% WI in the Orinduik Block, which is located offshore of Guyana in the Guyana-Suriname Basin. This lies on the offshore of NE South America, off the countries of Guyana and Suriname.



Location of the Guyana-Suriname Basin. Source: CPR February 2020

Asset	Partners	Working	Status	Expiry	Licence	Water depth
		Interest		date	area	
Orinduik	Tullow Guyana BV	60%	Exploration	January	1,800km²	70 – 1,450m
Block	(Operator)			2026		
	Total Exploration	25%				
	& Production					
	Guyana <sup>1</sup>					
	Eco Guyana	15%				

<sup>1</sup>Total Exploration and Production's 25% WI is owned by TOQAP which is jointly owned by Total (60%) and Oatar Petroleum (40%) Summary of Eco's assets in Guyana. Source: Company

The Guyana-Suriname basin is ranked by the US Geological Survey as being the world's second-most prospective and under-explored offshore basin. The US Geological Survey estimate is that 13.6 billion barrels of oil and 32 trillion cubic feet of natural gas are waiting to be discovered, but this figure is now quite out of date as this estimate was made prior to the first 10 billion barrels being hit and so this estimate is expected to now rise significantly.

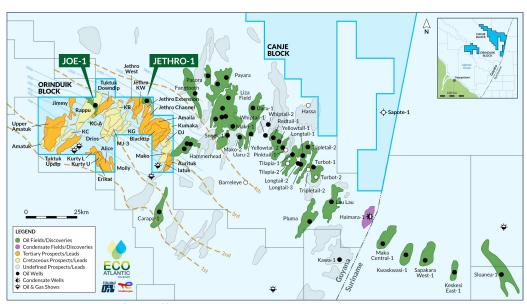
There has been little exploration in the Guyana-Suriname Basin over the years. Eleven wells were drilled in the 1967-2000 period with another three wells drilled by 2012. However, this all changed in 2015 following ExxonMobil's Liza oil and gas discovery in the Stabroek Block, which lies adjacent to Eco's Orinduik Block. ExxonMobil has established a remarkable record of successful drilling in the Stabroek Block of the Guyana-Suriname Basin licence area, with a total estimate of over ten billion barrels of recoverable oil. To put this success story properly into perspective, ExxonMobil's finds represent only a handful of billion-barrel discoveries over recent years and this proven potential still continues to grow.

ExxonMobil has now successfully discovered more than twenty oil and gas accumulations including the Hammerhead discovery, which lies just 7km east of the Orinduik Block and whose reservoir stretches into the Orinduik Block. As Operator, Tullow has successfully drilled two wells on Eco's Orinduik Block called the Jethro-1 and Joe-1 wells. In addition, to the south of the Orinduik Block, Repsol has successfully drilled a Cretaceous discovery well called Carapa-1 within the Kanuku Block which was spudded in September 2019 and discovered sweet 27 degrees API oil as announced in January 2020.

ExxonMobil commenced production at the Liza Field in December 2019 at 25,000 bopd with plans to increase oil production from the field's first phase to 120,000 bopd. Eco has a 15% WI in the Orinduik Block and is just 11km from and updip to ExxonMobil's original Liza Discovery and now proving closer with further development.

#### **Target Zone**

The Guyana-Suriname Basin is a passive margin basin that was formed by the drifting apart of Africa and South American during the Jurassic Age and subsequent drifting apart of the continents to form the Atlantic Ocean during the Cretaceous Age. Since that time, the deposition of fragments of older rocks has led to this sedimentary fill in some areas being more than 7,000m thick. It might be worth noting that the Joe and Jethro wells strategically targeted a new play in the Tertiary which ended up heavy but had merit in chasing a new shallow play. The company has now focused on the proven Cretaceous play, targeting a well that is updip from the Exxon Liza discovery and down dip from the Repsol Carapa discovery.

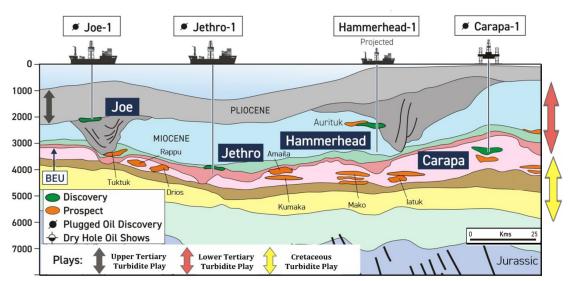


Map of the offshore Guyana Orinduik Block. Source: Company

Target reservoir rocks for the Orinduik Block can be spilt into two types. Firstly, there are the sand channels deposited along the shelf margin, channel fill and overbank deposits, slope and basin turbidite fans. These are channel and fan-shaped sedimentary sand bodies formed by the accumulation of layered particles as the slope over the continental shelf breaks that grade upwards from course to the finer sizes which have been formed by a turbidity or underwater current.

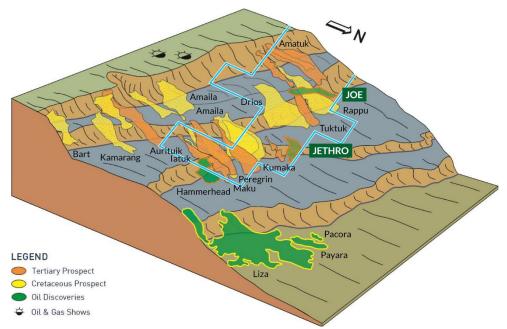
Secondly, carbonates in the form of reefs and shallow water limestones. These rocks are either from the Cretaceous or a younger Age and are thought to be similar to the Cretaceous and Tertiary Age reservoirs that ExxonMobil has discovered in the neighbouring Stabroek Block at Liza, Liza Deep, Payara, Pacora, Ranger, Snoek, Longtail, Pluma, Haimara, Hammerhead, Tilapia, Tripletail, Yellowtail, Uaru, Mako and Turbot. These sandstones and limestone reservoir units are interbedded and effectively capped by shales and marls. The Tertiary sandstones discovered by the Jethro-1 and Joe-1 wells consist of high quality well sorted sands.





Major discoveries in the Orinduik and adjacent blocks. Source: Tullow Oil, Capital Markets Day Presentation, 25<sup>th</sup> November 2020

The Upper Cretaceous section includes Slope Channel Complex deposits, a classification by geologists which encompasses slope mini-basins and mud rich fine-grained submarine fans. Here such deposits are caused by stratigraphic pinch outs (tapering out of a reservoir against a nonporous sealing rock which traps hydrocarbons) together with well-developed basin floor fan sedimentary systems where extensive deposition has occurred. Plus, there are further targets found on terrace slopes where the sand has pooled in a flat spot where there is a change of gradient along the slope.



Relative positions of the Orinduik, Stabroek and Kanuku Block leads and discoveries.

Source: CPR February 2020

The top diagram shows the relative positions of the Orinduik, Stabroek and Kanuku Block leads and discoveries. The Liza sand fan complex analogue has been identified as being from the Maastrichtian era (72.1 to 66 million years ago) which is the latest age in the Late Cretaceous epoch. The Hammerhead discovery, along with the Jethro-1 and Joe-1 wells, has proven that commercial accumulations of hydrocarbons exist in stratigraphic sand traps in the Tertiary section.

#### **Drilling**

Eco has enjoyed drilling success in this world class basin with the Jethro-1 and Joe-1 wells. **These two** significant oil discoveries have served to de-risk the block's substantial potential and to gain valuable seismic interpretation confidence.

The Jethro-1 well was completed in August 2019 (at a net cost to Eco of US\$7.6 million) and has proved to be a major oil discovery with 55m of net pay in excellent quality sandstone. Importantly, there was 98% net to gross (NTG) which represents the productive hydrocarbon zones in the reservoir for further exploitation. The results exceeded partner pre-drill expectations which were for 220 mmboe (gross). Being the first well drilled on Orinduik, Jethro-1 de-risked the remaining Tertiary prospects.

The Joe-1 well was drilled on a back to back basis and was completed in September 2019 (net cost to Eco of US\$3 million). A second oil discovery was announced with 16m of net pay (92% NTG) in continuous thick quality sandstone. Results met with partners' pre-drill expectation of 75-150 mmboe (gross). The Joe-1 well represented a play-opening well in the Upper Tertiary and effectively de-risked further prospects identified in the west on Orinduik.

