

3rd September 2015

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: 651M shares

Share Price: 0.2 cents

Market Capitalisation: \$1.3M

Directors

Phillip Jackson
Non-Exec Chairman

Paul Roberts

Managing Director

Phil Henty
Non-Executive Director

Tim Markwell
Non-Executive Director

Exploration Target near Bongou

Predictive Discovery Limited (ASX:PDI) is pleased to update shareholders with its current progress in West Africa and Australia:

- An Exploration Target¹ has been calculated on drilled prospects near the Bongou gold deposit (**184,000oz of gold at 2.6g/t Au** including **136,000oz at 3.8g/t Au** ASX release dated 4 September, 2014), as follows:
 - A range of approximately **9.4 to 10.4 million tonnes** averaging between approximately **1.5 to 1.7 g/t Au** and containing approximately **460,000** to **563,000 ounces** of gold¹.
 - Subject to funding availability, Predictive plans to follow up this Exploration Target with infill drilling in order to calculate resources over the next two years.
- □ The Company's Joint Venture partner in Cote D'Ivoire, Toro Gold Limited, continues to conduct a very large exploration program on Predictive's four permits in Cote D'Ivoire (Figure 2), including:
 - Kokoumbo:
 - 4,886 soil, rock and trench samples collected.
 - Assay results will be available for release to the ASX in the next 10 days.
 - Boundiali:
 - 4,960 soil and rock samples collected.
 - Assay results on 2,511 samples awaited.
 - Ferkessedougou:
 - 2,132 soil and rock samples collected.
 - Assay results on 1,079 samples awaited.
 - Kounahiri:
 - 3,672 soil samples planned of which 163 samples collected so far.
- □ A 1,000m drilling program on Predictive's Cape Clear Exploration Licence in Victoria is expected to commence in the next month. The drilling will be carried out by PDI's Joint Venture partner, Cape Clear Minerals Pty Ltd, which is earning a 75% interest in the EL by exploration expenditure of \$500,000.

¹ The potential quantity (tonnage) and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate Mineral Resources and it is uncertain if further exploration will result in the estimation of Mineral Resources.



Mr Paul Roberts, the Predictive's Managing Director said: "This Exploration Target¹ emphasises the extent of the gold mineralisation near Bongou. With good grades from surface, excellent metallurgy and thick widths, Bongou itself offers the possibility of an excellent starter pit for a significant gold mining and milling operation in Predictive's ground. Infill and extension drilling of the prospects listed in the Exploration Target give us very good potential to expand resources close to Bongou."

Exploration Target¹

Predictive Discovery Limited (ASX:PDI) has calculated an Exploration Target¹ on drilled prospects exclusive of but within 10km of the Bongou gold deposit (**2.2 million tonnes at 2.6 g/t Au** totalling **184,000oz** in the Inferred and Indicated Mineral Resource categories including **136,000oz** at **3.8g/t Au**; ASX release dated 4 September, 2014). This follows the recent discovery of new zones of gold mineralisation near Bongou (ASX release dated 20th July 2015).

The Exploration Target¹ detailed in the following table is estimated to be in a range of **9.4 to 10.4** million tonnes averaging between approximately **1.5 to 1.7 g/t Au** and containing approximately **460,000 to 563,000 ounces of gold**, as follows:

Prospect Names	Million Tonnes		Grade		Ounces Gold	
(see Figure 1 for locations)	Lower estimate	Higher estimate	Lower estimate	Higher estimate	Lower estimate	Higher estimate
Dave	6.71	7.41	1.49	1.65	322,000	394,000
Laterite Hill	1.48	1.63	1.62	1.79	77,000	94,000
Near Bongou (W2/W8)	0.27	0.30	1.57	1.74	14,000	17,000
Prospect 71	0.68	0.75	1.21	1.33	26,000	32,000
Target 92	0.23	0.26	2.88	3.18	21,000	26,000
Totals	9.37	10.35	1.53	1.69	460,000	563,000

The calculation was restricted to prospects for which there is good evidence of mineralisation orientation and continuity. Most of these prospects are open along strike and at depth. A number of other isolated gold intercepts within 10km of Bongou were excluded, so there is significant potential to expand the Exploration Target further within range of PDI's own drilling.

Additionally, PDI's extensive ground holdings in Eastern Burkina Faso hold other significant prospects for which Exploration Targets could be calculated (e.g. Tambiri, Solna, Bira and Fouli)

¹The potential quantity (tonnage) and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate Mineral Resources and it is uncertain if further exploration will result in the estimation of Mineral

Resources.

