

7th April 2025 - ASX Announcement

Projects and Exploration Update

Highlights

Guinea (Au)

- Soil and dump sampling programs completed at Dadjan, ongoing at Tole and Timbakouna permits.
- Key Environmental Study completed, allowing rapid drill permitting across the granted Siguiri permits.
- Siguiri Basin-wide targeting process led by Chairman Paul Roberts and Non-Executive Director Dr Barry Murphy now completed.
- Notice of Meeting to approve Siguiri Basin acquisition set for 28th April 2025, after which power auger drilling will commence.

Northern Territory (REE-Au-Cu)

- Drill contractors appointed with rigs expected to be mobilised to site by the end of April, subject to no late rains.
- Spectrum is fully permitted for up to 20-holes of Reverse Circulation (RC) and Diamond Drilling (DD).
- Drill permitting is also being completed on DeSoto's 100%-owned Quantum North (EL33615) with up to 20 RC-holes being permitted.

Brazil (Mn)

- Following three months of due diligence, the Board of Directors have decided to withdraw DeSoto from the Non-Binding Heads of Agreement signed with Tratex Mineracao LTA, covering Dom Silverio Manganese Project and other Exploration licenses.¹
- The Project did not meet the technical and tenure thresholds the Company had set to undertake a highly specialised processing business.
- The acquisition of the Siguiri Basin gold projects, plus the imminent drilling in the Northern Territory, provides DeSoto with a strong project pipeline which is strongly aligned with its exploration and technical skills.

¹DES ASX Announcement: DES Enters Agreement for Large High-Grade Manganese Project (25th November 2024)



DeSoto Resources Limited (ASX:DES) ("DES" or the "Company") is pleased to announce that soil and dump sampling along with mapping and rock chip sampling the artisanal workings is being completed at the Dadjan, Tole and Timbakouna Projects.

DeSoto recently acquired its Siguiri Basin portfolio² (Figure. 1), with 934km² of Siguiri Basin exposure covering 14 Projects. Former PDI Principal Geologist, Mr. Aime Nganare, who led the initial reconnaissance and drill-out of the Bankan Project and identified the 14 projects in the Siguiri Basin, now joins DeSoto as Exploration Manager - Africa and is managing the exploration programs.

