

New data reveals analogue of giant Buzzard Field in P2528

Highlights

- Finder's high-end reprocessing of the Big Buzz 3D in P2528 has revealed a large analogue to the nearby Buzzard Field, called the Whitsun Prospect
- Whitsun has gross mean prospective resources of 150 MMbbl and geological chance of success of 26%
- The Buzzard Field is the largest UK Continental Shelf oil discovery in the last 25 years and is estimated to contain over 1 billion barrels
- Detailed technical interpretation continues for other prospects within P2528 and P2527
- Finder has initiated a farmout process to secure an industry partner to fund the drilling of Whitsun



Figure 1 – Big Buzz 3D amplitude and seismic 3D visualization showing Whitsun Prospect analogue to giant Buzzard Oil Field

Finder Energy Holdings Limited (**Finder** or **Company**) is pleased to announce resource estimates for the Whitsun Prospect based on detailed subsurface interpretation of the newly reprocessed Big Buzz 3D within the Company's P2528 Seaward Production Licence in the UK North Sea (**Licence**) (Figure 2).

Commenting on the Whitsun Prospect, Managing Director, Damon Neaves, said:

"The Big Buzz 3D reprocessing has exceeded expectations. Finder has utilised the latest reprocessing and interpretation technologies to find subtle, stratigraphic traps analogous to the nearby giant Buzzard Field. The leading prospect emerging from this work is the Whitsun Prospect. Whitsun is large, with estimated mean prospective resource potential of 150 MMbbl gross. Undrilled prospects of this size are rare in mature basins and will likely attract significant interest from potential farmin partners. I congratulate the team for their excellent technical work and the vision that inspires them to generate compelling drilling opportunities like Whitsun."

Finder holds a 60% interest in P2528 and is the Licence Administrator. The remaining 40% is held by Dana Petroleum (E&P) Limited (**Dana**) who farmed into the Licence last year.

The Licence is located within the Peterhead Graben, Central North Sea (CNS) immediately south of the Ettrick Sub-basin which contains the prolific stratigraphic traps of the Buzzard and Golden Eagle fields (Figure 2). Buzzard is often cited as one of the largest oil discoveries in the modern era in the North Sea with an estimated 1 billion barrels of oil. The Buzzard discovery (2001) demonstrates the potential of stratigraphic traps¹ to open up new and significant resource potential in mature regions like Advances in seismic acquisition and the CNS. interpretation technology have made a giant leap in identifying stratigraphic traps and the industry has experienced increasing success drilling stratigraphic traps as well as discovering, on average, larger field sizes (Westwood, 2020).



Figure 2: Licence location map showing key prospects and surrounding oil fields

Finder has completed detailed evaluation on Whitsun, the key prospect in the Licence and analogue to the Buzzard Field. The interpretation utilised the newly reprocessed Big Buzz 3D dataset. The Big Buzz 3D project took four vintage 3D surveys through a high-end processing flow to produce a final merged contiguous dataset over both licenses and surrounding analogous oil fields. The results have exceeded Finder's expectations with significant improvement in imaging at the target objectives (Figure 3).

¹ A stratigraphic trap is a type of sealed geologic container capable of retaining hydrocarbons. They are formed by depositional, erosional or diagenetic processes which causes variations within the rock type. They are often associated with strata pinch-outs, unconformities or other geologic features. They differ to structural traps which are formed by deformation of strata such as faults and folds.





Figure 3: comparison of legacy 3D seismic data and newly improved Big Buzz 3D data. Amplitude extraction of the Buzzard Sandstone member objective shows a significant improvement in noise reduction and geobody identification.

The Whitsun Prospect is a stratigraphic trap of the Buzzard Sandstone reservoir sealed by the proven Kimmeridge Clay Formation deep marine shales. Mapping of Whitsun on the Big Buzz 3D has shown similar seismic reflectivity and geometries, interpreted as mass flow channels and turbidites as the Buzzard Field area. Recently completed basin modelling simulations has shown that Whitsun is ideally located for hydrocarbon charge and is adjacent to the early mature source kitchen within the Peterhead Graben, which contains rich oil source rocks units within the Kimmeridge clay shales. The presence of an active source rock in the basin is proven by oil columns and shows in offset wells.

