

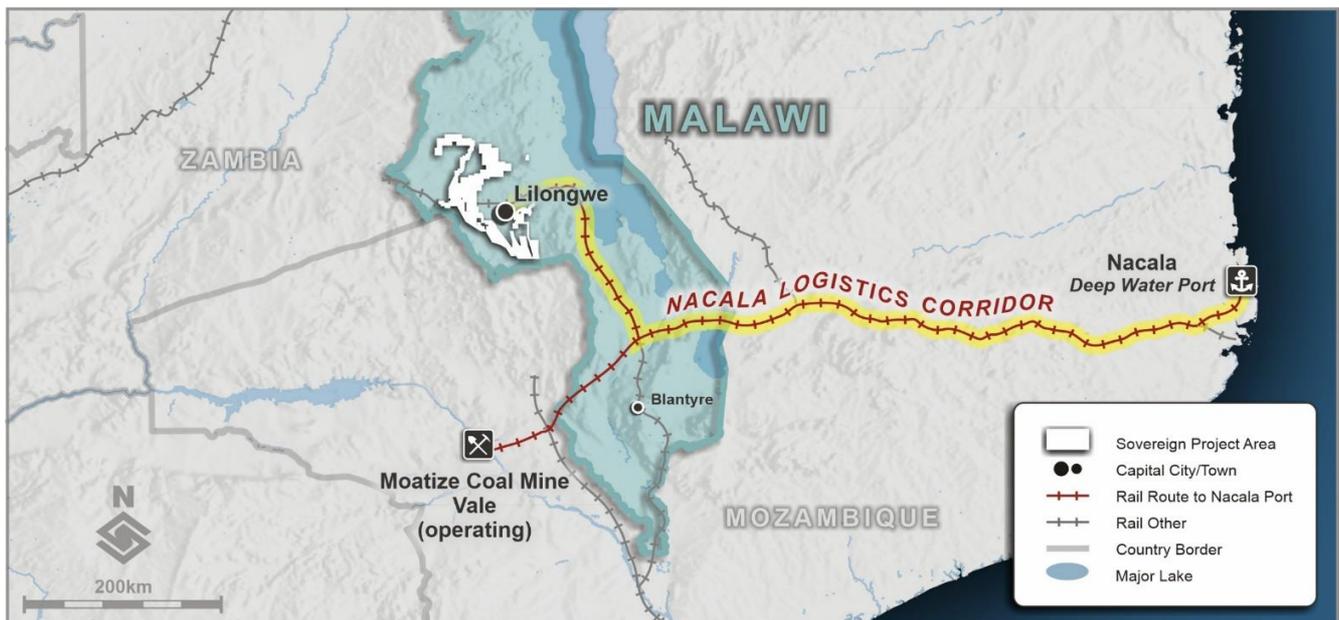


## STUDY HIGHLIGHTS EXISTING HIGH QUALITY LOGISTICS SOLUTION FOR KASIYA

Sovereign Metals Limited (*the Company* or *Sovereign*) is pleased to report the outcomes of a recent study (*Study*) by an independent expert on the logistics and infrastructure solutions for the Company's globally significant Kasiya Rutile Project (*Kasiya*) in Malawi. The Study confirmed a reliable, efficient, and high-standard logistics solution using excellent existing infrastructure.

### HIGHLIGHTS

- ❖ **Study confirms preferred logistics route to global markets** is via the Nacala Logistics Corridor (NLC) exporting out of the deep-water port of Nacala.
- ❖ Kasiya benefits from access to a **fully operating rail line** and class-1 all-weather **sealed road network**.
- ❖ The logistics network is **significantly underutilised with only 15% of the rail freight capacity** currently in use with the **deep-water port only 41% utilised**.
- ❖ The recommendations and fiscal outcomes of the logistics Study will be incorporated into the Company's forthcoming Scoping Study targeted for completion by the end of 2021.



