

The Extractor

Mapping Namibia's Mineral Resources


- Gas could be missing piece in petroleum boom
- Reservoir quality to decide Namibia's oil future
- Aldoro pushes Kameelburg into global spotlight
- Afritin tantalum project could become district-scale

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Omitiomire Copper Project

Appian's second big hit after Rosh Pinah



The project contains approximately 520,000 tonnes of copper in mineable inventory and has the potential to produce around 30,000 tonnes of copper annually over an estimated 15-year mine life.

Johnson leaves a N\$92.3b mining giant

Under Johnson's leadership, B2Gold transformed from a small exploration company formed in 2007 into one of the world's largest intermediate gold producers with a market value of about N\$92.3 billion by mid-2026.



A LOOK AHEAD TO 2026 IN NAMIBIA - RECONAFRICA

As our work with the communities and authorities of Namibia continues into 2026, we are pleased to share a number of successes and developments around our exploration activities under PEL 073, as well as a look to the year ahead.



KEY SUCCESSES OF 2025

In 2025, ReconAfrica progressed key priorities by drilling our second exploration well in the Damara Fold Belt. The results showed indications of oil and gas over eight separate intervals in the Kavango West 1X well. A total of 64 metres (210 feet) of the sections contained confirmed hydrocarbons, with additional promising signs deeper in the well within the limestone reservoir. These findings suggest that the Damara Fold Belt has real potential for future energy development.

Following these positive results, PEL 073 partners ReconAfrica (operator), NAMCOR, and BW Energy met with Her Excellency President Nandi-Ndaitwah to discuss the oil and gas findings and explore how the partnership could support onshore development and help strengthen Namibia's long-term energy future.



WORKING WITH COMMUNITIES IN KAVANGO EAST AND KAVANGO WEST

ReconAfrica continues to invest in and work with local communities and is proud to have an industry-leading Environmental, Social and Governance programme in Namibia.

To date, ReconAfrica has:

- Locally hired and contracted over 2,700 short and long term positions, and worked with over 550 local, regional and national service and supply companies
- Supported 10 STEAM and 7 SAN Nursing students from the Kavango East and Kavango West regions with scholarships
- Installed 36 solar-powered community water wells in remote areas

- Completed more than 2,600 community engagement sessions
- Provided N\$19 million in funding for medical services, equipment, training and wellness programmes
- Provided funding for environmental and social projects in various communities

WHAT IS NEXT FOR RECONAFRICA IN NAMIBIA?

Preparations are underway for a production test of the Kavango West 1X well this year. The team is currently procuring the necessary equipment and has applied for permits required for production testing in order to evaluate the zones of interest. This will be the first production test for hydrocarbons in Namibia and could result in the first flow of hydrocarbons to surface for the Country. We expect to conclude this testing by the third quarter of 2026.

In all aspects of our operations, ReconAfrica is committed to minimal disturbance of habitat in line with international standards and implementing environmental and social best practices in our project areas.

We remain grateful to the people of Namibia for your partnership in exploring the potential for long-term energy development in the area and look forward to providing further updates throughout 2026.

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Appian's second big hit after Rosh Pinah

The approval granted to Appian Capital Advisory to acquire a controlling stake in the Omitiomire Copper Project paves the way for one of the country's most advanced undeveloped copper assets to move closer towards large-scale mine development.

The approval was granted to Appian Omega Bidco Limited for the acquisition of a 95% controlling interest in Craton Mining and Exploration, the company developing the Omitiomire Copper Project.

The transaction marks another major expansion by the London-based mining private equity firm in Namibia, following its earlier acquisition of the Rosh Pinah Zinc Mine, while also positioning Appian in the growing global race for future copper supply driven by electrification, renewable

energy infrastructure, and battery technologies.

Located about 140 kilometres northeast of Windhoek in the Otjozondjupa Region, the Omitiomire Copper Project has emerged over the years as one of Namibia's most advanced future copper developments outside the country's traditional copper belts.

The project is held through Mining Licence ML197 and Exclusive Prospecting Licence EPL8550, which together cover roughly 304 square kilometres.

Exploration work at Omitiomire dates back to the late 1990s and early 2000s after



widespread copper mineralisation associated with sediment-hosted copper systems within the Damara Belt attracted growing geological interest.

Early exploration and geological mapping identified broad zones of oxide and sulphide copper mineralisation, which later became the focus of extensive reverse-circulation and diamond-drilling

campaigns over several years.

The project was initially advanced by International Base Metals Ltd, then Greenstone Resources, and later Omico Mining Corporation, all through Craton Mining and Exploration.

Over time, the drilling campaigns progressively demonstrated that Omitiomire hosts a large, relatively shallow sediment-hosted copper deposit capable of supporting long-term open-pit mining operations.

The project eventually emerged as one of the few Namibian copper assets outside the Otavi and Kalahari copper regions to

progress towards the bankable feasibility stage.

Appian said the project contains approximately 520,000 tonnes of copper in mineable inventory and has the potential to produce around 30,000 tonnes of copper annually over an estimated 15-year mine life.

A 2024 Bankable Feasibility Study confirmed a measured and indicated resource of 123 million tonnes grading 0.51% copper, underpinning a mineable inventory of 102 million tonnes at the same grade.

The scale and advancement of Omitiomire place the project among the more significant undeveloped copper projects currently emerging in Namibia and across parts of Africa.

