

HIGH-GRADE GOLD ZONE CONFIRMED TO UP TO 400 VERTICAL METRES DEPTH

Predictive Discovery Limited ("Predictive" or "Company") is pleased to announce new results from three Diamond Drill (DD) holes (totalling 1,584m) at its Bankan Gold Project, located in Guinea.

HIGHLIGHTS

- Step-out diamond drilling at NE Bankan testing the depth extent of the central high-grade zone has again produced outstanding broad, high-grade results, including:
 - BNERD0090: **26m @ 7.0g/t Au** from 407m, including:
11m @ 13.6g/t Au from 407m
 - BNERD0091: **16.6m @ 5.9g/t Au** from 393m, including:
6m @ 12.2g/t Au from 400m
 - BNERD0092: **38m @ 3.6g/t Au** from 380m, including:
15m @ 6.4g/t Au from 395m
- Reinterpretation of earlier holes and ongoing drilling into the newly recognised high-grade gold zone has shown that higher gold grades are strongest directly below a major shear zone where it coincides with the contact between mafic volcanics (above) and gold mineralised felsic intrusive rocks (below).
- Recognition of the shear/mafic/felsic contact control is now being used to target depth and along strike extensions to the high-grade zone, as well as infilling at shallower depths to gain a better understanding of gold grade distribution.
- The Maiden Resource Estimate (MRE) on-track for completion in September.

Managing Director, Paul Roberts said:

"These exciting new results confirm that the NE Bankan central high-grade gold zone is persisting to 400 metres vertical depth over a strike length of more than 100m and has obvious potential to grow further both to the south and at depth."

The new geological model that has emerged from reinterpretation of the earlier diamond drill holes stands up well as a predictor of high-grade gold and will now be used for targeting the ongoing deep drilling program."

Diamond drilling with two multi-purpose drill rigs continues to target high-grade gold mineralisation below the current limits of the MRE dataset, highlighting the future growth potential of the deposit."

NEW DRILL RESULTS – NE BANKAN

NE Bankan continues to shape up as a large gold deposit containing a deepening high-grade core zone with excellent geometry to support a large-scale open pit mine.

The new results reported here were obtained from three holes drilled beneath the recently recognised high-grade gold zone, returning excellent intercepts all of which included sections of higher-grade gold with average grades exceeding 5g/t Au.

The three new holes form part of the NE Bankan step-out drill program, which was designed on an 80m x 80m spacing in the west dipping plane of the gold mineralisation, testing the depth extent of the high-grade gold zone between 350 and 400m below surface. The drilling confirmed the expected depth extensions of the high-grade gold mineralised zone (Figures 2-4). Better results included:

- BNERD0090: **26m @ 7.0g/t Au** from 407m, including:
11m @ 13.6g/t Au from 407m
- BNERD0091: **16.6m @ 5.9g/t Au** from 393m, including:
6m @ 12.2g/t Au from 400m
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15m @ 6.4g/t Au from 395m

REVISED GEOLOGICAL INTERPRETATION – NE BANKAN

Reinterpretation of previously completed diamond drill holes in recent months has led to development of a more predictive geological model of the NE Bankan deposit.

A strong shear (fault) zone has now been recognised close to the top of the gold mineralisation in most diamond drill holes in the Central Gold Mineralised Zone (Figure 1). The shear zone is especially strong near or on the contact between mafic volcanics above (the “hangingwall” position) and the felsic (tonalitic¹) intrusive rocks below (in the “footwall” position). Figures 2 and 3 illustrate this structural configuration.

As reported previously, gold mineralisation has been found predominantly in the felsic intrusives. It is now recognised that the most continuous and best grade mineralisation is largely located below the shear zone, now named the “*hangingwall shear zone*”. Importantly, the highest-grade gold intersections obtained so far have been drilled where the shear zone is located between the hangingwall mafic volcanics and the footwall felsic intrusives. This provides a useful guide for mapping and targeting the high-grade gold zone at depth.

