

1 August 2019

ENCOURAGING EARLY SOIL SAMPLING RESULTS, NONTA PROJECT, GUINEA

- Predictive has received encouraging early soil sampling results from its 100%-owned Nonta Project, located in Guinea.
- 446 soil samples were collected with **peak values of 1250ppb** and **325ppb gold** in two separate zones:
 - A plus 5km-long anomalous zone (mostly 20-50ppb gold) oriented north-south with a peak value of 1250ppb gold (**1.25 g/t gold**).
 - A north-north-west oriented 400m-long zone, open to the north, with numerous elevated values (>50ppb gold) and a peak value of 325 ppb gold. This is coincident with the "Nonta prospect" from which earlier rock chip sampling obtained up to **29g/t gold**¹.
- Most of the samples were collected on a broad spaced (800m x 100m) grid covering plus 20ppb gold stream catchments identified from the previously completed Bulk Leach Extractable Gold (BLEG) geochemical survey¹ (Figure 3). A closer spaced grid (100m x 25m) was completed over the "Nonta prospect".
- The survey indicated some complexity in the regolith (i.e. surface materials: soil, laterite etc). Predictive is currently investigating gold distribution in the weathered profile by mapping and profile sampling and plans to start infill soil or power auger sampling in September-October once this work is complete.

Predictive Discovery Limited (**Predictive** or **Company**) is pleased to announce results from initial soil sampling at its 100%-owned Nonta Project, located in Guinea (Figure 1). The Nonta Project area was identified by Predictive during its terrain-scale assessment of the Siguiri Basin in late 2018 using the Company's PredictoreTM gold targeting system.

In Guinea, Predictive holds approximately 500km² of prospective landholdings in five projects all containing artisanal gold workings. Four of the projects are within the Siguiri Basin which hosts Anglogold's large Siguiri Mine (+10Moz).

"These new results confirm the Nonta Project's gold prospectivity. Values of up to 29g/t gold in rock chip samples and up to 1.25g/t gold in soils indicate potential for economically valuable gold mineralisation. Over the next few months, we will focus on understanding the complex regolith at Nonta and infill sampling to vector in on targets for a possible RC drill campaign in late 2019 or early 2020.

We are excited by the exploration potential of the Siguiri Basin and specifically of our Nonta, Kankan and Kaninko projects. We have been welcomed warmly by the Guinea's Mining Ministry, which has helped us greatly in acquiring this high potential ground so quickly." - Commented Predictive Discovery Managing Director Paul Roberts.

¹ ASX Announcements - EARLY RESULTS IMPRESS IN GUINEA https://www.investi.com.au/api/announcements/pdi/866985c4-568.pdf





Figure 1 – Predictive Discovery 100%-owned Guinea portfolio

NONTA PROJECT - SOIL SAMPLING PROGRAM

The Company completed a soil sampling program at the Nonta Project in May 2019, with 446 samples collected on two grids – a reconnaissance 800m x 100m grid covering all of the gold-anomalous areas covered by the earlier BLEG survey² and a tighter 100mm x 25m grid to test the "Nonta prospect" (Figure 2). The soil sampling program identified two distinct areas for follow-up exploration - a plus 5km-long north-south zone of anomalous gold (20-50ppb) on the broad spaced grid and a 400m-long north-northwest trending higher tenor zone on the tightly spaced grid; the latter remains open to the north.

Both zones returned elevated gold values, including peak values of 1250ppm and 325ppb gold respectively.

² ASX Announcements - EARLY RESULTS IMPRESS IN GUINEA https://www.investi.com.au/api/announcements/pdi/866985c4-568.pdf



These results, while encouraging, did not match Predictive's expectations from the earlier BLEG survey³. This may have been because there is (1) coarse gold in the profile causing a "nugget effect" in the gold in soil results and/or (2) a considerable amount of transported regolith (partly lateritised alluvium and colluvium) meaning that underlying gold mineralisation is not well represented at surface. Evidence of the coarse gold was found in extreme variability in repeat gold analyses which led the laboratory to re-assay all of the soil samples.