However, the project differs from some of the continent's giant

porphyry and high-grade underground copper developments.

What makes Omitiomire particularly notable is the combination of relatively large tonnage, shallow mineralisation, advanced feasibility work and potential for long-life open-pit production rather than exceptionally high copper grades.

Compared to Namibia's Haib Copper Project being advanced by Deep-South Resources, Omitiomire is considerably smaller in overall resource scale but significantly further advanced in terms of development readiness.

Haib reportedly hosts roughly two billion tonnes of ore grading around 0.37% copper, making it one of the region's

largest undeveloped porphyry copper deposits. However, Haib remains at a much earlier stage in terms of technical and financial development.

Omitiomire, by contrast, has already progressed through extensive metallurgical testing, environmental studies and bankable feasibility evaluation, placing it closer to potential mine construction than many comparable African copper projects.

The project also differs from larger international copper developments, such as Mongolia's Kharmagtai Copper-Gold Project, which is expected to produce between 60,000 and 80,000 tonnes of copper annually over a much

longer mine life.

Projects of Kharmagtai's scale typically require substantially larger capital commitments, more extensive infrastructure and longer development timelines. Omitiomire's relatively shallow mineralisation, open-pit configuration and lower technical complexity may therefore provide advantages from a financing and execution perspective.

Another distinguishing feature of Omitiomire is its proposed production route. Unlike many copper projects that rely on concentrate production and third-party smelting, Omitiomire's feasibility work has focused on solvent extraction-electrowinning





technology capable of producing LME Grade A copper cathode directly on site.

Project documents indicate that metallurgical breakthroughs achieved during later-stage test work improved the project’s economics by reducing acid consumption, improving recoveries and shortening leach cycle times.

Previous studies envisioned an open-pit copper operation supported by ore processing infrastructure, water supply systems, power infrastructure, tailings storage facilities and associated logistics systems required for long-term mine operations.

However, Appian’s due diligence has

already identified possible changes to the processing strategy, including consideration of flotation processing as an alternative to the original leach-based flowsheet.

Appian founder and chief executive Michael W. Scherb described Omitiomire as a “technically robust development opportunity” aligned with the company’s investment strategy.

The company believes the project offers near-term production potential, attractive operating margins and long-term exploration upside through resource optimisation and possible expansion.

The Competition Commission’s approval now clears another major regulatory hurdle for the project as Appian moves to position Omitiomire among Namibia’s next-generation large-scale mining developments at a time when global demand for copper continues to accelerate.

Johnson leaves a N\$92.3b mining giant

B2Gold Corp. has officially entered a new leadership era following the retirement of founding president and chief executive officer Clive Johnson and the appointment of longtime finance executive Mike Cinnamond as the company's new CEO.

The transition became effective on 4 June 2026, ending Johnson's 19-year leadership of the Vancouver-headquartered gold producer, which grew from a junior exploration company into a multinational mining company operating mines in Namibia, Mali, Canada and the Philippines.

When Clive Johnson and his former Bema Gold Corporation colleagues founded B2Gold Corp. in 2007, the company began as a junior explorer assembled

following Kinross Gold's acquisition of Bema Gold. Nearly two decades later, Johnson leaves behind a multinational gold producer operating mines in Namibia, Mali, Canada and the Philippines, with annual gold production approaching one million ounces.

Under Johnson's leadership, B2Gold transformed from a small exploration company formed in 2007 into a major international gold producer with a market value of approximately N\$92.3 billion.

The company now

operates mines in Namibia, Mali, Canada and the



Philippines while also advancing additional development and exploration projects across several jurisdictions.

That growth came through a combination of acquisitions, mine development and operational expansion overseen by Johnson, including the acquisitions of Central Sun Mining, CGA Mining and Papillon Resources, as well as the development of the Otjikoto Mine in Namibia and the Fekola Mine in

Mali into cornerstone producing assets.

Central to that transformation was Namibia's Otjikoto Mine, widely regarded as the first major mine B2Gold developed itself rather than inherited through acquisition.

Johnson oversaw B2Gold's entry into Namibia through the company's 2011 merger with Auryx Gold, which brought the Otjikoto project into B2Gold's portfolio.

The deal gave Auryx shareholders roughly 10% of the combined company and handed B2Gold what would become one of Namibia's most important gold mines.

At the time, Otjikoto was still a development-stage asset situated in the Otjozondjupa

Region near Otavi.

Under Johnson's leadership, B2Gold financed, constructed and commissioned the mine, marking a major transition for the company from a consolidator of distressed assets into a mine builder and operator.

The project achieved a symbolic breakthrough in December 2014 when the Otjikoto Mine poured its first gold ahead of schedule during construction.

"The B2Gold Corporation is pleased to announce that the first gold pour has occurred at the Otjikoto gold mine ahead of schedule," Johnson said at the time.

The first gold ingot was poured three days earlier than planned, a milestone that signalled B2Gold's arrival as a serious African gold producer.

Commercial production at Otjikoto followed in February 2015.

Otjikoto would go on to become one of the foundations of B2Gold's global growth strategy.

The company first became a gold producer in 2009 through its acquisition of Central Sun Mining in Nicaragua.

It acquired CGA Mining in 2012, adding the Masbate Mine in the Philippines to the portfolio, before adding the Otjikoto project through the Auryx Gold merger.