In the three holes reported in this release, the high-grade gold intercept in hole BNERD0090 is directly below the hangingwall shear zone and located on the mafic-felsic contact. In holes BNERD0091 and BNERD0092,

¹ Tonalite is a granitic rock consisting of at least 20% quartz, sodic plagioclase feldspar and generally with minor mafic minerals (e.g. amphibole). The granitic rocks at NE Bankan vary a little in composition, some with lesser amounts of quartz (classified as quartz diorites) and some with a little more potassic feldspar (classified as granodiorite or quartz monzodiorite).

the shear zone cuts through the felsic with gold mineralisation mainly below it. While the high-grade zone is still present in the last two holes, it is not quite as strong as in BNERD0090. Importantly, Figures 2 and 3 show that the four best high-grade intercepts reported before today, holes BNEDD0085 to BNEDD0088, are also located in the same favourable position. With this knowledge, **the primary geological objective of the deep drilling program is to track the position of the hangingwall shear where it separates the mafic volcanics and the felsic intrusives.**

Detailed results and a complete explanation of the methods followed in drilling and assaying the reported holes can be found in Tables 1 and 2.

In contrast with previous practice and in recognition of the higher-grade focus of the current drilling program, gold grades are reported at a 0.5g/t Au cut-off grade, rather than the 0.25g/t Au cut-off grade previously employed for the shallower mineralisation in the NE Bankan deposit. New drill results from the current program will also be reported at a 0.5g/t Au cut-off grade.

NEXT STEPS

Results are awaited from two more drill holes testing the same depth range as the holes reported here (Figure 4) with potential to extend the strike length of the high-grade zone further.

Diamond drilling is ongoing with two multipurpose drill rigs currently in operation. At present, both rigs are drilling infill holes at shallower levels within the high-grade zone to test for consistency of gold grades and distribution. The rigs will then return to drilling holes at greater depths, between 400m and 450m below surface, to explore for deeper extensions to the high-grade gold zone.

Elsewhere on the Bankan project, air core (AC) and power auger drilling is ongoing.

The Mineral Resource Estimate (MRE) process for NE Bankan and Bankan Creek is well underway and the MRE is expected to be released in late September 2021.