**Sovereign's Managing Director Dr Julian Stephens commented** *"The exceptional established infrastructure in Malawi should result in a positive capital and operating cost outcome for Kasiya. The availability of existing road, rail and port infrastructure for product export and project supplies imports provides a huge advantage for our world-class Kasiya Rutile Project."*

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**References:** CDN & CEAR Corporate Presentation & Morgan Sterling

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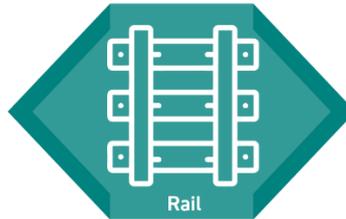
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## EXCEPTIONAL LOGISTICS SOLUTION

Sovereign will directly benefit from the exceptional existing infrastructure in central Malawi. This offers the preferred logistics route to the Nacala deep-water port via the Nacala Corridor for the export of mineral products to global markets.



***Class-1 bitumen sealed road network***



***Access to the fully operational Nacala Rail Corridor***



***Linking to the deep-water international port of Nacala***

This established operation-ready logistics infrastructure provides significant capital and operation costs savings.

Also, by adopting the Nacala Rail Corridor as its preferred logistics solution with almost all overland distance on rail, Sovereign has the potential to reduce environmental impact and carbon footprint of Kasiya significantly compared to all-road alternatives.

Sovereign has an existing Memorandum of Understanding (**MoU**) with Central East African Railways (*now named Nacala Logistics*) (**CEAR**) for rail freight, port access and port handling services and discussions continue for increased volumes based on the outcomes of the Company's forthcoming Scoping Study for Kasiya.



Figure 2: An example of the sealed road network surrounding Kasiya

## FULLY OPERATIONAL RAILWAY

The rail line of the NLC passes through Sovereign's licence areas with established access via a short haulage to the rail head at the underutilised operational intermodal rail siding at Kanengo located ~50km from Kasiya.

The railway line also passes across the southern end of the Nsaru mineralised envelope and is just 20km from the central part of Kasiya. Sovereign is assessing the possibility of establishing its own rail siding as a logistics option as part of the current Scoping Study to reduce haulage and potentially reduce operating costs.