Estimated prospective resources and the COS for Whitsun are shown below. Additional technical detail is contained in the Appendix to this announcement.

		Liquids – Oil (MMbbl)								
Name	Status	Gross (100%)				Net (Finder 60%)				COS
		P90	P50	Pmean	P10	P90	P50	Pmean	P10	
Whitsun	Prospect	36	112	150	315	22	67	90	189	26%

Table 1: Whitsun Prospective Resources¹

Notes:

1. These resource and risk estimates have been determined by Finder and should be considered in the context of the Technical Appendix of this Announcement.

ASX Disclosure:

Prospective Resources are the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) related to undiscovered accumulations. These estimates have both a risk of geologic discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrocarbons.



Detailed geophysical interpretation is also ongoing on other prospects within P2527 and P2528.

The Buzzard field development infrastructure consists of four linked platforms with wellhead facilities for 27 production wells and is operated by China National Offshore Oil Corporation (CNOOC). These facilities are located approximately 20 km to the north of Whitsun, which could be tied back in success.

STRATEGY AND FORWARD PLANS

The current term of P2528 (Phase A) extends to late 2024. Finder farmed out 40% of the Licence to Dana Petroleum in late 2022. Finder retained a 60% interest in the Licence in order to undertake a secondary farmout with the objective of securing funding for drilling.

Finder welcomes the initiatives recently announced in the 2023 Autumn Statement which provides greater clarity on the UK Government's short, medium and long-term commitments to support investment in the oil and gas sector and include greater certainty around the expiry of the Energy Profits Levy (EPL) and the Investment Allowance (IA) which are expected to lead to greater stability and shore up investment in the sector. These announcements have positive implications for Finder's farmout strategy in the UK.

With Whitsun emerging from our technical evaluation as the leading prospect in P2528 and given its large resource potential, Finder has initiated a farmout process to attract a partner to drill Whitsun.

Evaluation of additional prospectivity in P2528 and P2527 on the Big Buzz 3D reprocessed data is ongoing.

This ASX announcement has been authorised for release by the Board.

For further information, please contact:

INVESTORS	MEDIA
Damon Neaves - CEO	Paul Ryan
Finder Energy Holdings Limited	Citadel-Magnus
Phone: +61 8 9327 0100	Mobile: +61 409 296 511
Email: investor@finderenergy.com	Email: pryan@citadelmagnus.com

About Finder Energy: Finder is an oil and gas exploration company based in Perth, Western Australia with an extensive, high quality portfolio of oil and gas assets in the UK North Sea and North West Shelf.

Finder is currently focussed on executing value-accretive farmout deals on its entire portfolio, including 4 permits in the prolific UK North Sea, the drill-ready Gem prospect in the Vulcan Sub-basin and the WA-547 P permit which is on trend with the Dorado oil field.

Forward-looking statements: This announcement contains certain "forward-looking statements", which can generally be identified by the use of words such as "will", "may", "could", "likely", "ongoing", "anticipate", "estimate", "expect", "project", "intend", "plan", "believe", "target", "forecast", "goal", "objective", "aim", "seek" and other words and terms of similar meaning. Finder cannot guarantee that any forward-looking statement will be realised. Achievement of anticipated results is subject to risks, uncertainties and inaccurate assumptions. Should known or unknown risks or uncertainties materialise, or should underlying assumptions prove inaccurate, actual results could vary materially from past results and those anticipated, estimated or projected. You should bear this in mind as you consider forward-looking statements, and you are cautioned not to put undue reliance on any forward-looking statement.



