predictive discovery LIMITED

ASX Announcement

19th June 2018

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: 1.9 cents

Market Capitalisation: $4.5 M

Directors

Phillip Jackson
Non-Exec Chairman

Paul Roberts
Managing Director

David Kelly
Non-Executive Director

20km of Bedrock Gold Anomalies at Bira, 20,000m of RC drilling planned

Predictive Discovery Limited (ASX: PDI) is pleased to announce additional power auger drill results along strike from the Bira Prospect on the Burkina Faso JV with Progress Minerals in Burkina Faso.

- Gold anomalies south-west of Bira now extend for **20km of strike length** (Figure 1), **twice** what was announced one month ago.
- **Up to 20,000m RC drilling** planned on seven prospects (Figure 1) - expected to start in November-December 2018 after the rainy season.

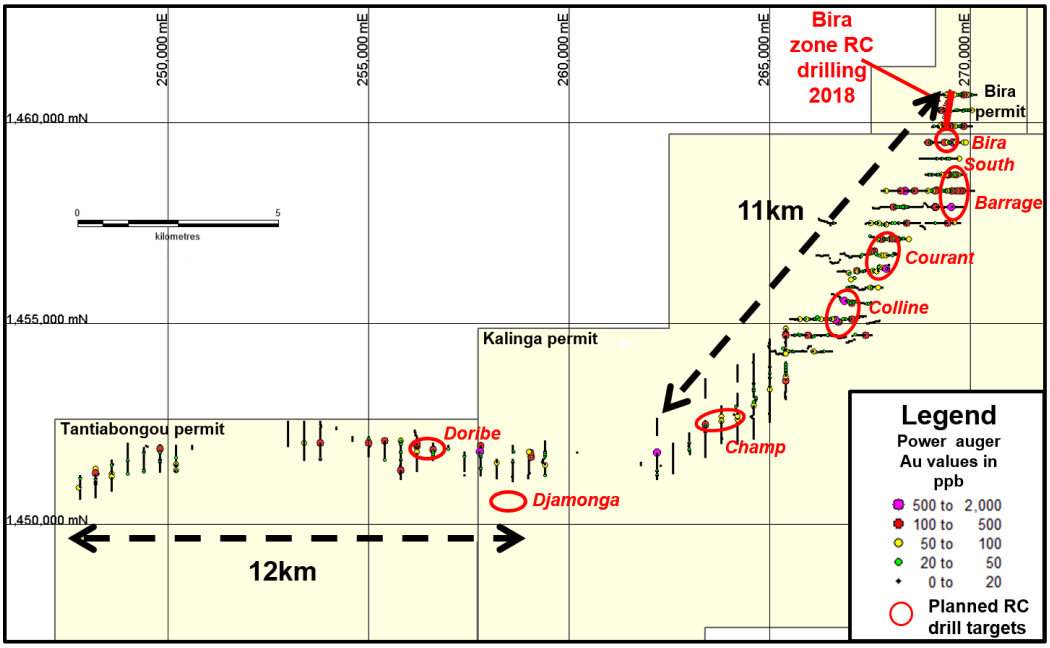

Figure 1: Power auger results and new RC drill target locations SW of Bira, Burkina Faso

Mr Paul Roberts, Predictive's Managing Director said: *"With these results, we can now see the scale of the opportunity south-west of Bira. There is **excellent potential** to find **very large tonnages of gold mineralisation** in this large area, building on the **800m of gold mineralised strike length** already outlined by the recent RC drill program.*

Elsewhere, work continues apace across our West African portfolio. In Cote D'Ivoire on the Toro Joint Venture, an IP geophysical survey is currently underway on Kokoumbo (near Bonikro Mine) along with soil geochemical sampling on 16km of untested Nyangboue Shear zone at Boundiali North, northern Cote D'Ivoire. We are also awaiting a large number of gold assays from the Ferkessedougou North RC drill program. Diamond drilling is planned on Kokoumbo in July-August. We are also in discussions with multiple permit holders in Mali. There is a lot more newsflow from multiple prospects to come in the months ahead."