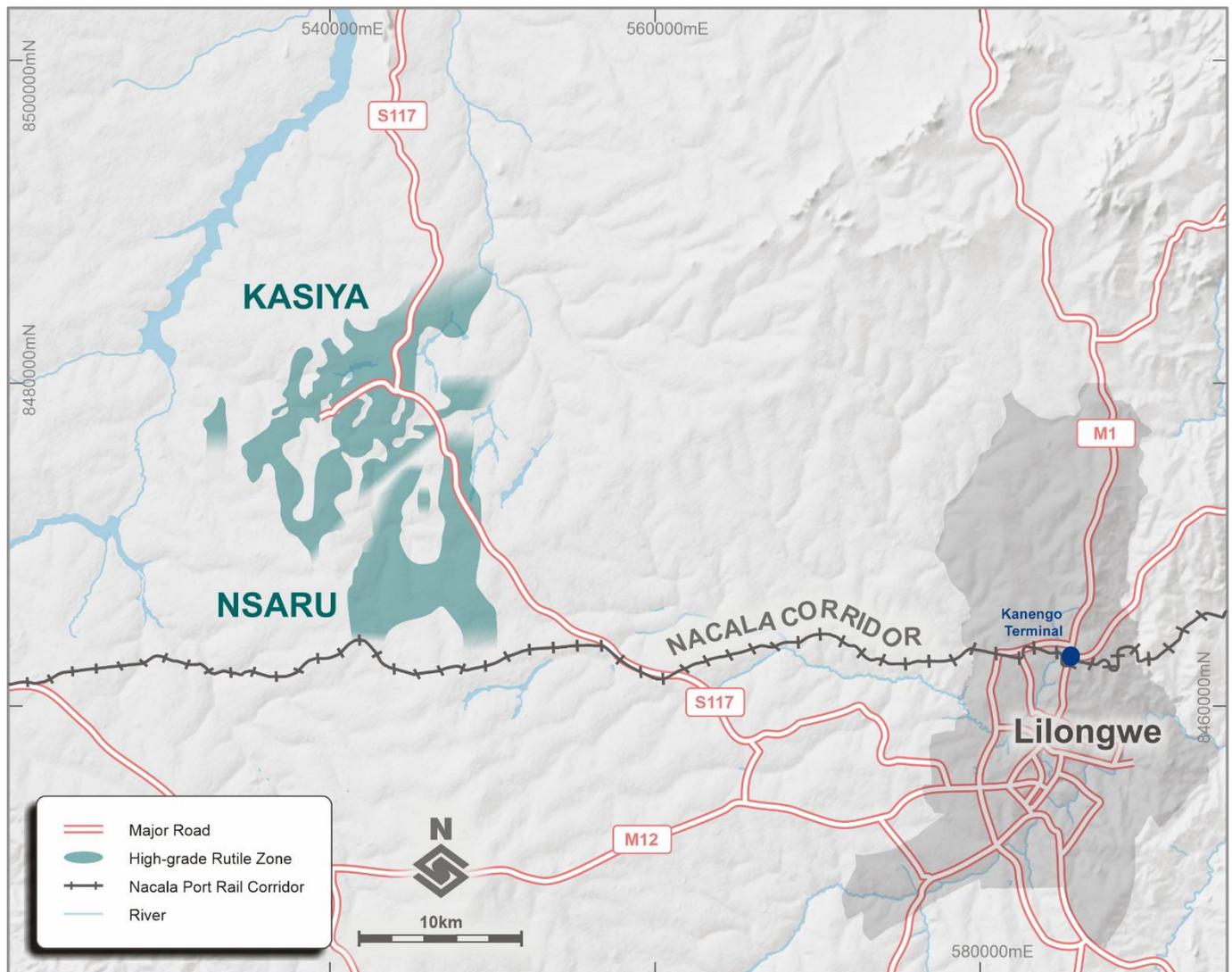


Figure 3: Central area of Sovereign's Kasiya Rutile Project with the key infrastructure shown





Figure 4: Drone photo looking in a westerly direction along the Nacala Corridor at Nsaru



Figure 5: The existing Kanengo rail container terminal connected to the Nacala Logistics Corridor



## *The Nacala Logistics Corridor*

### **Nacala Railway**

The NLC is a 912km rail line for the purpose of transporting coal from mines in western Mozambique to the port of Nacala via Malawi. For Malawi, the NLC provides the shortest and most direct access to the sea and global commodity markets. The Corridor stretches from Moatize, Mozambique and Chipata, Zambia and passes through Lilongwe in Malawi to the Port of Nacala on the Indian Ocean.



Figure 6: Nacala Logistics Corridor in operation

The development of the NLC was essential for the expansion of global miner Vale SA (**Vale**) & Japanese conglomerate Mitsui & Co.'s (**Mitsui**) coal extraction activities in the Tete region of Mozambique. In January 2021, Vale acquired Mitsui's interest in the Moatize mine and the NLC to become the wholly-owner of the Joint Venture\*.

The NLC transported a daily average of 16,000Mt of coal and 1,150Mt of other cargo, operating a fleet of 101 locomotives and 2,677 wagons in 2020. Vale's operations are expected to ramp-up this year, to reach a production rate of 15 million tonnes a year (daily average of ~40,000Mt of coal) in the second half of 2021 and 18 million tonnes a year in 2022\*.

The landmark infrastructure project was driven by the governments of Malawi, Mozambique and Zambia, Vale, Mitsui, a consortium of several international and African banks and export credit agencies including the Japan Bank for International Co-operation (**JICA**), Nippon Export and Investment Insurance and African Development Bank (**AfDB**). Specifically, the governments of Malawi, Mozambique, and Zambia have gradually increased their investment in the NLC to approximately US\$758 million, with support from the European Union, AfDB, the Japanese International Cooperation Agency and the Export-Import Bank of Korea.

Source: \* Vale's Half-Year Report for period ended 30 June 2021

The railway in Malawi is operated by Nacala Logistics (*previously named CEAR*) who manage and control the NLC on behalf of the Joint Venture. The NLC has a capacity of four million tonnes of general cargo annually through Malawi. Nacala Logistics are actively seeking new freight customers.



Figure 7: CEAR locomotive in operation on the Nacala Logistics Corridor



Figure 8: A section of the Nacala Logistics Corridor

**SEALED ROAD NETWORK**

Sovereign’s ground largely occurs within a 75km radius from Malawi’s capital city of Lilongwe. This provides the Company with excellent access to sealed roads and short haulage distances to rail and future inbound and outbound of operational consumables and critical parts.