Johnson then oversaw B2Gold's acquisition of Papillon Resources in 2014, a deal that delivered the Fekola project in Mali, now one of the company's flagship operations.

Otjikoto remained strategically important throughout that journey.



In the first quarter of 2026, the mine produced 24,529 ounces of gold, exceeding company expectations because of higher ore grades.

B2Gold said the operation remained on track to produce between 70,000 and 90,000 ounces during 2026.

The mine also became part of B2Gold's evolving sustainability strategy after integrating solar power infrastructure into its operations as part of Namibia's broader mining-sector renewable energy transition.

Johnson officially stepped down as

president and chief executive officer on 4 June 2026 after leading the company since its formation in 2007.

He was succeeded by Mike Cinnamond, while remaining associated with the company as Chair Emeritus.

Cinnamond, who previously served as senior vice president for finance and chief financial officer, officially assumed the role of president and chief executive officer at the company's annual general meeting on 4 June.

The leadership transition was first announced on 23 February 2026 as part of what B2Gold described as a long-term succession-planning process.

"It has been a great privilege to have led B2Gold since its

formation in 2007," Johnson said when the succession plan was announced.

The company's Namibian operations remain anchored by the Otjikoto Mine in the Otjozondjupa Region, one of the country's major gold mining operations.

Cinnamond joined B2Gold in 2013 and became chief financial officer in 2014, having previously served as an audit partner at PricewaterhouseCoopers LLP, where he specialised in mining, forestry, energy and utilities.

B2Gold said the board selected him because of his "deep knowledge of the Company" and his experience in strategy, project finance, capital allocation and operational management.

"I am honored to have the opportunity to lead

B2Gold," Cinnamond said. "The Company has great assets and great people and is well positioned for the future."

As part of the broader management reshuffle, Michael McDonald succeeded Cinnamond as chief financial officer effective 4 June 2026.

B2Gold also elevated Kelvin Dushnisky from board chair to executive chair as part of the transition process.

The leadership changes come as B2Gold continues advancing operations and projects across multiple jurisdictions while maintaining production guidance of between 820,000 and 970,000 ounces of gold for 2026.

Johnson's legacy, however, remains deeply tied to Namibia through the Otjikoto Mine.

Kazera says Afritin tantalum project could become district-scale

Namibia's tantalum potential is drawing renewed international attention after Kazera Global PLC said its Afritin project could represent a significantly underexplored district-scale critical-minerals opportunity, at a time when tantalum prices are near decade-high levels and global supply chains are seeking alternative non-Chinese sources of strategic minerals.

Speaking during an investor presentation, Kazera non-executive director Paul Dulieu and interim chief executive Richard Jennings said the company had completed a strategic reassessment of the Afritin project in Namibia, arguing that the asset's value has not been fully recognised despite growing global demand for tantalum and lithium.

Kazera

described Afritin as a "significant critical minerals opportunity" aligned with Namibia's broader ambitions to become a future critical minerals hub supplying international markets, including Europe's rapidly expanding energy transition and advanced manufacturing sectors.

The company said it recently revisited



historical mineral resource estimates, geological data and technical reports associated with the project after relatively little substantive work had been undertaken on the asset since around 2022.

According to Dulieu, the reassessment uncovered several important technical and commercial advantages that could materially alter how the project is developed and valued.

One of the most significant findings involved mineral processing.

Kazera revealed that additional testing of mineral samples from the project indicated that the tantalum and lithium mineralisation may not require traditional wet separation processing methods commonly used in many hard-rock critical minerals projects worldwide.

Instead, the company said the ore appears highly amenable to magnetic and electrostatic separation techniques.

That technical distinction could prove particularly important in Namibia, where water scarcity remains one of the major operational constraints affecting mining developments.

“Water is a hugely rare resource,” Dulieu said during the presentation, adding that access to water had already posed operational challenges for previous operators active in the area.

The ability to avoid conventional wet processing methods could therefore significantly reduce water dependency, lower processing costs and improve overall project economics in Namibia’s arid mining environment.

The company further

revealed that only a small portion of the pegmatite system within the mining licence area has undergone meaningful exploration.

According to Kazera, only three pegmatites have been drilled and explored so far, leaving roughly 70% of the identified pegmatite structures largely untested.

Pegmatites are mineral-bearing geological formations that host the project’s tantalum and lithium mineralisation, meaning the unexplored areas could contain additional resources and entirely new mineralised zones.

Kazera said this creates the possibility that Afritin may evolve far beyond a single-deposit development.

“It suggests to us that actually this is a significant opportunity,” Dulieu said.



“It’s underexplored and it’s got potential for actually being a district-scale project.”

The term district-scale implies the potential for multiple deposits, expanded mining operations, long-term production growth and broader regional infrastructure development rather than a standalone mining operation limited to a single orebody.

Kazera said the project’s strategic significance is also increasing due to growing global competition for critical minerals used in electronics,

semiconductors, aerospace systems, capacitors, advanced manufacturing, and energy transition technologies.

Tantalum remains one of the world’s most strategically important technology metals because of its use in electronic capacitors, high-performance alloys, semiconductors, medical equipment, aerospace systems and advanced defence technologies.

Lithium, meanwhile, remains central to electric vehicle battery manufacturing and energy storage systems.