EASTERN BURKINA FASO PROJECT - BACKGROUND

Predictive's current tenement holdings in Burkina Faso are located in the east of the country, and cover approximately 90km of strike length of the Samira Hill greenstone belt in eastern Burkina Faso (Figure 1). This belt hosts the 2.5 million ounce Samira Hill gold deposit across the border in Niger and contains numerous active artisanal gold mine sites along its length. PDI currently owns 100%, or has the rights to earn 95% to 100% of all its permits in Burkina Faso. Predictive has discovered gold mineralisation on multiple prospects in Eastern Burkina Faso area (yellow dots on Figure 2).

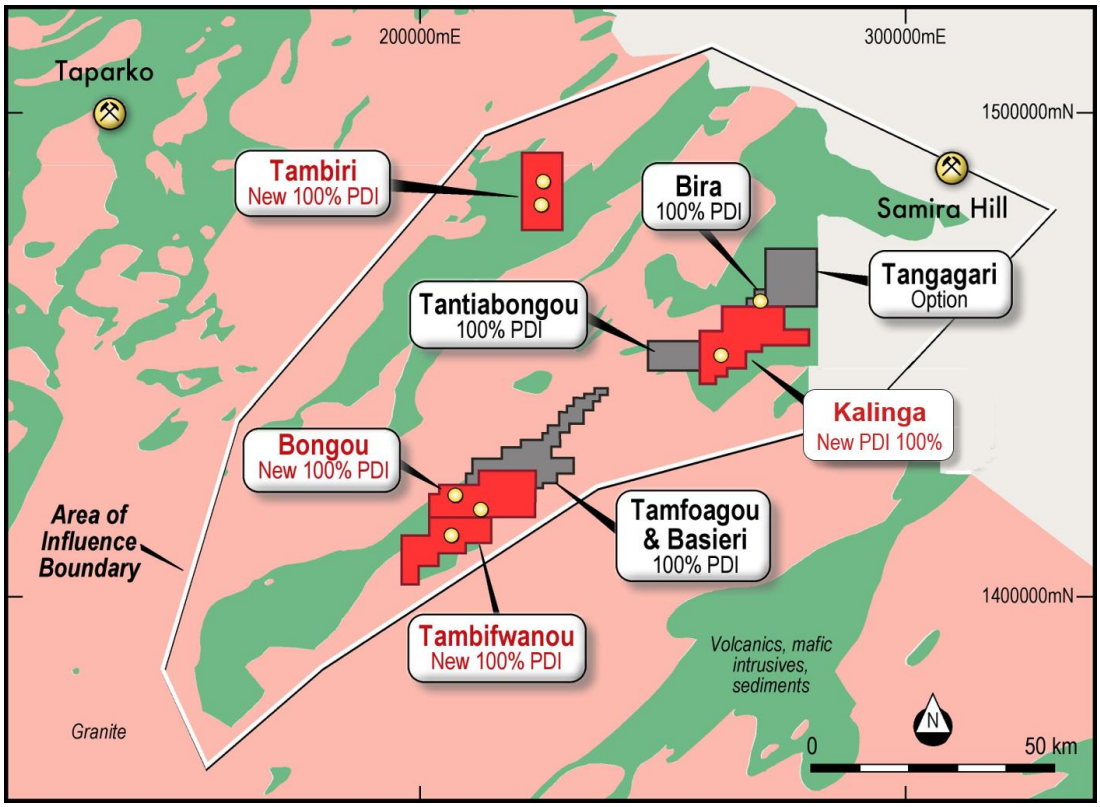

Figure 2: *Locality map of PDI ground in eastern Burkina Faso, showing location of the Company's permits on a geology background plus the location of the area of influence for the current joint venture with Progress Minerals Inc. Red coloured polygons are new permits replacing old permits which reached the end of their terms in July 2017. Apart from Bira, these four new permits cover all the key gold prospects explored by PDI (yellow dots). The grey polygons are older permits also held by Predictive*

PROGRESS MINERALS JOINT VENTURE

The joint venture with Progress Minerals International (**Progress**) commenced on 30th September 2017. The agreement allows Progress to earn a 70% interest in all permits within the area of influence (AOI – see Figure 2) in Eastern Burkina Faso by spending $US5 million on exploration and project evaluation. Progress is currently finalising its initial earn-in to 51% by expenditure of US$1 million, the first of three earn-in stages which will allow it to achieve 70% as long as it keeps spending money on exploration at the agreed rate.

