



23rd June 2016

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: 1.33B shares

Share Price: 0.4 cents

Market Capitalisation: \$5.3M

Directors

Phillip Jackson
Non-Exec Chairman

Paul Roberts
Managing Director

David Kelly
Non-Executive Director

Excellent Initial RC Drill Results from Boundiali, Cote D'Ivoire

Predictive Discovery Limited (ASX: PDI) is pleased to report highly encouraging gold assay results from RC drilling completed by Toro Gold Limited (Toro) on Predictive's Boundiali Project in Cote D'Ivoire, including:

- Drill assay highlights from the **Nyangboue Prospect** include:
 - **28m at 4.0g/t Au from 3m, including 1m at 49.7g/t Au**
 - **14m at 5.5g/t Au from 32m, including 1m at 31.6g/t Au**
 - **20m at 2.0g/t Au from 0m**
 - **6m at 3.3g/t Au from 47m**
- All of the above intercepts appear to be from **separate** but **adjacent** mineralised zones on one drill cross section across a 2km long strong and coherent gold-in-soil anomaly.
- Results of eight holes have been received so far out of a total of 71 holes drilled on six widely spaced cross sections.
- **Visible gold** has been panned from the drill chips.
- **A new gold-mineralised system** has been discovered at the Nyangboue Prospect in an area without recent artisanal workings or a previous history of modern gold exploration.
- RC drilling is ongoing and expected to finish in early July.

Mr Paul Roberts, Predictive's Managing Director said: *"We are very encouraged by these first Boundiali drill results. While it is very early days in the evaluation of the Nyangboue Prospect, the scale of the soil anomaly and the grades and widths encountered in these first few holes offer the hope that we have just begun to explore a major gold mineralised system."*

Toro is continuing with the drilling program at Boundiali and we will continue to release the drill assays as they come to hand. We expect ongoing results releases from this drill program well into July."