Subsequent analysis of some fluid samples from both these wells confirmed that the samples recovered were mobile heavy crudes (approximately 12 - 18° API) with high sulphur content (approximately 4.5%). Management have commented that, as such, the oil appears not dissimilar to commercial heavy crudes in the nearby Hammerhead discovery and to oil that is currently being produced in the North Sea, Gulf of Mexico, the Campos Basin in Brazil, Venezuela and Angola. With potentially over 200mmbboe Recoverable, the company intends to further study the potential commercialisation of the field

#### **CPR February 2020**

The latest CPR confirmed multi-billion barrel prospectivity and indicated 771.2 mmboe net to Eco. Gustavson Associates' February 2020 CPR represented an update on the March 2018 CPR following the drilling of two of the Prospects as well as including public information from some offblock wells and some additional Leads. The consultants pointed out that although the results from the drilling of the Jethro-1 and Joe-1 wells indicated the presence of oil and gas, the level of testing of these hydrocarbon accumulations was not sufficient to move the resources from Prospective to Contingent.

	Gross Prosp	ective Oil Equiv	alent Resources	Net Prospective Oil Equivalent Resources				
		mmboe		mmboe				
Orinduik	Orinduik Low Best		High	Low	Best	High		
Block	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate		
Total	2,614.6	5,141.3	9,313.8	392.2	771.2	1,397.1		

Gross and net barrels of oil equivalent Prospective Resources. Source: CPR February 2020

	Oil i	in Place mn	nbbl	Total Oil Resources mmbbl			Total Associated Gas Resources Bcf		
	Low Best High Lo				Best	High	Low	Best	High
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Orinduik	9,353.8	18,001.9	31,696.6	2,315.0	4,537.0	8,178.7	1,797.8	3,625.8	6,810.5
Block									
Total	9.353.8	18.001.9	1.9 31.696.6 2.315.0 4.537.0		4.537.0	8.178.7	1.797.8	3.625.8	6.810.5

Gross unrisked Prospective Resource Estimates for the Orinduik Block. Source: CPR February 2020



	Oil ir	n Place m	mbbl	Total Oil Resources mmbbl			Total Associated Gas Resources BCf			Risk
	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	POS¹ Range %
Orinduik Block	1,403.1	2700.3	4,754.5	347.3	680.5	1,226.8	269.7	543.9	1,021.6	26.4-100
Total	1,403.1	2700.3	4,754.5	347.3	680.5	1,226.8	269.7	543.9	1,021.6	

<sup>&</sup>lt;sup>1</sup>Probablity of success

Net unrisked Prospective Resource Estimates for the Orinduik Block and risk percentage. Source: CPR February 2020

Lead	Gross Pr	ospective R	esources	Net Pro	spective Re	sources	Risk POS %
		(mmboe)			(mmboe)		
	Low	Best	High	Low	Best	High	
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	
			TE	RTIARY			
Jethro	107.0	208.3	362.6	16.1	31.2	54.4	100.0%
Joe	37.3	104.4	232.6	5.6	15.7	34.9	100.0%
Hammerhead	8.6	15.0	25.6	1.3	2.2	3.8	81.0%
Jethro Chan	80.5	137.3	230.1	12.1	20.6	34.5	41.7%
Jethro Ext	23.3	53.8	98.0	3.5	8.1	14.7	43.2%
Jethro KW	85.2	158.5	270.6	12.8	23.8	40.6	33.6%
Jethro West	114.8	183.8	286.7	17.2	27.6	43.0	33.6%
Jimmy	30.9	68.4	133.3	4.6	10.3	20.0	64.6%
Kurty L	12.9	35.8	76.2	1.9	5.4	11.4	29.7%
Kurty U	13.7	42.8	91.4	2.0	6.4	13.7	29.7%
Alice	67.4	196.7	430.7	10.1	29.5	64.6	31.2%
			CRE	TACEOUS			
Amaila-Kumaka	393.0	775.8	1,422.3	59.0	116.4	213.3	31.5%
Amatuk	117.2	267.3	503.0	17.6	40.1	75.5	28.8%
DJ	97.8	173.9	283.9	14.7	26.1	42.6	33.7%
EriKat	21.8	45.1	82.6	3.3	6.8	12.4	30.6%
latuk-D	401.1	725.3	1,281.3	60.2	108.8	192.2	31.2%
KC	23.7	47.5	85.3	3.6	7.1	12.8	26.4%
KC-A	41.4	73.8	126.8	6.2	11.1	19.0	26.4%
KG	393.4	724.7	1,211.4	59.0	108.7	181.7	31.2%
MJ-3	143.7	263.5	464.2	21.6	39.5	69.6	28.8%
Rappu	231.0	500.1	947.1	34.6	75.0	142.1	35.1%
КВ	168.8	339.6	68.0	25.3	50.9	100.2	31.5%
TOTAL	2,614.6	5,141.3	9,313.8	392.2	771.2	1,397.1	

Gross and Net Prospective unrisked resources by lead with probability of success. Source: CPR February 2020

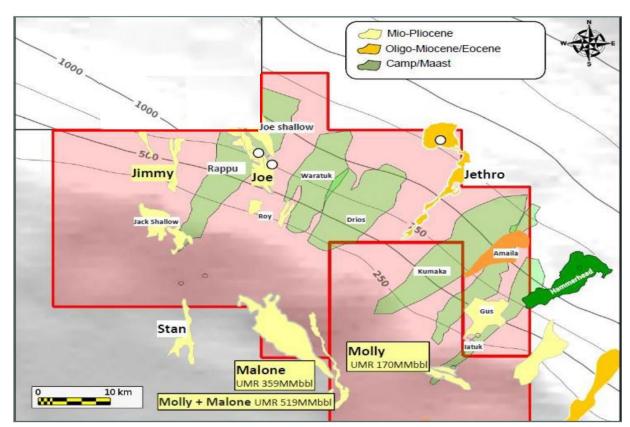
In the February 2020 CPR, Gustavson pointed out that the potential for large conventional accumulations in stratigraphic and subtle structural traps in this area has been proven, with recent drilling showing an estimated 9.5 billion barrels of oil equivalent in the Stabroek Block and 5.1 million barrels of oil equivalent in the Orinduik Block. Certainly, any lead with a probability of success in the 30% range and higher is very significant. Summing up, the consultants reckoned that the basin is characterised by moderate to high-risk, high-reward exploration in a low-risk favourable political and economic environment.

#### Outlook

There is little doubt that the partners' active work programme at the Orinduik Block is demonstrating scale. The Jethro and Joe discoveries have confirmed the prospectivity of both upper and lower Tertiary fairways. At the same time, ExxonMobil's appraisal of the Hammerhead discovery, drilled on the Orinduik boundary, has shown that Hammerhead extends into the Orinduik licence area. The Jethro-1 well acted to de-risk multiple other Lower Tertiary Prospects across block with further upside from Cretaceous leads and prospects.

Following this exploration success, the partners are involved in the painstaking process of calibrating the seismic to refine identified, recently de-risked and future prospects. At the same time the team is evaluating appraisal and development options for the Jethro and Joe discoveries. The powerful combination of high-quality geology, world class fiscal terms and straight forward development, as has been demonstrated by ExxonMobil at the Liza Field, should ensure high value barrels.

The Joe-1 discovery marked the opening of a new play in the Upper Tertiary which qualifies seismic interpretation of the block. The continuous thick sandstone reservoir with high porosity sands proves the presence of recoverable resources in the Upper Tertiary and it was the first such discovery in this section in offshore Guyana. The Joe-1 well resulted in the identified prospects in the western part of the block being de-risked. The Joe-1 well was drilled rapidly and at a low cost which also seems to derisk the development potential of the Upper Tertiary.



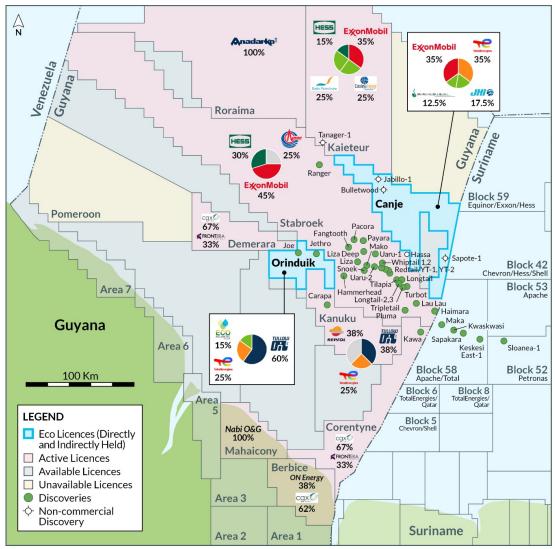
Joe-1 play-opening Upper Tertiary. Source: Company



Undoubtedly, the Orinduik block has substantial potential as the two discovery wells drilled in 2019 have only served to test less than 10% of the block's substantial potential. The plan is now to integrate the Jethro-1, Joe-1 and Carapa-1 discoveries with new regional data and then incorporate all this data into a reprocessing of the existing 3D seismic. The partners on this block have been working hard to make sense of these discoveries in offshore Guyana, in relation to other discoveries which are close by in order to delineate drill targets which are expected to be established in the near-term. Given all this potential, Eco wants to resume drilling on the Orinduik as soon as possible.

