ASX: IVZ OTCOB: IVCTF

Cabora Bassa Basin Margin Area holds 1.2 billion barrel prospective oil resource



6 October 2022

HIGHLIGHTS

- Independent Prospective Resource of 1.2 billion barrels from five drill ready prospects
- Baobab to target 243 million barrels in East Africa Rift "String of Pearls" play
- Total Cabora Bassa Prospective Resource > 5.5 billion barrels of oil equivalent (boe)
- New data incorporated from CB21 Seismic Survey results
- Resource potential determined by leading petroleum consultancy ERCE

Invictus Energy Limited ("Invictus" or "the Company"), is pleased to provide an update on the activities of its 80% owned and operated Cabora Bassa project in Zimbabwe.

Independent Prospective Resource of 1.17 billion barrels of oil (gross mean unrisked basis) from five drill ready prospects in Basin Margin Area

Invictus has received an updated Independent Technical Report from ERCE estimating substantial additional resource potential at Cabora Bassa, in the Basin Margin Area of the recently assigned Exclusive Prospecting Order 1849.

ERCE estimates the gross mean recoverable conventional potential of the Basin Margin Area at a combined 1.17 billion barrels of conventional oil on a gross mean unrisked basis[#].

The prospective resource estimate includes the Baobab, Acacia, Marula, Mukamba and Mimosa prospects but excludes additional leads along the basin margin and central fairway area (see Figure 1).

*Cautionary Statement: The estimated quantities of petroleum that may be potentially recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation are required to determine the existence of a significant quantity of potentially movable hydrocarbons. Prospective Resources assessments in this release were estimated using probabilistic methods in accordance with SPE-PRMS standards.

A summary of the report's findings for the Basin Margin prospects for an oil case, as of 3 October 2022, is summarised in Table 1.

ABOUT INVICTUS ENERGY

Invictus Energy Ltd is an independent oil and gas exploration company focused on high impact energy resources in sub-Saharan Africa. Our asset portfolio consists of a highly prospective 250,000 acres within the Cabora Bassa Basin in Zimbabwe. Special Grant 4571 contains the world class multi-TCF Mukuyu (Muzarabani) and Msasa conventional gas-condensate

BOARD & MANAGEMENT

Dr Stuart LakeNon-executive Chairman

Gabriel ChiappiniNon-Executive Director
& Company Secretary

Joe Mutizwa Non-Executive & Deputy Chairman **Scott Macmillan** Managing Director



EPO 1849	Oil Case: Gross Unrisked Estimated Prospective Resources#						
	Source: ERCE as at 3 October 2022						
Cabora Bassa Project	Oil (million barrels) - 100% Gross						
Prospect	Low	Best	High	Mean			
Baobab	92	184	443	243			
Acacia	116	320	1071	509			
Marula	31	71	174	92			
Mukamba	77	183	467	246			
Mimosa	23	60	159	81			
*Total gross (100%)				1,171			
*Total net IVZ (80%)				937			

Table 1 - Summary of Basin Margin Oil Case Unrisked Prospective Resource Estimate

This adds to the prospective resource upgrade at Mukuyu, announced in an <u>ASX release</u> on 5 July 2022, taking the estimated total prospective resource base for the Cabora Bassa project portfolio to a combined 5.5 billion boe (gross mean unrisked*)¹.

Based on the Company's 80% share in the Cabora Bassa project, Invictus' net share of the Basin Margin area prospective resource would equate to 937 million barrels of oil* (pre 10% SWFZ back in right) and 4.4 billion boe for the total project area.

This substantial resource potential in the Basin Margin play places it at comparable scale to the prolific East African Rift System that resulted in material discoveries in the "String of Pearls" plays in Kenya and Uganda.

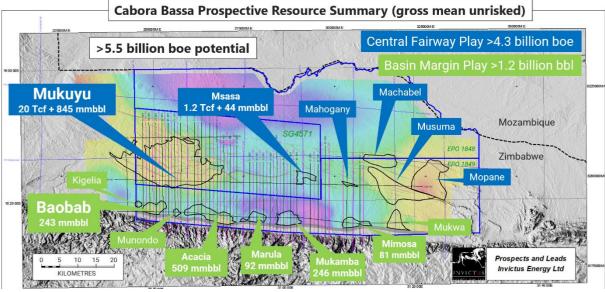


Figure 1 - Cabora Bassa Prospective Resource Summary & Play Map

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The ERCE prospective resource estimate incorporates new data from the Cabora Bassa 2D Seismic Survey ("CB21 Survey") which has provided the Company with a material portfolio of high potential prospects and leads (Figure 1).