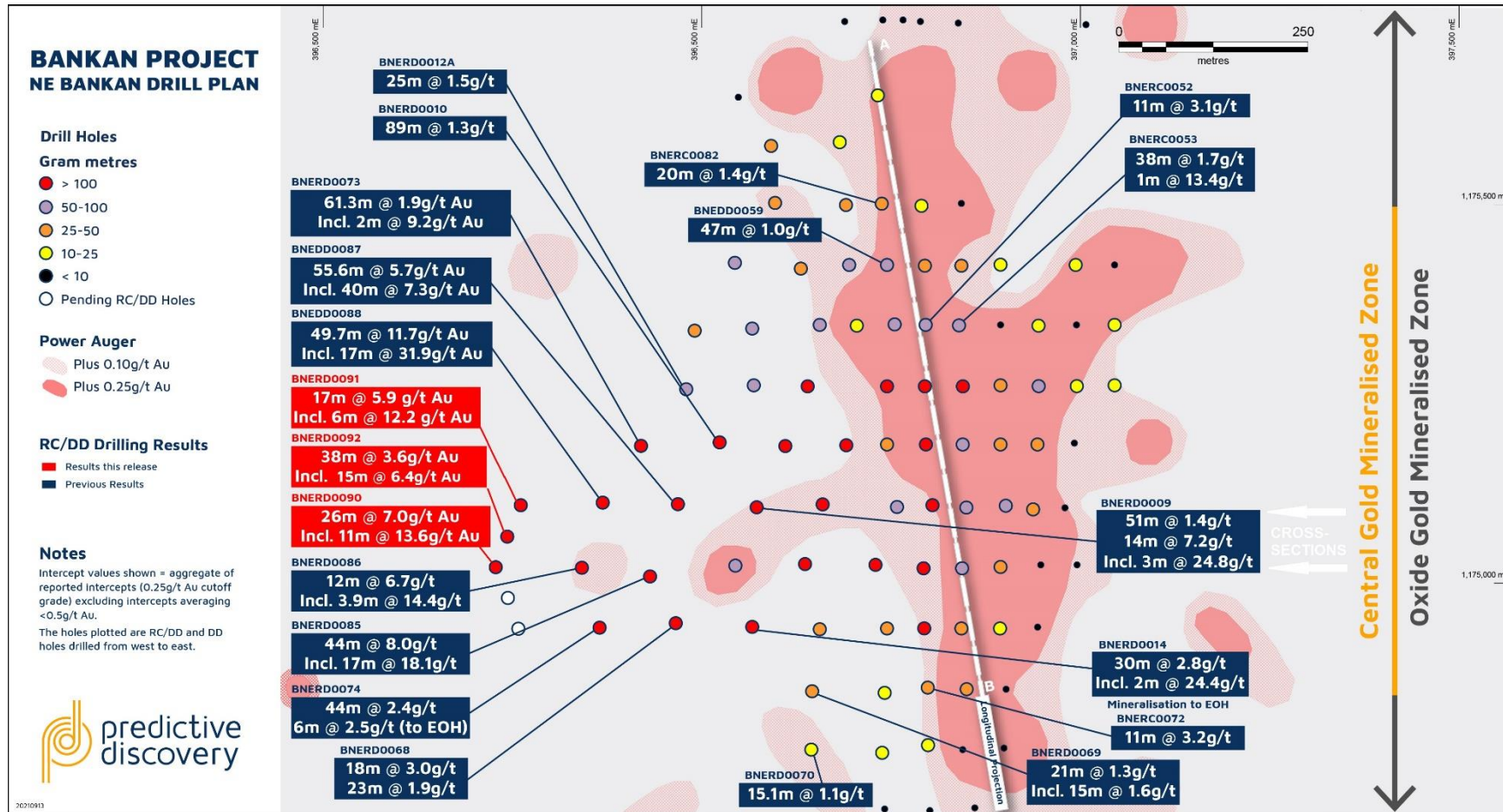


Figure 1 - Bankan Project showing NE Bankan new DD drilling results (red result labels) overlain on previous results and the gold auger footprints.