The Joint Venture's objective is to advance PDI's eastern Burkina Faso prospects as quickly as possible towards a scoping study on a multi-pit mining operation feeding a central mill.

BIRA PERMIT

The area was explored by Anglo American through its subsidiary Anmercosa in the late 1990's, which discovered encouraging gold mineralisation in drilling at Bira. PDI holds a database of Anmercosa information including soil geochemistry and drill data from the Bira, Kalinga and Tantiabongou permits (ASX release 25/1/13).

Work by Progress on the area to date has included an RC drilling program, totalling 49 holes and 5,129m, and a large power auger geochemical drilling program. The RC drilling outlined an 800m long gold mineralised zone at the Bira Prospect, showing excellent along-strike and down-dip continuity (Figures 3 and 4).

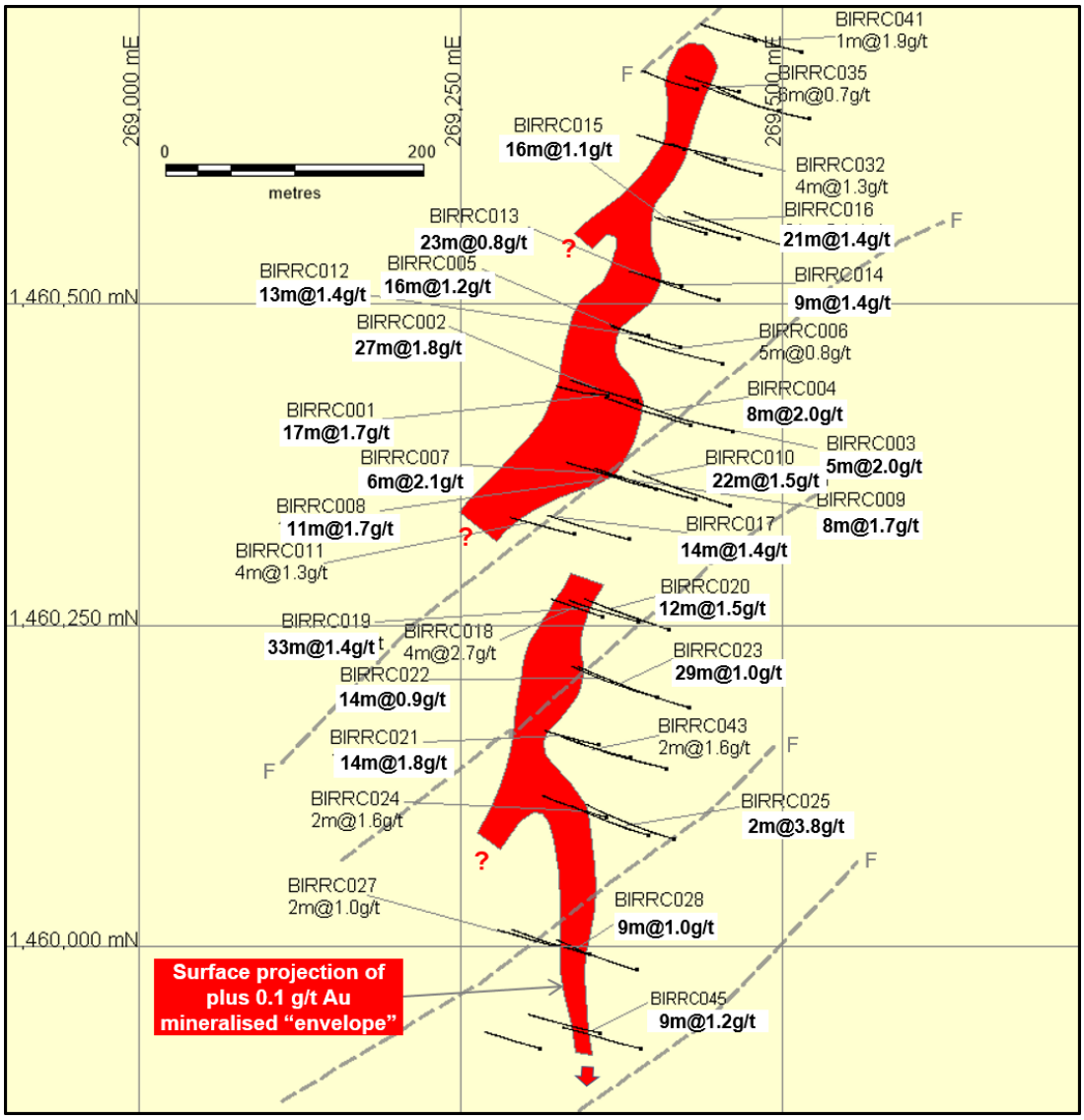

***Figure 3**: Results from the recent RC drilling program on the Bira permit (showing results reported on 20/3/18, 26/4/18 and 15/5/18. Note possible cross faults marked "F".*