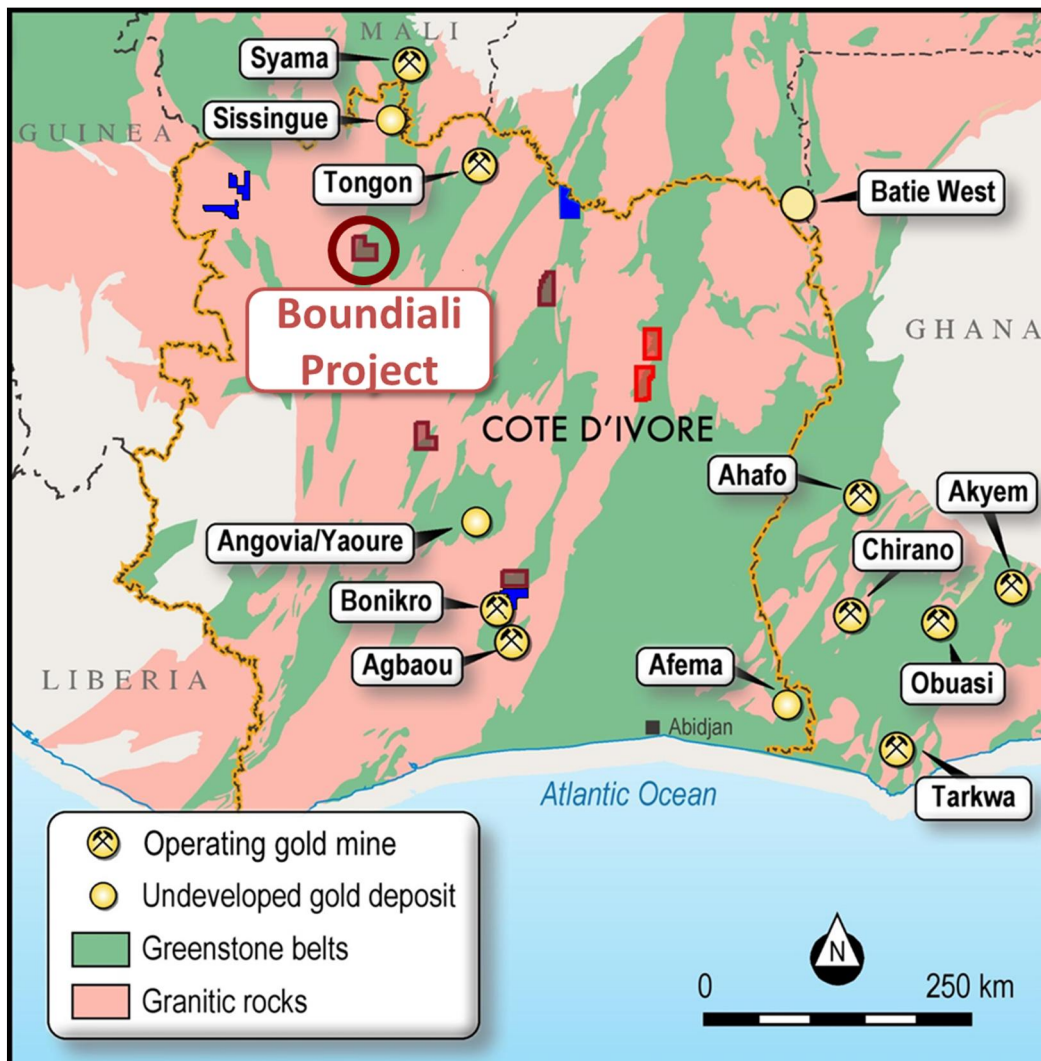


Figure 1: Locality map showing the initial Toro Joint Venture permits (in brown) including Boundiali (highlighted), the recently acquired GIV Joint Venture permits and permit applications (in blue), and the permits covered by PDI's agreement with XMI SARL over the Bobosso Project (red).

BOUNDIALI DRILLING PROGRAM (NYANGBOUE PROSPECT)

71 RC holes totalling 4,202m have now been drilled at Boundiali. RC drilling is still ongoing with approximately 1,000m yet to be completed. The program is designed to test a 2km long zone of strong and coherent gold-in-soil anomalies (Figure 2). These lie at the southern end of the Nyangboue Prospect, a 6km long gold-in-soil anomaly (Figure 4) first reported to the ASX on 20/10/15.

The RC holes were drilled:

- on 320m spaced east-west oriented lines with hole collars approximately 40m apart,
- mostly to depths of 50-60m, with the exceptions of holes BRC003-007 which were extended or re-drilled to between 117m and 130m depth,
- towards the west and angled at 50 degrees.

Additional details of the drill and assay methodologies employed in this program are reported in Table 1.