#### **Canje Block**

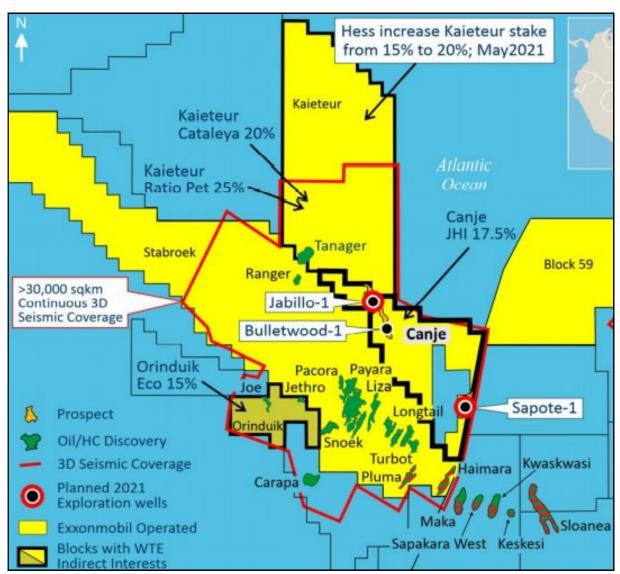
In June 2021, Eco closed a transaction to acquire up to a 10% interest in a private Canadian company called JHI Associates Inc. (JHI). This brought the company immediate exposure to a currently active drilling programme in the ExxonMobil-operated Canje Block offshore Guyana, where JHI has a 17.5% WI. The operator of the Canje block, ExxonMobil and block partners, are working to technically define additional drilling prospects in the cretaceous and deeper in the santonian, where the Sapote-1 well recorded hydrocarbon shows while drilling in 2021 and following the January 2022 santonian Fangtooth-1 discovery on the prolific Stabroek Block offshore Guyana.



Offshore Guyana showing the location of the Orinduik and Canje blocks. Source: Company

Eco acquired a 6.4% interest in JHI and has the option to increase this stake to 10% on a fully diluted basis. Eco invested US\$10 million at US\$2.0 per share in JHI to gain a 6.4% interest. It was also granted 9,155,471 warrants to subscribe for further shares at US\$2.0 per share over period of 18 months to take the company's interest to 10% on a fully diluted basis. This investment was funded from existing cash and a private placement of Eco shares with Africa Oil Corp and Charlestown Energy Partners. Eco's board member Keith Hill joined the JHI board. In January 2022, the company purchased an additional 800,000 shares in JHO return for 1,200,000 new shares in Eco. This move increased the company's interest in JHI to 7.35% and if Eco's JHI warrants are exercised would give the company an 11.4% interest in JHI on a fully diluted basis.

The Canje Block is operated by ExxonMobil and is held by working Interest partners Esso Exploration & Production Guyana Limited (35%), with TotalEnergies E&P Guyana B.V. (35%), JHI Associates (BVI) Inc. (17.5%) and Mid-Atlantic Oil & Gas Inc. (12.5%).



Canje Exploration 2021. Source: Westmount Energy Corporate Presentation 07.06.2021

The first Canje well was Bulletwood-1 (JHI carried free) which was spudded in February 2021 and confirmed petroleum system and quality reservoirs but was deemed non-commercial. The second Canje exploration well Jabillio -1 (JHI carried free) was spudded later on that year testing the Upper Cretaceous reservoirs in a stratigraphic trap. It reached the planned target depth and was evaluated but did not show evidence of commercial hydrocarbons.



The third exploration well was Sapote-1 (JHI paid 17.5%), spudded in late August 2021 targeting in excess of 1BBbl. The Sapote-1 prospect is located in the south eastern section of Canje, some 50 km north of the Haimara discovery in the Stabroek Block which encountered approximately 207 feet (63m) of high-quality, gas-condensate bearing sandstone reservoir and roughly 60 km northwest of the Maka Central discovery in Block 58 which encountered approximately 164 feet (50m) of high-quality, oil-bearing sandstone reservoir.

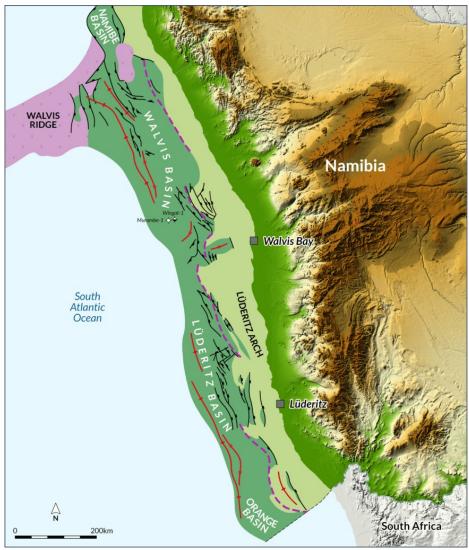
In early November 2021 it was reported that ExxonMobil had established oil presence at Sapote-1. The well was drilled to a depth of 6,759m in 2,549m of water. Hydrocarbon shows were discovered while drilling, and in the logging sequence, in a deeper interval than anticipated, but no shows in the upper primary objective horizon.

Following sidewall coring and wireline logging, ExxonMobil has now moved on to work on defining the reservoir properties and the cored samples will be analysed for hydrocarbons. At the time Eco's CEO Gil Holzman pointed out that "....We are very encouraged by the latest well results in Sapote-1. The results, once defined, should warrant additional exploration wells to test the deeper sections where the Sapote oil was present....".

The Canje block represents a large block with multiple significant prospects. This is not only the source rock trap centered over main kitchen within the block feeding the billions of barrels of oil discovered in Stabroek but also direct vertical migration of oil then feeding up dip to Stabroek. Moving ahead, the relationship with JHI allows the companies to co-operate as they focus exploring for hydrocarbons on the highly prospective Guyana-Suriname basin. The Operator of the Canje block, ExxonMobil and block partners are working to technically define additional drilling prospects in the cretaceous and deeper in the santonian, where the Sapote-1 well recorded hydrocarbon shows while drilling in 2021 and following the January 2022 santonian Fangtooth-1 discovery on the prolific Stabroek Block offshore Guyana.

#### Namibia

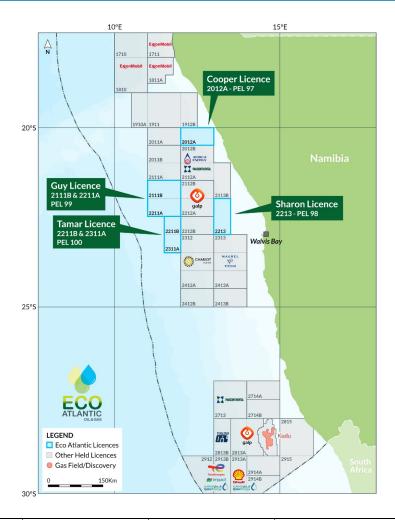
The oil industry now seems to be braced for big finds in Namibia. The country has a coastline of getting on for 1,600km and offshore Namibia is of particular interest to the market as it is a part of the plate tectonic conjugate of offshore Brazil where world-class oil and gas discoveries have been made in recent years. On top of that, offshore Namibia also lies on the West African continental margin next door to Angola, the scene of many major oil discoveries. So, given all that, coupled with attractive tax incentives, it is little surprise that offshore Namibian oil exploration has become highly attractive in recent years for independent oil companies (IOCs) and oil majors such as ExxonMobil, TotalEnergies, Shell, GALP, ONGC and Tullow Oil.



Map of offshore Namibia. Source: Company

In 2013, Brazilian oil company HRT encountered rich oil-bearing source rocks and discovered oil off the coast of Namibia when drilling the Wingat-1 discovery well in the Walvis Basin, recovering light and sweet crude oil. Eco's focus is also on the Walvis Basin & where ECO now currently holds four licence blocks covering 28,500km². On these four blocks, Eco has formed strong and strategic partnerships with NAMCOR, Azinam, Tinga Trading Enterprise, Titan Oil & Gas, Lotus Exploration and Moonshade Investments. The Wingat 1 discovery was made right in the middle of Eco's four blocks.