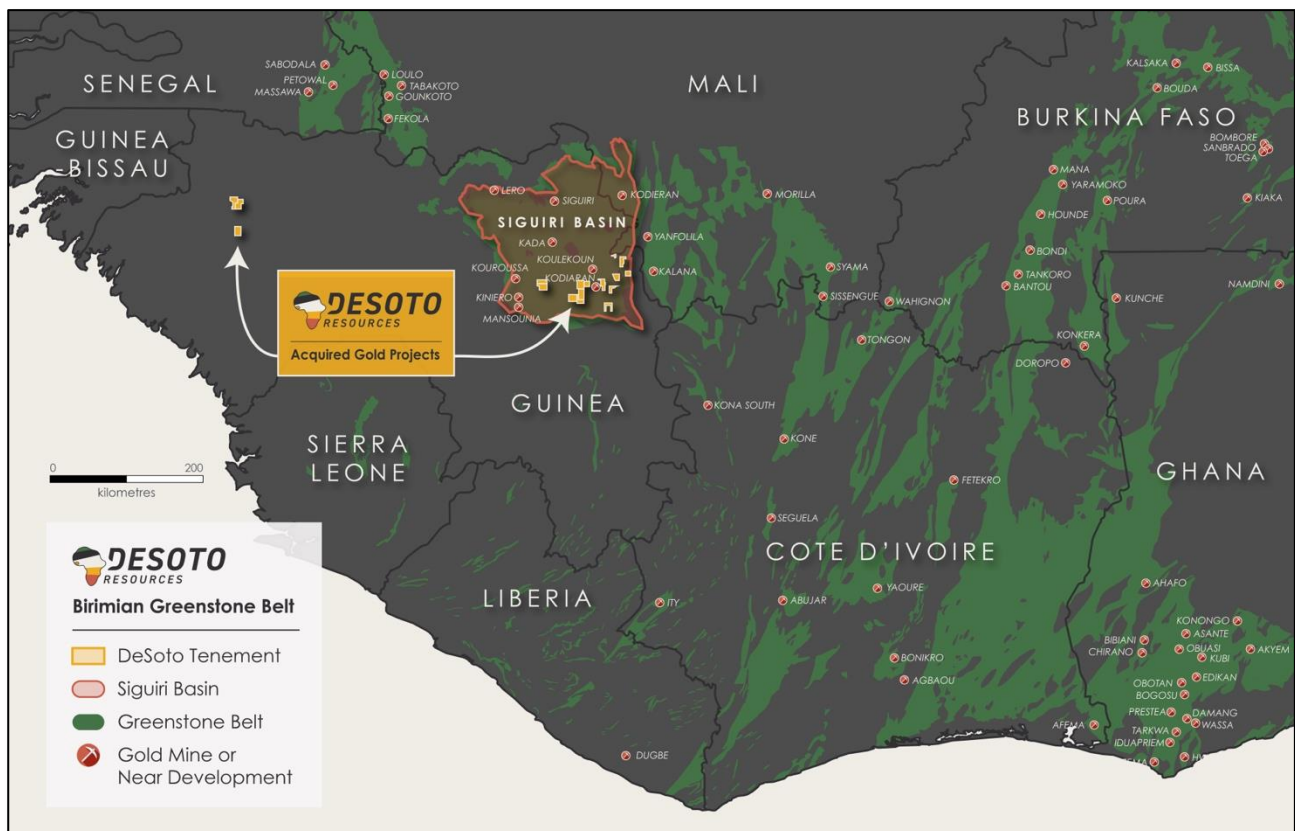


Figure 1 - DeSoto Resources Guinea Projects, overlain the West African Birimian, highlighting the prospective greenstone belts which cover Guinea and the Siguiri Basin.

Siguiri Basin Update

More than 138 dump samples have been collected from the Dadjan Project and submitted to PROSLAB, the new laboratory in Kouroussa, for assay. The program was completed over areas of significant artisanal gold workings along with regolith mapping (Figure. 2) which will be used to optimise future soil sampling programs.

The first pass environmental and social consultation survey was completed over all licences, with report writing underway to be submitted this week for the Environmental Department approvals to allow second and last phase of public consultation. Once reporting has been

²DES ASX Announcement: Acquisition of High-Grade Gold Project in Guinea's Siguiri (20th February 2025)



completed, DeSoto is able to commence the process of drill permitting across the granted permits.



Figure 2 - DeSoto Exploration Manager (Africa) Aime Nganare, working in the Dadjan Project, Guinea.

The Siguiri Basin is both strongly gold-mineralised and very underexplored. The Company is taking a strategic approach in developing a broad scale structural architecture through the application of a minerals system approach to identify prospective targets and utilising low-cost initial exploration methods on multiple areas.

Importantly the use of bulk leach extractable gold (BLEG) stream sediment geochemistry and power auger will be undertaken to effectively sample the regolith, identifying gold anomalies for follow-up trenching, channel sampling, Air Core (AC), Reverse Circulation (RC) and diamond drilling (DD).

Siguiri Basin Geology & Mineralisation

The Siguiri Basin comprises Proterozoic metasedimentary and metavolcanic sequences intruded by granitoids. It is located in the western region of Birimian Belts that make up the Baoule-Mossi domain of the West African craton (Figure 3).



This craton extends across 14 countries in West Africa³ and its gold endowment is world-class⁴. Gold deposits display a large range of orogenic and intrusion-related styles, reflecting the wide range of host rocks – from sediments, mafic intrusions, volcanic rocks to granitoids.