The company argued that Namibia is increasingly well-positioned to benefit from the global push to diversify critical-minerals supply chains away from traditional dominant suppliers.

Kazera said it has now compiled an approximately 80-page information memorandum detailing the Afritin project’s history, mineral resources, technical work, processing potential and possible monetisation pathways.

The company confirmed that it has engaged a specialist third-party advisory group

to evaluate strategic options for the project, including bringing in operators, entering into partnerships, pursuing royalty arrangements, adopting project development structures, or a possible outright sale.

Kazera repeatedly stressed during the presentation that its long-term strategy is no longer focused on becoming a direct mining operator.

Instead, management said the company intends to focus on identifying opportunities, adding value and ultimately monetising projects rather than operating mines itself.

“Our mandate is as an investment company to alight upon investment opportunities, try and add value, and move them on,” Jennings said.

The company’s comments formed part of a much broader corporate restructuring and strategic reset underway at Kazera.

Management said the business has undergone what executives described as a “complete company reset” involving

a new board, tighter financial discipline, reduced expenditure, a monetisation-focused strategy and a move away from repeated capital raisings and direct mine operations.

Jennings told investors the company no longer wants to become trapped in the operational complexities of running mining projects directly, particularly in South Africa and Namibia.

Instead, Kazera now appears focused on unlocking value through partnerships, royalties, or asset sales to larger, better-capitalised operators.

The company said current market conditions may favour that strategy because of strengthening tantalum prices and rising strategic demand for critical minerals.

“Tantalum’s at some — I think it’s a decade high price,” Dulieu said during the presentation.

Jennings later suggested that the value of Afritin under current market conditions may exceed the amounts still in dispute in the long-running legal process

involving Hebei Xinyang.

Kazera indicated that one possible monetisation route could involve selling the project to a third party that recognises greater strategic value in the tantalum and lithium opportunity than the outstanding amounts owed under the failed Hebei transaction.

The Afritin project has remained tied up in legal and arbitration proceedings following the collapse of an earlier proposed transaction involving Hebei.

Kazera clarified during the presentation that the original arbitration ruling remains final and binding, although a separate review process concerning the arbitration procedure itself is still before Namibia’s Supreme Court.

Jennings stressed that the current hearing does not represent an appeal against the arbitration outcome itself.

“The decision on the part of the arbitrators is final and binding,” he said.

Three years after signing JV, Aldoro pushes Kameelburg into global spotlight

When Australian-listed Aldoro Resources signed its definitive joint venture agreement with Logan Exploration Investments over the Kameelburg Rare Earth Project in August 2023, the company was still entering largely unknown territory in Namibia's rare earth and niobium sector.

Three years later, Kameelburg has rapidly emerged as one of Namibia's most

closely watched critical minerals projects after aggressive drilling campaigns, metallurgical studies, resource definition work and repeated funding injections transformed the carbonatite complex from an early-stage exploration target into one of Africa's largest undeveloped rare earth and niobium systems.

The original 2023 joint venture agreement covered Exclusive Prospecting

Licences EPL 7372, 7373 and 7895 and marked Aldoro's formal entry into Namibia's critical minerals sector through partnership with Logan Exploration Investments.

At the time, Aldoro's immediate priorities were still relatively modest. The company was focused on securing environmental approvals, conducting metallurgical sampling and validating historical exploration data



associated with the Kameelburg carbonatite system.

One of the major milestones during that early phase was the granting of consent by Namibia's National Heritage Council, which cleared the way for exploration activities and paved the path towards issuance of the Environmental Clearance Certificate.

The company also announced plans to begin metallurgical bench-scale test work, including portable core drilling, across multiple high-grade rare-earth-element targets identified within the carbonatite complex.

Those early metallurgical sampling programmes were designed to investigate the project's higher-grade rare earth mineral phases and to evaluate niobium mineralisation associated with peripheral dykes surrounding the carbonatite body.

Historic exploration results available at the

time already hinted at the project's potential.

Among the standout historical assays were intersections containing 5.56% total rare earth oxides (TREO), 5.29% TREO, 4.98% TREO and niobium values reaching 4.75% Nb₂O₅.

The presence of both rare earth mineralisation and significant niobium values immediately differentiated Kameelburg from many conventional rare earth projects globally, suggesting the possibility of a broader multi-critical-minerals system rather than a single-commodity deposit.

Geologically, Kameelburg is part of a carbonatite complex within Namibia's Damara Orogenic Belt. This geological province is increasingly attracting international exploration attention because carbonatites globally host some of the world's most important rare earth deposits. The Kameelburg carbonatite itself forms a plug-like intrusive body

roughly 1.4 kilometres in diameter, surrounded by radial dykes intruding older syenites, marbles and schists.

What has made Kameelburg particularly notable is the speed at which the project has advanced since the 2023 agreement.

Within only three years, Aldoro moved from environmental approvals, reconnaissance exploration, and metallurgical sampling to extensive diamond-drilling campaigns, mineral resource definition work, metallurgical recovery studies, and bulk-sampling preparation.

That pace of advancement is relatively unusual in the global rare earth sector, where projects often spend many years moving from early exploration to maiden resource stages due to challenging metallurgy, complex mineralogy, and lengthy technical evaluation requirements.

The rapid pace

of Kameelburg's advancement was also heavily supported by successive funding rounds and investor backing, which enabled Aldoro to aggressively expand exploration and drilling across the project.