The CB21 Survey firmed up the potential for multiple stacked hydrocarbon bearing zones in the newly identified Basin Margin play, as announced in an <u>ASX Release</u> on 2 September 2022.

The Basin Margin play will initially be tested by the Baobab-1 well which displays similar characteristics to the play opening discoveries in the Lokichar Basin in Kenya and Albertine Graben in Uganda.

ERCE has estimated Prospective Resources using both a conventional oil case and a gascondensate case as there is hydrocarbon phase uncertainty associated with the source rock depositional type and thermal history.

The gas phase case Prospective Resource summary is presented in the Notes in Figure 3.

Baobab-1 wellpad construction in progress & drilling schedule update

The Baobab-1 wellpad construction is underway and scheduled for completion to allow for the rig move and subsequent drilling to commence immediately following the completion of the Mukuyu-1 well, which spudded on 23 September and is prognosed to take approximately 50 to 60 days to drill and evaluate.

Baobab-1 will be drilled as a vertical well to test multiple stacked Cretaceous and younger targets, within four-way and three-way dip closures, against the southern basin bounding rift fault.

Baobab displays similar structural characteristics to the basin opening Ngamia discovery drilled in the Lokichar Basin in Kenya.

Ngamia-1 successfully tested a stacked three-way dip closure which found pay at multiple horizons and resulted in subsequent discoveries in the "String of Pearls" along the basin margin.

A seismic cross section comparison between Ngamia-1 well and the projected Baobab-1 well are shown in figure 2.



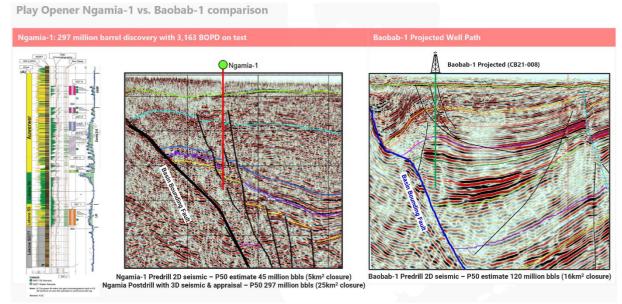


Figure 2 - Ngamia-1 vs. Baobab-1 pre-drill seismic cross section comparison

Managing Director Scott Macmillan commented

"The material prospective resource estimate for the five drill ready Basin Margin prospects confirms the high potential and quality of our acreage and prospect and lead inventory.

"Prior to the acquisition of the CB21 Seismic Survey we recognised the potential for the Basin Margin to evolve into a substantial play due to the structural similarities we observed with the East Africa Rift "String of Pearls" play.

"Invictus has built and matured a high quality and material portfolio of prospects and leads from a conceptual play initially identified on sparse vintage data to multiple drill ready prospects with 1.2 billion barrels of potential.

"Our basin master position encompassing the entire conventional oil and gas play fairway, multiple play types to target and over 5.5 billion boe potential provides us with substantial running room.

"Subject to making an opening discovery with either Mukuyu-1 or Baobab-1, it could potentially provide us with future discoveries on a large scale within the basin."

About ERCE

ERCE is an independent consultancy specialising in petroleum reservoir evaluation. The work has been supervised by Mr Adam Becis, General Manager of ERCE's Asia Pacific office, and a member of the Society of Petroleum Engineers and the Society of Petroleum Evaluation Engineers. Mr Becis is experienced assessing petroleum reserves and resources estimates with over 15 years' relevant industry experience.

-Ends-



Approved for release by the Board

Questions and enquiries

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About Invictus Energy Ltd (ASX: IVZ)

Invictus Energy Ltd is an independent upstream oil and gas company listed on the Australian Securities Exchange (ASX: IVZ). The Company is headquartered in Perth, Australia and has offices in Harare, Zimbabwe. Invictus is opening one of the last untested large frontier rift basins in onshore Africa – the Cabora Bassa Basin – in northern Zimbabwe through a high impact exploration program.

The Company's principal asset is SG 4571 located in the Cabora Bassa Basin in Zimbabwe which contains the world class Mukuyu (Muzarabani) prospect – the largest undrilled prospect onshore Africa independently estimated to contain 20 Tcf and 845 million barrels of conventional gas condensate (gross mean unrisked basis). EPO 1849 contains the Basin Margin play with an estimated 1.2 billion barrels of oil (gross mean unrisked) across five drill ready prospect which will be tested by the Baobab-1 well.

Invictus Energy is committed to operating in a safe, ethical and responsible manner, respecting the environment, our staff, contractors and the communities in which we work.