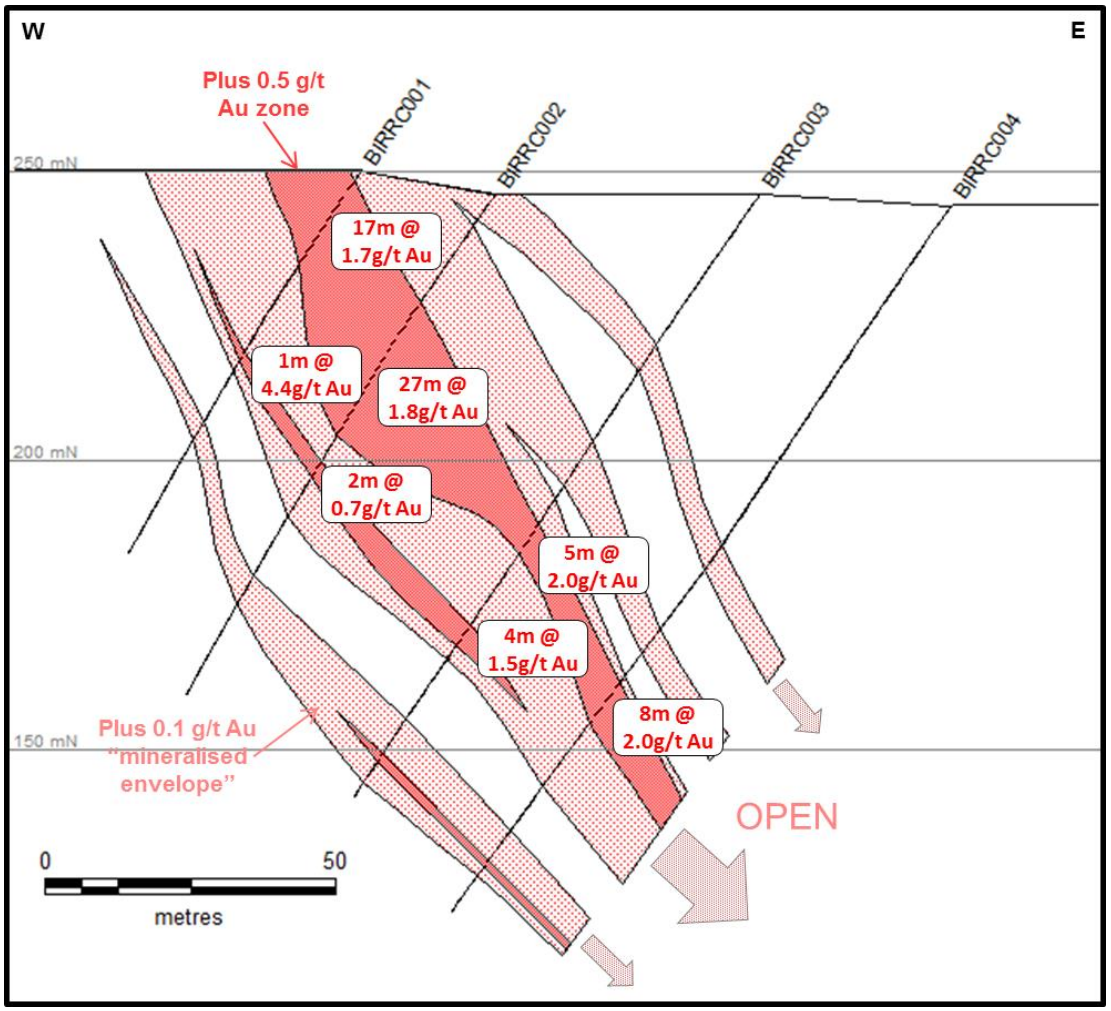

***Figure 4**: Cross-section through some recent drill holes. Results of these drill holes were released to the ASX on 20/3/18.*

Better RC drill intercepts have included:

- **27m at 1.83g/t Au** from 23m,
- **33m at 1.42g/t Au** from 51m,
- **22m at 1.55g/t Au** from 115m,
- **21m at 1.39g/t Au** from 72m,
- **29m at 0.99g/t Au** from 79m,
- **17m at 1.74 g/t Au** from 2m,
- **14m at 1.42g/t Au** from 98m,
- **14m at 1.81g/t Au** from 45m.

BIRA POWER AUGER DRILL PROGRAM

Power auger drilling over and to the south-west of the known gold mineralisation at Bira has been underway since December 2017. The program was designed to test an arsenic-in-soil anomaly obtained by Anmercosa that extends to the south and west of the Bira prospect over a strike length of 28 km.

The drilling was undertaken on both the Bira and Kalinga permits on a 400 x 25m grid. Results covering 10km of strike were reported on 20/3/18, 26/4/18 and 15/5/18. Results have now been received for a further 599 holes totalling 2,637m. Details of the program are provided in Table 1.

All results to date are illustrated on Figure 1 and show that anomalous gold values now extend **over at least 20km** to the south and south-west of the drilled area, indicating substantial potential to discover more gold mineralisation along strike from the Bira prospect.

RC DRILL PLANNING