When Aldoro entered into the binding Heads of Agreement with Logan Exploration and Investments CC and Okonde Mining and Exploration CC in March 2023, the company agreed to acquire an 85% interest in the Kameelburg Project through a combination of cash payments and Aldoro shares. The initial transaction included a N\$500,000 payment upon signing, a further N\$2.5 million payment at completion and the issue of N\$500,000 worth of Aldoro shares.

Only weeks later, Aldoro raised approximately A\$3.8 million to strengthen working capital and position the company to accelerate development of the Kameelburg project.

As exploration success expanded, so did the scale of financing required to sustain drilling and technical evaluation work.

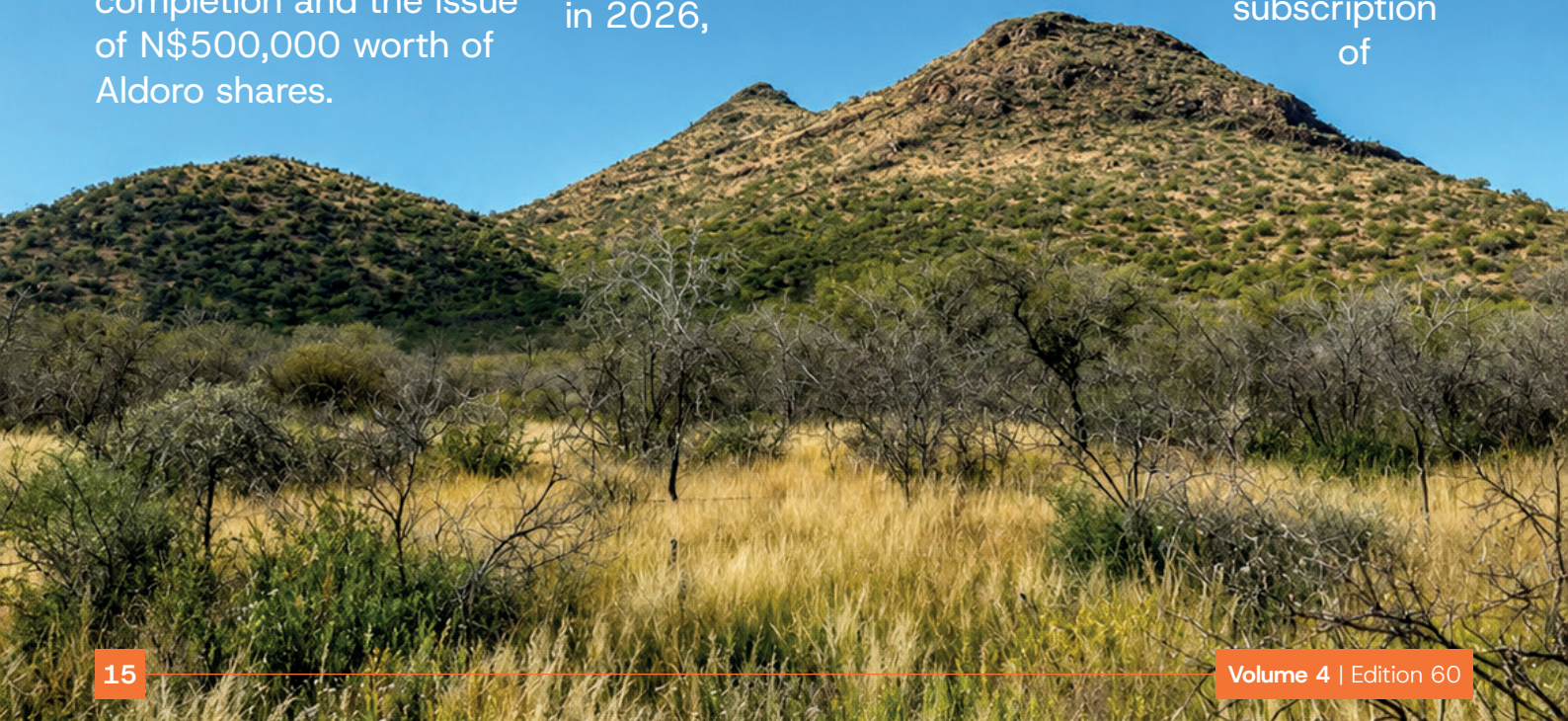
By 2025 and 2026, the company had already secured multiple additional funding arrangements directly tied to the expansion of the Kameelburg drilling programme, metallurgical studies, and resource growth activities.

One of the most significant funding developments came in 2026,

when Aldoro secured approximately N\$39 million to finance expanded drilling programmes to evaluate the project's large-scale mining potential following the discovery of extensive niobium and strontium mineralisation.

The company later strengthened its financial position further through an underwriting agreement worth roughly N\$55 million linked to the exercise of unlisted options, providing additional capital support for continued exploration and project advancement.

In May 2026, Aldoro also secured approximately A\$3.27 million, or about US\$2.3 million, through the subscription of



outstanding stock options, with the proceeds specifically earmarked for ongoing drilling, metallurgical programmes and feasibility-related work at Kameelburg.

Those funding injections were critical to enabling the company to scale exploration activities rapidly, deepen drilling campaigns, expand geological modelling, and accelerate resource definition work over a relatively short timeframe.

