



11th April 2018

ASX Announcement

Predictive Discovery Limited is a gold exploration company with strong technical capabilities focused on its advanced gold exploration projects in West Africa.

ASX: PDI

Issued Capital: 236 million shares

Share Price: 2.7 cents

Market Capitalisation: \$6.4 M

Directors

Phillip Jackson
Non-Exec Chairman

Paul Roberts
Managing Director

David Kelly
Non-Executive Director

Boundiali Potential Increases with Addition of New Ground

Predictive Discovery Limited (ASX: PDI) is pleased to announce that the Toro Gold Joint Venture has substantially expanded its ground position north of the Nyangboue gold discovery in the Boundiali, northern Cote D'Ivoire:

- Grant of the Boundiali North permit in the Toro JV has added 16km of strike length to the same structural trend which hosts the Nyangboue discovery (Figure 2).
- Nyangboue discovery highlights:
 - **1.2 km long zone of known gold mineralisation** identified from RC and diamond drilling in 2016 and 2017.
 - Visible gold and high grades including (ASX releases 23/6/16, 25/7/16, 8/8/16 and 29/5/17):
 - **30m at 8.3 g/t Au** from 39m.
 - **28m at 4.0 g/t Au** from 3m.
 - **20m at 10.5 g/t Au** from 38m.
 - **9m at 7.9 g/t Au** from 99m.
- Regional scale soil geochemistry on the Boundiali North permit about to commence.
- Geological interpretation of the recent aeromagnetic survey over the Boundiali permit has indicated the possibility of a **shallowly north-plunging high grade gold mineralised zone**. Drilling is expected to test this possibility in the second half of 2018.

Mr Paul Roberts, Predictive's Managing Director said: *"Addition of the Boundiali North permit to the Toro Joint Venture ground holdings on the Nyangboue trend has expanded the area's potential significantly. Also, interpretation of the recent aeromagnetic data has identified a possible geological explanation for the zone of high grade mineralisation found in the centre of the Nyangboue soil anomaly and points to previously unrecognised high grade down-plunge gold potential. Diamond drilling to test this new geological concept possibly combined with reconnaissance RC drilling of new gold-in-soil geochemical anomalies in Boundiali North is expected by the second half of 2018."*

Visible gold in Boundiali diamond drill core:



INTRODUCTION

The Boundiali permit is located within a very well mineralised greenstone belt which includes the large operating Tongon and Syama gold mines in Cote D'Ivoire and Mali respectively (Figure 1). The southern part of this belt has had little exploration to date and represents a first-class opportunity to make new large gold discoveries.

Predictive was granted the Boundiali permit in January 2014. The Company's first exploration program on the permit was a BLEG stream sediment survey (ASX release dated 4/8/14) which obtained a series of strong stream sediment anomalies, the best of which, a 24ppb Au anomaly, lies downstream of the Nyangboue gold mineralised zone intersected in the 2016 RC drilling program.

