



## ReconAfrica December 2022 Investor Call

Reconnaissance Energy Africa Ltd. - Analyst and Investor conference call

Presentation



# Kavango Basin Update

NAMIBIA & BOTSWANA

DEC 2022 UPDATE



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## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Certain information in this Presentation may constitute "forward-looking information" within the meaning of Canadian securities legislation. Forward-looking information can be identified by the use of forward-looking terminology such as "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "aims", "potential", "goal", "objective", "prospective" or variations of such words and phrases or statements that certain actions, events or conditions "will", "would", "may", "can", "could" or "should" occur. All statements other than statements of historical facts included in this Presentation constitute forward-looking information, including, but not limited to, statements with respect to estimates of prospective resources, original oil in place and original gas in place; the timing for, execution of, and goal and objectives of, Reconnaissance Energy Africa Ltd.'s ("Reconnaissance" or the "Company") seismically defined multi-well drilling program; the results from the first phase of the seismic acquisition program; the expected timing for interpreted results from the second phase of the Company's seismic acquisition program; expectations regarding future seismic acquisition programs, including the expected timing for commencement of, and size of, such program; the Company's joint venture process; expectations regarding the timing for exploration success to first production from the Company's properties; the Company's properties being a large, undeveloped, target rich drilling environment; active gas seeps on the Company's properties providing for potential liquid hydrocarbons; expected characteristic of, and anticipated results from, the Company's 8-2 well; expected outcomes from the interpretation of data acquired by the Company; the results from the 6-1 and 6-2 wells confirming an active petroleum system in the Kavango Basin with reservoir quality rocks; the interpretation and analysis of data, results and samples from the Company's exploration programs and operations; the expected timing for the processing of all seismic data and comprehensive interpretation; the commerciality of the Company's oil and gas properties; the treatment of the Company under the regulatory regimes and laws of the jurisdictions in which Reconnaissance conducts its business; the commencement of drilling, and completion of, wells; infrastructure to be developed at or around the Company's operations and assets, including rail extension projects, pipelines and refining facilities, and the timing for development of such infrastructure; facilities costs and the timing and method of funding thereof; expected timing of development of undeveloped reserves; Reconnaissance's potential future oil and natural gas production levels; the future performance and characteristics of Reconnaissance's oil and natural gas properties; the estimated size of Reconnaissance's potential oil and natural gas reserves; projections of market prices and costs; projections of supply and demand for oil and natural gas producers domestically in Namibia and elsewhere; expectations regarding the ability to raise capital and to continually add to reserves through acquisitions, anticipated exploration and development activities and the timelines and anticipated results related thereto; goals of the Company's anticipated exploration and development activities; use of the Company's cash on hand; the Company's partnering potential, including potential joint venture or farm-out transactions, the timing thereof and the negotiations related thereto; the timing of any third party reports detailing the estimated size or commerciality of the Company's oil and gas properties; future capital expenditure programs and the timing and method of financing thereof; cost estimates; the Company's commitment to carbon neutral objectives, including developing carbon offset projects, reforestation and forest carbon initiatives and the reduction of emissions at the Company's operations; the Company's commitment to wildlife and conservancy initiatives; the Company's commitment to environmental, social and governance strategies that align with Namibian and global best practices; the Company's commitment of N\$112 million (C\$10 million) to environmental, social and governance commitments; the Company's commitment to hiring and training of local community members, stringent labour and human rights standards and engagement with local stakeholders and indigenous groups; the Company safe drinking water well program; the Company's support of higher levels of education for the local communities in which the Company operates and the Company's adherence to environmental best practices, including not drilling in sensitive areas and the protection of local ecosystems.

Forward-looking information is necessarily based on the beliefs, estimates, assumptions and opinions of the Company's management on the date the forward-looking information is made, including assumptions regarding future prices for oil and natural gas; future currency and interest rates; Reconnaissance's ability to generate sufficient cash flow from operations; access to debt and/or equity financing to meet its operating costs and future obligations; social, political legal and economic developments in jurisdictions in which Reconnaissance conducts its business; the timely receipt of, and ongoing compliance with, all regulatory approvals required in connection with the Company's operations; Reconnaissance's ability to obtain qualified staff and equipment in a timely and cost-efficient manner to meet Reconnaissance's demand; and assumptions related to the factors set forth below. While these factors and assumptions are considered reasonable by the Company as at the date of this Presentation in light of management's experience and perception of current conditions and expected developments, these statements are inherently subject to significant business, economic and competitive contingencies and uncertainties.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION (CONTINUED)

Known and unknown factors and risks could cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed by such forward-looking information, including, but not limited to: volatility in market prices for oil and natural gas; the continuation of the recent global financial crisis and economic downturn; liabilities inherent in oil and gas exploration activity including operational and environmental risks; uncertainties associated with estimating oil and natural gas reserves; competition for, among other things, capital, acquisitions, undeveloped lands and skilled personnel; incorrect assessments of the value of acquisitions; unanticipated geological, technical, drilling and processing problems; fluctuations in foreign exchange or interest rates and stock market volatility; changes in the laws or application thereof by the governments of the jurisdictions in which Reconnaissance conducts its business; political, social and economic instability in the foreign jurisdictions in which Reconnaissance operations; inability to execute on business plans and strategies; increases to capital expenditure programs and the timing and method of financing thereof; the ability of Reconnaissance to achieve drilling success consistent with management's expectations; higher than expected operating costs; uncertainty with respect to net present values of future net revenues from reserves; lower than anticipated future production levels from Reconnaissance's assets; delays with respect to timing and the bringing on of production; changes to expected plans and costs of drilling; drilling inventory and the presence of oil pools or gas accumulations; increased cost projections; global supply and demand for oil and natural gas; ability and costs of increasing plant capacity; expected levels of royalty rates, operating costs, general and administrative costs, costs of services and other costs and expenses; expectations regarding the ability to raise capital and to continually add to reserves through acquisitions, exploration and development; risks and uncertainties related to infectious diseases or outbreaks of viruses, including the COVID-19 pandemic; and such other risks as disclosed in this Presentation, the Company's amended and restated annual information form for the year ended December 31, 2020, which is available on SEDAR at [www.sedar.com](http://www.sedar.com) under the Company's profile and the Company's continuous disclosure filings. The forward-looking information contained in this Presentation is expressly qualified by these cautionary statements. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended and readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated by such statements. Readers are advised not to place undue reliance on forward-looking information.

Except as required by the securities disclosure laws and regulations applicable to the Company, the Company undertakes no obligation to update this forward-looking information if management's beliefs, estimates or opinions, or other factors, should change.

All financial data presented in this presentation is presented in Canadian dollars (CS), unless otherwise noted.

## OPERATOR

Welcome to the Reconnaissance Energy Africa or ReconAfrica conference call to update operational activities in the Kavango Basin in Namibia and Botswana. All lines are currently on mute to prevent any background noise. This call is scheduled for 60 minutes. I would like to remind you that this conference call is being recorded. Any questions relating to the call can be directed to the company at [investors@recon africa.com](mailto:investors@recon africa.com). This call contains forward-looking statements which reflect the current expectations or beliefs of the company based on information currently available. Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results of the company to differ materially from those discussed in the forward-looking statements. Factors that could cause actual results or events that differ maturity from current expectations are disclosed under the heading "risk factors" and elsewhere in the company's annual information form dated April 30th, 2021. Any forward-looking statement speaks only as of the date on which it is made, and the company disclaims any intent or obligation to update any forward-looking statement. I would now like to turn the meeting over to Mr. Grayson Anderson, head of capital markets at ReconAfrica.