The growing willingness of investors to continue financing Kameelburg also reflected increasing market confidence in the project's potential, as drilling campaigns progressively confirmed the scale of the carbonatite system and the presence of multiple strategic critical minerals, including rare earths, niobium, and strontium.

By August 2025, Aldoro had already announced a maiden inferred mineral resource estimate of 279.9 million tonnes

at 2,450 ppm TREO equivalent, based on only 12 diamond drill holes covering a 2.7-kilometre mineralised strike.

Only weeks later, the company expanded the resource by 85% to 520.61 million tonnes at 2.49% TREO equivalent, while simultaneously confirming that the deposit remained open along strike and at depth.

More recent drilling further strengthened the project's profile by confirming extensive niobium and strontium mineralisation in addition to rare earth elements.

In August 2025, Aldoro announced drill intersections including 140 metres of high-grade niobium mineralisation, including 15 metres grading 0.8% Nb₂O₅ and six metres grading 1.43% Nb₂O₅.

The company's geological model increasingly pointed towards vertical mineral zoning within the carbonatite, with rare earth mineralisation

concentrated in upper zones and niobium enrichment strengthening at depth.

By 2026, Kameelburg had evolved beyond a pure rare-earth project into what Aldoro increasingly described as a multi-critical-minerals system incorporating rare earths, niobium, strontium, molybdenum, and potentially iron by-products.

The project's latest Mineral Resource Estimate reportedly stands at roughly 597 million tonnes at 2.49% TREO-equivalent. At the same time, Aldoro has also declared what it says is the world's largest strontium resource at 596 million tonnes grading 2.17% strontium.

Recent metallurgical test work also produced encouraging results, with Aldoro reporting strontium extraction rates approaching 99% at ambient temperatures, significantly strengthening the project's potential commercial profile.

Reservoir quality to decide Namibia's oil future - Wood Mackenzie

Namibia's offshore oil story is no longer about whether hydrocarbons exist in the Orange Basin, but whether companies can unlock commercially viable reservoirs capable of sustaining large-scale production.

This is according to a strategic presentation by global energy research firm Wood Mackenzie, delivered at the Namibia International Energy Conference 2026 by research director Ian Thom and principal analyst Vincenza Papaleo.

Wood Mackenzie's central message was that Namibia has already won the exploration battle by proving the existence of world-class hydrocarbons in the Orange Basin.

According to the presentation, the industry's early understanding of Namibia's offshore geology was shaped



by Chevron's Kudu gas discovery in 1974, Soekor's Ibhuesi gas discovery in 1987 and Chevron's 2815/15-1 gas shows in 1996.

The presentation explained that one of the earliest clues pointing to offshore oil potential came from DSDP 361, a deep-sea drilling programme completed in 1975, which indicated the presence of oil-prone source rocks in deepwater Namibia even as most exploration activity remained focused on gas.



Wood Mackenzie explained that the first deepwater two-dimensional seismic campaigns mapped previously overlooked plays, while the Moosehead-1 well drilled in 2013 proved the existence of oil-prone source rocks in Namibia's deepwater offshore acreage.

The analysts further pointed to a 2014 geological study by Hartwig and others, which confirmed that high heat flow extended into Namibia's deepwater

basin, helping crack what Wood Mackenzie described as the basin's "exploration code".

The transformation accelerated in 2022 when Shell announced the Graff discovery, and TotalEnergies announced the Venus discovery, two wells that fundamentally changed global perceptions of Namibia's offshore potential and triggered one of the largest frontier exploration rushes seen anywhere in the world in recent years.

Wood Mackenzie's presentation showed that 18 exploration wells drilled during the past four years resulted in 14 discoveries across multiple fairways in the Orange Basin.

However, the report stressed that geological success alone does not guarantee commercial viability.

The analysts repeatedly

returned to one central theme throughout the presentation: permeability.

"Permeability is the basin's make-or-break variable," Wood Mackenzie stated, arguing that reservoir quality will ultimately determine which discoveries become producing assets and which remain stranded technical successes.

One of the presentation's most important technical sections involved Wood Mackenzie's Combined Common Risk Segment analysis, commonly referred to as CCRS mapping.

According to the analysts, the CCRS model integrates source, reservoir, and seal risks to identify where commercial hydrocarbon accumulations are most likely to occur and where geological failure risks remain highest.

The analysts noted that areas identified as weaker geological fairways later aligned with major industry exits, including TotalEnergies' withdrawal from Blocks 5, 6 and 7 offshore South Africa in July 2024 and Woodside's exit from Namibia's PEL 87 in March 2025.

The presentation also pointed to significant remaining exploration upside offshore South Africa, with Wood Mackenzie estimating that some undrilled areas still carry a 70% to 100% chance of success within the Cretaceous deepwater turbidite system.

TotalEnergies' Venus field was described as technically challenging but commercially important.

According to Wood Mackenzie, surrounding wells drilled around Venus have shown reservoir quality degradation

in multiple directions, making the field more difficult to develop despite its enormous scale.

The analysts noted that Venus consists of a single reservoir lobe, measuring roughly 600 square kilometres, with a reservoir thickness ranging from 80 to 120 metres.

Wood Mackenzie warned that high gas-to-oil ratios pose a major issue because gas-handling systems occupy valuable space on offshore production facilities, limiting oil recovery capacity and complicating the design of floating production, storage, and offloading vessels.