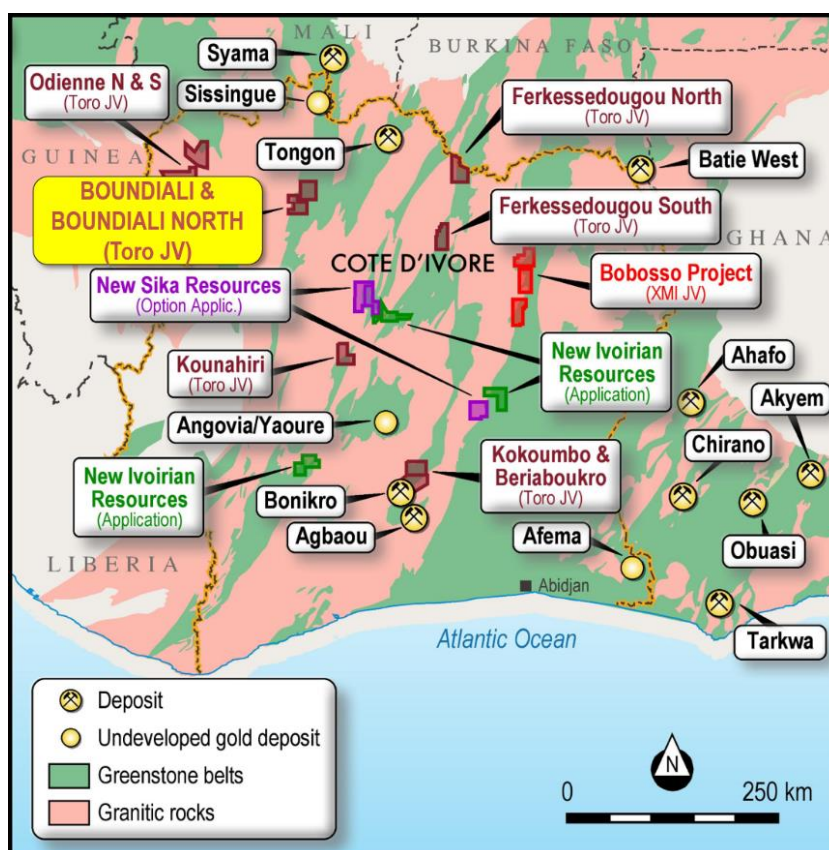


Figure 1: Locality map showing location of Boundiali and Boundiali North permits along with the other Toro JV permits (in brown), permits/applications covered by PDI's agreement with Progress Minerals over Bobosso (red), the wholly owned Ivoirian Resources permit applications (in green) and the optioned Sika Resources permit applications (in mauve).

Predictive is in joint venture with Toro Gold Limited (**Toro**), a UK-based company, on seven granted permits and two permit applications in Cote D'Ivoire, including Boundiali and Boundiali North (Figure 1). The Toro Joint Venture operates through Predictive Discovery Limited's former subsidiary, Predictive Cote D'Ivoire SARL (**Predictive CI**) of which Predictive now holds 35%. PDI is contributing to 35% of ongoing exploration expenditure.

Boundiali North Permit

This permit is located directly north of the Nyangboue gold discovery (Figure 2). It covers 16km of the interpreted north-trending structure which is inferred to control both the Nyangboue mineralisation and an arsenic-gold anomalous trend which extends south from there to the Nyangboue South prospect. A portion of the permit application was excised from the granted permit because of classified forest in that area (see Figure 2).

The permit is held by a local Cote D'Ivoire company, DS Resources SARL (DSR). Predictive Discovery Cote D'Ivoire SARL has entered into an agreement with DSR to acquire up to 85% ownership of the permit by completion of a definitive feasibility study. DSR may contribute its share of mine development costs or convert its interest into a net smelter return royalty at the rate of 1% of royalty for 10% of equity i.e. a maximum royalty of 1.5%.

Current Work Program

A reconnaissance soil geochemical survey will commence shortly with an initial soil sample density of 800 x 100m². In line with previous practice, 200m spaced samples will be assayed for gold initially. Infill (100m spaced) samples will then be submitted for analysis in the vicinity of anomalous gold results.