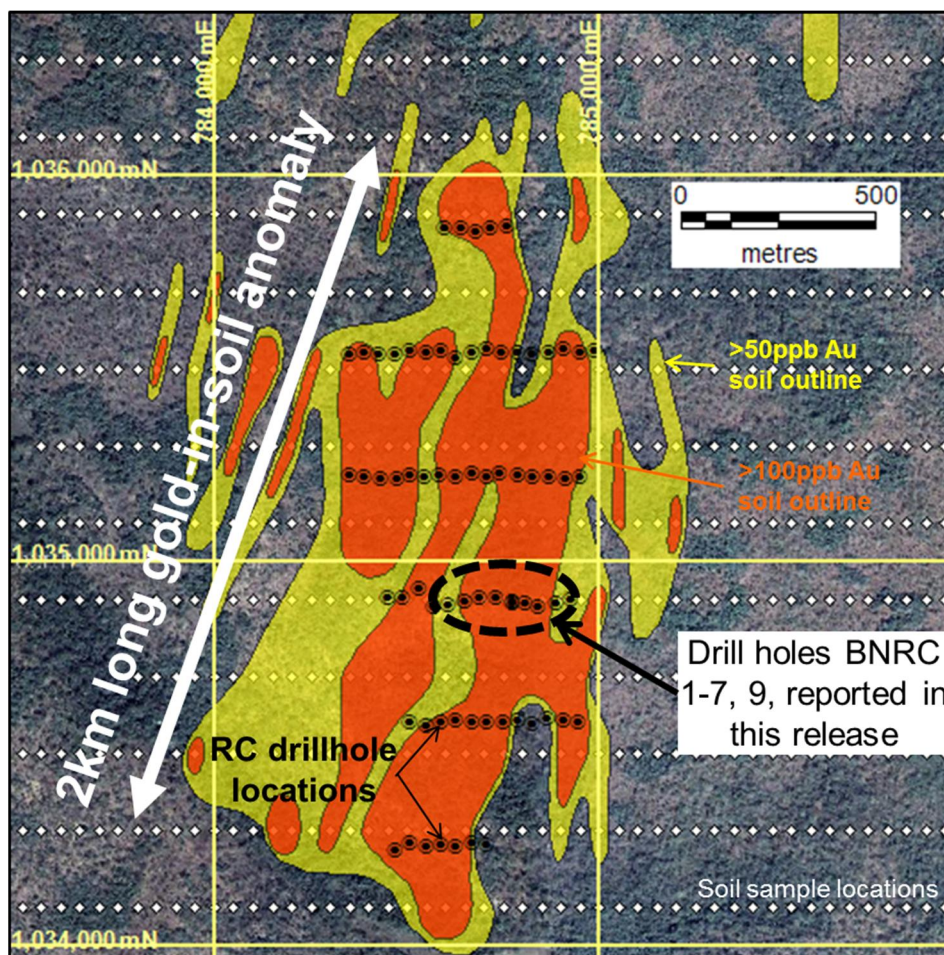


Figure 2: RC drill hole collar locations on a gold-in-soil geochemical contour plan (reported to the ASX on 23/2/16) in the southern 2km portion of the Nyangboue Prospect. Gold geochemical contours are superimposed on satellite imagery.

Results from eight drill holes are reported in this release, all of which were drilled in one cross-section. Assay highlights (reported at a 0.5g/t Au cut-off grade) are as follows:

Hole No.	Depth from (m)	Down-hole interval (m)	Au (g/t)	Comments
BRC001	44	2	1.95	
BRC003	3	28	4.04	incl. 1m @14.7g/t Au, 1m at 16.9g/t Au, 1m at 49.7g/t Au
BRC003	47	6	3.29	incl. 1m @10.5g/t Au
BRC004	0	20	1.97	incl. 1m @14.4g/t Au
BRC004	32	14	5.51	incl. 1m @11.7g/t Au, 1m @31.6g/t Au
BRC005	40	1	2.24	
BRC005	46	2	0.98	
BRC007	42	2	2.26	
BRC009	16	3	3.39	

The cross section through these drill holes illustrates that the above intercepts appear to form part of a **broader zone about 70m wide** (Figure 3).