APPENDIX - P2528 TECHNICAL OVERVIEW

Upper Jurassic Buzzard Hydrocarbon Play

The Licence lies at the of western end the Peterhead Graben, with the fault-bounded Peterhead Ridge to the south. The Buzzard Graben and Ettrick Sub-basin lies along the northern flank and the Grampian Spur to the west (Figure 4). The principal Finder plays that has identified on the Licence include the Burns (J71-J74), Ettrick (J64-J72) and Buzzard (J56-J64) turbidite sandstones. Both the Ettrick and Buzzard sands form the productive reservoirs in the nearby Buzzard Field in blocks 20/6 and 20/1.

Caithness Ridge Wick Fladen Basin Ground Halibut Spur Platform ich Ground Graben **Smith Bank Graben Halibut Horst** P2527 Renee Rido West Bank High **Banff Sub-basin** BUELO Peterhead Forties High Grampian North Kittiwake Basin P2528 P2530 Aberdeen West Central Spelt West Central Platform **Base Cretaceous TWT** structure 100 k

Buzzard Field

PanCanadian discovered the Buzzard Field in 2001 by well 20/6-3 leading to

Figure 4: Central North Sea Base Cretaceous time structure map showing key tectonic elements and Finder Licences

the reinvigoration of the exploration potential of the South Halibut Basin and the North Sea as a whole. The well encountered 121m oil column and an oil-down-to (ODT) in the Upper Jurassic deepwater Buzzard Sands at a depth of 2,380m TVDss. Interestingly, the play was originally targeted in 1986 by the 20/6-2 well, which only found thin 3.5m column in a small 4-way closure, however the up-dip stratigraphic potential was missed or deemed to be too high risk by many as there was limited AVO response and geophysical indicators. The subsequent appraisal program for Buzzard proved up a minimum 427m oil column in the main field area with the initial discovery well testing a 32°API oil at an average rate of 6,547 bopd from the main Buzzard reservoir unit. Production commenced in 2007 and to date the field, operated by CNOOC, has produced over 740 mmboe, with total recoverable reserves estimated to be over 1,051 mmboe (Wood Mackenzie, 2019).

Both the Buzzard and Ettrick sandstone were deposited as mass-flow / turbidite systems associated with synrift to an early post rift tectonic setting. Sediment was derived from feeder systems primarily from the west and north. Golden Eagle and Buzzard fields indicated hydrocarbon source was from the Kimmeridgian claystones.



Big Buzz 3D reprocessing

Prior to Finder winning the Licence in the 32nd bid round, vintage 3D seismic datasets dated back to 1999 to 2004. Significant advancements in seismic data reprocessing has occurred over the last 20 years and Finder has undertaken a broadband, full-waveform inversion, pre-stack depth migration reprocessing of the 3D seismic data over P2527 and P2528, called the 'Big Buzz 3D'. The project took four vintage 3D surveys through a high-end processing flow which included, broadband, FWI and pre-Stack Depth Migration to produce a final merged contiguous dataset over 1,568 km² and covers both licenses and surrounding analogous oil fields. The results have exceeded Finder's expectations with significant improvement in imaging at the target objectives (Figure 3).

Whitsun Prospect

The Whitsun Prospect is located within the Peterhead Graben main depositional basin and comprises an oilprone combination structural and stratigraphic trap.

Reservoir

The Upper Jurassic Buzzard Sandstone Member forms the main reservoir objective for the Whitsun Prospect and are interpreted to have been deposited as a series of deep-water mass-flow sands in a northerly and westerly direction off the shelfal regions of the Grampian Spur and Peterhead Ridge. This depositional model is analogous to that of the Buzzard Field where shelfal sands are re-worked into the Buzzard Graben to form the reservoirs at the Buzzard and Ettrick oilfields.

The shoreface equivalent of the Buzzard and Ettrick member sands are encountered by the 19/8-1 well, updip and west of the Buzzard Field, are also encountered in the Licence by the 19/15-1 well which sits in a geographically similar up-dip location to the Whitsun Prospect. Erosion and re-working of these shoreface systems, as well as re-working of shallow marine sandstones from the Peterhead Ridge to the south, into neighbouring basinal lows form a series of laterally stacked, high quality turbidite reservoirs which are interpreted to form the reservoirs at Whitsun.