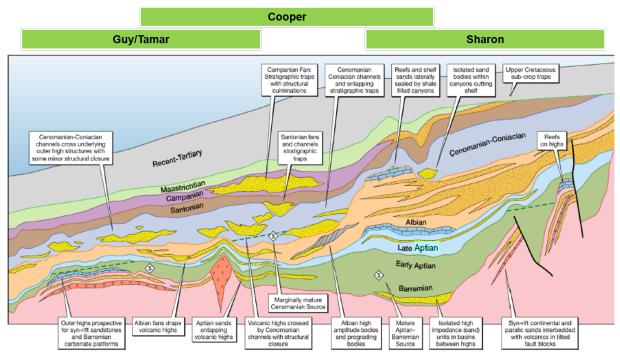


	Cooper PEL 97	Sharon PEL 98	Guy PEL 099	Tamar PEL 100
Partners/WI	Eco 85% Operator	Eco 85% Operator	Eco 85% Operator	Eco 85% Operator
	NAMCOR 10%	NAMCOR 10%	NAMCOR 10%	NAMCOR 10%
	Tangi Trading Ent 5%	Titan Oil & Gas 5%	Lotus Expl. 5%	Moonshade Inv 5%
Block size	5,788km²	5,700km²	11,457km²	5,648m²
Water depth	100m - 500m	100m -500m	1500m - 3,000m	2,500m – 3,000m+
Licence	5 years + 2 renewal terms of 2 years, each term extendable by one year	5 years + 2 renewal terms of 2 years, each term extendable by one year	5 years + 2 renewal terms of 2 years, each term extendable by one year	5 years + 2 renewal terms of 2 years, each term extendable by one year
Recent developments	1,100km² 3D programme completed Environmental permits submitted for approval to drill the Osprey well	Acquired 22,922km of existing 2D. Planned 1,000km <sup>2</sup> of 3D	1,000km 2D survey completed 870km² of 3D completed in 2016	1,000 km 2D survey completed and interpreted
Targets	Upper Cretaceous     Clastics     Turbidites     Albian fan/channel     Lower Cretaceous Carbonates	Upper Cretaceous     Clastics     Turbidites     Albian fan/channel     Lower Cretaceous Carbonates	Basal Tertiary Clastics and     Turbidites     Upper Cretaceous     Clastics Turbidites     Lower Cretaceous     Carbonates	Basal Tertiary Clastics and Turbidites     Upper Cretaceous Clastics     Turbidites     Lower Cretaceous Carbonates

Eco's interest in four blocks in the Walvis Basin, offshore Namibia. Source: Company

#### **Target zones**

Over the four blocks, there are multiple target horizons and trap types as shown in the diagram below (the typical trap types do vary from block to block). These include channel and turbidite sands and carbonate reefs in structural and stratigraphic trap settings.



Play types on the offshore Namibia in the Eco blocks. Source: CPR October 2016

#### **Exploration**

Eco has a large, operating interest in four offshore blocks covering 28,500km² in the Walvis Basin where substantial progress has been made since they gained an interest. Below we comment on the work undertaken on the Cooper and Guy licences which have received most attention from the partners.

Cooper Licence - The company's current focus is on gaining an environmental permit submitted for approval to drill the Osprey well, an Aptian/Albian source fed oil target within a sand filled channel system. This lies in the Cretaceous sequence and has a mature oil window that is located in an area with a 300m depth of water. A total of 1,100km² 3D seismic was acquired in November 2014, followed by processing and interpretation. Eco's share of these costs was covered by Tullow (US\$4 million) and Azinam (US\$2 million) under the terms of the farmout deal. October 2018 saw Tullow leave the block and its 25% WI was transferred back to the company. Eco is reported to be in discussions with potential farm-in partners to replace Tullow and jointly drill the Osprey Prospect. For the second renewal phase the Ministry waived the relinquishment requirement for this block which means that the partners can continue exploring the whole licence area.

**Guy Licence** – Under the terms of the farm-out deal Azinam funded Eco's share of costs for the shooting and processing of 1,000 km of 2D seismic survey on this block. Azinam also funded 66.44% of the costs of an 870 km² 3D seismic survey. For the second renewal phase, the partners relinquished the western half of this block, which was not a priority.



#### **CPR October 2016**

A CPR was published by Gustavson Associates in October 2016 entitled "Resource Report for Certain Assets in Offshore Namibia and Report for Assets in Offshore Guyana". This was prepared according to NI 51-101 standards to support Eco's filing for the Toronto Stock Exchange.

Block	Oil in Place mmbbl			Prospective Oil			Prospective Associated Gas		
				Resources mmbbl			Resources Bcf		
	Low	Best	High	Low	Low Best High			Best	High
	Estimate	Estimate	Estimate	Estimate Estimate		Estimate	Estimate	Estimate	Estimate
Cooper	1,896.1	3,166.0	5,036.7	434.3	752.8	1,241.8	404.8	735.8	1,274.9
Guy	2,194.9	6,903.0	16,906.8	489.4	1,581.4	4,009.9	478.2	1,545.3	3,932.4
Sharon	3,136.4	9,658.5	23,345.3	701.9 2,211.7		5,518.4	668.3	2,175.6	5,465.9
Total	7,227.3	19,727.4	45,288.9	1,625.6	4,546.0	10,770.2	1,551.2	4,456,7	10,673.2

Gross unrisked Prospective Resource Estimates by Block. Source: CPR October 2016

Block	Oil in Place mmbbl				Prospective Oil			Prospective Associated Gas			
				R	Resources mmbbl			Resources Bcf			
	Low	Best	High	Low	Best	High	Low	Best	High		
	Estimate	Estimate	Estimate	Estimate Estimate		Estimate	Estimate	Estimate	Estimate		
Cooper	616.2	1,029.0	1,639.9	141.2	244.7	403.6	131.6	239.1	414.3		
Guy	1,097.4	3,451.5	8,453.4	244.7	790.7	2,005.0	239.1	772.6	1,966.2		
Sharon	1,881.1	5,795.1	14,007.2	421.2 1,327.0		3,311.0	401.0	1,305.4	3,279.6		
Total	3,595.5	10,275.5	24,097.6	807.0	807.0 2,362.4		771.6	2,317.1	5,660.1		

Net unrisked Prospective Resource Estimates by Block. Source: CPR October 2016

The intention of this report was to describe and quantify the Prospective Resources contained in the offshore blocks in Namibia and also report on the offshore block in Guyana which at that time had not be fully evaluated.

#### **Azinam Group acquisition**

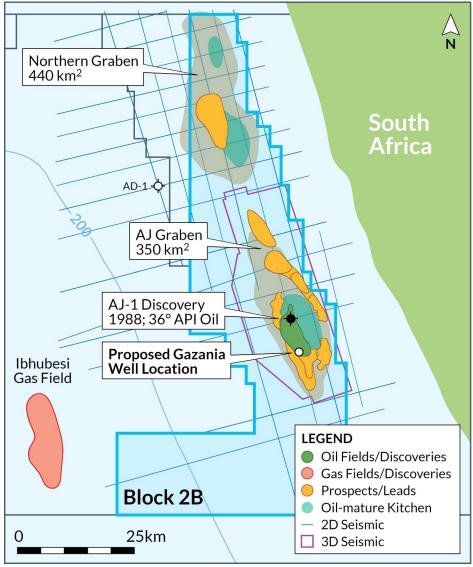
January 2022 saw the company announce the signing of a MOU to acquire a 100% interest in Azinam Group Limited. This brought into Eco Azinam's entire offshore asset portfolio in a non-cash deal involving the granting of a 16.65% equity stake in the enlarged company on completion of the acquisition. This was worth the equivalent of US\$11 million at Eco's then share price of 20p. In addition, the vendor will also be issued warrants in Eco which are only exercisable on a producible commercial discovery involving 20 million warrants at C\$1.00 per share and 20 million warrants at C\$1.50 per share. Azinam came with a material offshore petroleum exploration asset base in Namibia and South Africa. Also in Offshore Namibia, Eco will acquire an additional WI in its current oil blocks and so end up with an 85% stake in PELs #97, #98 and #99. This is the same sized WI as the company has at PEL #100 with the company being the operator on all four PELs.

#### **South Africa**

The acquisition of Azinam was announced in January 2022 and took Eco into the frontier region of South Africa as the deal added interests in two Orange Basin blocks. Block 3B/4B is directly correlated to the Graff 1 prospect and Block 2B which is a shallow water block with a previous light oil discovery. This acquisition has introduced a potentially material short-term drilling catalyst.

