Pacific Niugini


# Australia's Newest Gold Producer

October 2015

ASX:PNR

Pacific Niugini

# Disclaimer

## General Disclaimer

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## Exploration, Resource and Reserve Data

Full results, JORC Table 1 disclosure, and resource details are available in ASX releases dated 28/7/14 (June Quarterly report), 16/9/2014 (Drilling results ASX announcement), and 23/9/14 (Drilling results announcement).

## Competent Person Statements

The information in this report that relates to exploration and mineral resources is based on information compiled by Mr. Ben Pollard (B.Sc. Mineral Exploration and Mining Geology)) MAusIMM who is a consultant to Pacific Niugini Limited. Mr. Pollard has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as described by the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Pollard consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to mineral reserves is based on information compiled by Mr. Paul Cmrlec (B. Eng (Mining) (Hons)), MAusIMM who is the Managing Director of Pacific Niugini Limited. Mr. Cmrlec has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as described by the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Cmrlec consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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# Company Name Change

PANTORO

Name change to be voted upon in upcoming AGM

**ASX TICKER TO REMAIN UNCHANGED: PNR**

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# Corporate Structure

## Board and Management

- **Peter Cook – Non-Executive Chairman** Highly successful Australian mining identity behind companies such as Hill 50 Gold Limited; Abelle Limited, and Metals X Limited.
- **Paul Cmrlec – Managing Director** Mining engineer with strong operational and corporate background focused on project feasibility, development, and operations. Director of Metals X Limited.
- **David Osikore – Non-Executive Director** Leading Papua New Guinean geologist with exploration and production experience across most known deposits in PNG.
- **David Okeby – Company Secretary** Strong legal and corporate management experience in multiple mining companies.

| | |
|---|---|
| **Ordinary Shares :** | 490.6 million |
| **Listed Options :** | 49.1 million |
| **Employee Options and Rights:** | 11.2 million |
| **Fully Diluted** (inc Convertible Notes)**:** | 605 million |
| **Board and Management:** | 7.2% |
| **Top 20 Shareholders:** | 52.97% |

**Cash and gold in transit at 30/09/2015:** $9.6 million

**Debt:** 6,560 Oz Au plus normal trade creditors

**Convertible Notes:** $3.3 million @ 8%, 6cps

**Hedging:** 14,400 Oz Au @ $1568/Oz, Nov 15 to July 17 Delivery

# Halls Creek Project (PNR 80%)


## Exciting project brought into production by PNR:

- **High Grade Resource and Reserve:** High grade gold resource/reserve which sits immediately below an existing open pit.
- **Existing Infrastructure:** Complete processing plant and associated infrastructure in place with full refurbishment completed.
- **Construction completed:** on time and budget
- **Mine grades outperforming:** Development on initial levels has returned extremely high grades, with contained metal significantly overcalling the reserve model.
- **Production Underway:** Plant commissioning underway with first production achieved in W1 September 2015
- **Growth Pipeline:** Strong potential for resource and production growth within Nicolsons mine, and through development of additional resources and prospects.

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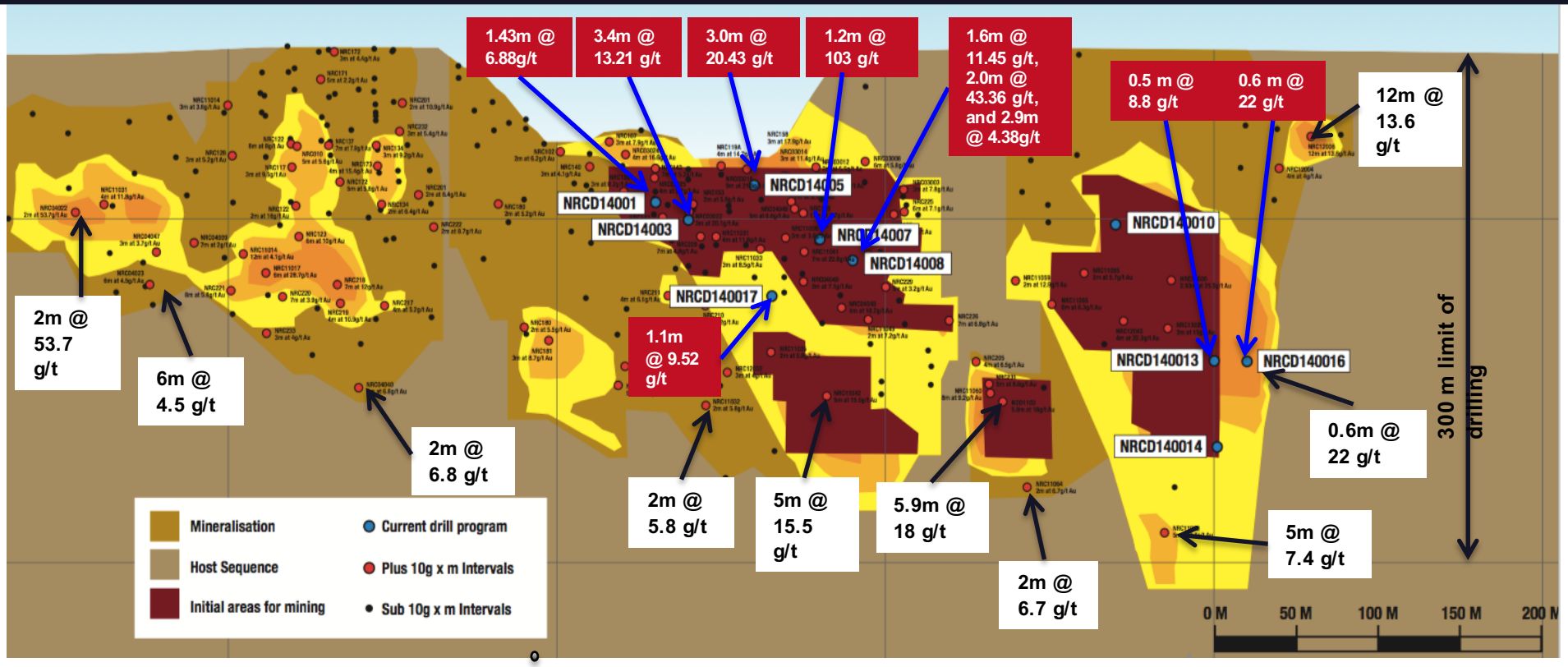
# Resource Remains Open in All Directions




- Diamond drilling in mining zone below open pit returned average of 46 g x m vs. model indication of 29 g x m.
- Diamond Drilling demonstrated potential for highly elevated grades.
- Exploration review by professional consultants, Optiro concludes that resource potential of Nicolsons Mine is 500,000 to 750,000 ounces.

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# Construction Complete and Production Underway

**Acquisition to mining in less than 12 months:**

- ✓ Drilling, feasibility, approvals and financing completed in first nine months.
- ✓ Existing pit accessed, cut back, dewatered and made safe for underground development in less than two months.
- ✓ Tailings facility and site infrastructure completed in four months.
- ✓ Processing plant refurbishment undertaken, and ore processing commenced in less than six months.
- ✓ First gold production six months after commencement of construction works.
- ➢ **Operations going from strength to strength with very high grades encountered underground.**