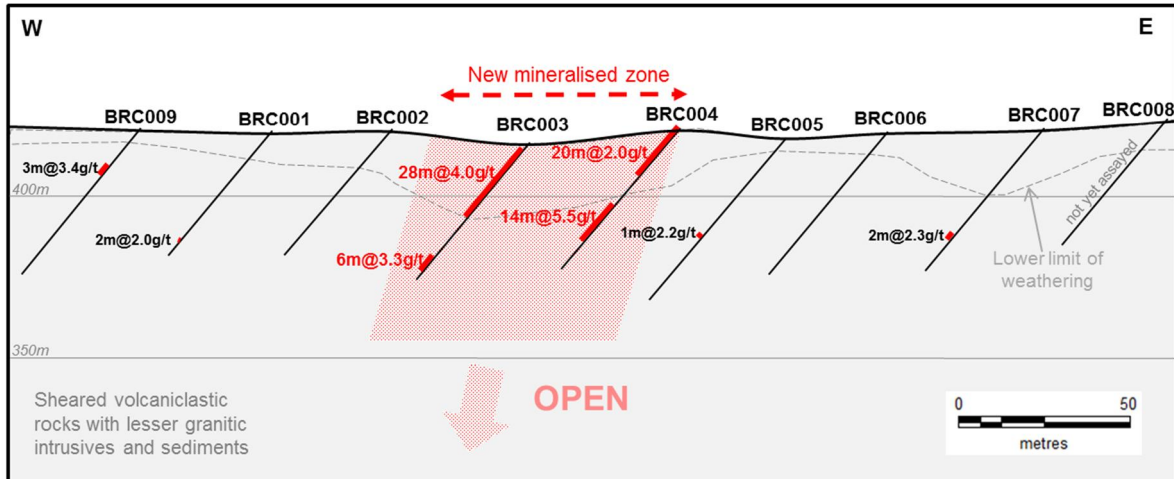


Figure 3: Cross-section through the RC drill holes reported in this release. **Note:** holes BNRC003, 005, 006 and 007 have now been extended to depths of between 117 and 130m, and BNRC004 has been re-drilled from surface to 130m; assay results are not yet available from this additional drilling.

Initial observations from logging these drill holes and mapping the limited rock exposures at surface are as follows:

- The mineralised zone appears to lie within a large and complex ductile shear zone containing:
 - Quartz-sericite schists which are interpreted to be derived from volcano-sedimentary rocks,
 - granitic intrusives,
 - sediments,
 - felsic volcanics with quartz phenocrysts,
 - possible mylonites (extremely strongly sheared rocks) and
 - possible mafic volcanics.
- Sparse rock outcrops indicate that shearing dips steeply to the east, which is why holes were drilled towards the west.
- Gold values are generally associated with zones of quartz veining (1-2cm veinlets - both smoky grey quartz and white quartz).
- Visible gold has been panned from some of the RC drill chips and fines. Follow-up screen fire assays on intervals with high gold grades and/or visible gold are therefore planned.
- The dip and dip direction of the mineralisation is not yet understood. Holes BNRC003-007 have now been extended/re-drilled to help address this question.

- The sheared rock sequence contains minor sulphides, including pyrite, pyrrhotite and arsenopyrite.

