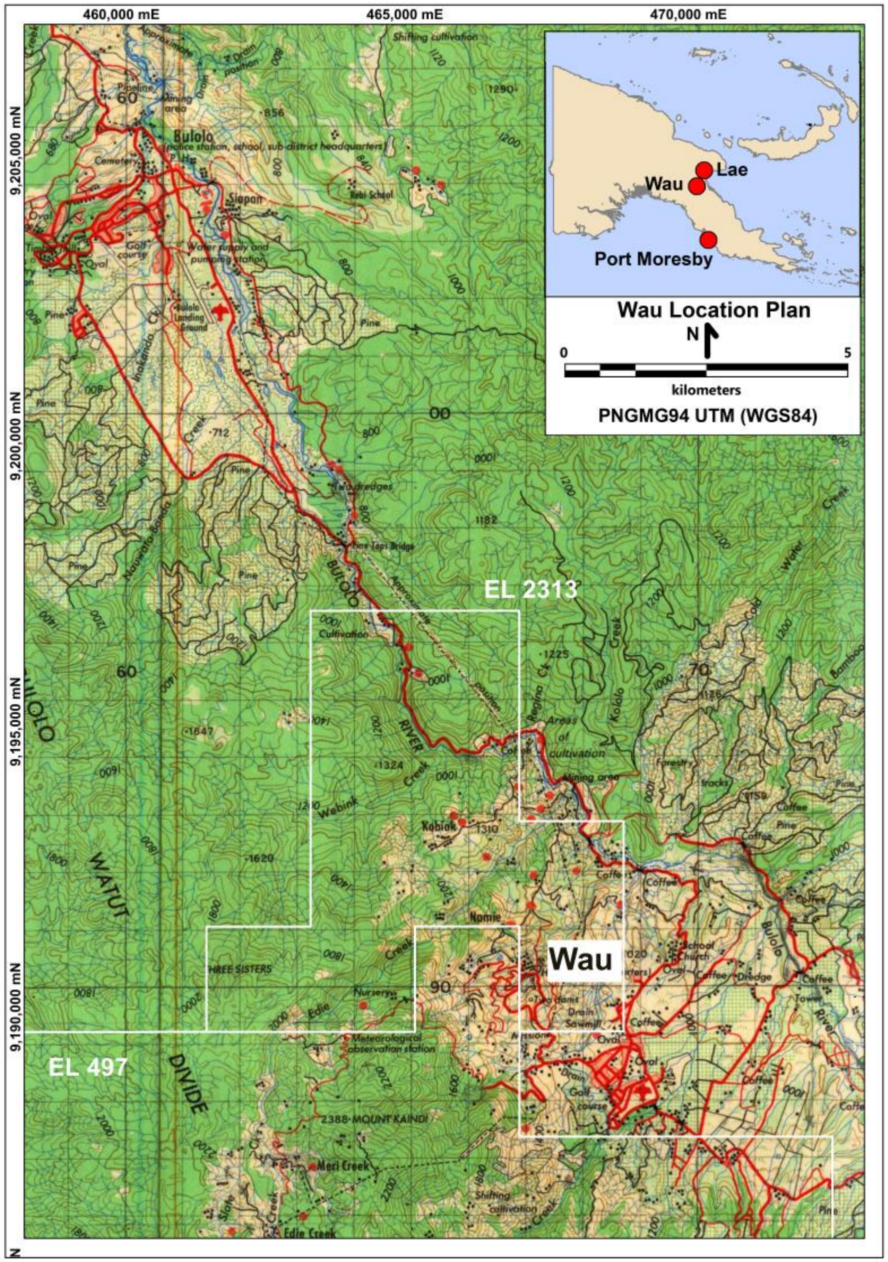
Table 1: Wau Namie drill results

Hole ID	Drill method	North (m)	East (m)	RL (m)	Depth (m)	Azi (°true)	Dip	From (m)	To (m)	Interval (m)	Au (g/t)	Intercept	Comments
Kuranga Upflow													
WNDD001	DD							-	-	-	-	NSA	
WNDD002	DD							14	22	8	0.50	8m @ 0.50 g/t Au from 14m	
And								79	107.8	28.8	1.31	28.8m @ 1.31 g/t Au from 79m	
Includes								84	100	16	2.24	16m @ 2.24 g/t Au from 84m	
WNDD003	DD							1	6	3	0.27	5m @ 0.27 g/t Au from 1m	
And								14	5	19	0.57	14m @ 0.57 g/t Au from 14m	
WNDD004	DD							4.5	23	18.5	0.61	18.5m @ 0.61 g/t Au from 4.5m	
WNDD005	DD											NSA	
WNDD006	DD							25	46	21	0.68	21m @ 0.68 g/t Au from 25m	
Includes								28	40	12	1.02	12m @ 1.02 g/t Au from 28m	
WNDD009	DD							15.3	22	6.7	0.41	6.7m @ 0.41 g/t from 15.3m	
And								28	35	7	0.59	7m @ 0.59 g/t from 28m	
Includes								28	32	4	0.79	4m @ 0.79 g/t from 28m	
And								70	90	20	0.41	20m @ 0.41 g/t from 70m	
Includes								70	81	11	0.43	11m @ 0.43 g/t from 70m	
WNDD010	DD											Assays pending	
Kunai Hill													
WNDD007	DD							69	82	13	2.86	13m @ 2.86 g/t Au from 69m	
Includes								69	81	12	3.07	12m @ 3.07 g/t Au from 69m	
And								89	97	8	0.83	8m @ 0.83 g/t Au from 89m	
WNDD008	DD							75	81	6	0.62	6m @ 0.62 g/t Au from 75m	
And								86	92	6	0.47	6m @ 0.47 g/t Au from 86m	
And								126	131	5	0.43	5m @ 0.43 g/t Au from 126m	
Kuranga Lithocap													
WNDD011	DD											Assays pending	

Notes:
1. DD: diamond drillhole; Au: *gold*;
2. Composited intervals were calculated downhole using minimum lower cut-off of 0.3 g/t Au with a maximum allowable interval of internal waste of 4m. Higher grade zones reported as inclusive intervals. High grades were composited intervals calculated downhole using minimum lower cut-off of 0.5 g/t Au with a maximum allowable interval of internal waste of 4m.
3. *partial intercept, assays pending
4. Collar coordinates in WGS84 Geodetic Datum, Azimuths true bearing
5 NSA: No significant assays

SAMREC TABLE 1			
		Table for Exploration Results only	
Section 1: Project Outline			