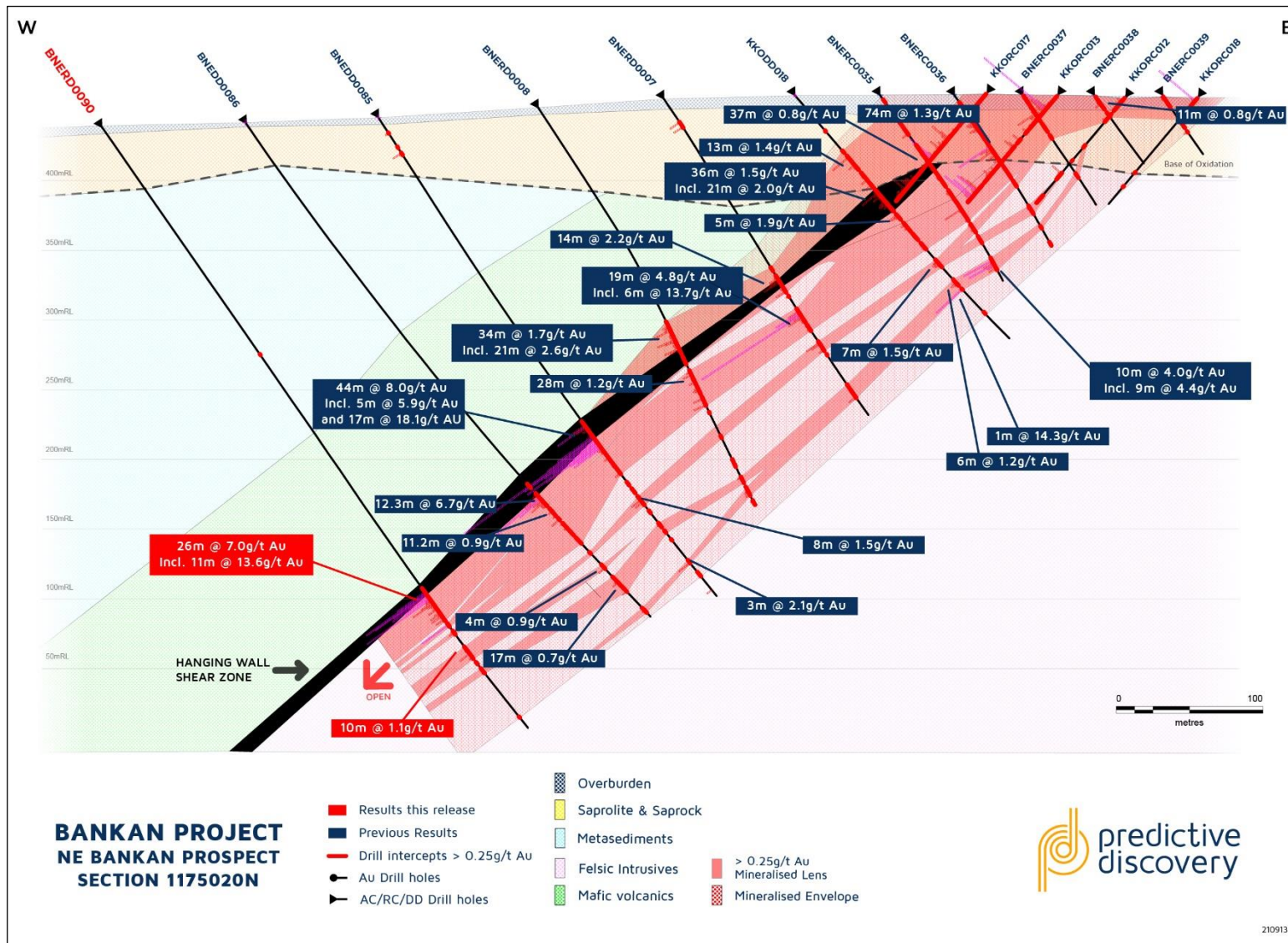


Figure 2- NE Bankan Prospect – Section 1175020 with new hole BNERD0090 (red result labels).