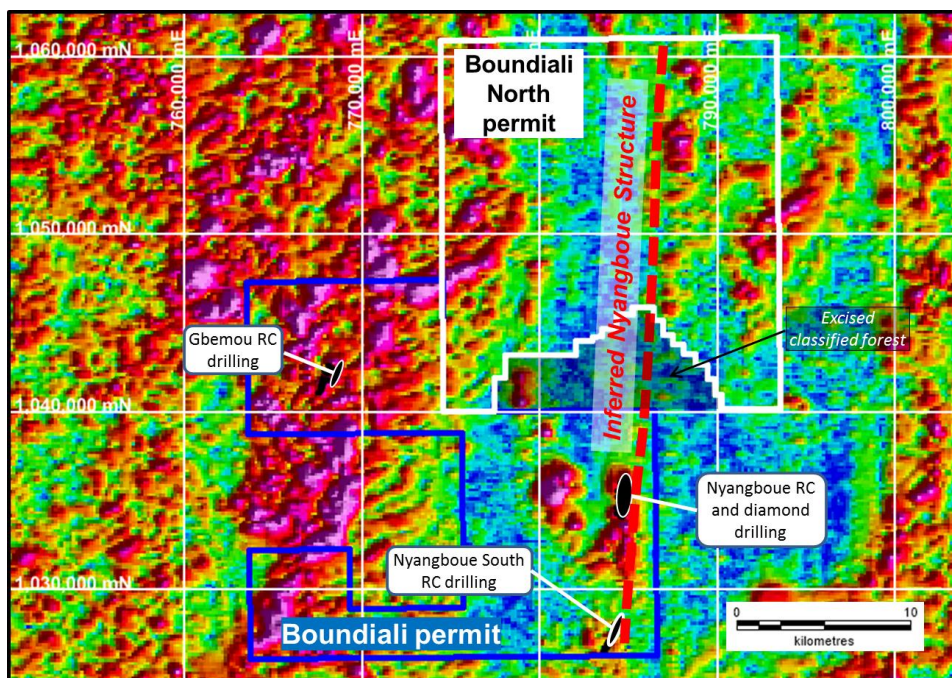


Figure 2: Location of Boundiali & Boundiali North plus drilling on regional aeromagnetic map.

Nyangboue Prospect

RC and diamond drilling on the Nyangboue Prospect in 2016-17 obtained a series of highly encouraging intercepts (announced to the ASX on 23/6/16, 25/7/16, 8/8/16, 12/9/16, 13/10/16 and 29/5/17) including:

- NDC007 - **30m at 8.3g/t Au** from 39m includes **1.5m at 56.9g/t Au** and **4.5m at 26.5g/t Au**.
- BRC003 - **28m at 4.04g/t Au** from 3m, including **1m at 49.7g/t Au**.
- BRC004 - **20m at 1.97g/t Au** from 0m.
- BRC004 - **14m at 5.51g/t Au** from 32m, including **1m at 31.6g/t Au**.
- BRC004BIS (twin hole) – **20m at 10.45g/t Au** from 38m including **1m at 145.5g/t Au**.
- BRC006 – **9m at 7.9 g/t Au** from 99m including **1m at 44.7g/t Au**.
- BRC023 – **7m at 3.8g/t Au** from 33m including **1m at 11.3g/t Au**.
- BRC048 – **28m at 1.55g/t Au** from 1m including **1m at 27.4g/t Au**.

Drilled gold mineralisation covers a known strike length of 1.2km in the centre of which there is a series of high grade gold intercepts (see Figure 3).

New Geological Interpretation from Recent Aeromagnetic Survey Data

An aeromagnetic survey was flown over the eastern part of the Boundiali permit in the March Quarter. Interpretation of the survey results integrated with geological mapping has produced a new detailed geological interpretation (Figure 3).