Kasiya is perfectly located to utilise this Class-1 bitumen road network which directly accesses the deposit area. In 2015, The Roads Authority of Malawi completed an upgrade of the 95km long, Lilongwe Old Airport-Kwanyanda-Santhe (S117) and Kasiya spur (T342) road projects. These upgrades resulted in Class-1 bitumen standard roads to 6.8m carriageway with 1.5m single sealed shoulders. Sovereign will be able to take advantage of this underutilised road network for inbound and outbound logistics with any potential development.

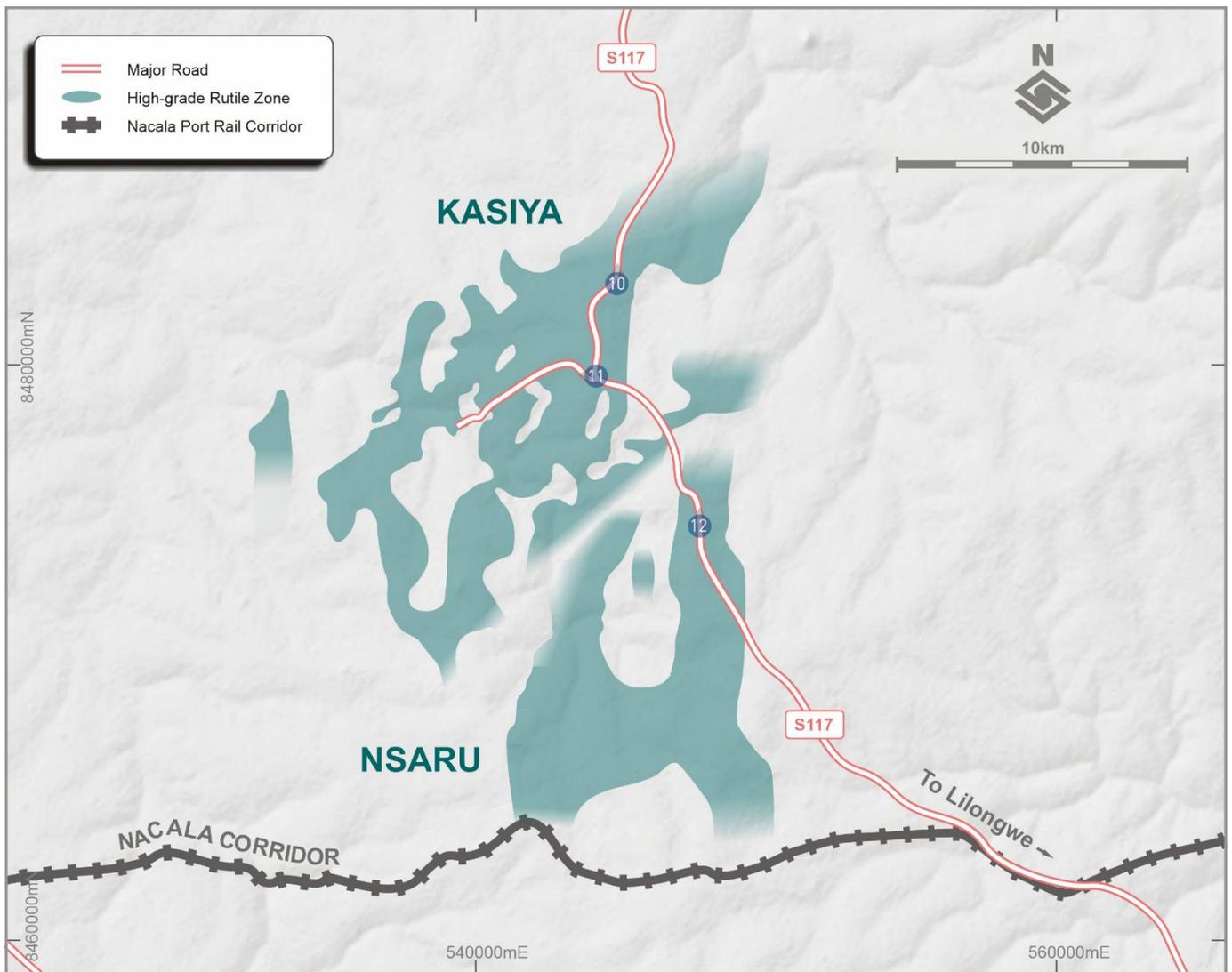


Figure 9: Kasiya mineralisation footprint and the location of the sealed road network and rail line





Figures 10-12: Examples of the road network available to Sovereign (refer to Figure 9 for positioning of photographs)

## INTERNATIONAL DEEP-WATER PORTS

The landlocked country of Malawi has traditionally been served by two deep-water ocean ports on the Eastern seaboard of Africa – Nacala and Beira. Both harbours have been connected by direct road and rail routes for over a century as trade has developed into the main urban centres of Blantyre (southern) and Lilongwe (central & northern) in Malawi.