#### **Block 2B**

Block 2B is located in the Orange Basin and covers an area of 3,062km<sup>2</sup> which lies off the west coast of South Africa some 300 kilometers north of Cape Town, where the water is between 50 and 200m deep. Licence partners are Eco (50% WI - Operator), Africa Energy Corp. (27.5% WI), Panoro Energy (12.5% WI) and Crown Energy AB (10% WI).



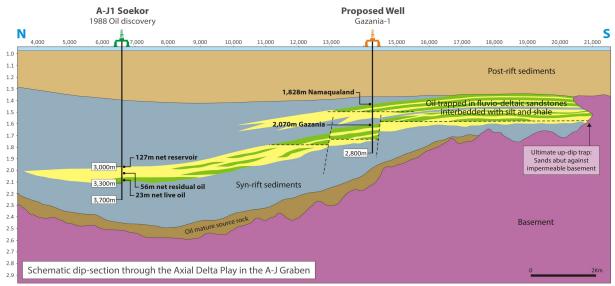
Block 2B Orange Basin, South Africa. Source: Company

In 1988, oil was discovered and tested on the block by Soekor by the drilling of the A-J1 stratigraphic well, drilled in 1988 when thick reservoir sandstones were intersected between 2,985m and 3,350m. The well was tested and flowed 191 bopd 36°API oil from a 10m sandstone interval at about 3,250m. The up-dip prospectivity of the A-J1 discovery was confirmed as well as further prospectivity of up to a total of 1 billion barrels of oil on the Block 2B licence area by 686km² 3D seismic data acquired in 2013.



Eco and the other licence partners plan to drill up-dip of the A-J1 oil discovery, with the well targeting some 349mmbo (Best Estimate Gross Prospective Resources) sitting in shallow water less than 200m deep. Gazania lies updip of the 1988 AJ-10 oil discovery that was estimated to contain 39mmbbl of 39° API oil.

Ahead of this acquisition Azinam and the JV Partners had already secured a contract with NRG Well Management Ltd, to complete well design engineering and to assist with critical path well planning. The JV Partners have defined proposed drilling targets, completed a seabed survey, conducted a semi-submersible rig tender and begun negotiations to secure critical equipment, including securing a wellhead, and negotiating a rig contract. Eco will step into the role of operator to drill this well.



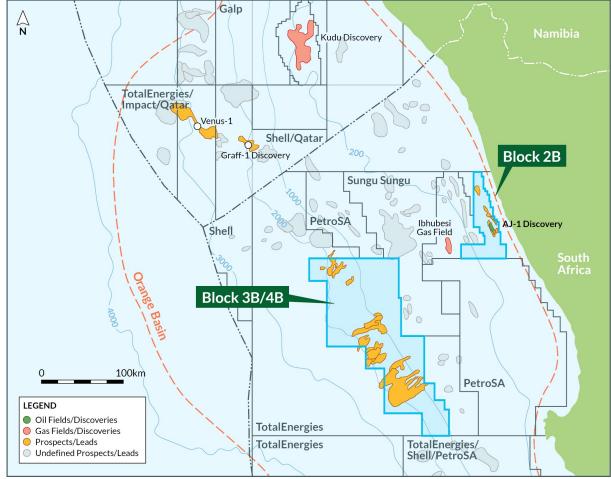
South Africa Block 2B A—J Graben Axial Delta Play. Source: Africa Energy Corp.

There are two targets at the Gazania-1 well which are the Namaqualand at 1,900m and the Gazania at 2,200m with the well planned to have a targeted total depth of 2,700m. The Gazania-1 exploration well is expected to be drilled in H2 2022 at a cost of US\$25 million. As Azinam farmed into this block Eco will have to finance some 72% of this well for a net cost of US\$18 million for its net 50% Working Interest. The company reported at the time of the Azinam acquisition that discussions were continuing with its key existing stakeholders concerning the underwriting of the funds required to participate directly in the 2022 South Africa drilling activity.

#### Block 3B/4B

Eco Atlantic also has acquired 20% WI in Blocks 3B/4B and Nearshore 3B/4B Offshore South Africa. Block 3B/4B lies 120-250kms off the coast of western South Africa and covers an area of 17,581km² where the water is 300-2,500m deep. Nearshore 3B/4B is 90-130km from the shore and covers an area of 960km² in water that is 300-400m deep.

Eco joins partners Africa Oil Corp., which is operator of the Block (20% WI), and Ricocure (Pty) Ltd (60% WI carried). Partners in Block 3B/4B are in the midst of reprocessing a large 3D seismic survey that will be used to identify high-grade leads towards a determining a drilling prospect. Block 3B/4B is located directly south of the Namibia Orange Basin wells - Graff-1 (Shell) and Venus-1 (Total Energies) which are currently being drilled.



Block 3B/4B and Block 3B/4B Nearshore Orange Basin, South Africa. Source: Company

There seems to be plenty of existing seismic data available for Block 3B/4B. Previously, the licence area was held by BHP Billiton which acquired a 10,000km<sup>2</sup> GeoStreamer 3D survey in 2012. Also in 2012, Shell acquired a further 8,000km<sup>2</sup> of 3D to the north of the 3B/4B, which is on strike with the BHP survey. In addition, there are 1,400kms of multi vintage 2D seismic data which cover the licence area.

One of the key prospects on Block 3B/4B is Wolf, previously known as Aardwolf, a significant 110km² 4-way structural closure of a Barremian/Aptian aged carbonate build-up. Apparently, the Moosehead-1 well, drilled by HRT in the Namibian part of the Orange Basin demonstrated the potential for this Lower Cretaceous carbonate play by penetrating 100m of Barremian limestone deposited above the marginal ridge. Apart from Wolf, there are also significant prospects that exist through all stratigraphic levels, from the Barremian to the Maastrichtian, with both structural and stratigraphic trapping types being seen as possibilities.

#### **Renewables**

Last year Eco moved into renewables by taking a 50% stake in Solear (in partnership with 50% holder B&S Power Holdings) a company which sources, acquires and develops an exclusive pipeline of potential high yield solar projects in southern Europe. This move will see Eco becoming a diversified, growth orientated energy company.

The first move was the acquisition of the Kozani Project in January 2021 and since then Solear has continued to assess more projects seeking high turnover, early-stage opportunities. The business is pursuing development assets which have the capability of providing double digit returns with low completion risk and also have the materiality to support rapid growth of the business. The management team is targeting development capacity of up to 2 GW by the end of 2024.



#### Strategy for growth

Eco is a highly successful explorer in frontier regions and has significant 55,000km² acreage in two of today's most compelling areas for global oil and gas exploration, both from a fiscal terms and geological perspective. The company benefits from having a well-established executive team that has been together since 2011, has remained consistent and has been augmented by the appointment of Alice Carroll as Head of Marketing and IR, and Keith Hill as an Independent Director. We believe that the company has a sound commitment to the timely exploration and the delivery of value from its exploration assets in Guyana, South Africa and Namibia.

The Atlantic Margin plays represent an extremely exciting recent development within the industry. The thinking behind this play all revolves around the concept called Conjugate Margin Pair Basins. There is overwhelming evidence through plate reconstruction which shows that parts of South America and North America make a really good fit with Africa and Europe in the times before the plate split and the continents began drifting. Eco looks well-placed to really benefit from its early adoption of this compelling concept which has pointed towards similar basins being developed on both sides of the Atlantic. The prize could be huge as ExxonMobil's activities in the Guyana Basin have so far made more than twenty significant discoveries within the Stabroek Block and recoverable resources exceed 10 billion boe. ExxonMobil made its first commercial discovery in Guyana in 2015 and production began before the end of 2019 at Liza Field, commencing Phase 1 production with a target of 120,000 bopd.

ExxonMobil's discoveries in offshore Guyana just seem to keep on coming as in early 2022 the oil giant was able to announce two more oil discoveries at Fangtooth-1 and Lau Lau-1 of the Stabroek Block with 164ft and 315ft respectively of high-quality oil-bearing sandstone. The initial results from these wells do continue to highlight the potential in Guyana's growing oil and gas sector and serve as a good reminder of the considerable upside potential of Eco Atlantic's prospective hydrocarbon assets here. As expected, the restructuring of Tullow and upgrading the drill targets looks as though it has taken most of 2021, with drill target selection and the drilling decision now targeted for June/July 2022. Given all this potential, Eco will be pushing the partners to resume drilling on the Orinduik as soon as possible. Recent months have seen ExxonMobil successfully and safely drilling its Sapote-1 well in the Canje Block where hydrocarbon shows were recorded. Technical results of the Sapote-1 well and updated drilling plans on the Canje Block could make for some good reading as this block lies directly Northeast (outboard) of the prolific Stabroek Block. Another good reason behind Eco taking an interest of up to 10% in JHI, apart from gaining exposure to JHI's 17.5% WI in the Canje Block, would look to be the opportunity for the two to collaborate as both entities have gained an in-depth knowledge of the Guyana-Suriname Basin.