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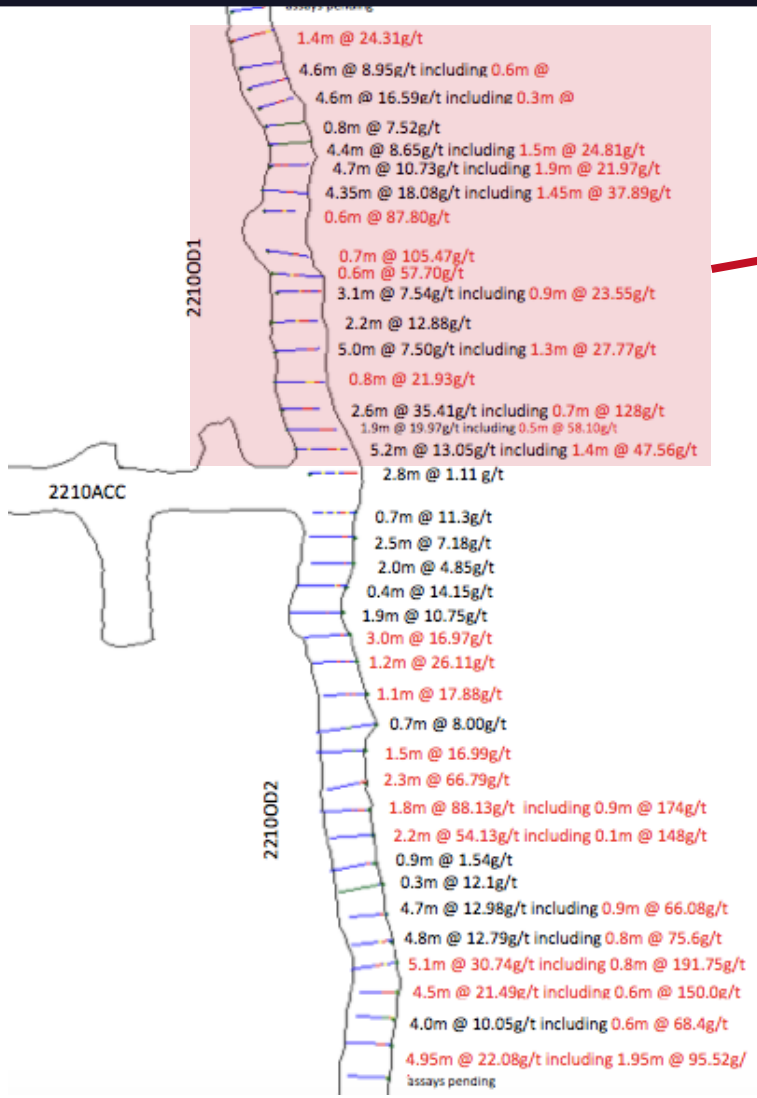
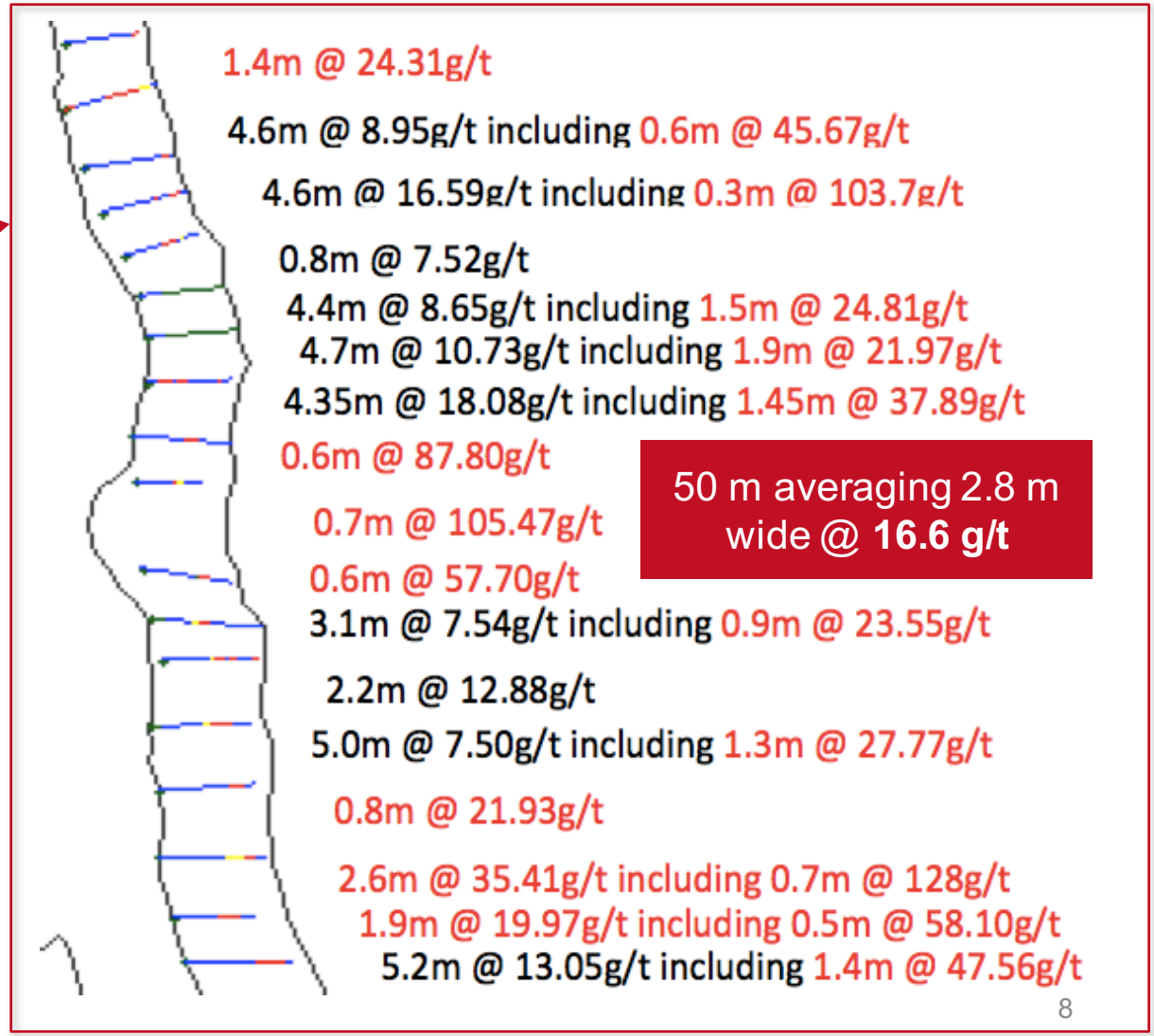
# Outstanding Grades




* All grades are un-cut assays

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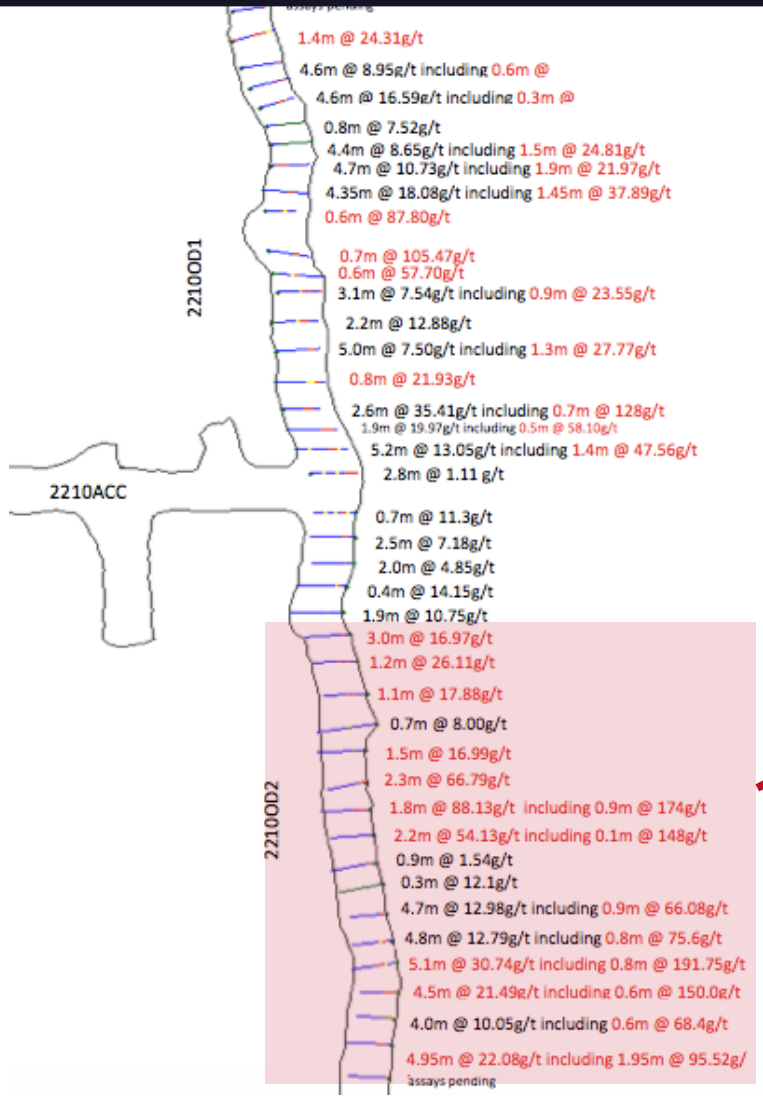
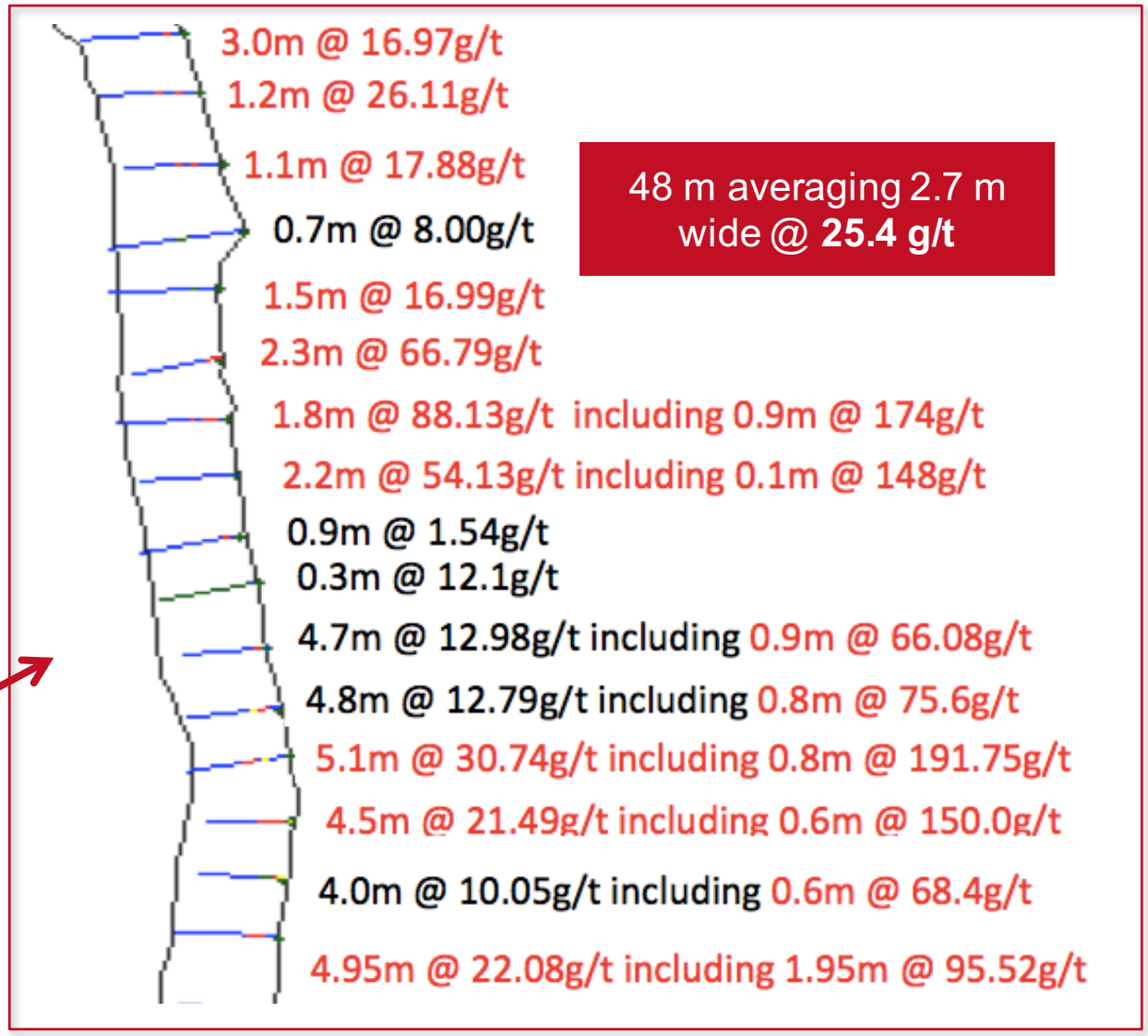
# Outstanding Grades