Sovereign’s preferred logistics route for exporting mineral products to global markets is through the Nacala deep-water port via the Nacala Corridor. Furthermore, export out of the port of Beira may become an increasingly viable logistics option given recent announcements of upgrades of the Sena rail line which connects Beira and the Tete province (Moatize Coal Mine).

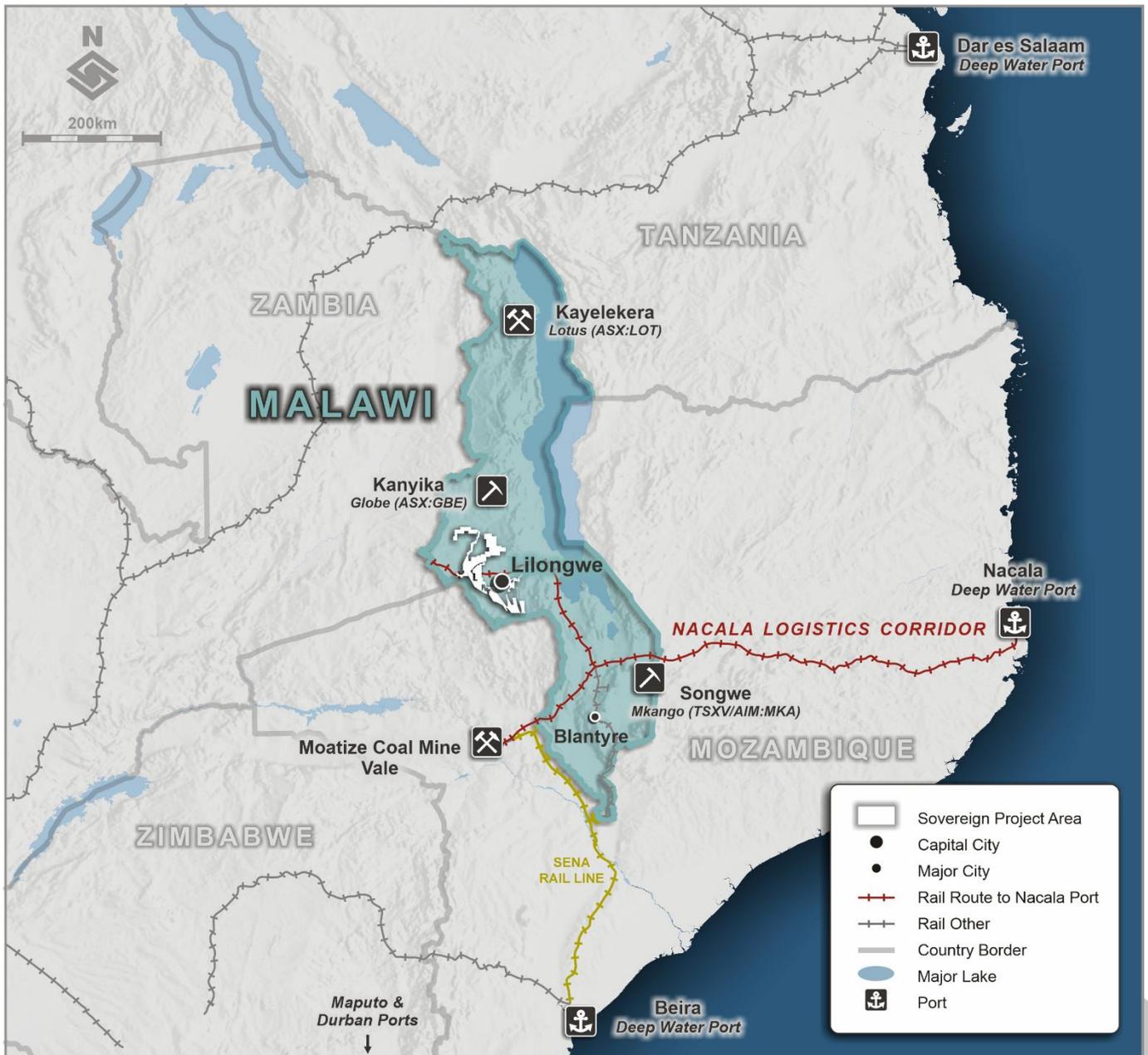


Figure 13: Sovereign’s project area showing its position in South-East Africa

**Nacala Port**

The deep-water Port of Nacala is at the Eastern end of the NLC and is the deepest port in Southern Africa. The port’s infrastructure extends for approximately 600 hectares at the bay of Nacala, Nacala-a-Velha district, northern Mozambique. With deep waters and multiuse standard, it allows the access of several companies to its infrastructure. It was designed to receive and export about 18 million tonnes of coal, in addition to general cargo and daily passenger transportation.

The port of Nacala has grown and benefited from Vale’s investment in the bulk coal terminal on the west side of the bay during the past ten years. Rail access is now amongst the best of any port on the East coast of Africa, and recent investment by JICA has upgraded the container terminal in the main port to a capacity of 300,000 twenty-foot shipping container equivalent (TEU) per annum<sup>2</sup>.

Nacala ranks amongst the most cost efficient and most underutilised ports on the eastern seaboard of Africa, and it is also one of the closest to Sovereign’s project area in physical overland distance terms as detailed in Table 1 below.

Port	Country	Access	Distance for Kasiya
Nacala	Mozambique	Rail	1,029km
Beira	Mozambique	Road	940km
Maputo	Mozambique	Rail	1,886km
Dar Es Salaam	Tanzania	Rail	1,507km
Durban	South Africa	Rail	2,400km

Source: Morgan Sterling

Table 1: Distance to various ports on the east coast of Africa

The port of Nacala is managed by Portos do Norte under a contract granted by the port concessionaire, Corredor de Desenvolvimento do Norte (CDN) (renamed to Nacala Logistics). The port handled 2.2 million tonnes of general cargo in 2014, and this has increased to 2.9 million tonnes in 2020. The table below provides the capacity, actuals statistics and utilisation of the different ports on Africa’s east coast.