In offshore Namibia, the company has the second largest footprint after ExxonMobil. Late in 2020, investors learnt that the company had successfully negotiated for all its four licences in the Walvis Basin in offshore Namibia to be reissued. Four new Petroleum Exploration Licenses (PELs) have been awarded on Eco's existing offshore blocks, which results in an expansion of the company's acreage position. In all, these new PELs cover something like 28,593 km², with more than 2.362 billion BOE of prospective P50 resources. This can be seen as a bit of a reward for the company's big investment in these offshore blocks in the Walvis Basin. Hydrocarbon exploration in Namibia has recently received a massive boost on the back of rumours swirling around the oil industry that Shell's high impact Graff-1 well in offshore Namibia has discovered light oil — which would suggest a working petroleum system at the very least.

There are two high impact wells being drilled in the Orange Basin as along with the Graff-1 well is TotalEnergies Venus-1 well where the structure is right next to the Shell block. The announcement of the first ever commercial discovery would be completely transformational for offshore Namibia and comes after a number of false dawns. The first ever commercial discovery would be a game changer for the entire region, the country and all the oil companies that are active in this area, especially with Eco being an operator with a large WI across a substantial highly prospective licence area.

The recently announced Azinam acquisition looks like a very good fit for the existing asset base and, in view of the fast-changing developments in offshore Orange Basin, came with consummate timing. We believe Eco's strong strategic positioning in Namibia could rapidly become more valuable following rumours of Shell discovering light oil at its Graff-1 exploration well. The recently announced acquisition of Azinam increases Eco's WI position rather neatly, with remarkably good timing just as Namibia is on the verge of becoming potentially one of the hottest global hydrocarbon plays. The end result of the Azinam acquisition concerning the Namibian licenses is that Eco will end up with an 85% WI in PELs #97, #98, #99 and #100 as well as the operatorship. This creates a strong platform to be able to negotiate a farm-in agreement with a major oil company. At this stage it is worth pointing out that Eco has a good track record of being able to successfully negotiate farm out deals with majors to develop its projects.

The expansion of Eco's horizons now includes South Africa which is a tremendous step that could add so much moving ahead. The Azinam acquisition also brings two South Africa Orange Basin blocks into Eco's portfolio. Block 3B/4B is directly correlated to the Graff-1 prospect and Block 2B is a shallow water block with previous light oil discovery. The Gazania-1 exploration well is expected to be drilled in H2 2022 on Block 2B. So, this acquisition introduced a potentially material short-term drilling catalyst. Block 2B looks to be highly prospective with the Gazania prospect estimated to contain some 350mmbo sitting in shallow water less than 200m deep. Gazania lies updip of the 1988 AJ-10 oil discovery that was estimated to contain 39mmbbl of 39° API oil. A reasonable discovery on Block 2B in shallow seas close to the coast would represent the country's first major offshore oil production. South Africa has some of the most attractive fiscal terms on the continent and a large energy deficit and already companies such as Total, Shell, Eni and Qatar Energy are actively exploring. The country's well-known shortage of energy leads to frequent power shedding and so there would be a ready market for any gas that was discovered, a refreshing change from the situation found in some other African countries.

The move into renewables looks like another smart deal in our view. Solear as an independent company has the benefit of having exclusivity to a potential pipeline (which has been 3.5 years in development) of more than 2 GW of prospective PV projects, mainly in Southern Europe's high solar hours' sunbelt. There are big plans for this new renewables arm where the management team is targeting the development and construction of around 150 MW of operating grid connected projects, as well as securing the rights for something like an additional 800 MW currently in development in its 2022. Obviously, this is all subject to follow on project finance being available. On these sorts of projects, the Solear team will be targeting a 12-18% IRR for each project which will be held within its own separate SPV to allow for funding at the asset level.

Our belief is that the Atlantic margin focused business with offshore plays in Guyana, Namibia and South Africa has just not been awarded the valuation anywhere near what it deserves. Eco provides the big oil and gas exposure from over 7.5 billion barrels of estimated resource at its large WI position in Namibia and 15% WI in the Orinduik Block Guyana and its indirect stake in the Guyana Canje Block. Added to which is now the Southern African plays which means that now Eco is a bigger company with more catalysts, more acreage and more potential. We think that any discovery in either Namibia, South Africa or Guyana could have an explosive effect on the share price of Eco which has been trading at a low level for some time following the heavy oil realisation in 2019 in Guyana. Today the company is capitalised at just £53 million, which looks to us to be a derisory valuation given the developments in both the Atlantic Margins in which the company is a player. At the same time the stock really has not been given much of a boost by the strengthening oil price this last 15 months.



#### Financials & current trading

Losses that have been recorded over the last five years are mainly due to the costs of exploring oil and gas exploration licences in Namibia and Guyana.

Y/E 31 March US\$'000s	2017A <sup>1</sup>	2018A <sup>1</sup>	2019A <sup>1</sup>	2020A	2021A
Revenue	15	1,334	16,948	378	47
Pre-tax profit/loss	-3,557	-8,357	-12,775	-20,074	-3,680
Net profit/loss	-3,557	-8,357	-12,775	-20,074	-3,680
¹C\$'000's					

Eco (Atlantic) Oil & Gas five-year trading history. Source: Company accounts

#### 2021 results

In the 12 months ending 31<sup>st</sup> March 2021, Eco worked with its partners advancing the Orinduik Block offshore Guyana with all seismic data reprocessed and multiple light sweet oil drilling prospect being reviewed. High-graded candidates were considered for the next drilling programme which Eco intended to drill in 2022. The company also successfully negotiated the reissuance of its four licences in Namibia's Walvis Basin for 10 years and received final Government confirmation. For the year, total expenses came to US\$3.726 million, including US\$1.707 million of operating costs. The net loss was US\$3.68 million and the basic and diluted loss per share came out at US\$0.02.

#### **Interim results**

In the six months to 30<sup>th</sup> September 2021 the company took an initial 6.4% interest in JHI which held a 17.5% interest in the Canje Block offshore Guyana, as well as completing the drafting the four new Joint Operating Agreements (JOAs) for its new 2021 Petroleum Licenses in the Walvis Basin, offshore Namibia. Total operating expenses for the period came out at US\$0.405 million with a net loss of US\$0.401 million.

#### **Recent developments**

Late-November 2021 brought the news that Eco's CEO Gil Holzman had acquired 100,000 shares at a price of C\$0.266 per share, taking his holding up to 8,589,124 shares or 4.3% of the company's issued share capital.

Early January 2022 saw the company being able to report a strategic acquisition offshore South Africa and Namibia along with the 2022 drilling programme. The board was able to announce that Eco had signed a MOU to acquire 100% of Azinam Group Limited, which included Azinam's entire offshore asset portfolio, for a 16.65% equity stake in the enlarged company following completion of the acquisition.

#### **Risks**

#### **Geological risks**

There are a series of technical risk factors concerning the amount of understanding of the geology of the project areas, the reservoirs being targeted and the distribution and magnitude of the indicators that have been identified in exploration work.

#### **Political risk**

There are political risks involved in companies operating in Guyana, Namibia and South Africa. The oil industry is arguably the most susceptible sector of the market to political risks largely due to its importance to the host county's economy.

#### Oil and gas price risks

Oil and gas prices are highly cyclical and changes in the price could have a negative or positive impact on the valuation of the company's projects and revenue from the sales of hydrocarbons.

#### **Exchange rate risks**

Movements in the value of currencies will have an effect on the company's accounts on translation from US dollars into Canadian dollars. Fluctuations in the value of the Canadian dollar against the pound may have an effect on the valuation Eco is awarded by the UK stock market.

#### **Future funds**

The market for raising funds for small cap companies looks to have had improved from the worse conditions a couple of years ago. However, the global spread of the COVID-19 pandemic has meant that equity markets have become extremely difficult. This has meant that some recent fund raisings in the small cap oil sector have seen share prices being undermined by incoming investors demanding substantial discounts to provide the necessary capital.



#### **Board of Directors**

#### Moshe Peterburg - Non-Executive Chairman

Moshe (also known as Peter), is a private investor with over 30 years of investment experience in Africa and Eastern Europe. He is the founder of Peterburg Holdings, a private investment company with a broad portfolio across many sectors including infrastructure, mining and oil and gas. Moshe was also a co-founder of GP Minerals Ltd, a private resource investment and development company. Furthermore, he is the chairman of the board of trustees of the Design Museum Holon (Israel) and is also a member of the acquisition committee of the Tate Modern Museum in London. Moshe holds a BSc in Electronic Engineering from Haifa Technion and an MBA in Finance from Tel Aviv University.