# GRAYSON ANDERSEN, HEAD OF CAPITAL MARKETS

Reconnaissance Energy Africa Ltd. - Analyst and Investor conference call

Presentation

## KAVANGO BASIN: POTENTIALLY ONE OF THE LARGEST UNDEVELOPED ONSHORE BASINS GLOBALLY

One Company has licenced the entire Kavango Basin in Namibia & Botswana ~8.5 million acres

### Demonstrated all the components of multiple hydrocarbon systems present in the Kavango Basin

- Multiple hydrocarbons types; both oil and natural gas
- From both within the Karoo Rift and below it in the Damara Fold Belt
- Source rocks and Reservoir Quality Rocks
- Seismic data has demonstrated a wide variety of closures/traps in two discrete plays
- Interpreted 1,200km of 2D seismic, approved to add 1,500km more
- Utilising developing data to establish commercial accumulations

### Project history

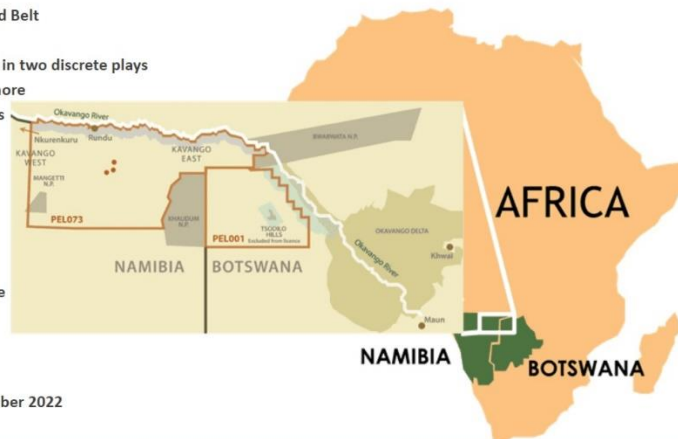
- Acquired Jarvie-1 Drilling Rig
- Drilled Three Exploration Wells
- Acquired & Processed over 1,200 km of 2D Seismic

### Drilling & Seismic fully funded into Q3 2023

- Joint Venture negotiations underway with the goal to accelerate exploration program throughout the Basin in 2023/2024

### Catalyst rich - near term

- Multi-Well Drilling Program: into 2023 - key to commerciality
- An additional up to 1,500 km of 2D seismic commenced November 2022
- JV process underway; data room opened



One of the highest impact exploration plays worldwide

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Good morning everyone. Thank you for attending today's conference call to review ReconAfrica's operations in the Kavango Basin in Namibia and Botswana. I'm joined today by Scot Evans, our chief executive officer, and Dr. James Granath, our chief geoscientist.

A few weeks ago, we provided an update by press release on the drilling of the Macadena 8-2 well, the third well in our multi-year drilling program, and I want to stress the overall exploration program, because everything we have been planning in 2022 and into 2023 is based on drilling the stratigraphic test exploration wells after acquiring over 1,200 kilometers of 2D seismic in 2021 and so far in 2022. Although we did not find a commercial accumulation of oil and gas in the Macadena 8-2 well, it was the third consecutive well that we have drilled which confirms a working petroleum system throughout the Kavango Basin. Not finding a four-way closure is a risk that we faced when drilling the first well in the Karoo graben off a single line of 2D seismic, but we had confidence in the well because of the strong results we had from the Kawei 6-2 well, which was just over six kilometers away from the 8-2. Importantly, the Macadena 8-2 well shows the prognose thickening of the Karoo rift section and contain highlight the migration of hydrocarbons throughout the Kavango sedimentary basin. The well was drilled on time and safely and provided important subsurface data including hydrocarbon gas liquids and gas samples, reservoir quality rock samples, and importantly we encountered all the expected zones and horizons that the intervals predicted. Scot and Jim will add more technical details in a moment.

I'd like to take some time now to put the progress of the exploration in the Kavango Basin into focus. Since 2019, we acquired the Jarvie-1 rig, refurbished it, and transported it over to Namibia, a strategic and valuable asset which has provided us significant flexibility over the past two years. Interestingly, the last time our share price was at current levels was when we were moving the rig over ahead of drilling the 6-2 well. If everyone remembers, we were planning to drill at least three test wells in 2021, but success from the first two wells required the company fast track moving into the acquisition of seismic data to build their understanding of the subsurface geology.

The first phase of seismic, with over 450 kilometers, led to a third party resource report from Netherlands Sewell and Associates. 35 potential locations, 25 targeting oil prospects, and 10 targeting gas prospects. It also identified a potentially new hydrocarbon play, the Damara fold belt. We will be using the data we acquire each year to update the prospective resource report, with the next version expected in the second quarter of 2023. Our second phase of seismic, with over 761 kilometers, has provided a significant inventory of additional opportunities and provided validation of the Damara fold belt and its extent. It's also providing additional data to de-risk some of the locations from the resource report including the Wisdom 5-1 well, which has one of one line of seismic from phase one and two lines of seismic from phase two. I would also like to remind listeners that the 5-1 lead has over 766 million barrels of original oil in place, with over 153 million barrels of oil recoverable on an unrisks basis based on the Netherlands Sewell report released in April. It had a higher recovery factor and a higher chance of success than the Macadena 8-2, even based on the first phase of 2D seismic.

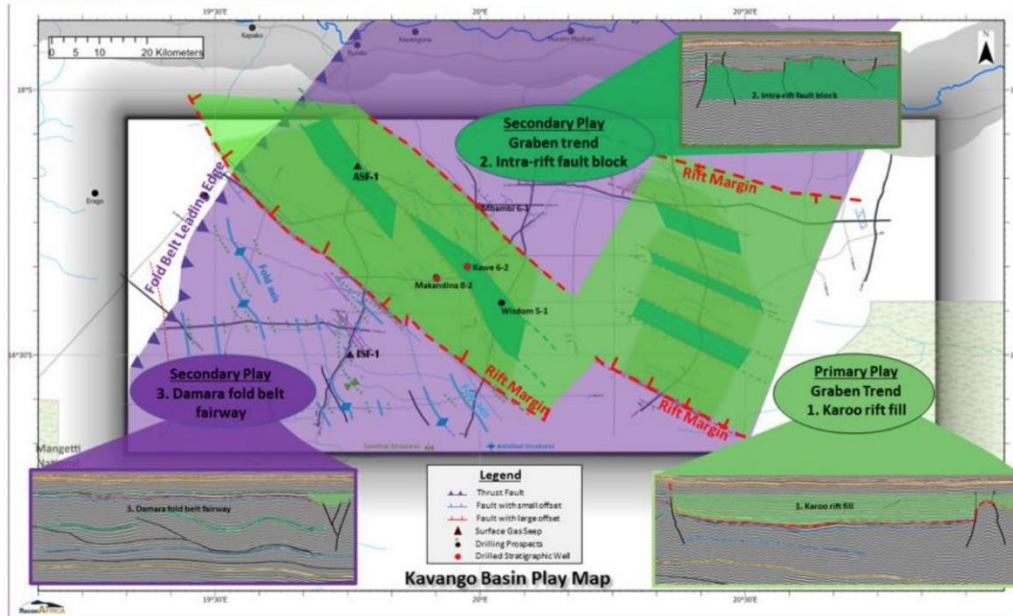
We have just started the acquisition of up to a further 1,500 kilometers of 2D seismic as part of acquisition of phase two which will further increase our understanding of the basin and continue to generate prospects. And we have some good maps we'll present later which show how much our coverage has increased. We have already demonstrated from our wells that we have both structural and stratigraphic traps, multiple play types, and opportunities at multiple intervals throughout our acreage.