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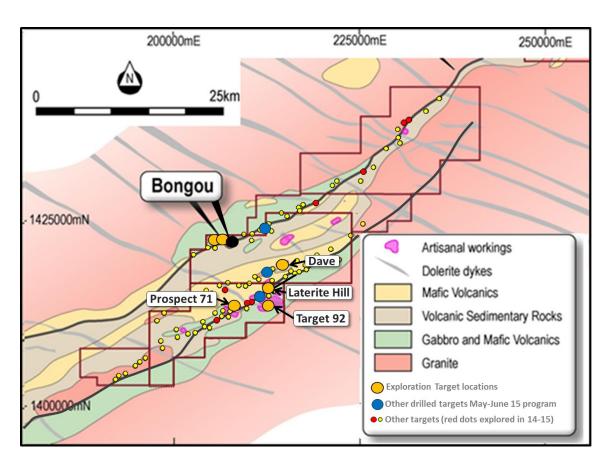


Figure 1: Locality map of PDI permits near Bongou in eastern Burkina Faso, showing Bongou gold deposit and prospects which make up the Exploration Target¹.

Data and parameters used in calculating this Exploration Target were as follows:

Data:

- Gold intercepts from 291 reverse circulation holes, 4 air core holes and 5 diamond drill holes² were used in the calculation.
- The holes were mostly drilled on lines spaced from 50m to 100m apart, with a spacing along the lines ranging from 10m to 50m.

• Parameters:

0.5 g/t gold cut-off grade;

 Minimum downhole intercept width of 2m and a minimum grade times width intercept of 2g*m;

² These drilling results were reported to the ASX in the following Quarterly Reports: June Quarter 2011, March Quarter 2012, June Quarter 2012, March Quarter 2014 and June Quarter 2015. The drill results reported in these Quarterly Reports up to the June Quarterly of 2012 were prepared and first disclosed under the JORC Code 2004; they have not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.



- Minimum internal waste of 3m except for a few holes where it was clear that the holes had drilled almost down-dip and where the inclusion of larger down-hole intervals of internal waste made geological sense;
- Maximum of 100m strike extent from drill holes (where the continuity of the mineralisation is supported by mapping and/or the location of artisanal workings and/or anomalous auger results);
- Maximum of 70m vertical extent below surface;
- Dry bulk density estimates as follows:

Laterite: 2.2

Saprolite: 1.8

- Weathered rock between base of saprock and base of complete oxidation (BOCO): 2.3
- Fresh mafic volcanics: 2.8
- Fresh felsic to intermediate rocks including granite and granodiorite: 2.7
- The calculation was carried out using a cross sectional method with volumes projected half way to the next hole (on the section) or half way to the next section to a maximum distance of 100m (along strike).

Additional Potential

Most of the zones of gold mineralisation included in the Exploration Target are open at depth and along-strike. In addition, there are a series of other mineralised intercepts which have potential for resource discovery either along strike or at depth.

Next Steps

Subject to funding availability, Predictive plans to follow up the Exploration Target calculation with drilling programs on all of the listed prospects in order to make Mineral Resource Estimates. A total drilling budget of 20,000m, consisting of both RC and diamond drilling, has been calculated to complete this task, and is planned for completion over the next two years.



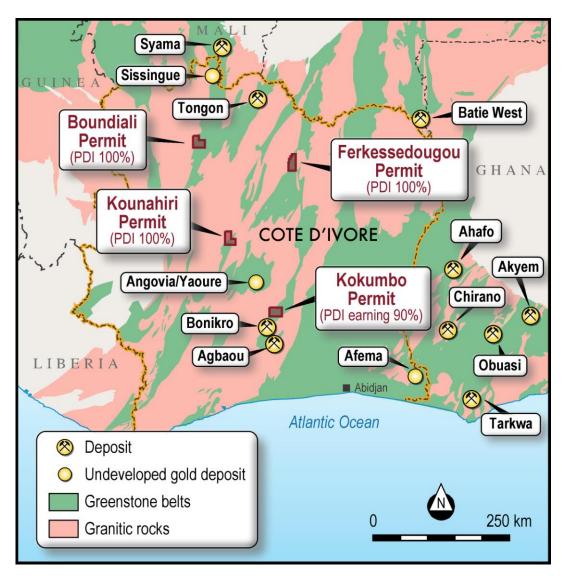


Figure 2: Locality map of PDI permits in Cote D'Ivoire

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's major focus is in Burkina Faso, West Africa where it has assembled a substantial regional ground position totalling 1,605km² and is 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 strategic portfolio of tenements in Côte D'Ivoire covering a total area of 1,533 km².



Competent Persons Statement

The exploration results and the Exploration Target 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.

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