* All grades are un-cut assays



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# Outstanding Reconciliation

## DEVELOPMENT TO DATE HAS OVERCALLED BY 100%

| | Development Reserve | | | Mined within Reserve | | | Mined Outside of Reserve | | |
|---|---|---|---|---|---|---|---|---|---|
| Level | Tonnes | Grade (g/t) | Oz | Tonnes | Grade (g/t) | Oz | Tonnes | Grade (g/t) | Oz |
| 2220 | 1,794 | 4.75 | 274 | 3,465 | 5.13 | 572 | 1,260 | 3.96 | 160 |
| 2210 | 5,455 | 5.94 | 1,041 | 6,755 | 7.74 | 1,680 | 405 | 18.73 | 244 |
| **Total** | **7,249** | **5.64** | **1,315** | **10,220** | **6.86** | **2,252** | **1,665** | **7.55** | **404** |

* Based on face grade assay data up to 16.10.15.

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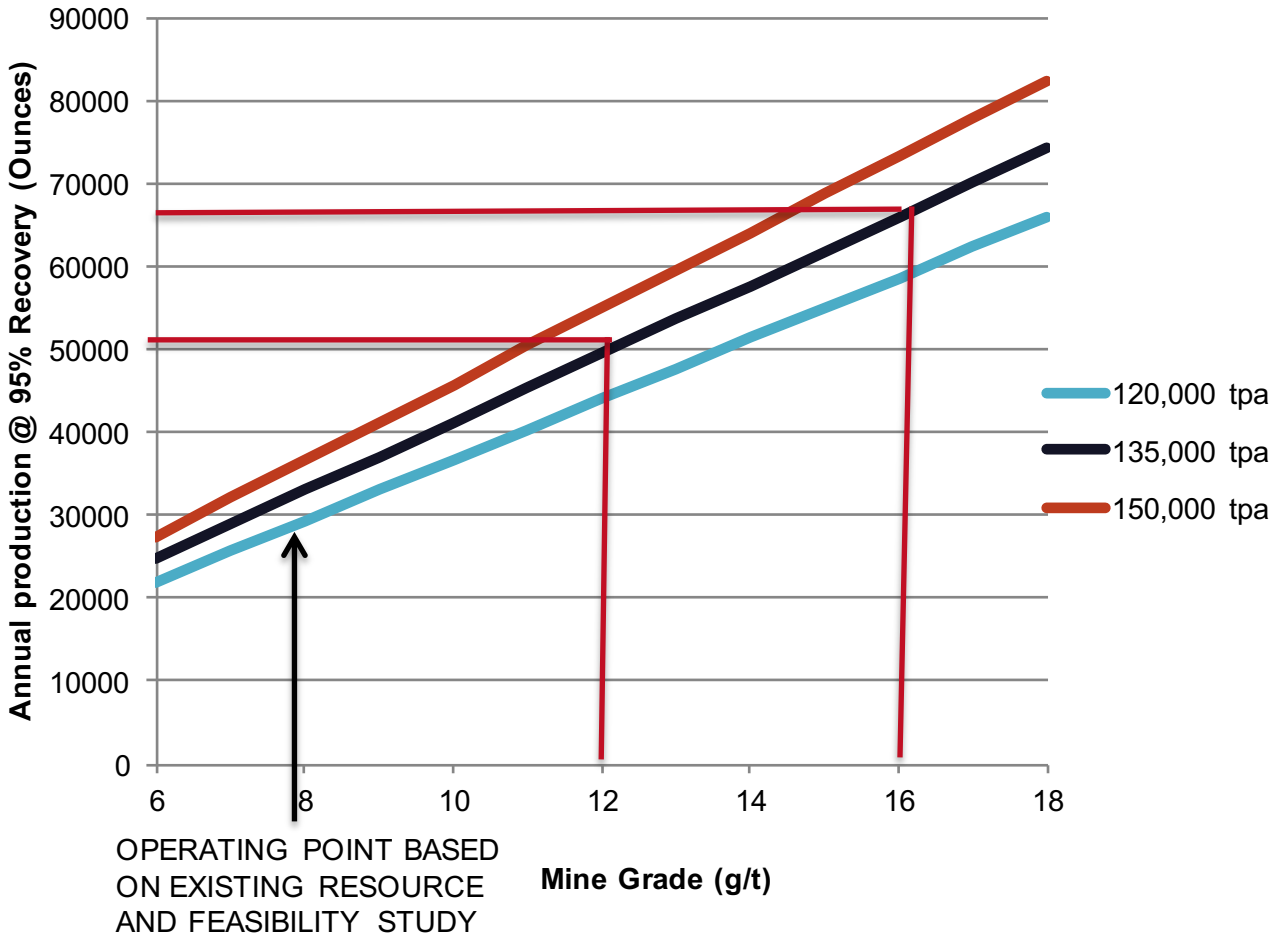
# Impacts of Higher Grade and Throughput

## Nicolsons Plant Production Capacity




- **Feasibility Study using existing resource estimates AIST of approximately $900/Oz.**
- **Feasibility includes reserve grade of 6.2/gt**
- **Increased grade provides direct increase in production capacity.**
- Unit costs decrease:
  - No change in crew size (circa 30% of operating cost);
  - No change in diesel consumption (circa 20% of operating cost).
- **Up-scaling of plant to 200,000 tpa and beyond a readily available option**

