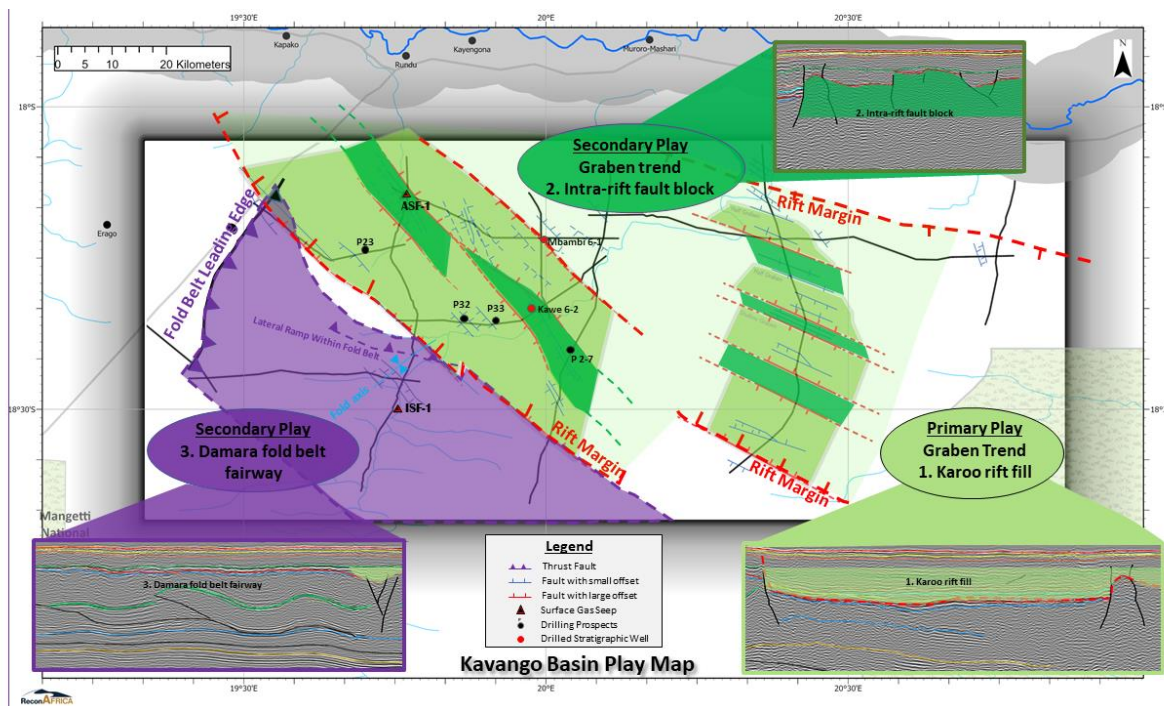


## White Paper Kavango Basin Exploration Update

The 2D seismic data acquired and two wells drilled in the Kavango Basin in NE Namibia and NW Botswana have established a significant rift graben across Petroleum Exploration License 73 (“PEL 73”) acreage in Namibia. Rift basins are among the most geologic common settings for conventional oil and gas globally, with examples including the East and Central African rifts, the North Sea, and others. This geologic feature is seen in the Play map below and supported with seismic section examples. Furthermore, the locations of the two stratigraphic test wells (6-1 and 6-2), and Phase 1 seismic lines, as well as an active combustible gas seep (ASF-1), are displayed on the map below. The seismic data, acquired after the drilling of the two test wells, shows growth in the Karoo section across the bounding rift faults, consistent with the premise of the Kavango basin being formed as part of a larger rift system, the Southern Trans Africa Rift and Shear System (“STARSS”) (Granath & Dickson 2017/2018, Granath et al 2020).

### Kavango Basin Play Map



The Central Graben West (“CGW”), is the area in green located on the western half of the Basin Play map above, shows sufficient data to establish a prospective area with eighteen leads and five prospects which include an intended sidetrack of the 6-2 well. The upcoming drilling program is scheduled to begin in Q2 2022 and will target the CGW area, while the second phase of the 2D seismic program, currently being acquired (approximately 600kms), will enable clearer delineation of existing leads. It is expected that it will also identify additional leads and prospects to add to ReconAfrica’s existing inventory of leads and drill ready prospects.