Wood Mackenzie noted that Venus wells tested at approximately 11,000 barrels per day and contained 38 metres of net pay and 37-degree API oil, figures that continue to support the project's commercial attractiveness despite low permeability concerns.

Shell's offshore campaign received a more cautious assessment.

Wood Mackenzie

described Shell's discoveries around Graff, Jonker and Enigma as geologically successful but commercially problematic because of low permeability and reservoir compartmentalisation.

The analysts noted that Shell drilled six wells across three separate plays and successfully proved hydrocarbons, but the reservoirs failed to meet commercial expectations.

The report linked those challenges to Shell's US\$400 million write-off recorded during the fourth quarter of 2024.

Wood Mackenzie expressed considerably stronger optimism around Galp's Mopane discovery and Rhino Resources' Capricornus and Volans discoveries.

The presentation described Mopane as a "multi-stacked discovery" containing more than 13 stacked Cretaceous reservoir levels with consistent reservoir quality, high permeability and overpressured systems capable of delivering exceptionally strong production performance.

Wood Mackenzie noted that Mopane test wells achieved flow rates of around 14,000 barrels of oil equivalent per day, which the analysts described as exceptional for frontier exploration wells.

The presentation explained that Mopane contains variable fluid systems across multiple stacked reservoirs, adding both opportunity and development complexity.

Rhino Resources' Capricornus and Volans discoveries were highlighted as especially significant because they appear to confirm the existence of what Wood Mackenzie called a "petrophysical sweet spot" within the Orange Basin.

The report argued that Capricornus, Volans and Mopane have effectively unlocked the inner sub-basin's development potential by proving high-quality reservoirs within the Cretaceous deepwater turbidite fairway.

Wood Mackenzie explained that, unlike the deeper-water Venus and Graff discoveries,

which suffer from poor permeability, Capricornus and Volans sit within the inner flank of the outer structural high, shaped by seaward-dipping reflectors, a geological setting associated with improved reservoir quality.

The analysts noted that the discovery combines several highly attractive development metrics, including 38 metres of net pay, 37-degree API oil and tested productivity of approximately 11,000 barrels per day.

Wood Mackenzie described Capricornus as having “minimal complexity” and “maximum development readiness”.

Volans was similarly praised for strong reservoir quality and high deliverability, particularly because of its rich gas-condensate system, with condensate-to-gas ratios estimated at roughly 160 barrels per million cubic feet.

Wood Mackenzie warned that ultra-deepwater operating conditions, long distances from shore, seabed complexity and the absence of established

petroleum infrastructure could slow project execution and raise development costs.

The presentation noted that some reservoirs lie at water depths approaching 3,000 metres, while Lüderitz Bay is approximately 360 kilometres from the Venus development area.

The report further noted that much of Namibia’s coastline falls within national parks or other environmentally protected areas, adding complexity to pipeline routing, industrial development, ports, logistics bases, and environmental approvals.

The analysts said Namibia currently lacks sufficient ports, fabrication yards, storage facilities, warehouses, training centres, and broader petroleum support infrastructure to sustain multiple floating production, storage, and offloading vessels.

The report additionally warned that Namibia still lacks an established domestic gas market, meaning most early development activity will focus primarily on oil production

before broader gas commercialisation can realistically emerge.

“Development activity will focus on oil first,” the analysts stated.

The analysts projected that combined production from Venus, Mopane and Capricornus could push Namibia’s liquids production above 400,000 barrels per day during the 2030s, potentially positioning the country as sub-Saharan Africa’s third-largest oil producer behind Nigeria and Angola.

The presentation also outlined several major milestones expected in 2026, which the analysts described as critical to determining how quickly Namibia transitions from exploration to full-scale project development.

Those include further appraisal drilling at Mopane through the Mopane-4X well, additional appraisal activity at Capricornus and Volans, Shell’s Merlin-1X well, Chevron’s Nabba-1X exploration well and TotalEnergies’ Gemsbok-1X campaign.

Gas could be missing piece in Namibia's petroleum boom

Namibia's offshore oil discoveries have captured global attention, drawing some of the world's largest energy companies into the Orange Basin and positioning the country as one of Africa's most promising new petroleum frontiers. Yet beneath the excitement surrounding Venus, Mopane, Graff and Jonker lies another story that may ultimately shape whether Namibia achieves broader economic transformation from its petroleum sector: the future of natural gas.

Patrick Kauta and Shereef Martin, in their article titled Gas commercialisation: The missing link in Namibia's oil story, argue that Namibia's oil future cannot be separated from the question of how the country

commercialises gas discovered alongside offshore oil resources. They contend that gas could serve as a bridge between offshore petroleum wealth and long-term domestic industrialisation, power generation, logistics expansion, and regional economic integration.

"Gas is not an afterthought to the oil story; it may be the missing link between offshore discovery and broader economic transformation," Kauta and Martin state.

Their argument arrives at a time when global gas markets are undergoing major structural change. The International Gas Union's 2025 World LNG Report shows global LNG trade reaching more than 411 million tonnes in 2024,

while another 170 million tonnes per annum of liquefaction capacity is expected between 2026 and 2028. The International Energy Agency and Shell's LNG Outlook 2025,



meanwhile, forecast continued long-term growth in gas demand, driven by Asian industrialisation, electricity demand from artificial intelligence and digital infrastructure, and the decarbonisation of heavy industries.