*Cautionary Statement: The estimated quantities of petroleum that may be potentially recovered by the application of a future development project relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation are required to determine the existence of a significant quantity of potentially movable hydrocarbons. Prospective Resource assessments in this release were estimated using probabilistic methods in accordance with SPE-PRMS standards.



Notes

- 1. The estimated quantities of Prospective Resources stated above may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.
- 2. The recoverable hydrocarbon volume estimates prepared by ERCE and the Company and stated in the tables above have been prepared in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineers.
- 3. The Prospective resource estimates have been estimated using probabilistic methods using best estimates of all parameters. The gross / 100% basis refers to the total resource.
- 4. The Prospective Resources has been determined probabilistically for Oil Initially in Place (OIIP) for the oil cases and Gas Initially In Place (GIIP) for the gas cases. Analogue recovery factors were applied to the probabilistically determined numbers to give the final prospective resource numbers. The condensate Prospective Resources for the gas case were calculated using a low, mid and high condensate gas ratio (CGR) based on source rock analysis and applied to the low, mid and high case GIIP to determine Condensate Initially In Place (CIIP). Prospective Resource numbers for condensate were then calculated using analogue low, mid and high case recovery factors applied to the low, mid and high CIIP.
- 5. The Prospective Resources have been provided as rolled up numbers for individual prospects which have arithmetically summed the respective horizons of the prospect.
- 6. Prospective Resources are reported on a low, best, high and mean estimates in the most specific category that reflects degree of uncertainty and have not been adjusted for risk.
- 7. Unrisked mean totals are not representative of the expected total from the prospect and assumes a success case in all reservoir intervals in each prospect.
- 8. The Best Estimates reported represent that there is a 50% probability that the actual resource volume will be in excess of the amounts reported. *Refer to cautionary statement above.
- 9. The Prospective Resource Gas Case volumes which recognises the hydrocarbon phase uncertainty associated with the Basin Margin play is shown below on a gross 100% basis:

Prospect	Gas Prospective Resources (Bscf)				Recoverable Condensate (MMstb)			
	Low	Best	High	Mean	Low	Best	High	Mean
Baobab	331	676	1,583	875	6	14	35	19
Acacia	448	1,100	3,414	1,679	7	21	76	35
Marula	136	318	813	425	2	6	18	9
Mukamba	421	951	2,408	1,281	7	19	54	27
Mimosa	84	211	580	292	1	4	13	6
Total				4,552				96

Figure 3 - Basin Margin Prospective Resource Gas Case Summary (gross 100% basis)

10. The estimates for unrisked Prospective Resources have not been adjusted for both an associated chance of discovery and a chance of development. The estimated chance of success (CoS) from



ERCE and the Company are summarised in the tables below below:

	Geological Risk Matrix									
	Play Risk			Prospect Risk						
Prospect	Source Presence & Maturity	Reservoir Presence	Seal Presence	Total	Source Migration	Reservoir Presence & Efficacy	Trap Definition & Efficacy	Seal Presence & Efficacy	Total	cos
Acacia	50%	90%	50%	23%	80%	70%	90%	70%	35%	8%
Marula	50%	90%	50%	23%	80%	70%	90%	70%	35%	8%
Mukamba	50%	90%	50%	23%	80%	70%	90%	50%	25%	6%
Mimosa	50%	90%	50%	23%	80%	70%	80%	60%	27%	6%
Baobab	50%	90%	50%	23%	80%	70%	90%	70%	35%	8%

Table 2 - ERCE Geological Chance of Success Risk Matrix for Basin Margin Prospects

Prospect	ERCE CoS (%)	Invictus CoS (%) (pre DHI uplift)	Invictus CoS (%) (post DHI uplift ¹)
Baobab	8%	6%	15%
Acacia	8%	5%	10%
Marula	8%	6%	12%
Mukamba	6%	6%	12%
Mimosa	6%	5%	5%

Table 3 - Comparison of ERCE & Invictus Chance of Success

ERCE's risking methodology does not take into account seismic amplitude response or Direct Hydrocarbon Indicators (DHI) responses to increase the chance of success (CoS). Invictus has provided its internal estimates of CoS for each respective horizon which account for any amplitude / DHI response for each individual horizon.

Westwood Global Energy Group have published an independent report on the impact of DHI response on exploration well performance for Technical Success rate (TSR) and Commercial Success Rates (CSR) in frontier basins for five of the most commonly reported DHIs. The study covers 536 wells drilled between 2008-2019 across 95 basins.

The success rates of exploration wells drilled which display DHI attributes is significantly higher than the global benchmark success rates in frontier basins.