The depositional configuration of these massflow systems is heavily dependent on their sensitivity to basin floor topography which helps to explain their tendency to thicken into the basin-floors as axial fans and are represented as age equivalent silts or shales on the flanks of the basin at 20/7b-5 and on the uplifted, salt-cored structure drilled by the 20/12-1 and 20/12-2 wells.

The presence of reservoir sands at the Whitsun Prospect location is supported by interpretation of both seismic amplitudes and spectral decomposition of the seismic signal at the J64 interval, both of which suggest the presence of a north-east to south-west trending anomaly displaying relatively bright amplitudes and increased seismic frequencies above the background shale response (Figure 3 and 5).

Trap and seal definition (seismic mapping)

The Whitsun Prospect is defined as a combination of stratigraphic pinchout and dip closure with a top reservoir crest at approximately 2,250 mTVDSS. The Buzzard Sandstone Member reservoir thins to a pinchout margin to the south, west and north and is dip-closed to the east. The sands are encased in proven and competent Kimmeridge Clay Formation shales which provides the top, base and lateral seals. Locally, along the southern graben bounding fault, the trap may also seal against Paleozoic Devonian and basement rocks. Updip and to the west of Whitsun, the 20/11-1 well intersected shale and siltstone prone Buzzard Formation section. This is similar to the 19/10-1(Z) well up-dip of the Buzzard Field, and both are interpreted to be located in a sediment bypass zones.



Interpretation on the new Big Buzz 3D has shown at the Buzzard Sandstone reservoir objective distinct changes in the seismic character are observed. Parallel and "bland" character is observed in the lateral shaley seal section and within Whitsun, increased seismic reflectivity and amplitudes are present. Amplitude extractions show these events to be channelised in shape, much like observed in the Buzzard Field (Figure 3 and 4).





Charge (source & migration)

Basin modelling studies carried out by Finder has shown that charge into the Whitsun Prospect is provided by the Kimmeridge Clay Formation shales, which have been shown to have excellent source rock quality and to be within the early oil maturity window in the Peterhead Graben. Probabilistic modelling results shows that whilst the Peterhead Graben source fetch area is early-mature, significant hydrocarbons have been generated and expelled. Only in the mapped high case scenario might have some risk of hydrocarbon charge limitation. Oil discovered at the 20/8-2 Inner Pear Discovery well proves that hydrocarbons are being



generated and expelled out of the Kimmeridge Clay in the eastern Peterhead Graben. Based on offset field analysis and modelling results, low maturity oil with a low GOR can be expected.

Prospective Resources and Geological Chance of Success

Prospective resources were probabilistically calculated using input parameters from geophysical mapping, geological interpretation and offset well and field data. Gross rock volume (GRV) is calculated by using the depth maps and isopach maps interpreted using the new Big Buzz 3D data (Figure 6). The reservoir is dip closed on the eastern margin at 2,670 mTVDSS, which forms the basis of the high side (P10) prospective resource estimates and would give an overall column height of 420m (Buzzard Field column height is ~470m). In the low-side case, a dip-closure at 2,470 mTVDSS within the interpreted amplitude channel complex is considered. Utilising the seismic amplitude interpretation and geological models two reservoir facies were interpreted. Improved petrophysical input parameters were assumed for the channel complex type facies and reduced for the fan type facies.

The summary of the Prospective Resource estimate for Whitsun Prospect can be seen in Table 1. The COS for Whitsun was estimated to be 26% with the key risk being related to the uncertainty related to the trap pinchout margins as these thin to below seismic resolution.