There are three groups of hydrocarbon opportunities (“Plays”) established in this initial work and illustrated in the Play map:

Primary: Post and Syn Rift Graben; **Karoo Rift Fill** (Light Oil)

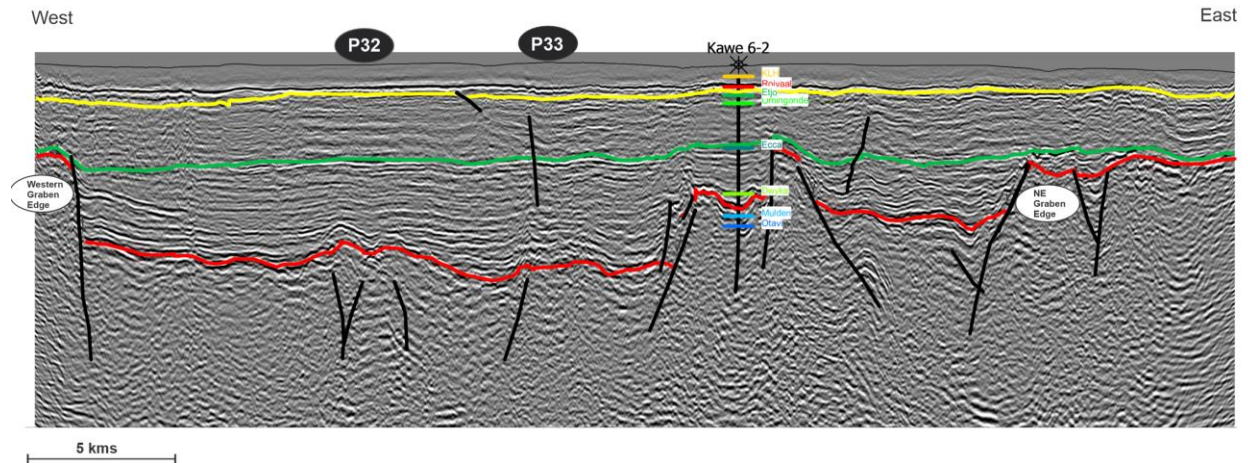
Secondary: Post and Syn Rift Graben; **Intra-Rift Fault Blocks** (Light Oil)

Secondary: Pre-Rift, **Damara Fold Belt** (New Play, Gas/Gas Condensate)

Note that Pre-Rift Fold Belt structures are a new addition to the potential hydrocarbon opportunities of the basin and will be further delineated with Phase 2 and subsequent seismic programs.

## Prospects

A key seismic line contained within the CGW area, presented below, illustrates the area of two drill ready prospects, and the 6-2 well. The key horizons in the section are the Top of the Karoo (Yellow), the Karoo Ecca Group (Green) and the Base of Rift (Red). The growth in the interval between Ecca and Base of Rift is illustrated between the 6-2 well, and Prospect 33 to the west. A deep/thick area in between these two points is the prognosed depocenter and 'kitchen', flanked by faults that likely augmented the migration pathway to the 6-2 well and its oil shows. A sidetrack well from the existing 6-2 wellbore, targeting an up-dip section/interval, is expected to capture the potential accumulations in intervals with good porosity.



Prospect 33 is a Rift Graben target with approximately 2X growth in the Permian Karoo clastics/shale section compared to the 6-2 well, with good potential reservoirs in these clastics and the Pre-Rift upper carbonates, which were encountered in the 6-2 well. The prospect has a combination of potential structural and stratigraphic traps. There is a deeper post-rift section on either side of the prospect to serve as potential hydrocarbon source, and good migration pathways. The stratified sequence seen in the seismic data indicates the presence of seals over the prospect.