ASX Announcement

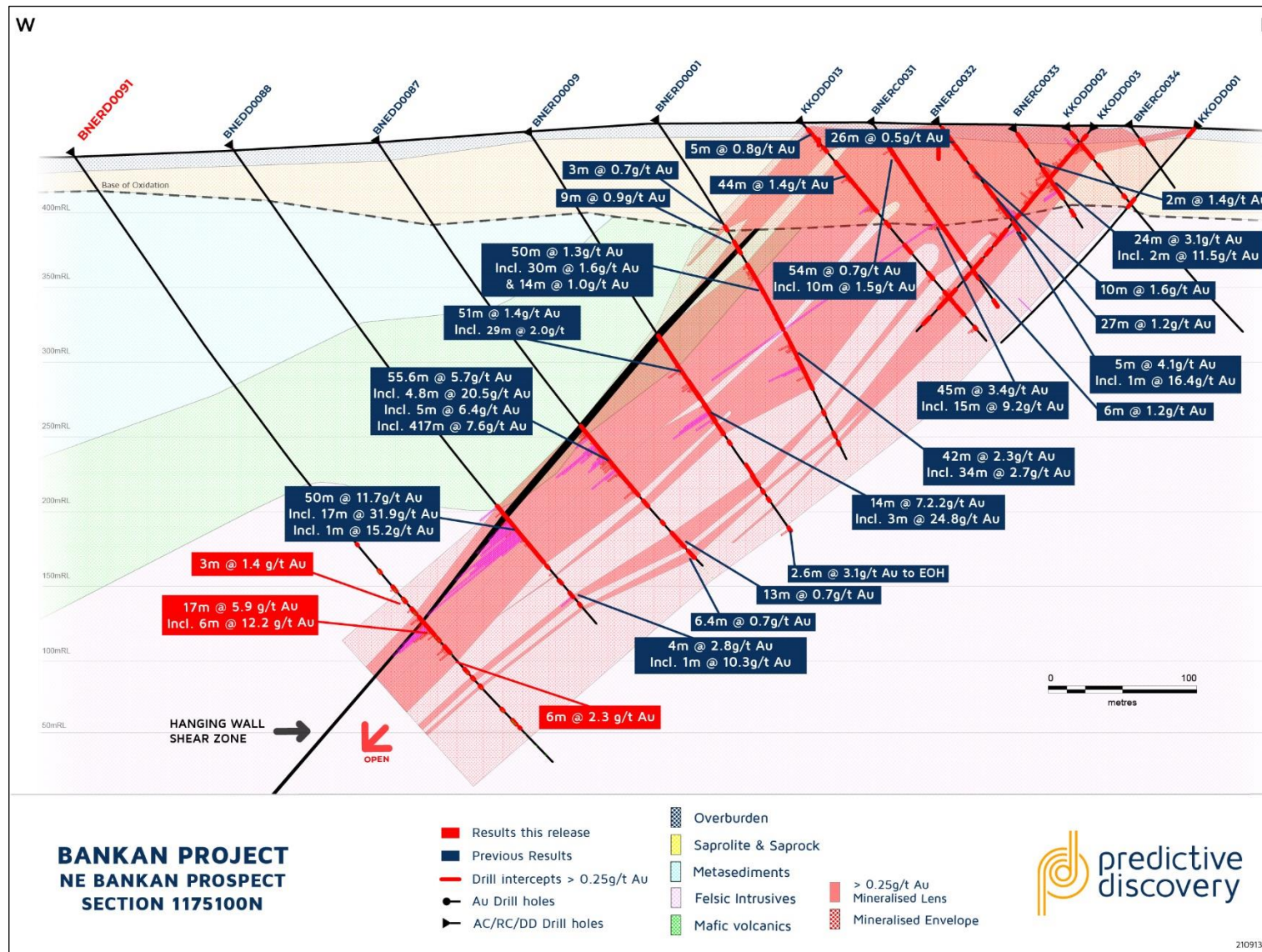


Figure 3 NE Bankan Prospect – Section 1175100 with new hole BNERD0091 (red result labels).

ASX Announcement

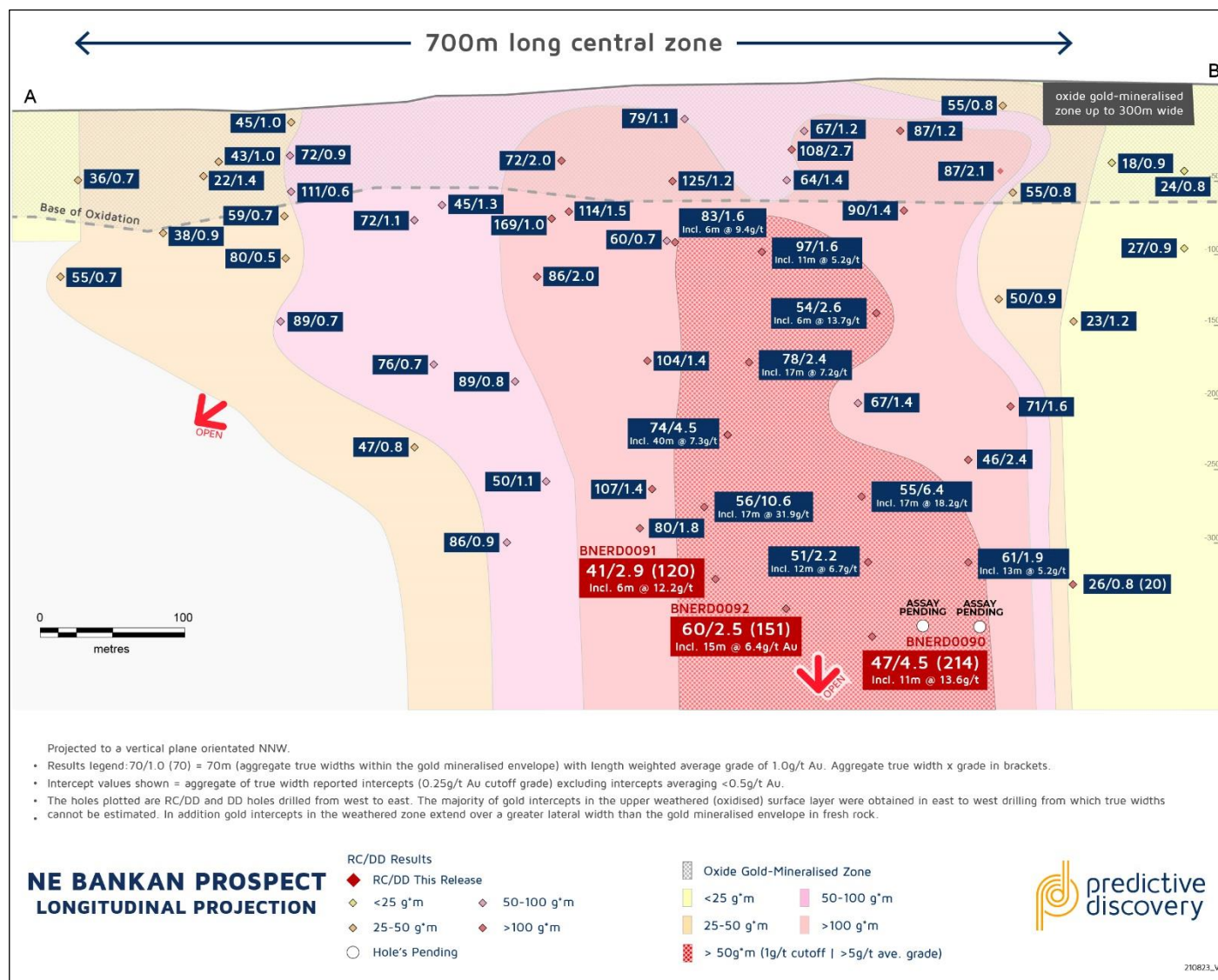


Figure 4 - NE Bankan Longitudinal Projection showing new drill results (red result labels) and holes for which assays are pending.