We've got enough cash to keep our exploration activities going into the third quarter of 2023, with a lot of material catalysts to be delivered between now and then. You've got to remember we control the rights to the entire sedimentary basin, the Kavango Basin, 8.5 million acres, and the government has given us another year in our first phase of exploration, which means we can keep the land consolidated until January the 29th, 2024, and continue to explore the Kavango Basin under our exploration agreement as far out as 2029 under the terms of petroleum license. The government is very supportive, given that we're well ahead of our work commitments, and we are employing a lot of people locally in addition to the benefits received from all the ESG projects that we continue to execute.

All the factors are important as we aggressively start the joint venture process which is underway, and includes all the seismic data that we've acquired and processed to date, the data from the three wells we have drilled, and that we will continue to populate the data room with additional information as more data is acquired. Interest in the JV process has been positive so far, with a number of companies participating ranging from small companies to IOC's, and state and national oil and gas companies. We have enough cash to fund our exploration into the third quarter of 2023 as we target to execute a JV process which is expected to bring in additional cash and work commitments to further our exploration programs out into 2024 and beyond.

I will now turn this to Scot, who will go through our updated understanding of the basin and some more detail on the Macadena 8-2 well, before Jim goes into some detail on the upcoming Wisdom 5-1 well.

## KAVANGO BASIN PLAY MAP



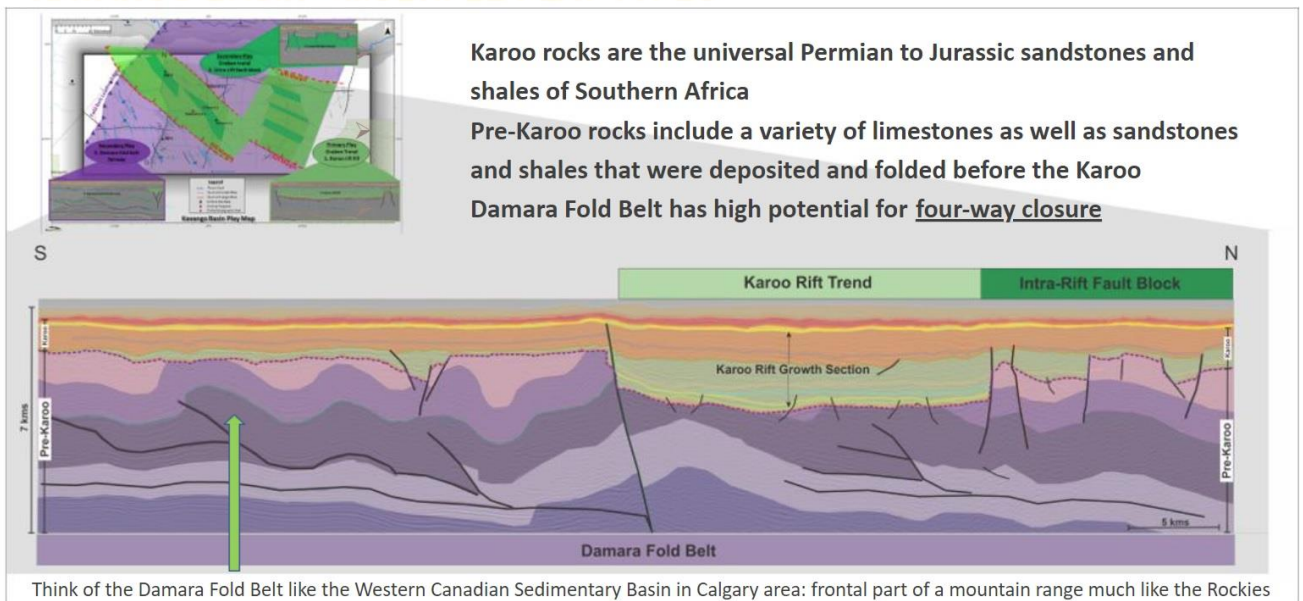
Thank you Grayson, and hello everyone. It is remarkable that each of the three wells drilled to date in this new basin have encountered a working petroleum system, with light oil in the first well, light oil and relatively good light gas in the second well, and in the third well, the Macadena well, gas with a hydrocarbon gas liquids, HGL's. This means that although the gas was collected in isotubes at the surface, it is possible that some of these gases were liquids at pressure in the subsurface.

Now you can see from our updated play map that the reach around the 2D seismic and stratigraphic wells is enabling us to continuously de-risk and update our existing prospects and add new ones. This process is ongoing today, as we integrate the final processing from the current phase to data and a new vertical seismic profile for the most recent well. The map shows the extent of the initial exploration concept, the Karoo rift, and it's in green, and this was the prospect the concept that we came to the basin with was the first idea. It's the green slash going across the map. Now the Damara fold belt shown in purple extends over the southwestern quarter of our acreage.

Now the seismic which we showed later includes some really impressive structures that all the consistent northwest orientation and if you look on the map these are these light blue lines with arrowheads, each of which is an anticline. The new seismic is also identifying a number of new leads and prospects that are fairly typical of the rift basins, the original play. The fact that we've encountered slightly different hydrocarbons in each well shows that there's likely more than one source system at play. We've proven that we have all the elements in a hydrocarbon play: Source, trap, seal, reservoir, and charge, and we feel that they will align in the same place to enable a commercial discovery.

So, as a review, we have these three major play types throughout the Kavango Basin. The first is the one we've been expecting from day one, the Karoo rift fill. This is real as expected with the Macadena 8-2 well encountering a good thick reservoir interval. The second are fault blocks, we call them intra-rift, which we first encountered in the 6-2 Kawei well, these are fault blocks within the rift basin. Additionally, the third play the, Damara fold belt, the extent of which we can now see from the initial interpretation of the phase two seismic data. The carbonate reservoirs with matrix porosity up to 17%, and core calibrated water saturation as published for the results of the 6-2, are the target reservoirs for this play. The presence of pre-karoo reservoir and source rocks was always expected as a secondary objective in the basin, but the scale, coherence and extent of these structures in the Damara fold belt is much larger than we expected. A very positive endeavor.

## KAVANGO BASIN – MULTIPLE PLAY TYPES



Now this seismic schematic shown as the next slide, shows the exploration of concepts with the Damara fold structures on the left, and then the rift cutting down like a valley into the older rocks and being filled with Karoo sediments as you move to the right. In addition to the Damara play and the details we are seeing in the play are driving us to acquire additional seismic data and other geophysical tools.

In addition to the addition of new 1,500 kilometers of 2D seismic data that we've permitted and just begun acquiring, we are planning a full tensor gravity program that is expected to give us better 3D subsurface imaging and will help us understand hydrocarbon migration patterns in the best places for accumulations. When this full tensor gravity is calibrated with 2D seismic, it'll be a big help in targeting the best areas to be considered for future wells.

So the Damara fold belt sits in pre-karoo age rocks within the Kavango Basin, and it's structurally similar in nature to something like the Alberta fold belt in the western Canadian sedimentary basin as you head into the Rocky Mountains. One of the distinguishing features of fold belts is their ability to create large linear four-way traps and closures which are essential for commercial reservoirs. We expect the Damara to be more gas and condensate prone than oil prone given its depth and age.

Now the Karoo rift trend and interrupt fault blocks formed in the early Permian on top of these pre-karoo Damara fault block rocks from a time perspective. As Jim will point out later, based on some of the seismic lines provided, there's a significant number of rift basin traps that are identified from the new 2D we've acquired, whereas in the pre-karoo the number of traps is fewer, but the size of the structures are quite large.