Select Basin Margin prospects have interpreted DHI responses in a number of horizons and the CoS ranges provided for these prospects reflect the quality and type of DHI response for the particular horizon. The subsequent uplift to the estimated CoS for these horizons is within the range of potential outcomes.



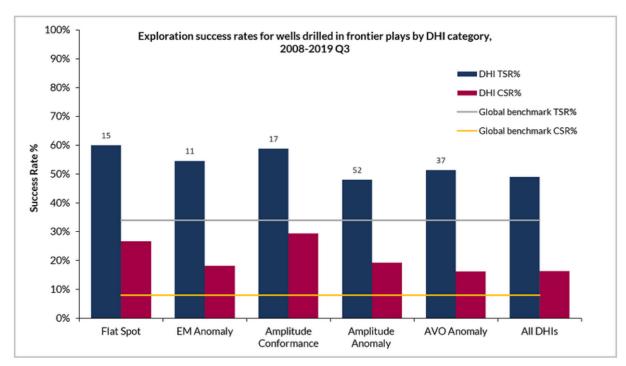


Figure 4 - Exploration success rates for frontier plays by DHI category (courtesy Westwood Global Energy Group)

A summary of the Westwood Global Energy Group report can be accessed here: https://www.westwoodenergy.com/reports/global-ea/the-impact-of-dhis-on-exploration-performance

- 11. The chance of development is estimated at greater than 50%. The chance of development is the chance that once discovered, an accumulation will be commercially developed. The size of the Baobab Prospect, which is located onshore and in reasonable proximity to existing and future infrastructure, increases the chance of bringing future discoveries to commercial development.
 - A modest oil discovery could be monetised via trucking to nearby ports such as Beira for export to global markets. A larger discovery or aggregated smaller discoveries would warrant the construction of an export pipeline as well as potential domestic refining to supply refined products to the local and regional markets.
 - The Company has also signed a Gas Sale Memorandum of Understanding (MOU) on 7 May 2019 with Sable Chemical Industries Limited for up to 70 mmscf/d for a 20-year period for a Maximum Contract Quantity of 510 Bcf. A further Gas Sale MOU was signed with Tatanga Energy for up to 100 mmscf/d for a 20-year period for a Gas to Power development in the event of a commercial gas discovery. This would likely underpin the development of any commercial discovery.
- 12. The barrel of oil equivalent (BOE) is a unit of energy based on the approximate energy released by burning one barrel (42 U.S. gallons or 158.9873 litres) of crude. One BOE is roughly equivalent to 5,800 cubic feet (164 cubic meters) of typical natural gas, which is the conversion used in this analysis to calculate the BOE for the gas volumes. The value is necessarily approximate as various grades of oil and gas have slightly different heating values.
- 13. Prospective Resources means those quantities of petroleum which are estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future



- development projects. Prospective resources have both an associated chance of discovery and a chance of development.
- 14. Prospective Resource estimates prepared by ERCE have relied upon the integration of Invictus' current technical data and interpretation, as well as a compilation of data from previous licence operator Mobil, third party and other historical reports. The technical data included the newly acquired, processed and interpreted high resolution 2D infill seismic data from the CB21 Seismic Survey of 840-line km, and the reprocessed 1990 vintage 2D seismic data set acquired by Mobil. The two surveys were concurrently processed by EarthSignal to ensure consistency between the datasets.

New Data Sources & Information

To complete ERCE's evaluation of the potential hydrocarbon resources in the Basin Margin prospects, Invictus allowed ERCE complete and open access to the current technical data and interpretation, as well as a compilation of Invictus' and Mobil's data and relevant public domain data.

The technical data included several compilations of field studies and progress reports by Invictus and Mobil. All uninterpreted original 2D seismic lines covering the prospect and Invictus' interpretations were available in an IHS Inc. Kingdom project, which were evaluated by ERCE.

The new CB21 and reprocessed Mobil 2D seismic datasets has resulted in improved imaging of the subsurface in the Cabora Bassa Basin and significant improvement in the reflector continuity and sharper definition of the fault geometries.

The infill spacing of the new CB21 Survey of ~1.7km line spacing (compared to 15-20km line spacing from the Mobil 1990 survey) provides greater structural definition and the identification of additional prospective horizons within the Basin Margin area.

The seismic data was depth converted utilising Pre-Stack Depth Migration products, which were extracted for selected lines across the basin and used to create and depth-time function across the respective horizons in the Cabora Bassa Basin and applied to the Pre-Stack Time Migration data.