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# Price History


1:4 rights issue @ 5c to provide equity requirements under CBA facility

CBA facility closes, project permitting in place and operations commence

1:4 rights issue @ 5c and convertible note issue

Significant improvement in liquidity as operations advance to production

Rights issue closes, production commencing

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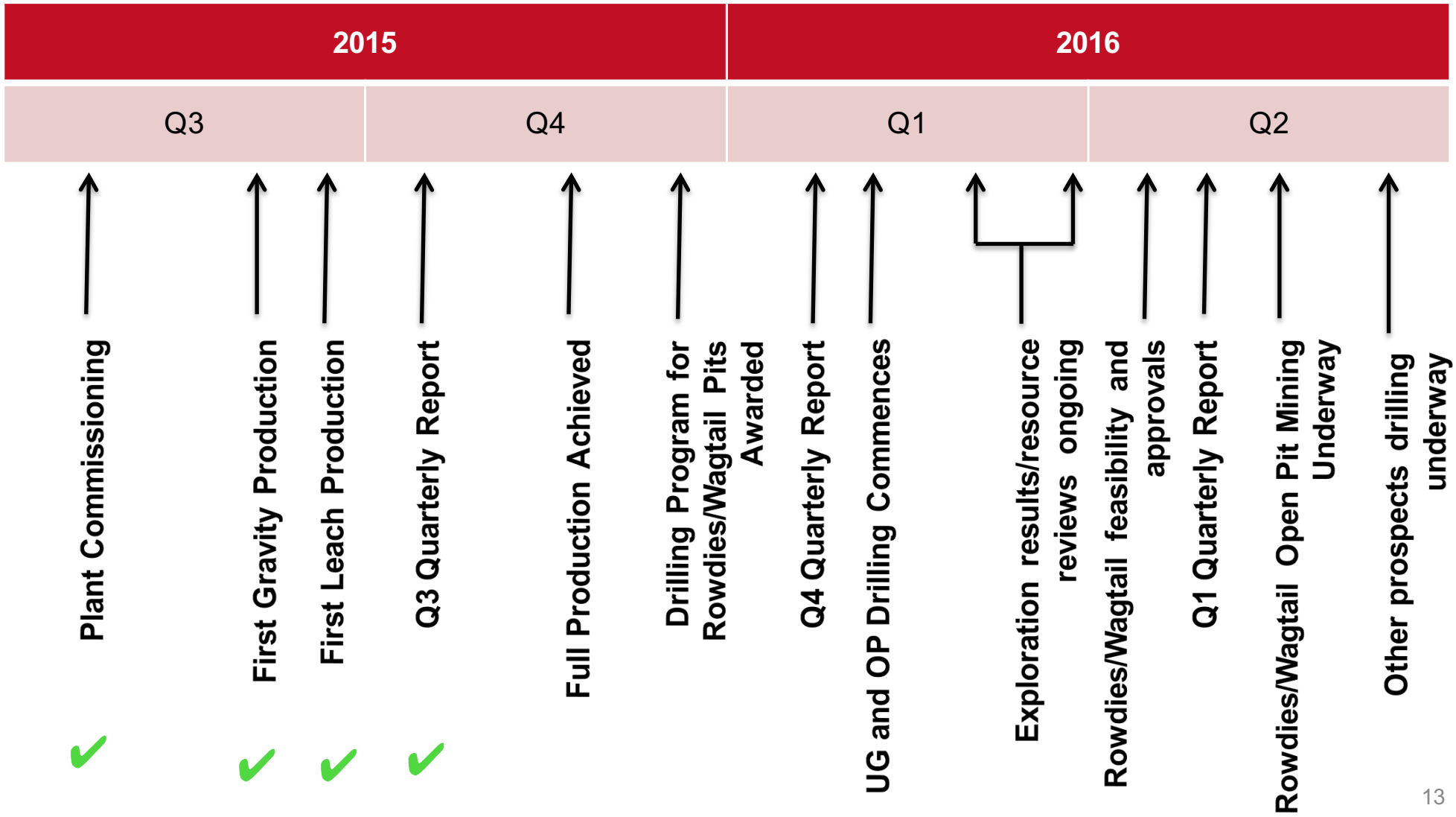
# Operational Strategy



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# Exploration Growth Strategy

**Exploration will be focused on immediate resource/reserve growth as priority**

1. Extend Nicolsons (HW Lode & FW Lode) through underground development and drilling.
2. Infill and extend Wagtail and Rowdies existing resources aiming to generate near term open pit mining opportunities and test for additional underground ore sources.
3. Follow-up known prospects. Work to be prioritised in accordance with ranking based on probability of generation of MINABLE resources. Resources for follow-up include:

- Along trend of Nicolsons, Rowdies, Wagtail
- Paddock Well
- Hyena/Nicolsons North
- Shifty's Reef
- Burnt-out


**Nicolsons is the only gold leach plant in the area, next alternative is 300 km south. No gold processing options north of Nicolsons.**

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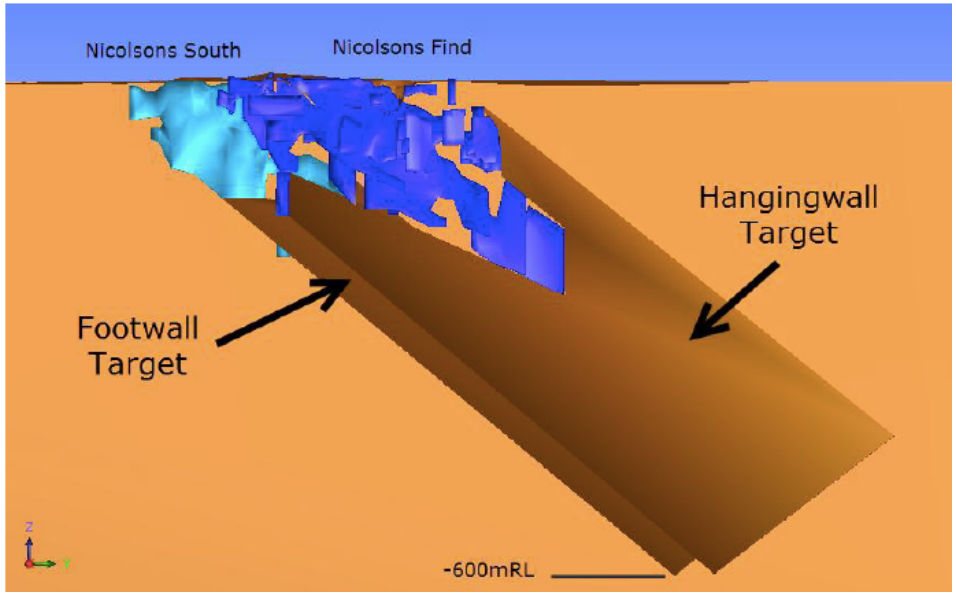
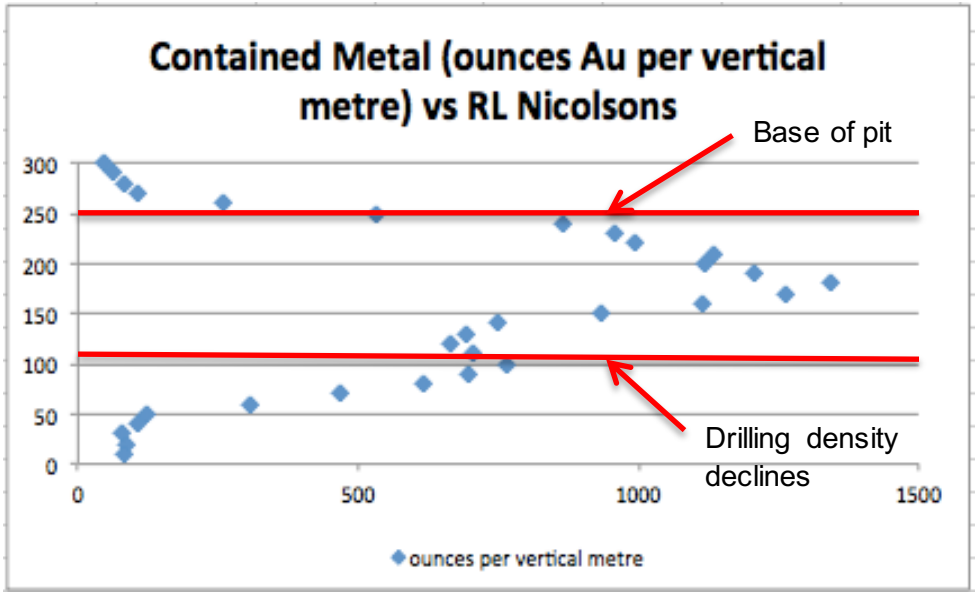
# Nicolsons Extensions




- FW and HW (main lode) are off set by approximately 80m.
- Limited testing of FW down dip due to drilling shadow caused by open pit.
- Excellent high grade intercepts at depth extremity of drilling in both HW and FW lode.
- OVM's appear to increase with additional drilling.
- Multiple intersections between FW and HW and in HW of system to follow up with U/G drilling.
- **Diamond drilling in mining zone below open pit returned average of 46 g x m vs. model indication of 29 g x m.**