Recent work has been focused on understanding the distribution of gold in the regolith profile using regolith mapping, re-sampling of anomalous sample sites, testing different size fractions to try and improve the repeatability of gold results and vertical channel sampling of an artisanal open pit working to determine gold variability from the surface to depth.

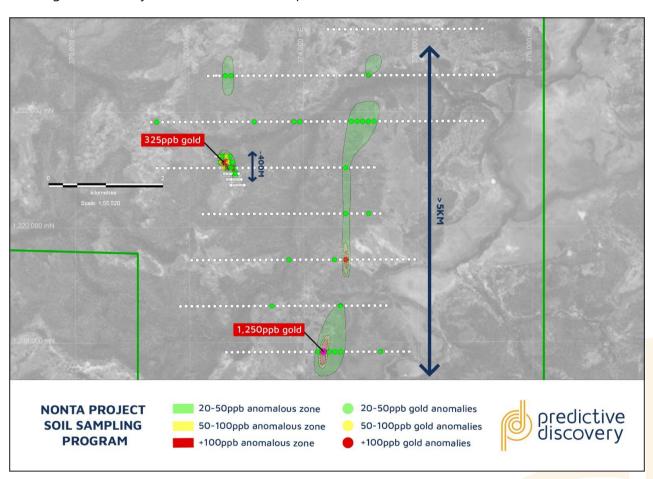


Figure 2 – Nonta soil sampling grid, highlighting gold anomalies

³ ASX Announcements - EARLY RESULTS IMPRESS IN GUINEA https://www.investi.com.au/api/announcements/pdi/866985c4-568.pdf



NONTA PROJECT – NEXT STEPS

Following completion of the current regolith analysis, the team will return to Nonta in September or October to infill the current grid using a modified soil sampling method or power auger drilling.

NONTA PROJECT - PREVIOUS EXPLORATION

The Company sampled and assayed 50 rock chip and dump samples from artisanal mine sites and rock outcrops on Nonta. A gold Bulk Leach Extractable Gold (**BLEG**) stream sediment sampling program was also completed, totalling 39 samples.

Gold anomalous values (>0.25g/t Au) were obtained from 13 rock samples within the permit with a peak value of 29g/t Au. Eight of these samples, including the highest-grade values, came from a 300m-long zone of artisanal workings (Figures 3), which lies directly upstream of a train of highly anomalous BLEG stream sediment samples⁴.

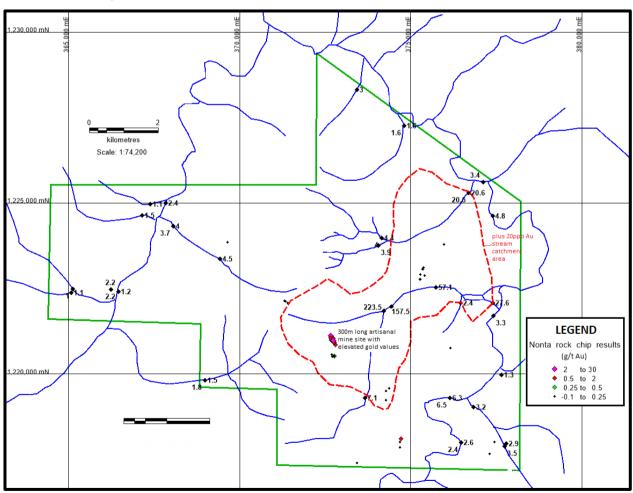


Figure 3 – Nonta Project BLEG stream sediment sample results showing stream locations (blue), rock chip/dump sample locations and stream catchment areas with BLEG results exceeding 20ppb Au (red-dashed line).