## MAKANDINA 8-2 WELL

### **Third well once again encounters active petroleum system**

Encountered intervals rich with gas (Methane) and hydrocarbon gas liquids ("HGLs"), specifically, Ethane, Butane and Propane as well as smaller quantities of heavier hydrocarbons

HGLs sampled from flow line in Isotubes, c1 (methane) to c5 (pentane).

### **First well in Kavango rift floor, came in exactly on prognosis and on time**

Critical depth information for calibration for 2D seismic

First well to locate source rocks both in Karoo and pre-Karoo

Reservoir quality (up to 20% porosity) in Karoo rocks deeper than other wells

Important temperature data to better understand petroleum expulsion

### **Economic accumulations of hydrocarbons were not encountered**

Well drilled on one line of seismic with limited guidance regarding trap

So if we talk about the Macadena 8-2 well, what did we learn? So first, in the Karoo section we saw thickening of the section as predicted from the seismic, and in particular the lower older section reservoir seal and potentially source rocks. We ran a vertical seismic profile to characterize this Karoo interval so we can tie it to the seismic data which is, and it's by far the thickest Karoo we've seen to date, and we're going to use this to calibrate future interpretation.

Now this is the first well drilled within the Karoo rift basin, and we are encouraged that all the target intervals came up at depths predicted, which makes, of course, for safer drilling but also most importantly gives us comfort in the quality of the 2D data and our ability to calibrate it for future prospects. We encountered new rocks in this well, specifically Karoo age rocks, there are deeper depths than the 6-1 and six 6-2 that also showed good reservoir qualities, with some rocks with potential over 20% porosity, porosity being the storage capacity of the rock.

Another sign of encouragement for future oils we acquired sidewall cores at both the Karoo and the pre-karoo. Now this complete core analysis will not be done until Christmas, it's with Core Labs in Houston. So we are seeing new reservoir source and seal rocks in each new well, but this core data is the ground truth that we use to calibrate the wireline logs.

The Macadena well also encountered several gas-rich intervals with methane and hydrocarbon gas liquids ranging from ethane, which is C2, up to pentane, which is C5. These samples were captured at the surface from mud flow line in pressurized canisters, they're called isotubes. Isotubes were sent to Houston for gas analysis showing the methane and the heavier hydrocarbons. It also proved that these are thermogenic hydrocarbons, i.e., they were created from organic matter that was converted to hydrocarbons over

temperature and pressure through time. But this is similar to what was noted in the analysis of the gas seeps in our basin. So this is requisite to having commercial accumulations of oil gas, because the other way of forming hydrocarbons in the earth is biogenic. So brought from biologic, shallow degrading material, and this is not usually accumulated in traps that are big enough to be anywhere near commercial. So the fact that it's thermogenic is a big de-risk factor.

So while noting hydrocarbons mentioned above, we did not encounter commercial volumes of the hydrocarbons in the well most likely due to a lack of trap. But the well has validated several key concepts in our exploration program, and we have extracted significant positive technical information from this well, the first in the rift which will be used as we progress our exploration program within the basin.

## **THE NEXT WELL: WISDOM 5-1**

**The well will principally test stacked plays in a different part of the Karoo Rift Basin, of which four are shown in the next slide**

**Additional Pre-Karoo potential**

**NSAI report with 766 MMbbl OOIP, 153 MMbbl Unrisked Gross Recoverable Oil (Location 15 in NSAI Report)**

**Controlled by three seismic lines, in deeper part of the Karoo rift**

**Additional trap potential reachable by sidetracking the 5-1 well**

**Rig currently on site**

NSAI: Netherland Sewell & Associates Inc.

So now I would like to introduce the next point of location, it's called the Wisdom Farm 5-1. This well location has the potential to test several plays at several levels in the sequence around the area, and based on the seismic it is a different and deeper area of the Karoo rift basin. And I'll turn the call over to Dr. James Granath, our chief geoscientist, who will bring together the integrated subsurface picture for the Wisdom Farm area, and the exciting new Damara play. Jim.

### **DR. JAMES GRANATH, CHIEF GEOSCIENTIST**

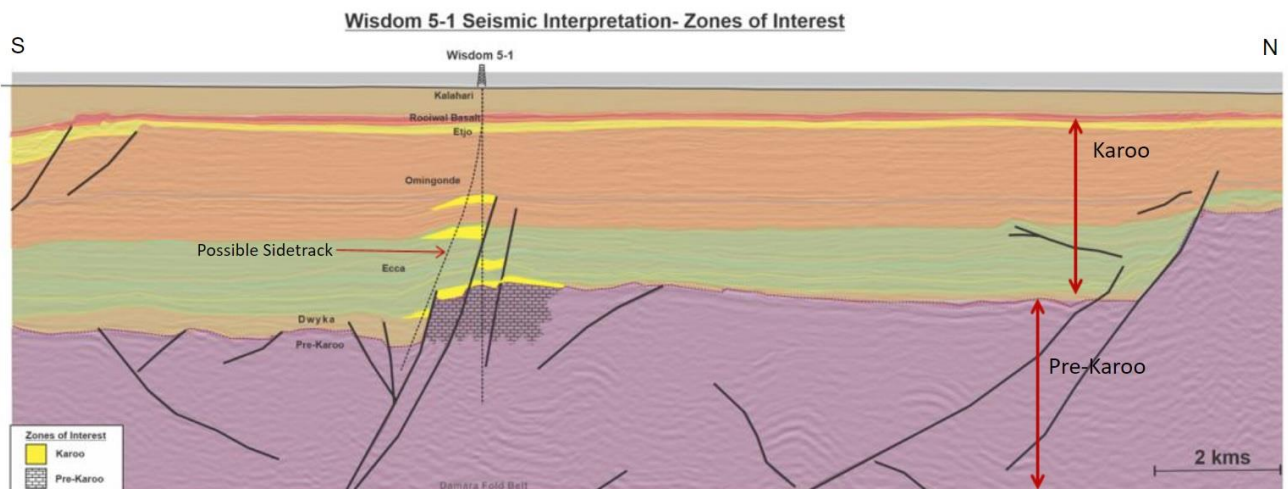
Thank you Scot, and good day to everyone. As Grayson noted, exploration in a frontier basin is a process in following the systematic collection of subsurface information, and progressively organizing it into a coherent, but, I have to emphasize, an evolving plan to locate commercial hydrocarbons. The wisdom 5-1 well is the next step in that process and it's a bit of a step out from our core area of the first three wells. It's a substantial step



forward in exploring the rift play in that the Netherland Sewell and Associates rated the prospect to target over a potential 766 million barrels of oil in place. Right now the prospect has three lines of 2D seismic constraining it at a location on the rift floor where a step fault affords a large cluster of potential traps than we have had before. The three lines do not mean we have a perfect imaging of the prospect, but rather that we have a better control on Wisdom than we did on the previous three wells. You'll remember the very first one was a blind stratigraphic test, and that Macadena was the first drilled on a real prospective structure.

This prospect takes a step forward toward the deeper and wider part of the basin. This is one of the reasons we decided to change our next location to 5-1 from our previous plans. We've got additional pre-karoo section at this location. We'll come back to that in a minute, but most importantly we have a little different stratigraphy within the rift, based on our interpretation of phase one and phase two seismic data across the whole of the rift basin. This is important because rift basins are notorious for rapidly changing stratigraphy from location to location. Of the three seismic lines that control the structure, two cross at about three kilometers apart at about the same elevation, which suggests continuity over at least that distance and probably considerably more. We're looking at two intersects on what we're presuming as a coherent structure. It also has several different possible trapping positions within the structure, what I mean by that, when we look at the 5-1 well in cross-section. An important aspect of this is that we'll be able to test different kinds of potential traps at different elevations.