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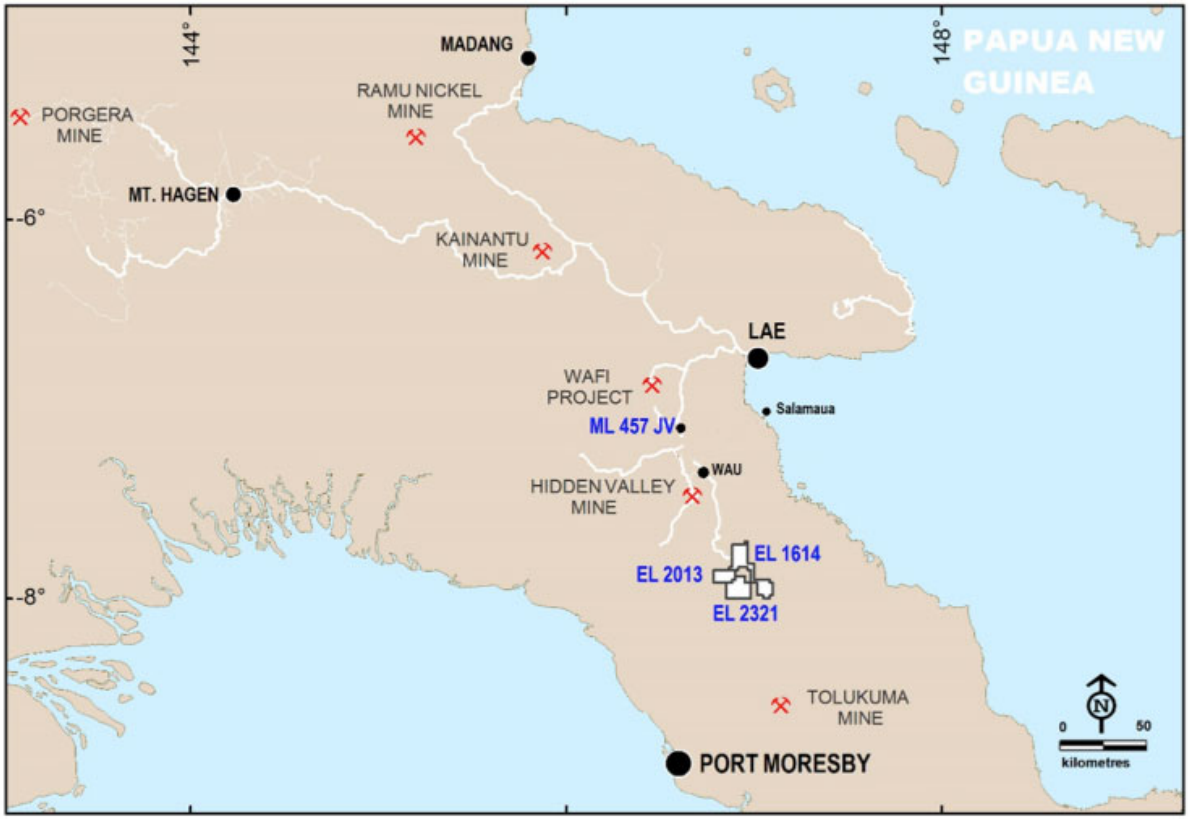
# Garaina Porphyry and Epithermal Target

## Exploration Success Story

- Virgin discovery by PNR in 2011 with rapid progression relative to other known PNG projects.
- Detailed magnetic surveys and petrology confirm porphyry copper-gold potential.
- Kusi surface anomaly > 1.5km x 1km.
- Drilling intersected classic porphyry style mineralisation.
- **Terminated Farm-out agreement with MGL Limited in April 2015**
  - **$3 million spent by MGL.**
  - **Excellent exploration and drilling results during project tenure.**
  - **PNR retains 100% project ownership.**
  - **Opportunity for new JV arrangements. Several companies reviewing at present.**



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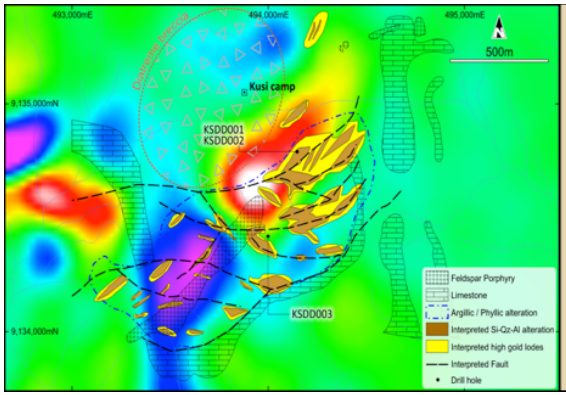
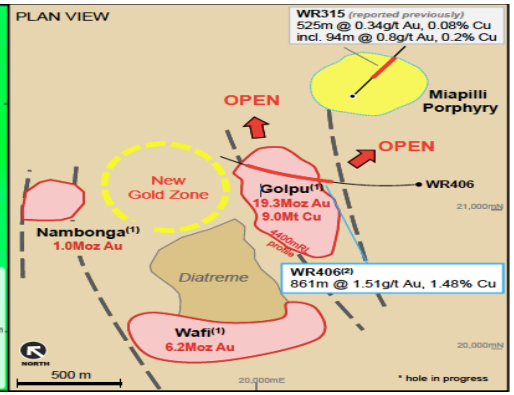
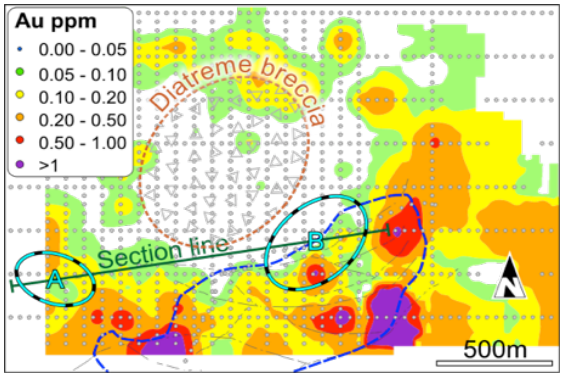
# Exciting Drill Results

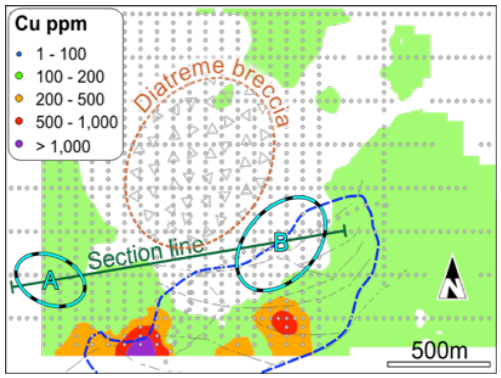



**Kusi Magnetics** showing interpreted diatreme and potential porphyry bodies highlighted (red)




**Wafi Resource** Plan view. Current resource is stated at 460 MT @0.77 g/t Au &0.81% Cu for 11.4 Moz Au & 3.73 Mt Cu **(From Newcrest Mining Website)**




Gold and copper in soil samples correspond well with magnetic anomalies.

- Drilling targeting known zones of high and low magnetic susceptibility.
- High grade gold identified in both zones drilled to date, with vectors indicating a potential porphyry deposit in the zone of magnetic destruction.

- **20m @ 2.89g/t (with 2.0m of core loss) from 107m, including 11m @ 4.72g/t (with 1.4m of core loss) from 114m.**
- **35m @ 3.04g/t from 136m, including 4m @ 18.75g/t from 160m, and 11m @ 8.24g/t from 160m.**
- **High-grade intercepts sit within an overall broad alteration zone of 106m @ 1.32g/t from 109m.**
- **61m @ 306ppm Mo from 202m, including 1.7m of core loss.**

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AUSTRALIA'S NEWEST GOLD PRODUCER