⁴ ASX Announcements - EARLY RESULTS IMPRESS IN GUINEA https://www.investi.com.au/api/announcements/pdi/866985c4-568.pdf



TABLE 1 -SOIL SAMPLE RESULTS - NONTA PERMIT

Sample	Northing	Easting	RL	Hole	Azimuth	Hole Depth	From	Interval	Au (ppb)
numbers	(WGS84-	(WGS84 –		dips					
	29N)	29N)							
Nonta soils:	Refer to Figure	Refer to	See	Not	Not	Nonta soil samples were	Not relevant	Not relevant	See notes and
PDG761-1206	2 for map	Figure 2 for	notes	relevant	relevant	collected from 10-50cm depth	to the	to the	Figure 2
	locations of all	map locations		to the	to the		samples	samples	
	samples	of all samples		samples	samples		described in	described in	
				described	described		this report	this report	
				in this	in this				
				report	report				

Notes: Soil sampling is a reconnaissance exploration technique. Soil samples were collected from shallow holes and coarse material was sieved out using a 2mm mesh. The prepared soil samples were sent to the SGS laboratory in Bamako, Mali for grinding and aqua regia (low detection limit) gold analysis. RL ranges for soil samples in the Nonta permit are 399-451m. Individual RLs are not reported in this announcement because they are not relevant to interpreting geochemical data of this type.

	Section 1: Sampling Tech	niques and Data
	JORC Code	
Criteria	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 samples obtained from the Nonta exploration permit in Guinea-Conakry. The soil samples were collected from shallow holes with depths between 10 and 50cm.
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).	This is not relevant to soil sampling programs.
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.	This is not relevant to soil sampling programs.



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.	Soil samples are described in terms of soil type, regolith and landscape classification and colour. Descriptions are largely qualitative.
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 <i>in situ</i> 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.	The sample preparation methods are appropriate and standard for soil samples.
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 soil sample aqua regia digest analytical method used has a low (2ppb Au) detection limit which is appropriate for samples of this type.
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	This is not relevant to soil sampling programs.
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	Coordinates shown on the locality maps (Figures 1-4) are for Universal Transverse Mercator (UTM), Datum WGS 84, Zone 29 - 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	Data spacing for artisanal mine samples is not relevant. Most of the soil sampling grid was 800 x 100m and is considered appropriate for a reconnaissance exploration grid of this type. No Mineral Resource can be estimated from these data.
Orientation of Data in Relation to Geological Structure	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	The Nonta soil samples were collected along east-west lines which were designed to cross-cut regional strike as well as two orientations of structures reco <mark>rded</mark> in geological mapping.



	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	Samples are stored securely at Predictive's field office in Kankan.
	Section 2 Reporting of Ex	ploration Results
Mineral Tenement and	Type, reference name/number, location and ownership	The Nonta permit was granted to a Predictive subsidiary in Guinea in
Land Tenure Status	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.	April 2019. It is 100% owned by Predictive.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Predictive is not aware of any significant gold exploration over Nonta.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of the Nonta and Kankan permits consists of metasediments, mafic volcanics and intrusives, and granitic rocks.
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.	This is not relevant to soil sampling programs.
Data Aggregation	In reporting Exploration Results, weighting averaging	This is not relevant to soil sampling programs.
Methods	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.	
Relationship Between	These relationships are particularly important in the	This is not relevant to soil sampling programs.
Mineralisation Widths and Intercept Lengths	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 (e.g. 'down hole length, true width not known').	The second control of the second seco
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 showing the locations of the soil samples, colour coded by values, is shown in this release.
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.	Results from all assayed soil samples within the Nonta Permit has been reported.
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, new exploration data is reported in this release.
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.	The Company is currently undertaking regolith studies to better understand the gold distribution in soils. Once this is complete further geochemical sampling will be carried out, either of soils or of saprolite using a vehicle-mounted power auger.



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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About Predictive Discovery

With exposure to a world class region, Predictive Discovery (**ASX:PDI**) is focused on its west African gold projects in Burkina Faso, Cote D'Ivoire and Guinea.

Our prospect generator model of **Exploration – Partnership – Growth** provides a pipeline of continuous and early stage exploration opportunities, partnering with experienced and respected companies to fund ongoing exploration and leveraging their expertise to realise shareholder value.

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