## WISDOM 5-1 LOCATION – ZONES OF INTEREST



- Multi horizon and play type opportunities in the Rift Basin and Damara Fold Belt
- Sidetrack potential to evaluate deeper targets within basin

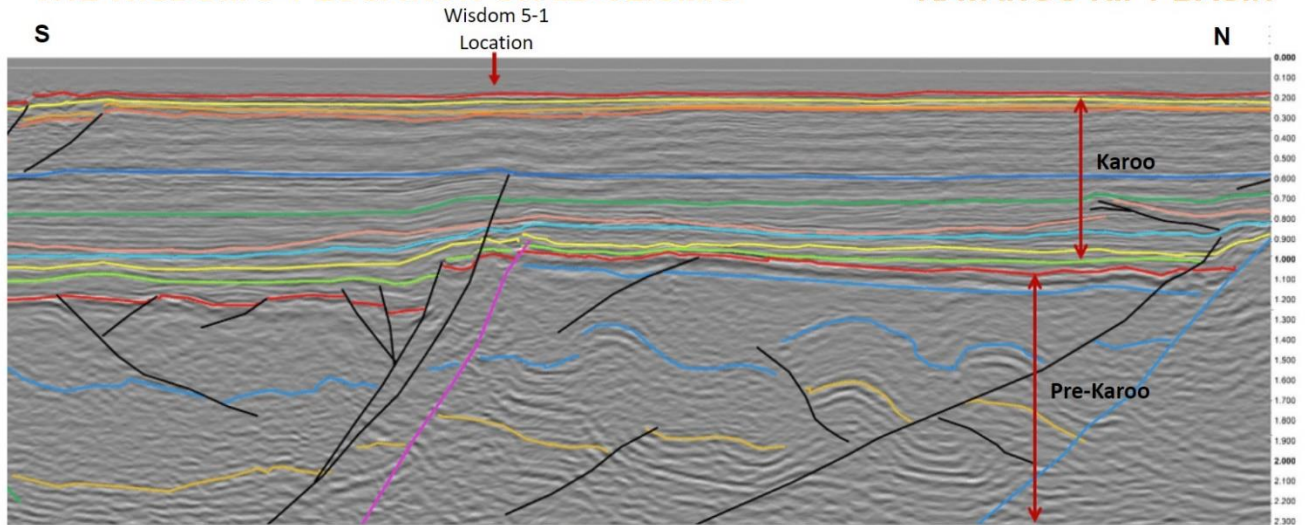
So the previous three wells were defined in a relatively small area of the rift and thus saw more or less the same stratigraphy. This new prospect will be able to test several levels in this new stratigraphy. You can see from our schematic diagram here that several zones of interest can be reached in the main well bore, they're shown in yellow, and additional ones can be accessed with a side track from the main Wisdom Farm 5-1 well. You can see the fault system under the prospect sets up sort of a step in the floor of the rift, off to the right you can see the edge of the rift at the right side of the diagram, and off to the left you can see the deeper part of the rift.

The fault system under the prospect is actually a single fault that connects together all of these separate different fault strands, connect together, gather into one system. In addition to the Karoo, more than likely there will be a different section below the Karoo and what we are calling the pre-karoo. I'll have more to say about this in a moment but recall that hydrocarbons were found in previous wells below the rift basin, which was unanticipated to the outset of the exploration program.

Presentation

## THE WISDOM 5-1 LOCATION ON 2D SEISMIC

## KAVANGO RIFT BASIN



*Segment of a north-south oriented seismic line in time across the proposed Wisdom 5-1 location. The well is designed to test several possible traps on the way down to the base of the rift (red line), as well as provide access to several possible traps below the green horizon at the base of the rift by way of a sidetrack.*

Getting back to the prospect, let's look at some of the details. This is one of the three lines controlling the structure, the other two are aligned about three kilometers to the west and a tie line between the two. We're basically looking at two transects and what we're presuming is a coherent structure. In this line, the Karoo starts at the top of the section at the yellow, right below the first red. The red is the basalt at the top of the section. The well then goes down all the way to the Dwyka, which is at the bottom of the Karoo at the pea green colored horizon sitting at the bottom of the rift. Sitting on the base of the rift section is the unconformity at the second red horizon. Horizon is a term that's used in the industry to indicate these surfaces that separate the stratigraphy into its formal structure, which has source rocks in it at other locations in Namibia. Quite important and quite rich source rocks.

Looking down the well bore, we get traps at different levels. For example we have a nice closure at the dark blue level, which is basically the shallowest closure that we will test. It's about three kilometers wide. There's another at the green level, right adjacent to the fault, which is the top of the Ecca formation. The Ecca is basically the boundary in the middle of the Karoo in the previous slide. Within the Ecca, you'll see three horizons, all of which define a collection of smaller closures. These have more complicated relationships to each other, which give us several stratigraphic trap possibilities in addition to the structural closures. Specifically, there are some sand deposits along the step in the basin floor, as well as mounding on the basin floor, particularly in the yellow section. And then below this is the Dwyka again, with some sand thickening. You can see how it thickens up against the fault surfaces. The main well bore will be drilling the high side of one of these faults internal to the rift, but not as, say, as high as the 6-2 well did.

All of these trap possibilities reduce the risk for Wisdom in that they lend multiplicity to the trap play factor. Remember a common way to systematize the risk on prospects is to break the geology into play factors, generally four: The source rocks for hydrocarbons, a reservoir rock to host the hydrocarbons in a recognizable trap, and a seal all over the trap to keep the hydrocarbons in. Timing factors, as in maturation and migration, are also important in the sense that the hydrocarbons have to be generated at an opportune time to migrate toward, and to be captured by the trap. All of it starts with the trap however, and in most cases the more the better.

The other wells have taught us that there are source rocks because of the occurrence of hydrocarbons in all three wells, which is rather remarkable. At Wisdom, we will get a look at a different section which will afford us a chance to actually recover and tie the hydrocarbon samples we have to their source rock. Reservoir quality rocks, have been found in the other wells, so we know they exist in the basin. At this point we just have to presume we will encounter them again.

Seal on the trap is one of the most difficult things to pin down when you're doing any kind of exploration, and particularly at this early stage in the program in a new basin with complicated stratigraphy. At any one particular location the seal physics is not as simple as just having a shale, but we have had seals in the other wells, so again we can anticipate them being here as well.

Finally in this rendition of the seismic data you can see that there are folds below the red unconformity at the base of the Karoo. The 6-2 well tested rocks below the wavy blue horizon. Wisdom will test younger rocks above the wavy blue horizon, potentially in a more familiar fold style closure. We'll get back to this when we talk a little bit more about the Damara play that we've started to flesh out.