16 September 2021

- END -

Predictive advises that it is not aware of any new information or data that materially affects the exploration results contained in this announcement.

This announcement is authorised for release by Predictive Managing Director, Paul Roberts.

For further information visit our website at www.predictivediscovery.com or contact:

PAUL ROBERTS

Managing Director

Phone: +61 402 857 249

Email: paul.roberts@predictivediscovery.com

COMPETENT PERSONS STATEMENT

The exploration results reported herein 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.

ABOUT PREDICTIVE

Predictive Discovery (ASX:PDI) is focused on its 100%-owned Guinea portfolio in the prolific Siguiri Basin. The Company has made two discoveries at Bankan Creek and NE Bankan, located 3km apart. Bankan is a true greenfields gold discovery with no previous drilling having been completed on the licences prior to Predictive's drilling which commenced in early 2020.

At NE Bankan the Company has identified a high-grade core with recent intercepts including 49.7m @ 11.7g/t Au and 44m @ 8.0g/t Au², both returned in July 2021. The Company is building towards a Maiden Resource Estimate at the Bankan Project whilst continuing to grow its regional exploration program.

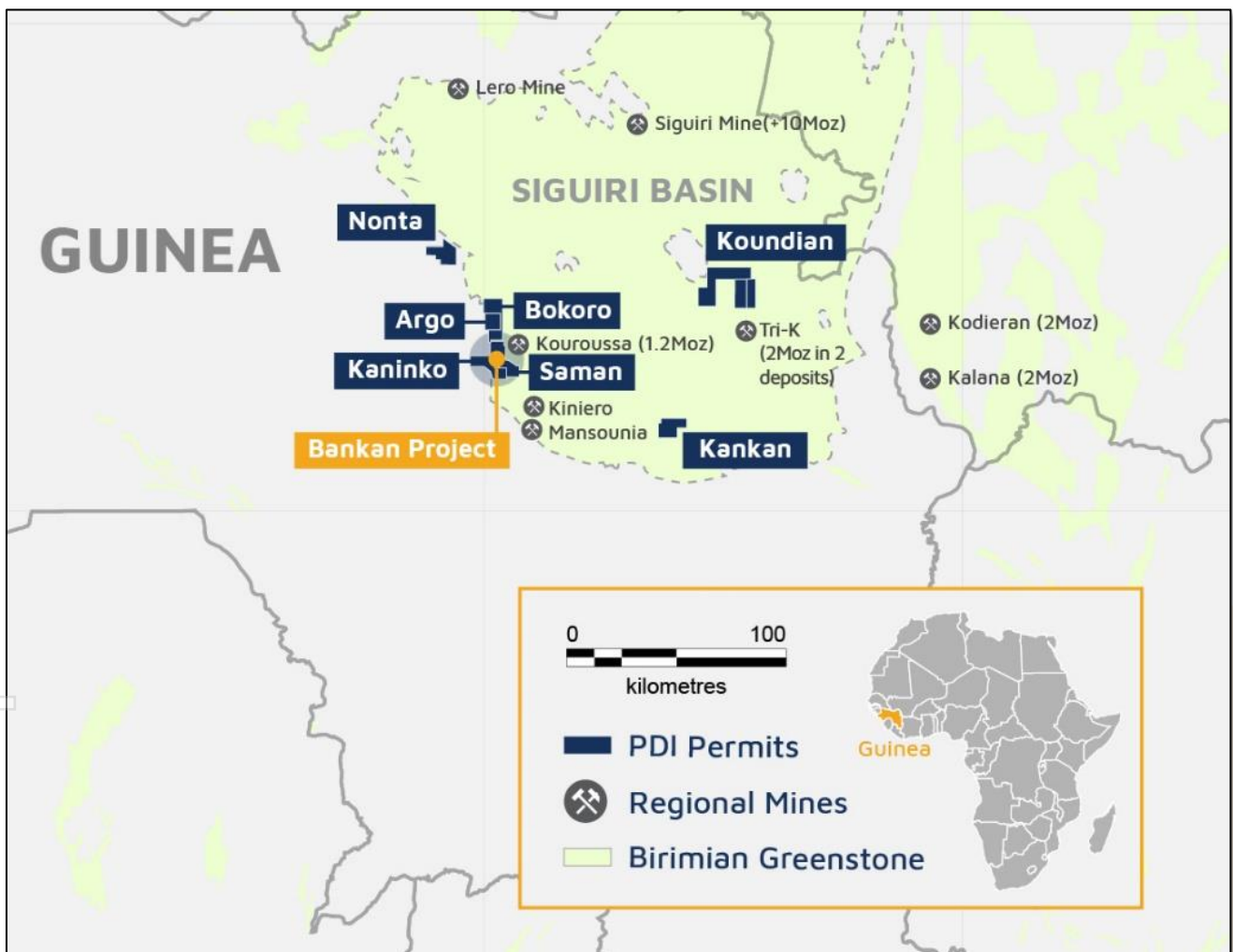


Figure 5- Predictive Discovery's 100%-owned Guinea Portfolio of gold projects

² ASX Announcement - BONANZA GOLD GRADES AS HIGH-GRADE ZONE REVEALED AT BANKAN (19 July 2021)

TABLE 1 – BANKAN PROJECT DIAMOND DRILL RESULTS

Hole No.	Prospect	UTM 29N East	UTM 29N North	RL (GPS)	Hole azimuth	Hole dip	Hole depth	0.5g/t gold cut-off			Comments
								From	Interval	Au g/t	
BNERD0090	Bankan NE	396235	1175020	439.02	90	-55	530.60	407.0	26.0	7.04	Incl. 11m @ 13.58g/t Au from 407m and 1m @ 13.1 g/t Au from 436m
								442.0	2.0	1.82	
								456.0	10.0	1.06	Incl. 1m @ 5.07g/t Au from 462m
BNERD0091	Bankan NE	396267	1175100	437.72	90	-55	530.60	365.0	2.0	1.24	
								378.0	1.0	1.01	
								385.0	3.0	1.39	
								393.0	16.6	5.85	Incl. 6m @ 12.24g/t Au From 400m
								420.0	6.0	2.30	
BNERD0092	Bankan NE	396249	1175060	439	90	-55	522.60	125.0	1.0	3.11	
								373.0	4.0	0.82	