An RC drilling program on the Bira trend, totalling up to 20,000m, is planned to begin after the current rainy season. Seven targets have been selected for drilling (Figure 1). Of these, six are following up power auger gold geochemical anomalies and a seventh will test a large, active artisanal mine site south of the gold anomalous trend (Djamonga – Figures 1 and 5).

***Figure 5**: Djamonga Artisanal Gold Mining Site*

TABLE 1 – POWER AUGER RESULTS – BIRA, KALINGA AND TANTIABONGOU PERMITS – PROGRESS MINERALS BURKINA FASO JV

Power Auger Drillholes – Interface Sample Results									
Power auger hole Numbers	**Northing (WGS84-31N)**	**Easting (WGS84 – 31N)**	**RL**	**Hole dips**	**Azimuth**	**Hole Depth**	**From**	**Interval**	**Au (ppb)**
PMB01666-2295	Refer to Figure 1 for map location of auger collars	Refer to Figure 1 for map location of auger collars	See notes	All holes were drilled vertically	All holes were drilled vertically	Average hole depth was 4.4 m. Minimum hole depth was 2m, maximum hole depth was 12m	See notes	See notes	See notes and Figure 1

Notes: Power auger drilling is a reconnaissance exploration technique. Typically, the last metre of each auger hole represents in situ material which is submitted for assay. Individual drill hole intersections are not reported in this announcement. The RL in the area is approximately 250m. The area is largely flat with little variation between adjacent holes; individual RLs are not reported in this announcement because they are not relevant to interpreting geochemical data of this type.