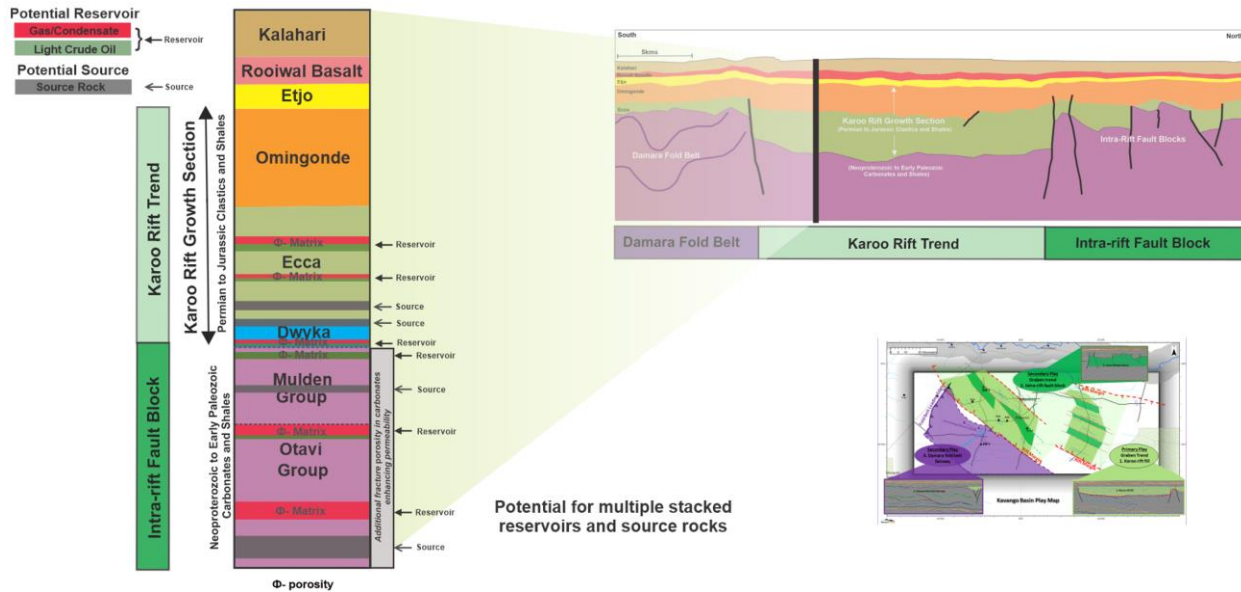
Prospect 32 is also a rift graben target; a roll over structure with slightly less growth in the Karoo section compared to the Prospect 33, but with clear stratigraphic pinch out and onlap opportunities. Other potential trapping opportunities can be seen in the CGW area, most notably fault related traps and pinch-outs at the major bounding rift faults, and basin floor stacked sands.

## Stratigraphic Features

The diagram below illustrates a generalized stratigraphic column for the Rift Graben areas of the Kavango basin. Six potential reservoirs and four potential source rock intervals have been identified in the rift trend and intra-rift fault blocks. The two stratigraphic test wells were drilled on intra-rift fault blocks and encountered multiple potential reservoirs in both the Permian Karoo graben rift fill, and the pre-rift carbonates. Oil and gas shows from these wells were encountered in the Karoo and pre-rift intervals. Future wells such as Prospect 33 and Prospect 32 will test additional stratigraphic expansion in the lower

Karoo, Ecca and Dwyka, which were not encountered in the first two test wells due to non-deposition or condensed stratigraphy.

Source rocks in the Permian Karoo are noted in several publications on the Lower Karoo Ecca and Dwyka intervals, as are source rocks in the pre-Rift, and seen in the Etosha wells (Etosha 1-1, 2-1, 5-1A) approximately 500 km to the west in the Owambo basin. Thermal basin modeling (1D) based on maturity data (vitrinite reflectance) indicates that approximately the lower 1/3 of the Karoo rift basin column will be in the light oil window.



### Additional Data

The 6-1 Well, as shown on the Play map above, drilled prior to seismic, delineates the northeast edge of the CGW. The seismic data indicates that the well is on a high, where the well crosses several major faults, non-deposition and/or erosion have resulted in a thinner and shallower Karoo section. The remaining sections of the well are various carbonates. There are three major zones of significant hydrocarbon shows in the well, all attributable to high conductive fracture density grading to minor fault swarms. The upper zones have oil shows with associated gas, like the 6-2 well, while the lower zones have gas with varying types of natural gas liquids (c2-c5 components). The 6-1 well indicates an active petroleum system and identifies two fluids: oil and gas both migrating along the intersected fault and fracture zones.