## RESULTS OF PHASE 2 SEISMIC DATA

### Elucidated details of the Karoo Rift in the Kavango Basin

- Generated new drilling opportunities in a much more complete picture of the basin architecture
- Provides ReconAfrica with a clearer picture of the internal stratigraphic fill
- Added additional seismic coverage for control on Wisdom 5-1

### Amplified new play in Damara fold belt which extends under the Karoo Rift

- Upright structures up to 5km across and 70km in length (much the same size as Iraqi Zagros oil fields)
- Several 100 sq kms under 4-way closure
- Structure like the Western Canadian Sedimentary Basin in Calgary (AB) area: front part of a mountain range much like the Rockies

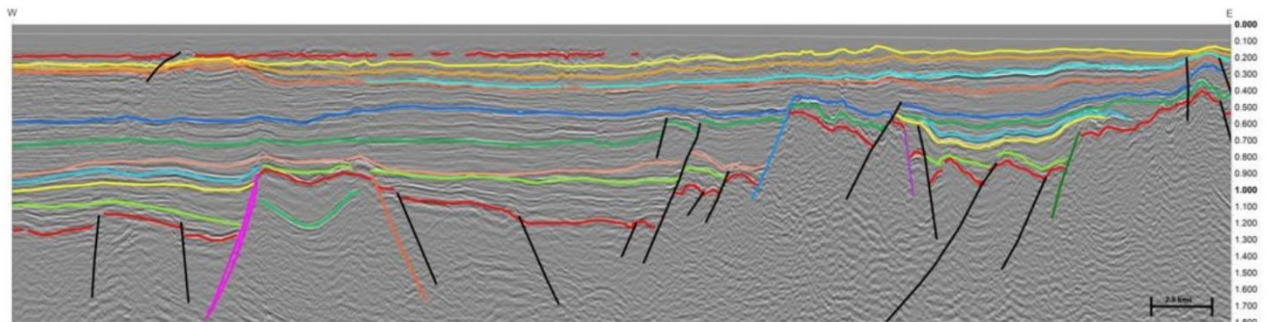
So let's step back and look at the bigger picture of the phase two seismic data. In addition to adding to the inventory of new opportunities and fleshing in the 5-1 area. The more uniform data has given us a clear picture

of the Kavango rift and allowed us to map 10 units around in detail. We've hung real rocks on this network in only one area. The 5-1 will add another area to the data set. But, as Scot mentioned, one really big step forward is the confirmation of the viability of a new play. We saw folds below the unconformity in several of the phase one lines and in the previous line we looked at. But phase two clarified these and allowed us to project some of them over rather large distances, using help from the surface geology to the southwest of PEL 73.

The play map at the beginning of this slide deck showed our mapping of the trend of these structures in the southwestern part of the block. These structures are the frontal fold belt of the Damara origin that crosses Namibia and continues into Botswana and all the way across to eastern Africa. It is covered by the Kalahari just south of the block. We expected this belt, but not the obvious targets that we have now, structures of several hundreds of kilometers an area, with four-way closure typical of many fold belts. These are direct analogs to giant Zagros fields in Iran and Iraq. I worked both of these for Conoco and more recently in northern Iraq for several operators. Or, as mentioned earlier, another analog is the Alberta Rockies on the west side of the Canadian sedimentary basin.

## SEISMIC LINES FROM PHASE 2 OF KAVANGO BASIN 2D SEISMIC PROGRAM

### Karoo Rift Basin Seismic – Line 1



*Seismic section through the Karoo Rift Basin showing the main and perched grabens (rift valleys); note the series of normal faults controlling the rift basin architecture and depositional stratigraphy*

*Multitude of normal faults (near Vertical black lines) within the Graben/Rift Valley provide multiple potential trapping mechanisms*

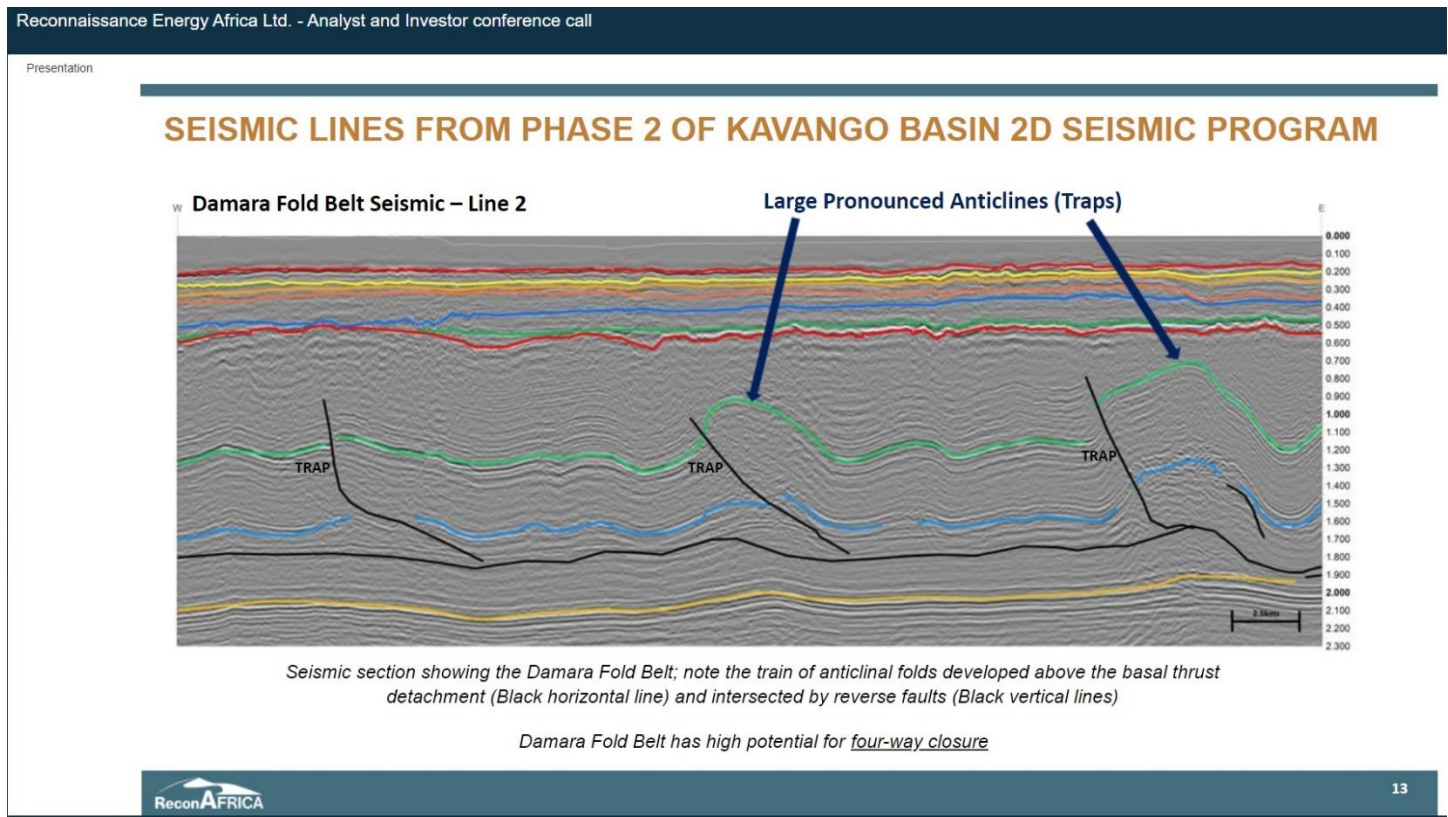
So let's look at the typical rift data that we have now added to the data set, which is a sample phase two line. It is a good one to show some of the variety that we are now able to compare and contrast across the main rift, and it starts to show the beginning of some parallel satellite rifts, which may open up entirely new opportunities. The one on the right here, on the seismic line, is a pretty good example. It shows a little bit different stratigraphic architecture in it than the main rift. It may open to the southeast and actually be another another play in and of itself.

As is typical of all hydrocarbon bearing rifts, such as the east African rifts or the North Sea or the rift basins in Indonesia, the structure is a network of faults with a variety of types of connections between them. These fault systems separate individual depocenters that lie above the blocks between the faults. If you think of the faults as cracks, they connect to each other in many different ways, leaving these kinds of small fault blocks as you

see, say, in the middle of the seismic line here, they separate out subsidiary grabens. The faults have relays between themselves. If you look in the central part of the of this particular seismic line, just to the left of the blue fault, all of those faults are basically the same fault system.