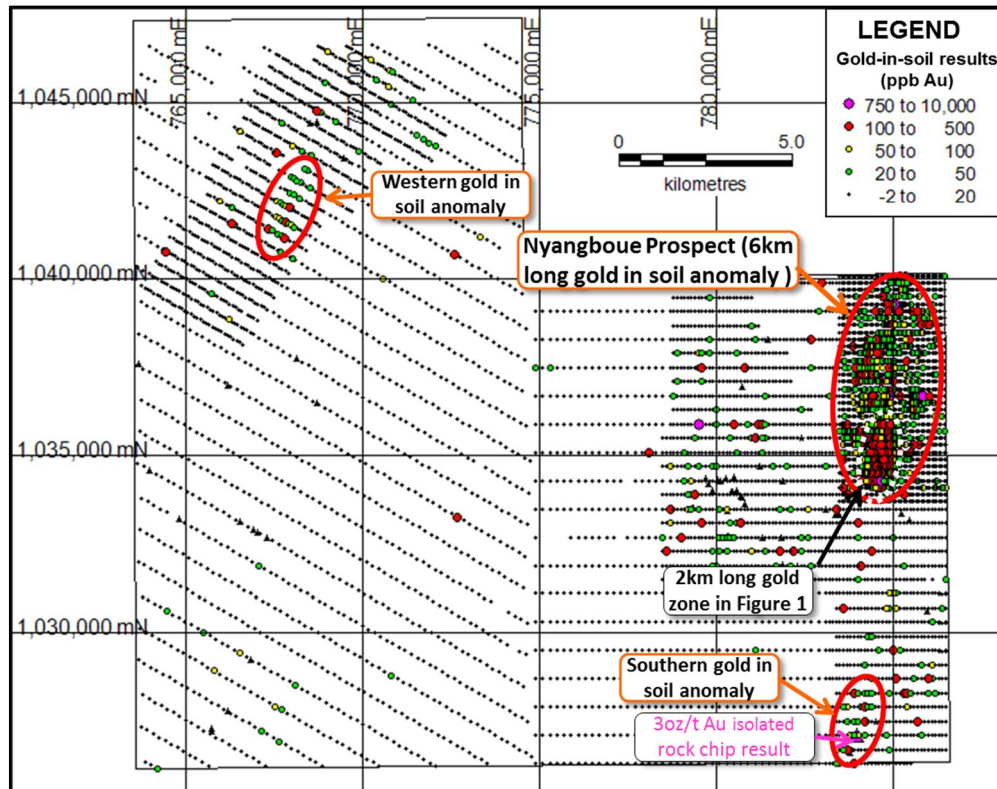


Figure 4: Toro Gold soil sampling grid covering the entire Boundiali exploration permit (results reported to the ASX on 20/10/15 and 23/3/16). Results in grade intervals are shown for all of Toro soil results to date. The large Nyangboue Prospect gold anomaly and two other coherent gold anomalies are highlighted on this map. Rock chip sample locations are shown as small black triangles.

NEXT STEPS

The drilling program is still in progress. Results are expected to continue to be received during the next 6-8 weeks. These will be released to the ASX as soon as they come to hand.

TORO JOINT VENTURE BACKGROUND

Predictive is in joint venture with Toro Gold Limited (**Toro**), a UK-based company, on six granted permits and two permit applications in Cote D'Ivoire (Figure 1). The Toro Joint Venture operates through Predictive Discovery Limited's subsidiary, Predictive Cote D'Ivoire SARL (**Predictive CI**) of which Predictive now holds 49%. Toro can earn a further 14% of Predictive CI by spending US\$2.5 million, which would then lift its equity to 65%. At this stage, Predictive plans to contribute 35% of the ongoing expenditure once Toro achieves its 65% equity.

BOUNDIALI BACKGROUND

The Boundiali permit is located within a very well mineralised greenstone belt which contains 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 discovered a series of strong stream sediment anomalies, the best of which, a 24ppb Au anomaly, lies downstream of the new gold mineralised zone described in this release.

TABLE 1 – DRILL RESULTS – TORO BOUNDIALI RC DRILL PROGRAM (NYANGBOUE PROSPECT)

Hole No.	UTM 29N Easting	UTM 29N Northing	RL (m)	Hole depth (m)	Hole dip (°)	Azimuth (°)	Depth from (m)	Down-hole interval (m) ¹	Au (g/t) at 0.5g/t Au cut-off grade ²	Comments
BRC001	784651	1034894	420	51	-50	270	44	2	1.95	
BRC002	784688	1034904	421	53	-50	270	No significant result			
BRC003	784731	1034901	417	130	-50	270	3	28	4.04	The first intercept includes 1m at 14.7g/t Au, 1m at 16.85g/t Au and 1m at 49.7g/t Au and the second intercept includes 1m at 10.45g/t Au. Visible gold observed in panned drill chips from both intercepts. Assays only received so far for the first 56m. Remainder of the hole was extended to 130m after the assay samples were sent for preparation.
BRC003	784731	1034901	417	130	-50	270	47	6	3.29	
BRC004	784777	1034895	427	57	-50	270	0	20	1.97	The first intercept includes 1m at 14.4g/t Au. The second intercept includes 1m at 11.7g/t Au and 1m at 31.6g/t Au. Visible gold observed in panned drill chips from both intercepts. A re-drill of this hole extends to 130m depth.
BRC004	784777	1034895	427	57	-50	270	32	14	5.51	
BRC005	784810	1034887	418	130	-50	270	40	1	2.24	Assays only received so far for the first 66m. The remainder of the hole was extended to 130m after the assay samples were sent for preparation.
BRC005	784810	1034887	418	130	-50	270	46	2	0.98	
BRC006	784842	1034880	420	123	-50	270	No significant result			Assays only received so far for the first 59m. The remainder of the hole was extended to 123m after the assay samples were sent for preparation.
BRC007	784889	1034887	420	117	-50	270	42	2	2.26	Assays only received so far for the first 56m. Remainder of the hole