STRONG BOARD AND MANAGEMENT

UNDERGROUND MINE RETURNING EXCEPTIONAL GRADE

**PRIMED FOR GROWTH**

**AUSTRALIAN FOCUS**

# JORC 2012 – TABLE 1 – HALLS CREEK

## SECTION 1: SAMPLING TECHNIQUES AND DATA – HALLS CREEK

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Sampling techniques | • 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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.<br>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br>• Aspects of the determination of mineralisation that are Material to the Public Report.<br>• 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 Nicolson's deposit has been sampled predominantly by RC and minor historical RAB about the Nicolson's open pit area. The Wagtails and Rowdies deposits were sampled mainly by RC with follow-up aircore. Holes were sampled on 1 m increments, or 3 m increments above the known mineralisation. Anomalous intercepts from the 3 m increments were re-split into 3 1 m increments.<br>• Samples from the current drill program are RC collars with diamond drill tails. All assays in this release are from diamond drill core. Core was sampled in 1m intervals, or in accordance with observed geology for shorter runs.<br>• For RC drilling, measures taken to ensure sample representivity include the presence of a geologist at the rig whilst drilling, cleaning of the splitter at the end of every 3 m drill string, confirmation that drill depths match the accompanying sample interval with the drilling crew and the use of duplicate and lab/blank standards in the drilling programme.<br>• For diamond drilling, measures taken include regular survey of drill holes, cutting of core along the orientation line where possible, and half core is submitted to an accredited laboratory. Industry standard blanks and standards are also submitted and reported by the laboratory. Drilling is completed in HQ3.<br>• Historical holes - RC and aircore drilling was used to obtain 1 m samples from which 2 - 3 kg was crushed and sub-split to yield 250 for pulverisation and then a 40 g aliquot for fire assay. Upper portions of deeper holes were composited to 3m sample intervals and sub-split to 1 m intervals for further assay if an anomalous composite assay result was returned. For later drilling programmes all intervals were assayed.<br>• Current Program – HQ3 core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with one side assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1m, with shorter intervals utilised according to geology. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Drilling techniques | • 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). | • RC drilling was completed with several rigs. All RC rigs used face sampling hammers with bit size of 140 – 146mm. Historical holes used a 130 mm bit size). Aircore drilling was completed by the RC rig with an aircore bit assembly. RAB drilling (20 holes only in the Nicolson's pit area) is historical and details are unknown.<br>• HQ 3 Diamond drilling was conducted for geotechnical and assay data. Holes from the current program do not form part of the current resource estimate. Diamond holes were oriented using a Reflex orientation tool. Diamond holes were geologically and geotechnically logged. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Drill sample recovery | • Method of recording and assessing core and chip sample recoveries and results assessed.<br>• Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>• 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. | • All holes were logged at site by an experienced geologist. Recovery and sample quality were visually observed and recorded. Recovery for older (pre 2011) holes is unknown.<br>• All drilling was completed within rig capabilities. Rigs used auxiliary air boosters when appropriate to maintain sample quality and representivity. Where aircore drilling could not provide sufficient penetration an RC drilling set-up was used.<br>• There is no known relationship between recovery and grade. Diamond drilling of oxide and transitional material in previous campaigns noted high core loss in mineralised zones. No core loss was noted in fresh material. Good core recovery has generally been achieved in all sample types in the current drilling program. |
| Logging | • Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.<br>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.<br>• The total length and percentage of the relevant intersections logged. | • Geological logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments.<br>• Geotechnical logging of diamond holes included the recording of recovery, RQD, structure type, dip, dip direction, alpha and beta angles, shape, roughness and fill material of fractures<br>• All drill chips were logged on 1 m increments, the minimum sample size. A subset of all chip samples is kept on site for reference.<br>• Diamond drilling was logged to geological boundaries and is considered quantitative. Core was photographed.<br>• All drilling has been logged apart from diamond drill pre-collars. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Sub-sampling techniques and sample preparation | • If core, whether cut or sawn and whether quarter, half or all core taken.<br>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.<br>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>• 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.<br>• Whether sample sizes are appropriate to the grain size of the material being sampled. | • Core samples were saw in half with one half used for assaying and the other half retained in core trays on site for future analysis.<br>• RC drill chip samples were collected with either a three-tier, rotary or stationary cone splitter depending on the drill rig used. Aircore drill samples were subset using a 3 tier riffle splitter. Most (> 95%) of samples are recorded as being dry.<br>• All RC and aircore sample splitting was to 12.5 % of original sample size or 2 – 3 kg, typical of standard industry practice. Samples greater than 3 kg were split on site before submission to the laboratory.<br>• For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory.<br>• The cyclone and splitter were cleaned every rod string and more frequently when requested by the geologist. In the case of spear sampling for re-splitting purposes, several spears through the entirety of the drill spoil bag were taken in a systematic manner to minimise bias.<br>• Core was cut under the supervision of an experienced geologist, was routinely cut on the orientation line.<br>• Duplicate samples were taken every 20 m from a second cut of the splitter in the case of a cone splitter, or from a reject split in the case of a riffle splitter. Certified standards were inserted into the sample batch at a rate of 1 in 20 throughout all drilling programmes.<br>• Gold at Hall's Creek is fine- to medium-grained and a sample size of 2 – 3 kg is considered appropriate.<br>• Half core is considered appropriate for diamond drill samples. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| 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.<br>• 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.<br>• 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 Bureau Veritas lab in Perth has ISO-9001 and ISO14001 certification. Gold assays are determined using fire assay with 40g charge and AAS finish. Other elements were assayed using acid digest with ICP-MS finish. The methods used approach total mineral consumption and are typical of industry standard practice.<br>• No geophysical logging of drilling was performed. This is not relevant to the style of mineralisation under exploration.<br>• Lab standards, blanks and repeats are included as part of the QAQC system. In addition the laboratory had its own internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverising at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification. Early drilling shows a pronounced negative bias with several of the external certified standards. |
| Verification of sampling and assaying | • The verification of significant intersections by either independent or alternative company personnel.<br>• The use of twinned holes.<br>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>• Discuss any adjustment to assay data. | • Significant intersections are noted in logging and checked with assay results by company personnel. Some significant intersections have been resampled and assayed to validate results. Diamond drilling confirms the width of the mineralised intersections.<br>• The current drill program includes holes testing the current resource and twinning existing RC holes as shown on announcement sections.<br>• All primary data is logged on paper and later entered into the database. Data is visually checked for errors before being sent to an external database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept both onsite and in the Perth office.<br>• No adjustments have been made to assay data. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| 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.<br>• Specification of the grid system used.<br>• Quality and adequacy of topographic control. | • Drilling is surveyed using DGPS with accuracy of ± 0.3m. Downhole surveys are conducted during drilling using single shot cameras at 10 m then every 30 m thereafter. Later drilling was downhole surveyed using a Reflex survey tool. Mine workings (open pits) were surveyed by external surveyors using RTK survey equipment. A subset of historical holes was surveyed to validate collar coordinates.<br>• The project lies in MGA 94, zone 52. Local coordinates are derived by conversion:<br>GDA94_EAST =NIC_EAST * 0.9983364 + NIC_NORTH * 0.05607807 + 315269.176<br>GDA94_NORTH = NIC_EAST * (-0.05607807) + NIC_NORTH * 0.9983364 + 7944798.421<br>GDA94_RL =NIC-RL + 101.799<br>• Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use. |
| Data spacing and distribution | • Data spacing for reporting of Exploration Results.<br>• 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.<br>• Whether sample compositing has been applied. | • Drill hole spacing at Nicolson's is generally between 10 m by 10 m and 30 m x 30 m in the upper areas of the deposits and extends to 50 m x 50 m at depths greater than 200 m. The drill spacing at Wagtail and Rowdies is generally 20 m x 20 m with some areas of 10 m x 20 m infill.<br>• The Competent Person is of the view that the drill spacing, geological interpretation and grade continuity of the data supports the resource categories assigned.<br>• Sample compositing to 3m occurred in holes above predicted mineralised zones. Composite samples were re-assayed in their 1 m increments if initial assay results were anomalous. |
| 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.<br>• 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. | • Drilling is predominantly at 270o to local grid at a dip of -60o. Local structures strike north-south on the local grid and dip at 60oE. No bias of sampling is believed to exist through the drilling orientation. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Sample security | • The measures taken to ensure sample security. | • The chain of custody is managed by Pacific Niugini employees and consultants. Samples are stored on site and delivered in bulk bags to the lab in Perth. Samples are tracked during shipping. |
| Audits or reviews | • The results of any audits or reviews of sampling techniques and data. | • A review of the resource was carried out by an independent consultancy firm when the project was acquired from Bulletin. No significant issues were noted. |

## SECTION 2: REPORTING OF EXPLORATION RESULTS – HALLS CREEK

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| 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.<br>• 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. | • Tenements containing Resources and Reserves are 80% held by Pacific Niugini subsidiary company Halls Creek Mining Pty Ltd. They are: M80/343, M80/355, M80/359, M80/503 and M80/471. M80/362 Tenement transfers to HCM are yet to occur as stamp duty assessments have not been completed by the office of state revenue., The tenements lie on a pastoral lease with access and mining agreements and predate native title claims.<br>• The tenements are in good standing and no known impediments exist. |
| Exploration done by other parties | • Acknowledgment and appraisal of exploration by other parties. | • The deposits were discovered by prospectors in the early 1990s. After an 8,500 m RC program, Precious Metals Australia mined 23 koz at an estimated 7.7g/t Au from Nicolson's Pit in 1995/96 before ceasing the operation. Rewah mined the Wagtail and Rowdy pits (5 koz at 2.7g/t Au) in 2002/3 before Terra Gold Mines (TGM) acquired the project, carried out 12,000 m of RC drilling and produced a 100 koz resource estimate. GBS Gold acquired TGM and drilled 4,000 m before being placed in administration. Review of available reports show work to follow acceptable to standard industry practices. |

| Criteria | JORC Code explanation | Commentary |
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| Geology | • Deposit type, geological setting and style of mineralisation. | • Gold mineralisation in the Nicolson's Find area is structurally controlled within the 400 m wide NNE trending dextral strike slip Nicolson's Find Shear Zone (NFSZ) and is hosted within folded and metamorphosed turbiditic greywackes, felsic volcaniclastics, mafic volcanics and laminated siltstones and mudstones. This zone forms part of a regional NE-trending strike slip fault system developed across the Halls Creek Orogen (HCO).<br>• The NFSZ comprises a NNE-trending anastomosing system of brittle-ductile shears, characterised by a predominantly dextral sense of movement. The principal shear structures trend NNE to N-S and are linked by NW, and to a lesser extent, by NE shears. Individual shears extend up to 500m along strike and overprint the earlier folding and penetrative cleavage of the HCO.<br>• The overall geometry of the system is characterized by right step-overs and bends/jogs in the shear traces, reflecting refraction of the shears about the granite contact. Within this system, the NW-striking shears are interpreted as compressional structures and the NE-striking shears formed within extensional windows.<br>• Mineralisation is primarily focussed along NNE trending anastomosing systems of NNE-SSW, NW-SE and NE-SW oriented shears and splays. The NNE shears dip moderately to the east, while the NW set dips moderately to steeply to the NE. Both sets display variations in dip, with flattening and steepening which result in a complex pattern of shear intersections..<br>• Mineralisation is strongly correlated with discontinuous quartz veining and with Fe-Si-K alteration halos developed in the wall rocks to the veins. The NE shears are associated with broad zones of silicification and thicker quartz veining (typically white, massive quartz with less fracturing and brecciation); however, these are typically poorly mineralized. The NW-trending shears are mineralized, with the lodes most likely related to high fluid pressures with over-pressuring and failure leading to vein formation. Although the NE structures formed within the same shear system, the quartz veining is of a different generation to the mineralized veins.<br>• Individual shears within the system display an increase in strain towards their centres and comprise an anastomosing shear fabric reminiscent of the pattern on a larger scale. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| 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:<br>» easting and northing of the drill hole collar<br>» elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar<br>» dip and azimuth of the hole<br>» down hole length and interception depth<br>» hole length.<br>• 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. | • Full results from the drilling program are set out in ASX reports dated 16/9/2014, 23/9/2014 and 9/10/2014.<br>• Drillholes used in the Nicolson's Resource estimate included 242 RC and 20 RAB holes for a total of 1,338m within the resource wireframes. Rowdies drilling included 36 RC and 2 aircore holes (AC) for a total of 241 m of intersection within the resource wireframes. Wagtail North comprised 84 RC and 6 AC holes for 553 m of intersection with the resource wireframes. Wagtail South comprised 23 RC and 20 AC holes for 203 m of intersection within the resource wireframes. |
| 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.<br>• 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.<br>• The assumptions used for any reporting of metal equivalent values should be clearly stated. | • Drill results as reported are composited intersections within the interpreted mineralisation wireframes which form the basis of the resource. Intercepts are composited from 1 m sample increments and no weighting other than length is applied. The Lower cut-off grade is a nominal 0.5g/t Au with a minimum 2m downhole length above 200 mRL and a nominal 1.0g/t Au with a 1 m minimum downhole length below 200 mRL. Top cuts for Nicolson's lodes were 40 g/t and 45g/t Au for different domains dependent upon the lode grade distribution. Rowdies, Wagtail North and Wagtail South had top cuts of 20g/t, 45g/t and 50g/t Au respectively.<br>• All sample intervals within the interpreted wireframe shells were used in the grade estimation.<br>• No metal equivalent values are used. |
| Relationship between mineralisation widths and intercept lengths | • These relationships are particularly important in the reporting of Exploration Results.<br>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>• 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'). | • Drilling is predominantly at 270o to local grid at a dip of -60o. Local structures strike 0o to the local grid and dip at 60oE (i.e. having a 60o intersection angle to lode structures). Deeper holes have some drillhole deviation which decreases or increases the intersection angle, but not to a significant extent.<br>• Downhole lengths are reported and true widths are approximately 60 – 90% of down-hole length. |