								380.0	38.0	3.57	Incl. 15m @ 6.42g/t Au from 395m comprising 1.3m @ 11.44g/t Au from 397.7m, 1.3m @ 15.53g/t Au from 403.7m, & 3m @ 9.21g/t Au from 407m. Also Incl. 3m @ 6.27g/t Au from 387m
								440.5	2.5	1.56	
								473.0	1.0	3.15	

TABLE 2 - JORC CODE – DIAMOND DRILLING

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>Samples assayed were cut drill core.</p> <p>Core was cut in half with a core saw where competent and with a knife in soft saprolite in the upper sections of the diamond drill holes.</p> <p>Sampling was supervised by qualified geologists.</p> <p>Samples were dried, crushed and pulverised at the SGS laboratory in Bamako to produce a 50g fire assay charge.</p>

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).	Drill types were 2 multipurpose drill rigs both of which are capable of collecting PQ, HQ and NQ core. Both multipurpose rigs are drilling short (approx.. 80m) precollars with mud rotary and the remainder of the holes with NQ diameter core. All core is orientated using Reflex digital system.
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.	Drill core: Sample recoveries were measured in the normal way for diamond drill core. Core recoveries were generally excellent except for the saprolite where some core loss was experienced owing to clayey core being washed out in the diamond drilling process. Given that most of these saprolite core loss zones were obtained in mineralised intervals, grade is probably underestimated in those sections as zones of core loss are assumed to contain no gold. Significant sample bias is not expected with cut core.
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.	All drill samples were logged systematically for lithology, weathering, alteration, veining, structure and minor minerals. Minor minerals were estimated quantitatively. A core orientation device was employed enabling orientated structural measurements to be taken.
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.	The diamond drill samples were collected by longitudinally splitting core using a core saw or a knife where core was very soft and clayey. Half of the core was sent off to the laboratory for assay. The sampling method is considered adequate for a diamond drilling program of this type.