#### Gil Holzman – President & Chief Executive Officer

Gil has 20 years of experience in the mining and energy resource sectors throughout South America and Africa. Prior to co-founding Eco (Atlantic) Oil and Gas, he was a co-founder of GP Minerals Ltd, a private resource investment and development company, and, between 2003 and 2006, Gil was the Managing Director of Bombardier Inc's Middle East Region. He has also held a variety of strategic consultancy roles, including co-founding political consultancy, GCS Issue Management Ltd. Gil has a BA in Business Management and Finance and an LLB in Israeli and International Law from IDC Herzilya. He also has an MBA from The Arison School of Business.

#### **Colin Kinley – Chief Operating Officer**

Colin is CEO of Kinley Exploration LLC, leading a team of industry experts providing professional, technical and oversight expertise to international resource companies within the upstream sector. With 40 years of international expertise in integrated energy project management and the development of new energy companies, he has served as a senior executive to several E&P companies and oilfield service companies, as well as possessing significant experience in frontier resource development. Colin is also President and CEO of Jet Mining Pty LLC and a Non-Executive Director of TSX-V listed companies, Marimaca Mining Corp and Excelsior Mining Corp.

#### **Gadi Levin – Finance Director**

Gadi is a Chartered Accountant with many years of experience in the public and private equity markets. His experience spans multiple jurisdictions including South Africa, the UK and Israel. He has acted as financial controller for Eco (Atlantic) Oil & Gas on a consultancy basis since November 2014 and was appointed as Finance Director of the company in November 2016. Gadi is also currently the Chief Financial Officer of TSX-V listed companies Vaxil Bio Ltd., Briacell Therapeutics Corp. and Adira Energy Ltd. He has a Bachelor of Commerce degree in Accounting and Information Systems, has received his Chartered Accountant designation in South Africa and has an MBA from Bar Ilan University in Israel.

#### Alan Friedman - Executive Director

Alan, a South African qualified attorney, has been associated with the North American public markets for two decades and has a depth of experience in representing, advising, and assisting small-medium cap companies in acquiring assets, accessing capital, going public transactions and advising on M&A, and managing emerging growth businesses. He is the Managing Partner and co-founder of Bayline Capital Partners, a Canadian based capital markets advisory boutique, involved in the business of identifying, financing and managing a portfolio of companies across a wide range of sectors. Alan was also the co-founder of Auryx Gold Corp, sold to B2 Gold for \$200m; Osino Resources and Enthusiast Gaming.

#### Kangulohi Helmut Angula – Non-Executive Director

Helmut has served as the Finance Minister and Deputy Minister of Mines and Energy, as well as five other cabinet portfolios within the Government of Namibia for a period spanning over 20 years. Since leaving the Government of Namibia, Kangulohi has focused on private business opportunities and is a consultant to the mining, energy, infrastructure and real estate industries in Namibia.

#### Peter Nicol - Non-Executive Director

Peter has over 40 years' experience in the oil and gas industry in both industry and investment banking. Prior to joining the Board of Eco (Atlantic) Oil & Gas, he was a partner at GMP Securities, Executive Managing Director at Tristone Capital, Global Sector Director of Oil Research at ABN Amro and Head of European Oil and Gas at Goldman Sachs. Peter has worked with and advised a number of small-medium cap and private-equity financed companies in the UK, Canada and Norway on M&A, financing and as a Director. He is currently a Director of Touchstone Exploration, ERCe and Thorogood Associates. Peter holds a BSc in Mathematics and Economics from Strathclyde University in Glasgow.

#### Keith Hill - Independent Director

Keith has over 35 years' experience in the oil industry including 23 years with the Lundin Group as well as international new venture management and senior exploration positions at Occidental Petroleum and Shell Oil Company. He previously served as President of Valkyries Petroleum, BlackPearl Resources and Shamaran Petroleum and is currently a Director of Africa Energy, Impact Oil and Gas and TAG Oil. Keith is currently President and CEO of Africa Oil Corp., a publicly traded oil and gas company focused on East Africa. His education includes an MSc in Geology and BSc degree in Geophysics from Michigan State University. Additionally, Keith also holds an MBA from the University of St. Thomas in Houston.



#### **Forecasts**

We update coverage of Eco with forecasts for the financial years ending 31<sup>st</sup> March 2022 and 2023. For 2022 we forecast that total expenses will be US\$2.883 million as the company and its partners work towards identifying targets for further drilling in Guyana. The net loss comes out at US\$2.863 million and the comprehensive loss comes at US\$2.843 million with a loss per share of US\$0.01.

In the 12 months to 31<sup>st</sup> March 2023 it is assumed we will see the drilling of the Gazania-1 well in H2 2022 on Block 2B at a cost of US\$25 million where Eco will have to finance some 72% of this well for a net cost of US\$18 million. We expect this to come from existing cash and also support from its largest shareholders. There will also be further drilling in the Canje Block where the company looks to be fully funded. On this basis, the net loss and comprehensive loss are determined to be US\$23.729 million and the loss per share would be US\$0.09.

Year End 31 March (U\$'000s)	FY 2020a	FY 2021a	FY 2022e	FY 2023e
Revenue				
Interest income	378	47	20	50
	378	47	20	50
Operating expenses:				
Compensation costs	864	713	1,000	1,000
Professional fees	503	501	800	800
Operating costs	12,731	1,707	900	21,000
General and administrative costs	1,403	649	650	759
Share-based compensation	5,740	144	50	200
Interest expense	-	2	20	20
Fair value in warrant liability	-	-	(637)	-
Foreign exchange (gain)	(789)	11	100	
Total expenses	20,452	3,727	2,883	23,779
Net loss for the year	(20,073)	(3,680)	(2,863)	(23,729)
Foreign currency translation adjustment	(1,118)	(80)	20	-
Comprehensive loss for the year	(21,191)	(3,760)	(2,843)	(23,729)
Net loss attributable to:				
Equity holders of the parent	(20,074)	(3,760)	(2,843)	(23,729)
Non-controlling interests	(20,074)	(3,700)	(2,043)	(23,729)
Non-controlling interests	(20,074)	(3,760)	(2,843)	(23,729)
Basic and diluted net profit (loss) per share attributable to equity holders of the parent (US\$)	(0.11)	(0.02)	(0.01)	(0.09)
Weighted average number	182,829,288	184,697,723	199,679,322	275,042,439
Total shares plus options and warrants	191,727,723	191,917,723	205,363,635	322,280,302

Source: Company/Align Research

#### **Valuation**

We have sought to determine a realistic valuation and target price for the stock which makes sense in today's market. To this end we have developed a series of separate financial models for offshore Guyana, Namibia and South Africa. The offshore Guyana model covers the discovered fields Jethro, Joe and Hammerhead Extension in the Tertiary and the more advanced exploration prospects within the Cretaceous which is now the company's real focus.

Our target price is based on a risked net asset value which assumes a value per barrel and an assumed chance of success for geological targets which comes from the CPR. We also incorporate a commercial chance of success to reflect not only the development risk but also funding issues and the effect of dilution. However, we do see Eco as ultimately selling the Guyana interests on further success to a major which would negate the need to be involved in the substantial funding requirements that the development phase would bring.

In our analysis we have used a flat Brent oil forecast of US\$70 per barrel. Our other key valuation assumptions for the discovered fields and the visible exploration prospects have been largely based on the ExxonMobil's development of the Liza Field on the adjoining Stabroek Block as well as other similar scale offshore development projects.

The Liza Phase 1 Project is designed to produce 450 million barrels of oil over its lifetime and commenced production in December 2019 with peak production of 120,000 bopd of a very light  $32^{\circ}$  with low sulphur (0.5%) premium oil. This development is 190km offshore and operating in water at depths of 1,500 - 1,900m, where the initial capital expenditure ahead of peak production was initially budgeted at US\$4.4 billion but apparently came in at US\$3.7 billion, representing a unit development cost in the range of US\$7-8 per barrel. The project includes a leased floating production, storage and offloading (FPSO) vessel called Liza Destiny which can handle the peak production and has storage capacity of up to 1.6 million barrels.