Figure 6: Whitsun Prospect mapping displaying depth structure, gross reservoir isopach, amplitude response and geological model



ASX Listing Rules – Chapter 5, Petroleum Resource Information:

Rule				
5.25	This report contains estimates of contingent and prospective resources.			
5.25.1	The effective date is 7 December 2023.			
5.25.2	Finder calculates reserves and resources according to the Society of Petroleum Engineers Petroleum Resource			
	Management System (SPE-PRMS) definition of petroleum resources. Finder reports reserves and resources in line with ASX listing rules.			
5.25.3	Total petroleum initially in place has not been disclosed.			
5.25.4	Total petroleum initially in place has not been disclosed.			
5.25.5	Finder's net economic interest in the prospective resources is provided in Table 1.			
5.25.6	Finder uses probabilistic methods for estimation of petroleum resources used in this report.			
5.25.7	Unless otherwise stated, all petroleum resource estimates are quoted at standard oilfield conditions of 14.696 psi (101.325 kPa) and 60 degrees Fahrenheit (15.56 deg Celsius). MMboe means millions of barrels of oil equivalent.			
	Gas volumes are converted to oil equivalent volumes via a constant conversion factor, which for Finder is 6.0 mscf			
	of dry gas per 1 bbl. Volumes of oil and condensate are converted from MMbbls (million stock tank barrels) to			
	MMboe on a 1:1 ratio.			
	Quoted figures are rounded to the nearest whole number.			
5.26	Petroleum reserves are not reported in this report.			
5.27	Contingent Resources are not reported in this report.			
5.28	This report contains estimates of prospective resources			
5.28.1	Prospective Resources have been reported in the categories of P90 (1U or low estimate), P50 (2U or best estimate) and P10 (3U or high estimate). Finder has also included the mean estimate.			
5.28.2	The cautionary statement is located proximate to the reported Prospective Resources.			
5.28.3	The mean estimate of prospective resource has been reported and accompanied by the low, best and high estimate.			
5.28.4	Unless otherwise stated, all petroleum estimates are aggregated by arithmetic summation by category, eg Prospective Resource.			
5.28.5	Where the Prospective Resources have been aggregated beyond the field level in this report by arithmetic summation, the aggregate low estimate may be a very conservative estimate and the aggregate high estimate may be a very optimistic estimate due to the portfolio effects of the arithmetic summation.			
5.28.6	No financial information has been reported.			
5.29 - 5.34	Not applicable to this report.			
5.35	This is the first time estimated Prospective Resources have been reported on the P2528 project.			
5.35.1	The Prospective Resources are located in the P2528 Seaward Production (Innovate) Licence within the UK North Sea. Details of the licence terms are outlined in the Solicitor's Report located in the Prospectus dated 25 Feb 2022.			
5.35.2	The estimates of Prospective Resources included in this report have been prepared in accordance with the definitions and guidelines set forth in the SPE-PRMS. Work is ongoing in the Licence, including interpretation of 3D seismic data and integrated technical studies. No further data acquisition or exploration drilling is planned at this time.			
5.35.3	The Geological Chance of Success (COS) is included in Table 1. The Prospective Resources have not been adjusted for the Chance of Development (COD). Quantifying the COD requires consideration of both economic contingencies and other contingencies, such as legal, regulatory, market access, political, social license, internal and external approvals and commitment to project finance and development timing.			
5.35.4	The Geological Chance of Success (COS) is included in Table 1, which takes into account the chance of the prospect			
	encountering the necessary elements of trap, seal, resource and hydrocarbon charge.			
5.36-5.40	Not applicable to this report.			
5.41 – 5.43	The information in this report is based on, and fairly and accurately represents, in the form and context in which it appears, information and supporting documentation prepared by, or under the supervision of, Aaron Bond, a member of the American Association of Petroleum Geologists, having sufficient experience which is relevant to the evaluation and estimation of Prospective Resources to qualify as a Qualified Reserves and Resources Evaluator as defined in the ASX Listing Rules. Mr Bond is employed by Finder as Exploration Manager and has consented to the form and context in which this statement appears.			
5.44	Not applicable to this report.			