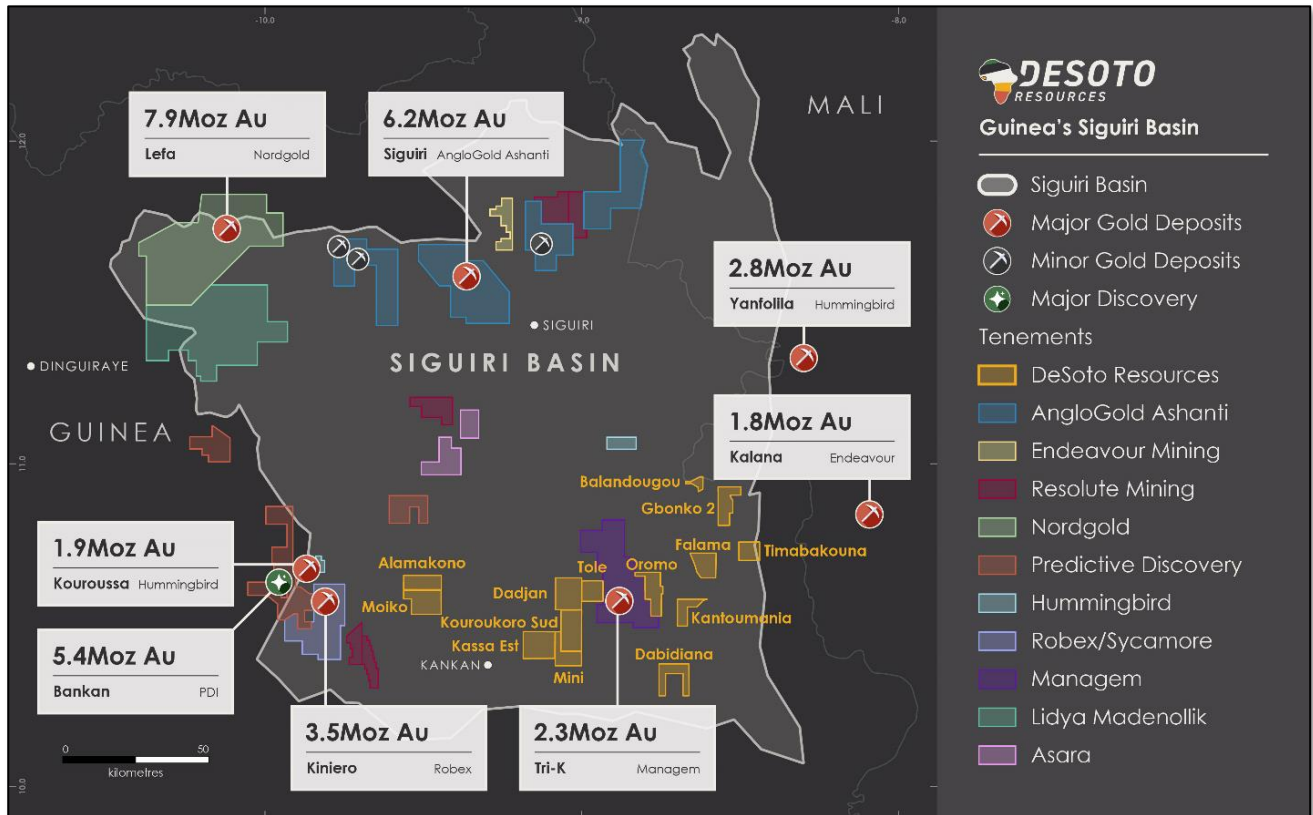


Figure 3– DeSoto's portfolio of Applications, Reconnaissance and Exploration Authorisations, located in the Siguiri Basin, Guinea.

Spectrum & Fenton Projects

DeSoto acquired Spectrum in late-May 2024 and identified Quantum, one of Australia's highest-grade REE discoveries located on the regionally significant Fenton Shear Zone, the initial target of DeSoto's gold drilling more than 6km to the South.

- Better grades from historic Quantum drilling included⁵:
 - TDD81: 50m @ 1.55% TREO from 245m incl. 6m @ 6.55% TREO from 248m, and
 - 13m @ 0.49g/t Au from 247m (TDD81);
 - TDD10: 21.9m @ 2.55% TREO from 276m, incl. 9.2m @ 3.78% TREO from 288m; and
 - 11m @ 0.85g/t Au from 286m;
 - TDD19: 17m @ 1.0% TREO from 254m, incl. 1m @ 6.42% TREO from 254m;

³Jessell, M. W., Begg, G. C. and Miller, M. S. 2016. The geophysical signatures of the West African Craton. Precambrian Research 274, 3-24.

⁴Markwitz, V. Hein, K. A. A. and Miller, J. 2016. Compilation of West African mineral deposits: Spatial distribution and mineral endowment. Precambrian Research 274, 61-81.

⁵ See DES ASX Announcement: Acquisition of High-Grade Rare Earths Project in the Northern Territory – 29th May 2024



A soil survey by Homestake in the Fenton region in 1997 and 1998 identified a coherent linear Cu anomaly, up to 8km long, using a partial leach method. Re-sampling by DeSoto in 2024⁶ confirms the anomaly and is co-located with the offset in basement seen in the 2024 AEM data and in the newly merged gravity data. Together, the data suggests leakage of copper from a basement structure into and through the Cambrian cover via a reactivated fault, providing further evidence of the metal prospectivity of the Spectrum Project.