Liza Phase 1 involves four drill centres with seventeen wells in total. There are eight oil producing wells (average estimated ultimate recovery (EUR) per production well of 56 mmbo and six water injection wells along with three gas reinjection wells. Notably, during its development, Liza has been seen to have had a very fast ramp up in production, with 100,000-120,000 bopd in the initial stage of production. In the past, energy research and business intelligence group Rystad Energy had estimated that production costs at Liza Phase 1 were about US\$7-9 per barrel, with the FPSO being leased and accounting for c.30-40% of overall production costs. First oil from Lisa Phase 2 development is expected in Q1 2022 using the Liza Unity which is the second FPSO built for this field and is designed to produce 220,000bopd with associated gas treatment capacity of 400mmcfpd.

Based on such considerations, we have modelled a similar project to Liza Phase 1 coming into production in 2026. To remain conservative, we have used higher production costs over the life of the project and higher capital costs as the Liza Phase 1 was constructed some time ago as first commercial production was achieved in December 2019. Looking at production from the potential Cretaceous reservoirs, we have assumed this would attract a premium Brent crude oil price. Eco signed agreements for offshore Guyana ahead of any oil discoveries and the fiscal terms are some of the best in the world. A royalty rate of 1% has been contracted along with a maximum cost recovery of 75%, with the partners receiving a 40-50% share of profit oil. Using a 12% discount rate the NPV per barrel came out at US\$5.43.



	Prosp	Unrisked Prospective Resources mmboe		Unrisked NPV US\$m		of success %	Risked NPV US\$m
	Gross	Net			Geological	Commercial	
G&A capitalised							(4.72)
Net cash							6.00
Sub-total							1.28
		DIS	COVERIES & EX	PLORATION UP	SIDE		
Guyana							
Hammerhead extension	15.0	2.2	3.21	7.07	81%	75%	4.29
Jethro	208.3	31.2	3.21	100.26	100%	25%	25.07
Joe	104.4	15.7	3.21	50.45	100%	25%	12.61
Jethro Extension	53.8	8.1	3.21	26.03	43.2%	30%	2.81
Amailia-Kumaka	775.8	116.4	5.43	632.22	32.0%	40%	80.92
DJ	173.9	26.1	5.43	141.76	33.7%	40%	19.11
KG	393.4	108.7	5.43	590.39	31.0%	40%	73.21
latuk-D	725.3	108.8	5.43	590.94	31.2%	30%	55.31
Rappu	500.1	75.0	5.43	407.36	35.1%	40%	57.19
Amatuk	267.3	40.1	5.43	217.80	28.8%	40%	25.09
Namibia							
Osprey	245.2	122.6	4.47	547.90	18.00	25%	24.66
Guy, Sharon, Tamar							8.00
South Africa							
Gazania	349.0	174.5	5.98	1,043.42	25.0%	25%	65.21
Sub-total							453.49
Alternative Energy							
Solear							6.00
TOTAL							460.77

NAV summary. Source: Align Research

In the Tertiary, we were guided by the Joe-1 and Jethro-1 discoveries and the CPR suggests heavy oil. ExxonMobil's Hammerhead-1 well in its Stabroek Block was drilled in a new reservoir and encountered 60m (197 feet) of high-quality oil-bearing sandstone reservoir, an estimated gross size of 862 mmboe, which 3D seismic shows is continuing into the Orinduik Block. The oil discovered at Jethro-1 was not dissimilar to Hammerhead, which is 15-20° API in the Tertiary. We have set the level of capital expenditure to reflect the additional costs expected in producing heavy oil. The selling price of such heavy oil is expected to attract a 6-15% discount to Brent. We have applied a similar discount factor on our flat oil price over the life of the project, which is the discount figure that has been used in our analysis. Using the same fiscal treatment and a 12% discount rate once again, the NPV per barrel was determined to be US\$3.21.

Analysis was undertaken for a potential project in Namibia reflecting the country's attractive fiscal regime of 5% royalty, 35% tax rate and an additional profit tax of 25% on projects offering better returns. Using the same flat oil price, an NPV(12) per barrel figure of US\$4.47 was determined. In the Cooper Licence, the company's current focus is on gaining an environmental permit to drill the Osprey Prospect. We expect this well to be funded by bringing potential farm-in partners to jointly drill the Osprey Prospect with Eco retaining a 50% interest, down from an 85% interest following the acquisition of Azinam. We have put in a value for the Guy, Sharon and Tamar Blocks, although these blocks do not yet have any drill ready prospects identified. Value was highlighted when Azinam farmed into these blocks and also more recently in the terms of the company's recently announced acquisition of Azinam.

In addition, further analysis was undertaken for a potential project in South Africa that took account of a royalty rate of 5% and income tax rate of 28%, together with highly favourable treatment of costs which allows 200% of exploration and 150% of capex to be deducted. An NPV(12) per barrel figure of US\$5.98 was determined, using the same flat oil price, which does highlight that South Africa has some of the best fiscal terms on that continent.

	US\$ million
NAV	US\$460.77 million
Using 1.36 £/US\$ exchange rate	£338.80 million
Per share value based on the number of shares in issue currently	167.15p
(202,693,635)	
Options and warrants	US\$1.74million
Sub-total	US\$462.51 million
	£340.08 million
Per share value based on the number of shares on a fully diluted	165.60p
basis currently (205,363,635)	
Additional warrants C\$50 million	US\$40.00 million
Total	US\$502.51 million
	£369.49 million
Per share value based on the number of shares on a fully diluted	114.65p
basis following the Azinam acquisition and full funding for the	
Gazania-1 well (322,280,302)	

Sum-of-the-parts valuation table. Source: Align Research

This NAV summary data went into our Sum-Of-The-Parts table to calculate a target price for the stock. The NAV (ex-warrants and options) comes out at US\$460.77 million or £338.60 million, which equates to 167.15p per share based on the current number of shares in issue (202,693,635). Adding in funds from warrants and options being exercised gives an NAV figure of US\$462.51 million or £340.08 million. This is equivalent to 165.60p per share on a fully diluted basis (205,363,635).

Currently, the company is in the midst of acquiring Azinam in a non-cash deal paying with equity and warrants whilst also working on the financing for its 72% share of the costs of the Gazania-1 well. We have taken those into consideration by adding in the additional warrants, giving a total figure of US\$502.51 million or £369.49 million, which is equivalent to 114.65p based on the number of shares on a fully diluted basis at this stage (322,280,302). We have elected to use this as our target price for the stock.



#### Conclusion

Offshore Guyana continues to deliver a mounting tally of successful oil discoveries for ExxonMobil and Eco's exposure to the Canje Block, where ExxonMobil is the operator, looks to have been a smart move. Whilst offshore Namibia oil exploration has become highly attractive for IOCs and oil majors over recent years. It has to be said that, with the likes of proven oil finders such ExxonMobil, TotalEnergies, Qatar Energy and Shell arriving on the scene, it looks fairly certain that more discoveries could now be on the cards with some big sums being invested to drilling campaigns.

Eco is materially undervalued in our view, but with there now being a series of imminent catalysts which could take the share price back towards past highs. The news flow does look as though it will be enough to keep any oil investor satisfied. Moving ahead, investors look to be assured of a compelling slate of announcements with plenty of developments both in Guyana and Namibia. First there is likely to be the closing of the deal with Azinam, announcing the tendering for a drill rig for the Gazania-1 exploration well on Block 2B (South Africa) and of course the results from Shell and TotalEnergies at Graff-1 and Venus-1.

In addition, there is also news from planned developments wells on the Canje block as well as Tullow seemingly poised to unveil drill targets in June/July 2022 – not long away. At the same time there is the potential for a big scramble for oil and gas assets offshore Namibia in the event of success by Shell or Total or both. All of this should allow the spotlight to become firmly focused on Eco for the benefit of all shareholders.

There seems to be lots of room for upside over the next six to twelve months and there looks to be good gains to be made by buying into the drilling catalyst ahead of the company confirming the exploration budget and drill targets. History often repeats itself and so it is worth noting that in 2018 the stock moved from 38p to 70p in a matter of days when the company announced its 2019 drilling programme for Guyana.

Given the exciting developments in offshore Namibia, we believe that with Eco being the operator with a large acreage position and high WI might become increasingly attractive to oil majors seeking to become involved in this latest hot area, which provides the clear spectra of both corporate developments along with technical developments. There was speculation in early 2019 that ECO was in talks concerning a potential sale of the company with some commentators mentioning a figure in excess of £2 per share. Given where the company is today, renewed success in the Canje block and the proving up of the prospectivity of major oil in Namibia would make such a price not unrealistic.

At a current price of just 23.75p, we update coverage of Eco (Atlantic) Oil & Gas with a reiterated Conviction Buy stance and a share price target of 114.65p.

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