The proposed future work program in the current EPO 1849 licence includes the drilling and evaluation of the Baobab-1 exploration well which is scheduled to take place over 2H 2022.

Geology & Evaluation

The Cabora Bassa Basin started as a low relief sag basin filling with Palaeozoic glacial deposits. The first four Mesozoic rift phases occurred during the Permo-Triassic with the break-up of Gondwanaland and deposition of the Karoo sequence. The primary reservoir objective in the Baobab Prospect is the Cretaceous and younger formations (Dande and post Dande).

The Dande formation sequence was deposited during the Jurassic and younger in alluvial, fluvial and possibly lacustrine depositional environments. The Cabora Bassa basin predominantly consists of sand rich terrestrial Mesozoic deposits.

The trapping configuration of the Basin Margin prospects consists of three way and four way closure against the basin bounding fault (BBF).

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ERCE independently set the P10 Gross Rock Volume (GRV) for each horizon as the lowest closing contour for each respective horizon.

The P90 GRV was set as 7.5% of the P10 volume. distributions for each stratigraphic interval of the respective Basin Margin prospect based on ERCE's interpretation of the seismic dataset.

The Net to Gross ranges were derived from interpretation of published field data and depositional environments of the respective units.

Porosity inputs were derived from interpretation of published field data and a porosity-depth function developed by Mobil for the Cabora Bassa Basin

Hydrocarbon saturation and formation volume factors inputs are based on analogues and empirical relationships.

The inputs and distributions were put into Crystal Ball to generate probabilistic P90, P50, P10 and mean estimate GIP volumes via Monte Carlo simulation.

The Prospective Resource Estimates were generated through Crystal Ball utilising a range of recovery factors and liquids yield appropriate for the respective stratigraphic reservoir type, depth and likely source rock interval and maturity and were also calculated via Monte Carlo simulation.

The wide variance between the P10 and P90 volume estimates for the prospects is consistent with the geological uncertainties in the basin.

The presence of a trapping geometries has been demonstrated and reservoirs and source rock have been identified through surface outcrop studies. The primary geological risks to hydrocarbon discovery for the Basin Margin prospects are source rock presence and maturity, and presence and effectiveness of a seal.

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Abbreviations

mmbbls – millions of barrels of oil or condensate
 mmboe – millions of barrels of oil equivalent
 scf – standard cubic foot

mmscf - millions of standard cubic feet
Bcf - billion standard cubic feet

Tcf – trillion standard cubic feet

EPO – Exclusive Prospecting Order

PRMS – Petroleum Resource Management System

SPE – Society of Petroleum Engineers

SG - Special Grant

Conversions

1 BOE = 5,800 scf natural gas 1 mmboe = 5.6 Bcf 1 Tcf = 1,000 Bcf 1 mmscf/d = 1.06 TJ/d 1 Bcf = 1.06 PJ

Disclaimer

*Cautionary Statement for Prospective Resource Estimates - With respect to the Prospective Resource estimates contained within this report, it should be noted that the estimated quantities of Petroleum that may potentially be recovered by the future application of a development project may relate to undiscovered accumulations. These estimates have an associated risk of discovery and risk of development. Further exploration and appraisal may be required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Hydrocarbon Resource Estimates – The Prospective Resource estimates for Invictus' SG 4571 & EPO 1849 licence presented in this report are prepared as at 30 June 2022 and 3 October 2022 respectively. The estimates have been prepared by the Company in accordance with the definitions and guidelines set forth in the Petroleum Resources Management System, 2018, approved by the Society of Petroleum Engineers and have been prepared using probabilistic methods. The Prospective Resource estimates are unrisked and have not been adjusted for both an associated chance of discovery and a chance of development.

No New Information or Change in Assumptions – Since the date of completion of this hydrocarbon resource study, the Company is not aware of any new information and that all material assumptions and technical parameters underpinning prospective resource estimate continue to apply and have not materially changed

Competent Person Statement Information – ERCE is an independent consultancy specialising in petroleum reservoir evaluation. The work has been supervised by Mr Adam Becis, General Manager of ERCE's Asia Pacific office, and a member of the Society of Petroleum Engineers and the Society of Petroleum Evaluation Engineers. Mr Becis is experienced assessing petroleum reserves and resources estimates with over 15 years' relevant industry experience.

Forward looking statements – This document may include forward looking statements. Forward looking statements include, are not necessarily limited to, statements concerning Invictus' planned operation program and other statements that are not historic facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward looking statements. Although Invictus Energy Ltd believes its expectations reflected in these are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements. The entity confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning this announcement continue to apply and have not materially changed.