| Criteria | JORC Code explanation | Commentary |
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| 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. | • Full results and diagrams from the drilling program are set out in ASX reports dated 16/9/2014, 23/9/2014 and 9/10/2014. |
| 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. | • Full results from the drilling program are set out in ASX reports dated 16/9/2014, 23/9/2014 and 9/10/2014. |
| 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. | • Groundwater is largely confined to fault structures, typical of fracture rock systems with low yields and able to be controlled with air pressure while drilling. Metallurgical and geotechnical work studies have been completed as part of feasibility studies in support of ore reserves with no significant issues noted. No significant deleterious substances have been noted. |
| Further work | • The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | • Underground mining has commenced and milling of this ore has produced gold at levels in line with local grade estimates. |

## SECTION 3: ESTIMATION AND REPORTING OF MINERAL RESOURCES – HALLS CREEK

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Database integrity | • Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.<br>• Data validation procedures used. | • Data input has been governed by lookup tables and programmed import of assay data from lab into database. The database has been checked against the original assay certificates and survey records for completeness and accuracy.<br>• Data was validated by the geologist after input. Data validation checks were carried out by an external database manager in liaison with Bulletin personnel. The database was further validated by external resource consultants prior to resource modelling. An extensive review of the data base was undertaken when Pacific Niugini acquired the project. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Site visits | • Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br>• If no site visits have been undertaken indicate why this is the case. | • The Competent Person has visited the site and has a good appreciation of the mineralisation styles comprising the Mineral Resource. |
| Geological interpretation | • Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.<br>• Nature of the data used and of any assumptions made.<br>• The effect, if any, of alternative interpretations on Mineral Resource estimation.<br>• The use of geology in guiding and controlling Mineral Resource estimation.<br>• The factors affecting continuity both of grade and geology. | • Confidence in the geological interpretation is generally proportional to the drill density. Surface mapping confirms some of the orientation data for the main mineralised structures.<br>• Data used for the geological interpretation includes surface and trench mapping and drill logging data.<br>• An alternative interpretation (steeper lodes) of deeper portions of the deposit was modelled and provides no material change to the resource estimate. In general the interpretation of the mineralised structures is clear.<br>• Geological interpretation of the data was used as a basis for the lodes which were then constrained by cut-off grades.<br>• Geology and grade continuity is constrained by quartz veining within the NFSZ and by parallel structures for the other prospects. |
| Dimensions | • The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. | • Full results from the drilling program are set out in ASX reports dated 16/9/2014, 23/9/2014 and 9/10/2014. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Estimation and modelling techniques | • The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.<br>• The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.<br>• The assumptions made regarding recovery of by-products.<br>• Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).<br>• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.<br>• Any assumptions behind modelling of selective mining units.<br>• Any assumptions about correlation between variables.<br>• Description of how the geological interpretation was used to control the resource estimates.<br>• Discussion of basis for using or not using grade cutting or capping.<br>• The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. | • Separate block models were generated for Nicolson's, Rowdies and Wagtail North and South. Individual mineralised structures were domained separately. Models contain grade estimates and attributes for blocks within each domain only.<br>• Ordinary Kriging (OK) using Surpac software was used to generate the resource estimates. Variography of gold grades from drilling data provides a maximum grade continuity of 50 m down plane plunge, 20 m perpendicular to plunge and 5 m across plunge for Nicolson's Find; 90 m down plunge, 55 m perpendicular to plunge and 5 m across plunge for Nicolson's South and 20.5m down plunge, 14.5 m perpendicular to plunge and 12, across plane for Wagtail South. Rowdies and Wagtail North have a strike-dip control on mineralisation. Rowdies grade continuity was 60 m down-dip, 50 m along strike and 4 m across the plane. Wagtail North parameters were 50 m along strike, 30 m down-dip and 4 m across the plane.<br>• A number of resource estimates by consultants, Optiro have been generated with previous resource estimates reconciled to later upgrades. Reconciliation of the Nicolson's open pit resource model with mine records provides a difference of -6% in tonnes, +15% in grade and +9% in gold metal compared to the resource model; however, the open pit area is only a small proportion of the current resource extents. Production figures from Rowdies and Wagtails are low in confidence and have not reconciled to the resource model.<br>• By products are not included in the resource estimate.<br>• No deleterious elements have been estimated. Arsenic is known to be present, however metallurgical test work suggests that it does not adversely affect metallurgical recovery.<br>• Models were interpolated with a block model cell size of 10 mN x 5 mE x 5 mRL, with sub-celling for volume representation only to 0.3 m. Estimation used 4 passes at Nicolson's and 3 passes elsewhere. At Nicolson's Find, the 1st pass used a search radius of 50 m with a minimum of 8 and maximum of 32 samples. Nicolson's South estimation used a 90m radius for the 1st pass with a minimum of 4 and maximum of 12 samples. The search radius was increased by 1.5 for second pass and the minimum number of samples was decreased to 4 for the 3rd pass. The search radius was increased by a factor of 3 and the minimum number of samples decreased to 1 for the 4th pass at Nicolson's. |

| Criteria | JORC Code explanation | Commentary |
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| Estimation and modelling techniques (continued) | | • The size of the blocks was determined by Kriging Neighbourhood Analysis in conjunction with the assumption of a relatively selective mining approach for both open pit and underground operations.<br>• Only gold has been estimated.<br>• Geological interpretation constrained initial resource wireframes; these were oriented along trends of grade continuity and were constrained further by cut-off grades.<br>• Grade distribution statistics were used to generate top cuts, along with the analysis of distribution graphs and disintegration analysis.<br>• Models were validated visually and by statistical comparison to input data both on a whole-of-domain and on a sectional basis using continuity or swathe plots. |
| Moisture | • Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content | • Tonnage was estimated on a dry basis. |
| Cut-off parameters | • The basis of the adopted cut-off grade(s) or quality parameters applied | • Cut-off grades for reporting were based on notional mining cut-off grades for open pit (0.6 g/t Au) and underground operations (3 g/t Au). |
| Mining factors or assumptions | • Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. | • An optimised pit shell was used to constrain material described as open pit with material outside this shell assigned to a potential underground operation.<br>• The minimum downhole intersection width of 2m for material above 200m and 1 m below 200m is considered to represent minimum mining widths for selective open pit and underground operations respectively. |
| Metallurgical factors or assumptions | • The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. | • Metallurgical testwork has shown acceptable (> 95%) gold recovery using CIP technology. No factors from the metallurgy have been applied to the estimates. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Environmental factors or assumptions | • Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. | • The deposits are on granted mining leases with existing mining disturbance and infrastructure present. |
| Bulk density | • Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.<br>• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.<br>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. | • Bulk density measurements of ore were calculated from drill core using the water displacement method and data from historical mining. Pit data provided 29 samples and drilling provided 91 samples.<br>• Bulk density estimates used were:<br>Oxide All: 2.0 t/m3<br>Transitional All: 2.4t/m3<br>Fresh Rowdies and Wagtails: 2.7t/m3<br>Fresh Nicolsons: 2.9t/m3 |
| Classification | • The basis for the classification of the Mineral Resources into varying confidence categories.<br>• Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).<br>• Whether the result appropriately reflects the Competent Person's view of the deposit. | • Indicated material is defined where geology and grade continuity was evident and supported by drill spacing of less than 30 m by 30 m with at least 2 intercepts in the quartz lode. Inferred material is defined where lodes are supported by less than 3 holes and drill spacing was greater than 30m x 30m.<br>• Input data is considered sufficiently comprehensive for the level of confidence assigned to the resource estimate by the Competent Person.<br>• The estimate appropriately reflects the view of the Competent Person. |
| Audits or reviews | • The results of any audits or reviews of Mineral Resource estimates | • An audit of the estimate was carried out by an independent consultant. No significant issues were noted. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Discussion of relative accuracy/ confidence | • Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.<br>• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.<br>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. | • The relative accuracy of the Mineral resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.<br>• The statement reflects local estimates at the block size.<br>• The resource model produced a 9% oz Au undercall against recorded production for the Nicolsons Find pit. This amount is considered to be within acceptable limits for the classification of the resource. Moreover, the open pit mining represents a small fraction of the existing resource area. |