The systems join and diverge along their length where they essentially leave what's called a relay. That's where the Uganda discoveries were initially made, on these ramps. Now look at some of the horizons. Notice there are differences between these three depocenters on the line. There's one on the far left, there's one in the center, and the one I previously mentioned on the right. Notice that there are different stacking of different horizons with it. Different combinations of layers set up different stratigraphic environments to set up different source rocks and different reservoir rocks. This is an illustration of what I was trying to say earlier, that rifts changed their character along length and they afford different opportunities, unlike many marine situations.

So with the addition of the phase two data, we've been fleshing out a really good picture of the anatomy of the rift, and we've got a framework for the stratigraphy to embellish as we go into the third phase. In the end, we'll have a really good extensive picture of the anatomy of the rift.

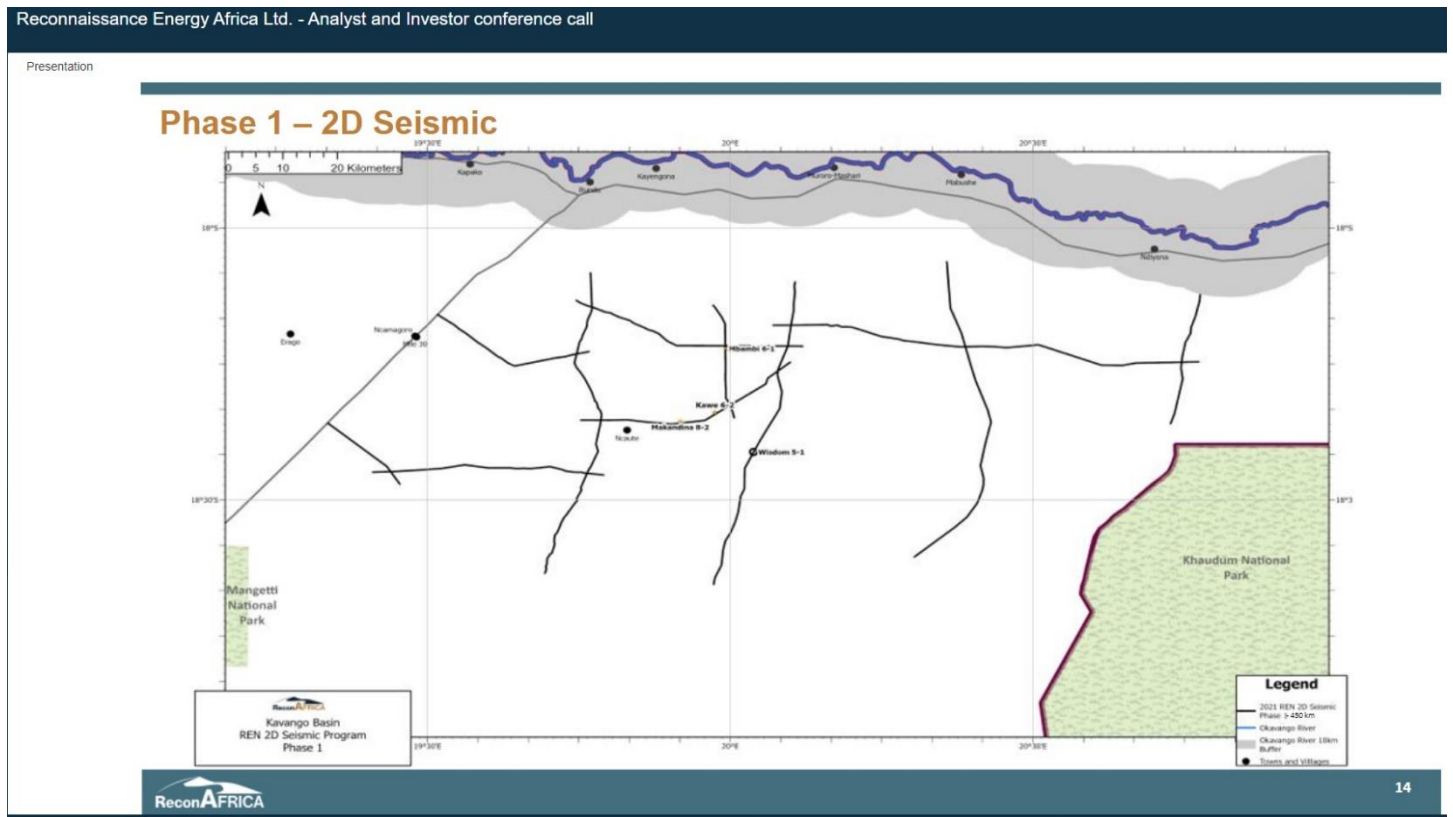


So let's talk about the picture we are developing of the new play. In the next slide, you can see a sample of the play that we didn't anticipate from the outset of the exploration program. This is part of a long line from the new data that shows a train of simple anticlinal folds. This is a line that we can see the Karoo section equivalent to but thinner than in the rift, up here between the two red horizons. The top red horizon is the basalt we talked about before. The second red horizon is the unconformity bracketing the Karoo.

We still have a lot to learn about the stratigraphy below this unconformity, but based on published literature, we will see much of both the Mulden and the Otavi groups in places where they're in sequence. We've seen them dismembered by the thrust faults in the previous wells. I've highlighted three new horizons in this particular line. The green one is a pick about midway in what we expect to be the Mulden group. The blue one is near what we expect to be the Otavi carbonates, and the yellow one is in the middle of the Otavi section. These are taken from locations farther to the west where they've been tagged with other seismic data and wells.

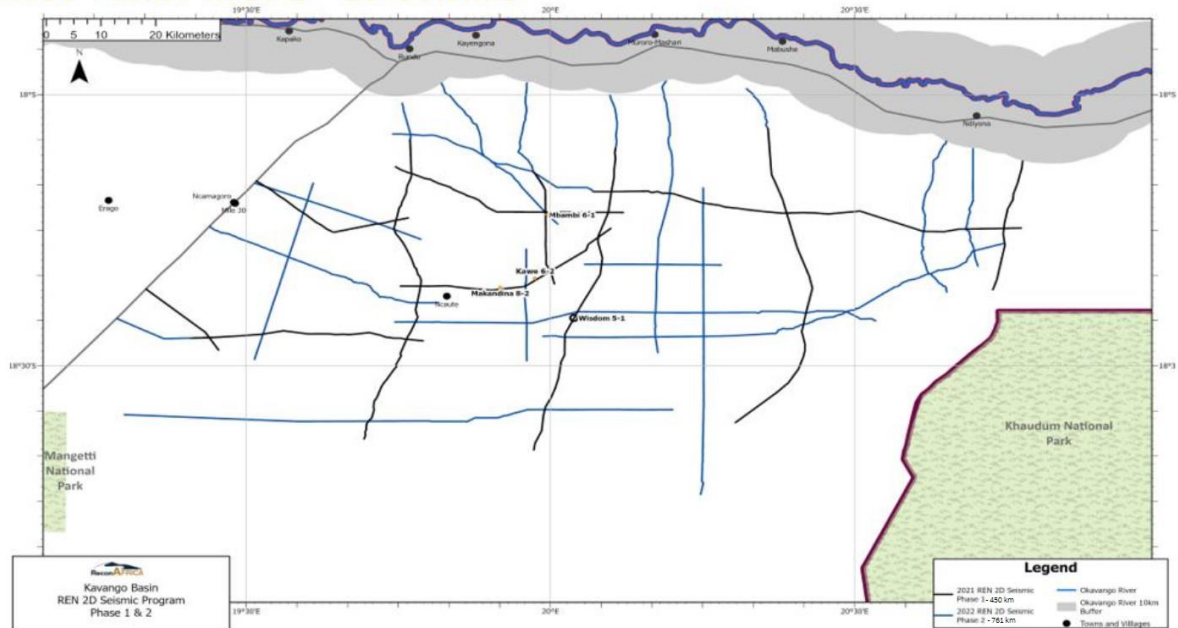
The three wells we've drilled so far have come down through the Karoo, and they've only tagged a few hundred meters into the pre-karoo below the red unconformity. They've done it off to the west of this line, outside the area of these simple structures. The three wells have probably penetrated the Otavi part of the section, down here below between the blue and the yellow. Where that part of the section is brought up the shallower levels, close to the unconformity, and thrusts of the fold belt. So except for some of the rocks in the previous wells, this upper section of Mulden above the blue horizon will be an entirely new section to test, and it's presumed elsewhere in Namibia to be the host of several source rocks.