Spectrum is fully permitted for a 20-hole Reverse Circulation (RC) and Diamond Drill (DD) program. Preparations are in full swing with the exploration team currently in the field, checking access tracks, collar locations and beginning the final preparation for drill mobilisation. Drill permitting is also being completed on DeSoto's 100%-owned Quantum North (EL33615) with up to 20 RC holes being permitted.

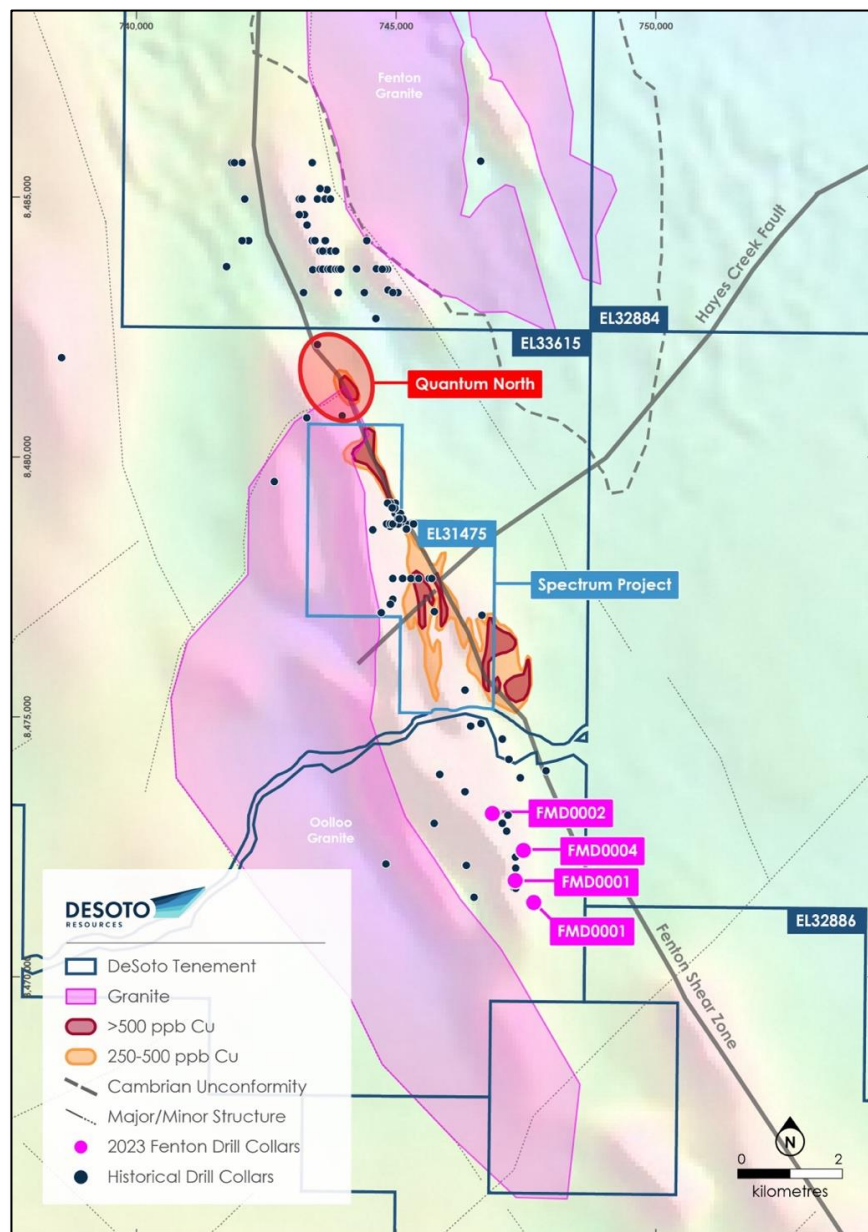


Figure 4 - The new Quantum North drill target with the interpreted position of the Ooloo Granite and intersection of the Fenton Shear Zone and Hayes Creek Fault with the previously announced MMI Cu soil survey anomaly.

⁶ See DES ASX Announcement: Soil Results From Spectrum Confirm Significant Copper Soil Anomaly – 16th October 2024



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This release is authorised by the Board of Directors of DeSoto Resources Limited.

For further information visit our website at Desotoresources.com or contact:

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COMPETENT PERSONS STATEMENT

The information in this report that relates to exploration results is based on and fairly represents information and supporting documentation prepared by Mr Nick Payne.

Mr Payne is an employee of the company, is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Payne consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.