Section 1: Sampling Techniques and Data		
Criteria	**JORC Code Explanation**	**Commentary**
Sampling Technique	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	The sampling described in this report refers to power auger drill samples. In all the power auger drill holes reported here, 1-2kg samples were collected most of which were of saprolite. The samples were collected for gold assaying at the SGS laboratory in Ouagadougou using an aqua regia method with a 1ppb detection limit.
Drilling	Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).	The power drilling was carried out using a 4WD-mounted power auger rig.

Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Sample recovery is not assessed for power auger drilling as it is a geochemical method. In general, however, recoveries are good because the hole has to be cleared by the screw-type rods in order for the drill rods to advance downwards.
Logging	Whether core and chip samples have been geologically and geotechnical logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean/Trench, channel, etc) photography. The total length and percentage of the relevant intersections logged.	None of these samples will be used in a Mineral Resource estimation. Nonetheless, all power auger holes were geologically logged in a qualitative fashion.
Sub-Sampling Technique and Sample Preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	All of the sample is submitted for assay so no sub-sampling is required and the sample is representative of what is in the hole.

Quality of Assay Data and Laboratory Tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	The analytical method used was an SGS aqua regia method with a low detection limit (1ppb) which is appropriate for a geochemical drilling program. Duplicates and blanks were included with the submitted samples. Based on these results and SGS quality control data, the analytical results are judged to be suitable for distinguishing gold anomalous samples from barren samples.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data	Hole twinning is not normally practised with power auger drilling.
Location of Data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used Quality and adequacy of topographic control	Collar locations were located using a hand held GPS with a location error of +/-3m. Collar coordinates referenced in the table are for Universal Transverse Mercator (UTM), Datum WGS 84, Zone 31 - Northern Hemisphere.
Data Spacing and Distribution	Data spacing for reporting of Exploration Results Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied	Reconnaissance power auger holes were spaced approximately 25m apart on lines approximately 400m apart. This type of drilling is not appropriate for the calculation of any Mineral Resource estimate.
Orientation of Data in Relation to	Whether the orientation of sampling achieves unbiased sampling of possible structures and	Power auger lines are oriented either east-west or north-south, cross-cutting the historic arsenic soil anomaly trend at a high angle in the areas tested.

Geological Structure	the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample Security	The measures taken to ensure sample security	Reference samples are stored securely on site.
Section 2 Reporting of Exploration Results		
Mineral Tenement and Land Tenure Status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Bira exploration permit was granted to Predictive Discovery Limited in 20 February 2013. Currently, PDI owns 100% of the permit. Progress Minerals International (Inc.) is earning 70% in Bira and a number of nearby permits by expenditure of $US5 million on exploration and evaluation studies.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	A substantial amount of exploration was carried out by Anmercosa. This work has been acknowledged previously and the historical drill results were reported to the ASX on 25/1/13.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of the Bira permit consists of volcano-sedimentary rocks, basalt and granite. The target deposit is type is “orogenic gold”.
Drill Hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	See Table 1 and the notes that accompany it. Individual power auger hole results described herein are not reported as the material information required for understanding and interpreting geochemical results of this type are contained in Figure 1, which shows drill hole locations and assay results in representative value ranges.

Data Aggregation Methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	No weighted averaging or truncation methods were used for the power auger results.
Relationship Between Mineralisation Widths and Intercept Lengths	These relationships are particularly important in the reporting of Exploration Results If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	True widths cannot be estimated for the power auger drill results.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	An appropriate map is provided in Figure 1.
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The ranges of power auger gold assays shown on Figure 1 meet this requirement.
Other Substantive Exploration Data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results;	Apart from the recent RC results reported in this release, there are no other exploration data which have not been reported to the ASX previously (25/1/13) or provided in the historical data review in the 2010 Predictive Discovery Limited prospectus.

	bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further Work	The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling. Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Power auger drilling programs have now stopped for the rainy season. Up to 20,000m of RC drilling is planned after the rainy season ends.

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 949km^2 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 6,000 km^2 and exploration authorisations in Mali covering 250km^2.

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.

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