In this play, the wells will have to be deeper to test the Mulden and the Otavi, all the way down to about 1,800 milliseconds, which you can see on this seismic line which is probably on the order of nine or ten thousand feet. The best thing about about the Damara fold belt is that the structures are remarkably simple and clear. Fold belts typically have great four-way closure, much more so than rift basins, and the structures can be very large, as I mentioned multiple tens of kilometers in length and several kilometers in width. We know this to be the case here from 100 kilometers to the southwest where these folds are exposed in the surface of Namibia.



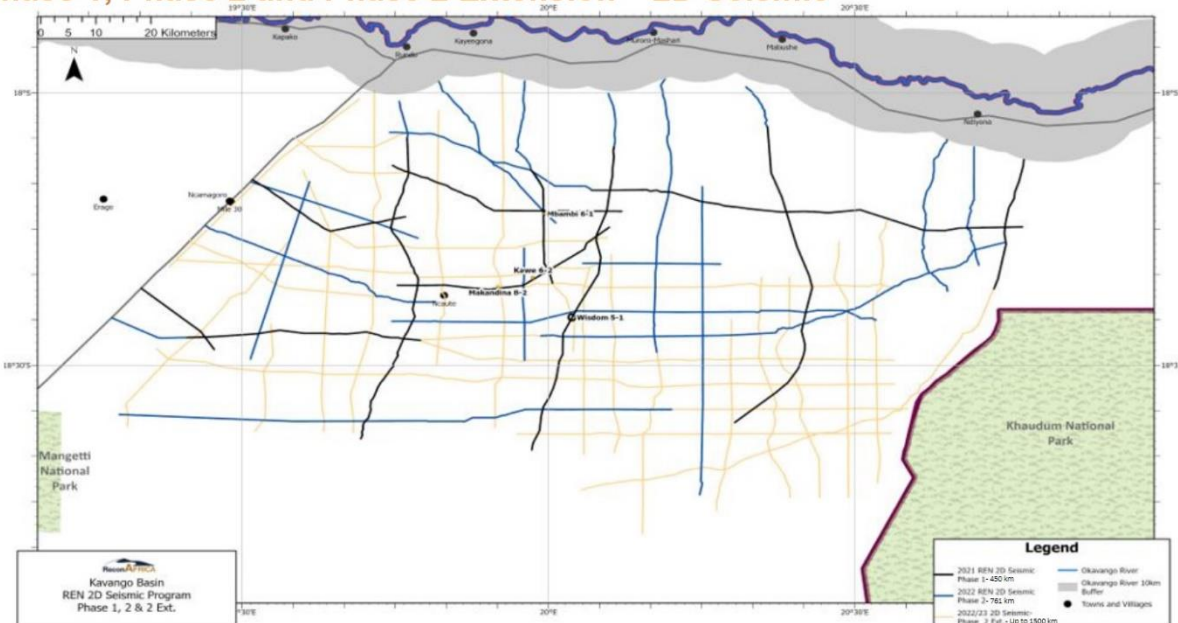
Finally I'd like to highlight to everyone listening, our recently started 2D seismic program will acquire up to 1,500 kilometers of additional seismic data. That would be on top of the 1,200 or so acquired in 2021 and so far in 2022. This is a map of the phase one data. I think you can appreciate how superficial this dataset would be in understanding the architecture of the rift.

### Phase 1 and Phase 2 – 2D Seismic



Adding in the phase two data, as in the next slide, improves the picture considerably. But notice that the rift, which trends northwest to southeast, is not really covered very well in the southeastern part of the block, toward the Khaudum National Park. Both of these two data sets have been processed and interpreted. The two lines I showed you are samples of the results of that. Through both iterations our data quality has been improving and we are able to acquire data much more efficiently than when we started.

### Phase 1, Phase 2 and Phase 2 Extension – 2D Seismic



Now in this new data set on the next slide with the yellow lines added, I think it's easy to see how we will not only have a good coverage of the rift, but also the Damara play, while still sticking to the roadways and firebreaks. We're doing this all in an environmentally sustainable way, using wireless nodes and accelerated weight drop systems through Polaris. There's virtually no footprint left behind in this seismic program.

I'll turn the presentation back to Grayson who will provide some closing remarks.

## GRAYSON ANDERSEN, HEAD OF CAPITAL MARKETS

Reconnaissance Energy Africa Ltd. - Analyst and Investor conference call

Presentation

### RECONAFRICA INVESTMENT CONCLUSIONS

Kavango Basin, potentially one of the largest onshore undeveloped basins globally

Strong local and government support, competitive fiscal terms, stable regulatory and political environment

Exploration program fully funded into Q3 2023

Multi-well drilling and seismic program underway - Key to Potential Commerciality

Seismic database continues to grow:

- Proves original geologic premise – Kavango Basin is a rift basin – target rich drilling environment
- Significant upside potential from Damara Fold Belt
- Over 1,200 km of 2D seismic processed and in interpretation
- Up to 1,500 additional kms of 2D seismic commenced Nov 2022

JV process underway; data room opened

*One Company holds the rights to the entire  
Kavango Basin in Namibia and Botswana - 8.5 mm acres  
– High Impact Exploration –*

Company Owned Jarvie - 1 Drilling Rig



Thank you Jim. We hope that this presentation has provided everyone with more insight into our exploration program to date, and some of the exciting things we are working on. For many of our investors and listeners to this call, the presentation might seem a bit too technical or too detailed, but what we're doing is acquiring as much data as we can to de-risk our future exploration program, with the goal of delivering a drilling program that will result in commercial accumulations of hydrocarbons in the Kavango basin for the benefit of the people in Namibia, the people of Botswana, and our shareholders.

We have enough cash and capital to execute that program into the third quarter of 2023, and are going through a joint venture process that is expected to fund operations throughout 2023, and into 2024 and beyond. It can't be stressed enough that we own 8.5 million acres, the entirety of the Kavango basin, what we believe is the largest undiscovered onshore hydrocarbon basin in the world, and highest impact onshore oil and gas exploration in the world.

We have the support and a cooperative and respectful relationship with local and national government, as demonstrated by a recent extension to our first renewal period out to 2024. We have multiple play types, with a proven rift basin and significant upside potential from the Damara fold belt, which will be targeted next time with the Wisdom 5-1 well. And our knowledge and understanding of our key plays is growing every day, as more and more data becomes available from the wells that we have drilled, the existing and new seismic being acquired, and all the additional activities taken for the remainder of this year and into 2023.


All of that data is now in the data room which we will be using to attract high quality partners so that we can accelerate the exploration, and ultimately the development of the Kavango basin. Thank you everyone for attending our call today. I'll turn it back to the operator.



# OPERATOR

Reconnaissance Energy Africa Ltd. - Analyst and Investor conference call

Presentation



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ReconAFRICA

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Thank you everyone for attending today's call. Just a reminder that should you have any further questions, please email [investors@reconafrica.com](mailto:investors@reconafrica.com). This concludes the call. Thank you all for participating.