										was extended to 117m after the assay samples were sent for preparation.
BRC009	784611	1034883	424	59	-50	270	16	3	3.39	

¹ No true widths reported because the orientation of the gold mineralisation is not yet properly understood.
² Minimum grade x width interval reported of 1 g/t x m. Maximum down-hole interval waste of 3m. All assayed in 1m intervals.

Section 1: Sampling Techniques and Data		
Criteria	JORC Code Explanation	Commentary
Sampling Technique	<p>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.</p> <p>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.</p>	<p>All of the sampling described in Table 1 refers to RC drill holes.</p> <p>A representative subsample of the RC drill chips was obtained using an on-rig riffle splitter. A second reference sample was obtained using a spear.</p> <p>The assayed drill samples are judged to be representative of the rock being drilled because representative sub-sampling of the RC drill samples was achieved.</p>
Drilling	<p>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).</p>	<p>The drilling was largely carried out by reverse circulation with a face sampling hammer. The holes were collared using a blade bit, which was used to refusal (towards base of saprolite/saprock).</p>

Drill Sample Recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>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.</p>	<p>RC recovery was assessed by weighing the sample bags and calculating recoveries using an estimate of rock density. The Toro site geologists report that recoveries are consistently good.</p>
Logging	<p>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.</p> <p>Whether logging is qualitative or quantitative in nature.</p> <p>Core (or costean/Trench, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>Logging of RC holes records lithology, mineralogy, mineralisation, alteration, structure, weathering and other features of the samples. Logging of sulphide mineralization and veining is quantitative. All holes were logged in full.</p> <p>No judgement has yet been made by independent qualified consultants on whether the geological and geotechnical logging has been sufficient to support Mineral Resource estimation, mining and metallurgical studies.</p>
Sub-Sampling Technique and Sample Preparation	<p>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.</p> <p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>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.</p>	<p>The RC samples submitted for assay were all sub-sampled by an on-rig 3-tier/multi stage riffle splitter (producing a 1/8th split).</p> <p>The sampled material is considered to be representative of the samples as a whole.</p>

Quality of Assay Data and Laboratory Tests	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <p>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.</p> <p>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.</p>	<p>All samples reported in this release were assayed for gold by 50g fire assay at the ALS laboratory in Loughrea. High grade samples were checked at the laboratory by gravimetric means.</p> <p>At the lab, regular assay repeats, lab standards, checks and blanks were inserted and analysed.</p> <p>Unlabelled standards (Certified Reference Materials), blanks and duplicate samples were also inserted by Toro personnel on site at Boundiali.</p> <p>Samples are prepared at Toro's sample preparation laboratory at Mako in Senegal.</p>
Verification of Sampling and Assaying	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes The verification of significant intersections by either independent or alternative company personnel. Discuss any adjustment to assay data</p>	<p>One hole has been twinned (BRC004) but the results of the repeat hole are not yet available.</p> <p>Field data collection was undertaken by Toro Gold geologists and supervised by Toro Gold management.</p>
Location of Data points	<p>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.</p> <p>Specification of the grid system used Quality and adequacy of topographic control</p>	<p>Collar positions were located using a hand held GPS with a location error of +/- 3m.</p> <p>Collar coordinates listed in the table are for the WGS84 datum, Zone 29 North.</p> <p>The collar RL of BRC004 was adjusted downwards by approximately 6m on the cross-section only (i.e. not in Table 1 above) based on a GPS reading on the BRC004 re-drill collar RL and the fact that the section line in this area is, by observation, flat.</p>
Data Spacing and Distribution	<p>Data spacing for reporting of Exploration Results</p> <p>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.</p> <p>Whether sample compositing has been applied</p>	<p>The holes reported here were drilled on one line with hole collars approximately 40m apart.</p> <p>No judgement has yet been made by an independent qualified consultant on whether the drill density is sufficient to calculate a Mineral Resource.</p> <p>The samples were not composited.</p>
Orientation of Data in Relation to Geological Structure	<p>Whether the orientation of sampling achieves unbiased sampling of possible structures and 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.</p>	<p>All drill holes reported here were drilled approximately at right angles to the anticipated strike of the target geochemical anomaly (Figure 2).</p>