## SECTION 4: ESTIMATION AND REPORTING OF ORE RESERVES – HALLS CREEK

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Mineral Resource estimate for conversion to Ore Reserves | • Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.<br>• Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. | • The Ore Reserve was calculated using detailed mine designs applied to the current JORC Resource Estimate. The Resource Estimate was completed by highly experienced resource geologists, overseen by the competent person.<br>• The Resources Reported are inclusive of the Ore Reserve. |
| Site visits | • Comment on any site visits undertaken by the Competent Person and the outcome of those visits.<br>• If no site visits have been undertaken indicate why this is the case. | • The Competent Person has made a number of visits to the site and was heavily involved in preparation of the overall operations plan which was the basis for the Reserve Estimate. |
| Study status | • The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.<br>• The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. | • The study completed to enable the estimation of the Reserve is considered to be a Feasibility level of study.<br>• The study utilizes functional mine designs and prevailing industry costs for formulation of the estimate |
| Cut-off parameters | • The basis of the cut-off grade(s) or quality parameters applied. | • The fully costed cut off grade is 4.1 g/t. incremental cut off grades for necessary activities were calculated separately, and insitu stope grades (pre dilution) were cut off at 3.5 g/t. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Mining factors or assumptions | • The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).<br>• The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.<br>• The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.<br>• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).<br>• The mining dilution factors used.<br>• The mining recovery factors used.<br>• Any minimum mining widths used.<br>• The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.<br>• The infrastructure requirements of the selected mining methods. | • Detailed ore stopes and development drives were designed using Surpac software. It was assumed that stopes would suffer 15% dilution at 0g/t and achieve 95% recovery of diluted tonnes. Ore drives were designed on the basis that drives with less than 60% ore would be resue mined with 30% dilution at 0g/t and 100% recovery. Drives not resue mined were recovered with 0% dilution and 100% recovery.<br>• All Reserve tonnes are extracted using underground methods. Uphole benching is the primary mining method and is considered suitable for the type and geometry of the deposit. Geotechnical factors were estimated by expert geotechnical consultants.<br>• Stopes are to be 30m along strike maximum. Where stopes are high grade they will be filled with loose waste to maximise extraction. In lower grade areas, pillares are left as necessary.<br>• Stopes ware designed with a minimum width of 1.2m. All dilution is assumed to have zero gold value. Stopes are assumed to be mined without fill.<br>• Mining is by owner operator using leased equipment. Quoted and industry standard rates are assumed.<br>• For stoping 15% dilution at zero grade is used. Ore drives were designed on the basis that drives with less than 60% ore would be resue mined with 30% dilution at 0g/t and 100% recovery. Drives not resue mined were recovered with 0% dilution and 100% recovery.<br>• For development 100% of diluted ore mined is recovered. For stoping 95% of diluted ore is recovered.<br>• The minimum mining width is 1.2m for stopes.<br>• Inferred resources were included in the full mine plan. For the purpose of testing viability of the Reserve alone, the mine plan was also assessed using Reserves only. The reserve only model was viable with total costs <A$1,000 per Oz.<br>• The costs used in the model include all required infrastructure including fixed plant, buildings and magazines, and mine excavations. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Metallurgical factors or assumptions | • The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.<br>• Whether the metallurgical process is well-tested technology or novel in nature.<br>• The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.<br>• Any assumptions or allowances made for deleterious elements.<br>• The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.<br>• For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? | • The existing processing plant at Nicolsons uses a conventional CIP circuit, which is appropriate for the style of mineralisation.<br>• The CIP process is the conventional gold processing method in Western Australia and is well tested and proven.<br>• Metallurgical testwork has been completed for 6 fresh ore samples with varying characteristics. In all cases it is possible to achieve +96% recovery provided that a gravity recovery circuit is employed. A Knelson concentrator is included in the mine plan for that purpose. The recovery assumed is 96%.<br>• There are not any know deleterious elements<br>• No bulk sampling or pilot scale testing has been undertaken.<br>• Not applicable |
| Infrastructure | • The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. | • The Nicolsons site has extensive existing infrastructure including a processing plant. The cost to bring all infrastructure back to operating status has been included in the Reserve calculation. The site is near the town of Halls Creek, and availability of accommodation has been confirmed. Transportation costs have been included. Prevailing industry labour rates have been applied. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Costs | • The derivation of, or assumptions made, regarding projected capital costs in the study<br>• The methodology used to estimate operating costs.<br>• Allowances made for the content of deleterious elements.<br>• The source of exchange rates used in the study.<br>• Derivation of transportation charges.<br>• The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.<br>• The allowances made for royalties payable, both Government and private. | • Capital costs were estimated by identifying capital equipment items and estimating labour and equipment requirements for installation of captal equipment. Whenever possible quoted rates were used.<br>• Operating costs are calculated from first principles with quotations used when possible. Industry standard rates for labour and equipment were applied to a detailed mine schedule.<br>• There are no known deleterious elements and no adjustments have been made.<br>• All costs were estimated in Australian dollars, and a gold price of $1400/Oz was utilized.<br>• Transport charges were based on quotation.<br>• Credit elements including silver were not attributed any value in the calculation and it is assumed that the silver credits received will cover refinement charges.<br>• A 2.5% state government royalty was assumed. It was also assumed that Bulletin Resources does not contribute its 20% and a 1% royalty payment to Bulletin was applied. |
| Revenue factors | • The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.<br>• The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. | • Grade is scheduled monthly in a detailed mining schedule.<br>• Gold price was assumed to be A$1,400 per ounce.<br>• No revenue from silver or any metals other than gold was assumed. |
| Market assessment | • The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.<br>• A customer and competitor analysis along with the identification of likely market windows for the product.<br>• Price and volume forecasts and the basis for these forecasts.<br>• For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. | • Gold prices can be volatile and there are many conflicting positions on the future price of Gold. Pacific Niugini believes that A$1,400 per ounce is a realistic forward price forecast for gold over the life of the proposed mine. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Economic | • The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.<br>• NPV ranges and sensitivity to variations in the significant assumptions and inputs. | • NPV was calculated with a discount rate of 8% per annum.<br>• Due to the short life of the proposed mine, inflation was not applied to costs or gold price. |
| Social | • The status of agreements with key stakeholders and matters leading to social licence to operate. | • The project is on granted mining leases and the company has an access agreement with the pastoral lease owner who is also the local aboriginal corporation. |
| Other | • To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:<br>• Any identified material naturally occurring risks.<br>• The status of material legal agreements and marketing arrangements.<br>• The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. | • Pacific Niugini's ownership of the project is governed by an Acquisition Agreement with Bulletin Resources. Pacific Niugini is satisfied that it has complied with the requirements of that agreement.<br>• Signed transfer documents for the tenements are held by Pacific Niugini, however transfers have not occurred as the Department of State Revenue has not completed a Stamp Duty Assessment, and Stamp Duty must be paid prior to transfer of tenements. The Acquisition Agreement protects PNR's interest in the period prior to transfer.<br>• PNR lodged its Mining Proposal and Closure Plan to the DMP in August 2014 and believes that it is close to receiving approval for mining of the deposit. PNR is continuing to liaise with the department to expedite approvals. |
| Classification | • The basis for the classification of the Ore Reserves into varying confidence categories.<br>• Whether the result appropriately reflects the Competent Person's view of the deposit.<br>• The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). | • The reserve has been derived from Indicated Resources, and no Measured Resources are identified in the resource model.<br>• Recent drilling indicates that the ore may be narrower but higher grade in some sections of the Resource. The competent person is satisfied that the total gold to be recovered and the costs applied are suitable for the deposit. |
| Audits or reviews | • The results of any audits or reviews of Ore Reserve estimates. | • No audits or reviews have been completed. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Discussion of relative accuracy/ confidence | • Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.<br>• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.<br>• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.<br>• It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. | • The Probable Reserve is primarily based on RC drilling. Recent diamond drilling indicates that ore may be narrower but higher grade. A comparison of gram metres in the model vs gram metres in drilling indicated that the total ounces in the Reserve are reasonable and may be conservative.<br>• No modifying factors apart from those set out in this Table 1 have been included. |