Port	Capacity TEU pa	Actual 2020 TEU	Utilisation
Nacala	300,000	122,000	41%
Beira	400,000	348,000	87%
Maputo	350,000	107,000	30%
Dar Es Salaam	700,000	595,000	85%
Durban	2,000,000	1,550,000	78%

Source: Morgan Sterling

Table 2: Capacity and actual freight volumes of the various ports on Africa’s eastern seaboard

As noted in the table above, the Nacala port has significant capacity to handle additional exports. Nacala is already handling significant export volumes of containerised graphite from Syrah Resource’s Balama mine in Mozambique.

Source: 2. Morgan Sterling Logistics Study



Figure 14: Drone photo looking over the container port at Nacala with loading facilities

## CONCLUSION

Kasiya is one of the largest undeveloped natural rutile deposits in the world. Kasiya's location in central Malawi less than 50km from its capital city Lilongwe which provides exceptional benefits from the existing infrastructure available. There is an existing quality logistics route through to the Nacala deep-water port via the Nacala Corridor for the export of products to global markets.

Sovereign has an existing MoU with Nacala Logistics (*previously CEAR*) for rail freight, port access & port handling services for graphite concentrates produced from the Malingunde Project, with discussions continuing for increased volumes based on the outcomes of the Company's forthcoming Scoping Study for Kasiya.

Based on recent discussions with rail providers and active freight forwarders in the region, the rail freight costs may be reduced with increased production levels and tonnage.

Access to the existing NLC has the significant advantage for Sovereign by potentially reducing upfront capital cost for any future NLC project development. Sovereign is looking forward to presenting the outcomes of its Scoping Study currently underway at the end of the year, which will include the outcomes of a number of logistics assessments currently under investigation.

### **Forward Looking Statement**

*This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Sovereign's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sovereign, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Sovereign makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.*

*This announcement has been approved and authorised for release by the Company's Managing Director, Julian Stephens.*