Sample Security	The measures taken to ensure sample security	The drill samples are currently stored securely at Toro Gold's compound in the town of Boundiali.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data	No audits or reviews of sampling techniques and data have been carried out given the reconnaissance nature of this drill program.
Section 2 Reporting of Exploration Results		
Mineral Tenement and Land Tenure Status	<p>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.</p> <p>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.</p>	The Boundiali exploration permit was granted to PDI Cote D'Ivoire SARL in January 2014. Toro Gold Limited may earn a 51% interest in PDI Cote D'Ivoire SARL by spending US\$1 million.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	PDI is not aware of any effective gold exploration over the Boundiali permit prior to PDI's initial work, however historic records are incomplete at the Cote D'Ivoire government geological agency.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of the Boundiali permit consists of granite, metasediments, mafic volcanics and intrusives, and conglomerates.
Drill Hole Information	<p>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:</p> <ul style="list-style-type: none"> • 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. 	All of the required data is provided in Table 1 (above).
Data Aggregation Methods	<p>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.</p> <p>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.</p>	<p>All RC samples were collected and assayed in 1m intervals.</p> <p>No top cuts have been applied to the drill results.</p> <p>Up to 3m (down-hole) of internal waste is included.</p> <p>Mineralised intervals are reported on a weighted average basis.</p>

	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship Between Mineralisation Widths and Intercept Lengths	<p>These relationships are particularly important in the reporting of Exploration Results</p> <p>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').</p>	<p>True widths have not been estimated as the geological controls on mineralisation in these initial drill holes into the prospect are not yet well understood.</p> <p>The holes were drilled from east to west to test a steeply east dipping foliation in the limited rock exposures seen in the area. The mineralisation lies within what Toro interprets to be a ductile shear zone which would suggest that mineralisation should lie parallel to foliation. Nevertheless, the gold intercepts are actually suggestive of a west-dipping mineralised envelop. The most mineralised holes have been extended; assays of the deepened holes should provide some additional information on this question along with careful re-logging and XRF readings on the RC chip samples in the coming months. True widths may only be understood properly after a diamond drilling program is carried out, possibly later in 2016.</p>
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 plan and cross section showing the location of the drill holes are included in the text of this document.
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.	All intercepts containing grades above 0.5g/t Au and at least 1g/t x m with a maximum thickness of internal waste of 3.0m are reported in this release.
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; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All relevant exploration data is either reported in this release or has been reported previously and is referred to in the release.
Further Work	<p>The nature and scale of planned further work (eg tests for lateral extensions or large scale step out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	The drill program is ongoing and most of the results have not yet been received. Further work will be considered once the results of this drilling program come to hand. A follow-up drill program later in 2016 is likely.

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 1,500km² 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 substantial interests in a large portfolio of tenements in Côte D'Ivoire covering a total area of 3,937 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.

For further details please contact:

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

Ric Moore
Company Secretary
Tel: +61 8 6143 1840
Email:
rmoore@auroraminerals.com