But Kauta and Martin caution that the global LNG opportunity does not automatically translate into success for new producers.

“New LNG supply may improve market liquidity, but it also raises the threshold for new projects: cost, emissions intensity, shipping distance, customer credit, project execution and fiscal stability will determine whether Namibian gas can compete,” they write.

The two legal and energy specialists argue that Namibia must think beyond upstream oil

production and focus on developing an integrated gas value chain to support domestic economic activity. Their article explores multiple possible commercial pathways, including gas-to-power projects, LNG exports, floating LNG infrastructure, small-scale LNG distribution, marine bunkering, fertiliser production, ammonia projects and industrial gas applications.

At the centre of their argument sits the

long-delayed Kudu gas project, which they describe as both a warning and a possible foundation for Namibia’s future gas industry.

The South African Gas Master Plan estimates Kudu’s recoverable reserves at more than 3.3 trillion cubic feet. Yet the project has struggled for decades due to infrastructure costs, commercial uncertainty, and the complexity of building a complete gas value chain from offshore production to power generation and industrial use.

Kauta and Martin argue that Kudu demonstrates a critical lesson often overlooked in frontier petroleum markets: hydrocarbon discoveries alone do not create economic transformation.

“The lesson for Orange Basin gas is that



technical discovery must be translated into an integrated commercial package,” they write. “Upstream development, midstream infrastructure, power or industrial demand, financing and government support need to be sequenced together.”

Their paper notes that BW Energy’s revised Kudu plans involve an initial 400MW–420MW gas-to-power phase, with possible expansion to around 800MW, alongside pipeline, transmission, and LNG infrastructure.

The article treats Kudu not simply as a delayed project, but as a case study in the realities of gas commercialisation. Unlike oil, which can often move directly into export systems, gas requires a complete infrastructure chain, including pipelines, processing plants, transmission networks, long-term customers and financing structures before projects become commercially viable.

Wood Mackenzie, cited in the article, notes that offshore gas developments

generally face longer, more complex routes to commercialisation because gas infrastructure must be built alongside the upstream project.

Kauta and Martin argue that Namibia should therefore view Kudu as a sequencing project capable of gradually anchoring a domestic gas market rather than as a standalone solution to Namibia’s energy ambitions.

The paper also introduces a major regional dimension by highlighting what South African energy planners and industrial users increasingly describe as a looming “gas cliff”. According to Standard Bank and the Industrial Gas Users Association of South Africa, industrial gas users in South Africa face mounting uncertainty as gas supplies from Mozambique’s Pande and Temane fields decline toward 2028.

For Namibia, this creates both opportunity and caution.

Kauta and Martin suggest Namibia could

eventually position itself as a regional supplier to South Africa’s industrial and energy markets, particularly through potential pipelines and LNG corridors between Walvis Bay and Cape Town. Yet they warn that regional demand alone does not guarantee project bankability.

“If South African industrial users, traders or power producers are to become credible customers for Namibian gas, the contractual architecture will need to address delivery point, gas quality, transportation, currency, indexation, take-or-pay obligations, network access, credit support and political risk,” they note.

The broader argument running through the article is that Namibia now faces a strategic national choice. The country can either become another exporter of raw hydrocarbons or deliberately build an integrated industrial ecosystem around gas.

Kauta and Martin repeatedly stress that gas commercialisation

should not be viewed purely through the lens of exports. Instead, they argue that natural gas could support domestic electricity generation, mining operations, industrial manufacturing, fertiliser production, logistics, marine fuel supply, ammonia development and wider industrialisation.

This is where the authors place particular emphasis on Namibia's draft National Upstream Petroleum Local Content Policy and the proposed Gas Bill. They argue that gas infrastructure and commercial structures should be deliberately designed to support local procurement, Namibian participation, skills transfer, supplier development and long-term domestic industrial capacity.

The article also warns that gas commercialisation is fundamentally a legal, financial and infrastructure challenge as much as it is an energy issue. Kauta and Martin note that future gas developments will require highly coordinated

commercial structures, including joint ventures, gas sales agreements, transportation arrangements, financing structures, government support frameworks, and risk-sharing mechanisms.

"Natural gas commercialisation cannot be left to policy statements alone," they write. "In both Namibia and South Africa, legal workstreams will need to convert resource potential and demand forecasts into bankable agreements."

One of the paper's central themes is what the authors repeatedly describe as "commercial architecture". They argue that many African gas discoveries fail not because resources are absent, but because governments and investors fail to align infrastructure, regulation, financing and long-term market demand into a coherent and financeable system.

The article concludes that Namibia's petroleum sector is entering a fundamentally different phase. The country is no longer merely an

exploration frontier. It is becoming a test case for whether offshore hydrocarbons can drive long-term industrial and economic transformation.

"Namibia's petroleum opportunity is no longer only an exploration story. It is becoming a development, infrastructure and monetisation story," Kauta and Martin state.

They argue that Namibia still has a rare opportunity to deliberately design its gas economy, drawing on lessons from South Africa, Mozambique and wider African energy markets, before major infrastructure and contractual systems become locked in.

"Natural gas commercialisation is not a secondary issue in Namibia's oil story," they conclude. "It may be the issue that determines whether the story becomes a bankable, inclusive and long-term energy value chain."

*Read the full article here: www.cliffedekkerhofmeyr.com



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