### Active Combustible Gas Seep

As part of our ongoing dialogue with local communities, an active combustible gas seep was found, termed ASF-1 on the map above in the northwest area of the CGW. Local villagers have reported other potential seeps as well. A third-party analysis of the seep data concluded that the samples are primarily thermogenic dry gas; however, potential for gas associated with liquid hydrocarbons (light oil and/or condensate) is also indicated. The third-party report states that 'the soil gas, fluorescence, and solid phase microextraction ("SPME") data document the presence of an active petroleum system in the PEL 73 survey area'. The analysis also provided integration with the gas data from the 6-1 and 6-2 wells. The location of the active seep is in an area of a large rift edge fault and some potential gas chimneying effects can be

discerned in the seismic data. The company is in the process of identifying additional potential seeps for analysis.

### **New Play Identified**

Interpretation of the first phase of seismic data also identified a new play that was not anticipated in the original studies of the Kavango area. On the Play map, the southwest corner of PEL 73 (purple on the map), is characterized by several northeast trending fold and thrust structures that cross three of the seismic lines. The interval is Pre-Rift, interpreted to be late Neo-Proterozoic to Early Paleozoic sedimentary rocks that are more characteristic of the Owambo Basin to the west. The structures, as illustrated by the seismic example in the Play map, are quite coherent, mappable, and potentially large. Given their depth, modeled maturation, age and the geochemistry data from wells and seeps, the hydrocarbons are expected to be gas and gas condensate. These leads will require additional seismic and is expected to add to the prospect inventory.

### **2022 Exploration Plan**

For 2022 ReconAfrica plans to initiate a multi-well drilling program, beginning with three test wells and a sidetrack of the 6-2 well, targeting spud of the first well Q2, 2022. The focus will initially be on the CGW area; however, as the 2D seismic program adds new drillable prospects, the drilling program may shift to reflect the best possible candidates.

The second phase of the seismic program is ongoing with emphasis on prospect definition in the GW and extension into new Graben areas to the east, as well as the newly identified compressional leads in the south. A third phase of the seismic program is planned from mid-2022, with the emphasis moving from regional seismic control to prospect definition for drilling.

### **Cautionary Note Regarding Forward-Looking Statements:**

*Certain statements contained in this document constitute forward-looking information under applicable Canadian, United States and other applicable securities laws, rules and regulations, including, without limitation, statements with respect to the interpretation and analysis of the results from the Company's seismic acquisition program and stratigraphic wells, including such results establishing a significant rift graben across PEL 73, results showing that the Kavango basin was formed as part of a larger rift system and indicating that the Kavango basin is an active petroleum system, data from the CGW area establishing numerous prospects to be drilled from the 6-2 well, the potential characteristics of the prospects from the CGW area, including potential reservoirs, structural and stratigraphic traps and other potential hydrocarbon sources and migration pathways, the presence of seals over certain of the prospects, expectation regarding the results of the upcoming sidetrack well to be drilled from the existing 6-2 wellbore and interpretation of the first phase of the seismic acquisition program identifying a new play not anticipated in the original studies of the Kavango area and the potential characteristics of such play, thermal basin modeling indicating that approximately the lower third of the Karoo rift basin column will be a light oil window, potential gas seeps located on and around the project area of the Company and the interpretation and analysis of results of data related to such gas seeps, the characteristics of such potential gas seeps, the timing for the commencement of, and the goals and expected results of, the Company's drilling program in 2022, the goals and expected results of the Company's ongoing phase two seismic program and the timing for the commencement of, and the goals of, the third phase of the Company's seismic acquisition program. These statements relate to future events or future performance. The use of any of the words "could", "intend", "expect", "believe", "will", "projected", "estimated" and similar expressions and statements relating to matters that are not historical facts are intended to identify forward-looking information and are based on ReconAfrica's current belief or assumptions as to the outcome and timing of such future events. There can be no assurance that such statements will prove to be accurate, as the Company's actual results and future events could differ materially from those anticipated in these forward-looking statements as a result of the factors discussed in the "Risk Factors" section in the Company's amended and restated annual information form dated May 19, 2021, available under the Company's profile at [www.sedar.com](http://www.sedar.com). Actual future results may differ materially. Various assumptions or factors are typically applied in drawing conclusions or making the forecasts or projections set out in forward-looking information. Those assumptions and factors are based on information currently available to ReconAfrica. The forward-looking information contained in this release is made as of the date hereof and ReconAfrica undertakes no obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by applicable securities laws. Because of the risks, uncertainties and assumptions contained herein, investors should not place undue reliance on forward-looking information. The foregoing statements expressly qualify any forward-looking information contained herein.*