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 were assayed by SGS technique FAA505 for gold with a detection limit of 5ppb Au. All samples with gold values exceeding 10g/t Au were re-assayed using SGS method FAA515 with a detection limit of 0.01g/t Au.</p> <p>Field duplicates, standards and blank samples were each submitted for every 15 samples on a rotating basis.</p> <p>Diamond core field duplicates were obtained by cutting the half core sample into two quarter core samples. As samples are not homogenised some variation is expected.</p> <p>Duplicate and standards analyses were all returned were within acceptable limits of expected values.</p>
Verification of Sampling and Assaying	<p>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</p>	<p>At this stage, the intersections have not been verified independently.</p> <p>Some partial twin holes have been reported previously, specifically where initial RC precollars (named BNERC****) were not able to be re-entered by the diamond rig resulting in a second hole being drilled within 5m and named BNERD****A. Both BNERC**** and the completed BNERD****A holes therefore have the same hole number (eg. BNERC0005 and BNERD0005A). These holes are sufficiently close to a previously drilled holes to provide confirmation of the location of mineralisation. In addition, KKODD002 was drilled close to aircore hole KKOAC001 and demonstrated that similar, consistent gold mineralisation was present in the near surface.</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. Specification of the grid system used Quality and adequacy of topographic control</p>	<p>Drill hole collar locations were recorded at the completion of each hole by hand-held GPS.</p> <p>Positional data was recorded in projection WGS84 Zone 29N.</p> <p>Hole locations will be re-surveyed using a digital GPS system at completion of program.</p>
Data Spacing and Distribution	<p>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</p>	<p>The diamond and RC drill holes were designed to explore the gold mineralised system in fresh rock. A series of DD holes are in the process of being drilled on most 80m spaced sections in the 1.3km long zone tested previously with RC drilling.</p> <p>The Company believes that the drill hole spacings being employed at NE Bankan and Bankan Creek will be sufficient for Mineral Resource estimation however this will be determined by the independent Competent Person who will assess if a sufficient understanding of mineralisation continuity has been established.</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>There is very limited outcrop in the immediate area but based on the small number of geological observations and the overall strike of the anomaly, an east west line orientation with holes inclined to the west was considered most likely to test the target mineralised zone. Results from earlier drilling has now determined that the overall dip of the gold mineralised envelope is to the west at NE Bankan and to the west-south-west at Bankan Creek. All drill holes reported in this release were drilled from west to east (at NE Bankan) or from west-south-west to east-north-east (at Bankan Creek) to obtain near-true widths through the intersected gold mineralisation.</p>
Sample Security	<p>The measures taken to ensure sample security</p>	<p>Core trays are stored in a guarded location close to the nearby Bankan Village. Coarse rejects and pulps will be eventually recovered from SGS in Bamako and stored at Predictive's field office in Kouroussa.</p>

Audits or Reviews	The results of any audits or reviews of sampling techniques and data	No reviews or audits of sampling techniques were conducted.
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 Bankan Gold Project comprises 4 exploration permits, Kaninko (PDI 100%), Saman (PDI 100%), Bokoro (PDI 100%) and Argo JV (right to earn 100% in JV with local partner). Licences are held by Predictive subsidiaries in Guinea or in a joint venture structure.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Predictive is not aware of any significant previous gold exploration over the permit.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of the Kaninko permit consists of felsic intrusives including granite and tonalite, with mafic to intermediate volcanics and intrusives. Metasediments including marble, chert and schists have also been observed.
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: <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. 	See Table 1 and the accompanying notes in this table.
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.	Diamond drill sampling was generally in one metre intervals. Up to 2m (down-hole) of internal waste is included for results reported at the 0.5g/t Au cut-off grade. Mineralised intervals are reported on a weighted average basis.
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 have been estimated for intercepts where mineralisation orientation is reasonably clear.

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.	Appropriate maps, cross sections and a longitudinal projection are included in this release (Figures 1-4).
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.	Comprehensive reporting of the drill results is provided in Table 1.
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 other exploration data on this area has been reported previously by PDI.
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.	These results form part of a large ongoing program of RC and diamond drilling. Geological studies will continue to be conducted to characterise the gold mineralisation going forward.