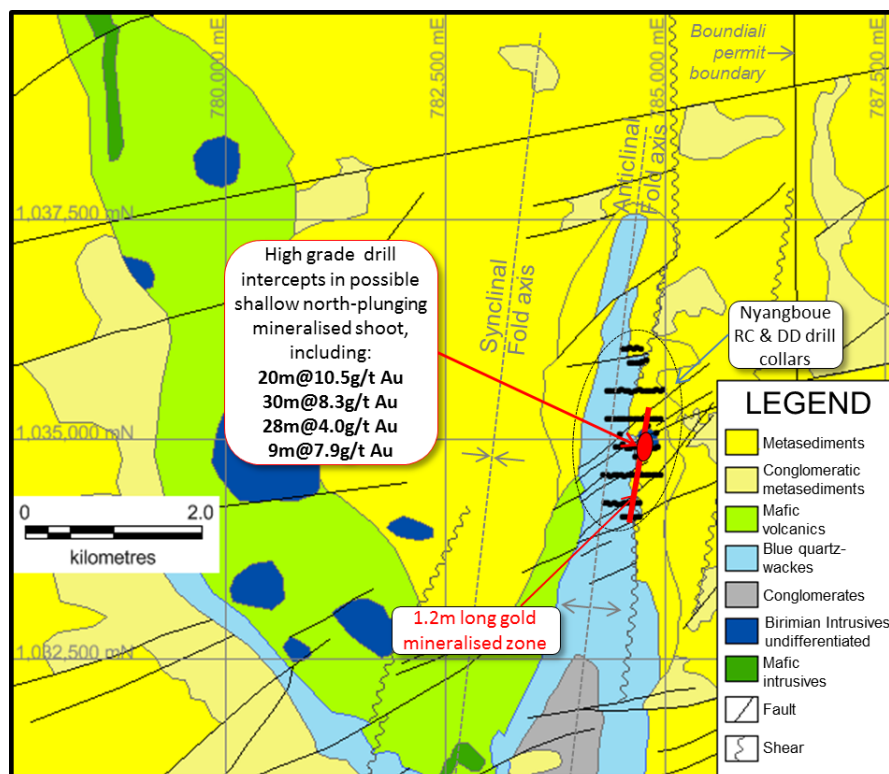


Figure 3: Geological of north-eastern portion of the Boundiali exploration permit, northern Cote D'Ivoire

The new geological interpretation shows that the volcano-sedimentary sequence is folded into a syncline-anticline fold pair with the gold-mineralised Nyangboue shear zone coinciding with the

eastern (sheared) margin of a tight NNE-trending anticline. The geological map pattern indicates that this anticline and the adjacent broader syncline both plunge shallowly to the north. It is therefore possible that the high grade gold mineralisation in the centre of the drilled area (Figure 3) is controlled by the same shallow plunge, offering potential for an extensive zone of high grade mineralisation to the north. Given the widths and grades in this central zone, there is **potential to discover a viable underground mining target possibly continuing a considerable distance down plunge to the north** beyond the limit of the shallow, potentially open pittable mineralisation, which is known from surface (e.g. 28m at 4.0g/t Au from 3m).

Next Steps

Predictive will meet Toro management in London in early May, 2018 to discuss the next drilling programs after the planned Ferkessedougou South RC drill program, which is expected to commence soon. Drill programs under consideration will include both the Boundiali and Kokoumbo permits (Figure 1). This next drilling program will either be undertaken before the commencement of the rainy season in July or immediately thereafter in the December Quarter.

Predictive Discovery Limited (PDI) was established in late 2007 and listed on the ASX in December 2010. The Company is focused on exploration for gold in West Africa. The Company operates in Burkina Faso, West Africa where it has assembled a substantial regional ground position covering 949km² and has been exploring for large, open-pittable gold deposits. Exploration in eastern Burkina Faso has yielded a large portfolio of exciting gold prospects, including the high grade Bongou gold deposit on which a resource estimate was calculated in September 2014. PDI also has interests in a large portfolio of permits and permit applications in Côte D'Ivoire covering a total area of over 6,000 km².

Competent Persons Statement

The exploration results reported herein, insofar as they relate to mineralisation are based on information compiled by Mr Paul Roberts (Fellow of the Australian Institute of Geoscientists). Mr Roberts is a full time employee of the company and has sufficient experience relevant to the style of mineralisation and type of deposits being considered to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Roberts consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further details please contact:

Paul Roberts
Managing Director
Tel: +61 402 857 249
Email:
paul.roberts@predictivediscovery.com

Bruce Waddell
Company Secretary
Tel: +61 8 6143 1840
Email:
bwaddell@auroraminerals.com