1.1	Property Description	(i)	*Brief description of the scope of project (i.e. whether in preliminary sampling, advanced exploration, Scoping, Pre-Feasibility, or Feasibility phase, Life of Mine plan for an ongoing mining operation, or closure).* The Namie area hosted a historic gold mine that produced 3.52Mt @ 6.47g/t Au (0.56Moz) Au from multiple centers of mineralization between 1933 and 1989. The project aim has been to test a variety of targets and should still be considered as being in an early exploration phase. No resource calculation, scoping or feasibility studies have been completed, nor are being considered in the short term.
		(ii)	*Describe (noting any conditions that may affect possible prospecting/mining activities) the topography, elevation, drainage, fauna and flora, the means and ease of access to the property, the proximity of the property to a population centre, and the transport infrastructure, the climate, known associated climatic risks and the length of the operating season and to the extent these are relevant to the mineral project. The sufficiency of surface rights for mining operations including the availability and sources of power, water, mining personnel. Potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites.* The Bulolo-Wau area in the Morobe Province of Papua New Guinea is a topographically rugged, high rainfall environment. Access is by sealed road to Bulolo and unsealed onward to Wau however sections of highway frequently washout or flood due to proximity to high energy waterways. Mines have historically operated in the area and Hidden Valley Gold Mine currently operates in the highlands above the Bulolo valley.
		(iii)	*Specify the details of the personal inspection on the property by each CP or, if applicable, the reason why a personal inspection has not been completed.* Mr Rich, Mr Humphries and Mr Jeffriess are full time employees of Harmony and represent the senior leadership team responsible for the exploration program at Wau and compilation of the technical data underpinning the news releases. All have spent significant time onsite reviewing geology, sample collection and data consolidation, QAQC, and drill targeting and model development.
1.2	Location	(i)	*Description of location and map (country, province, and closest town/city, coordinate systems and ranges, etc.).* The Namie area is located at 146.7 Longitude and -7.3 Latitude, approximately 4.5km northwest of the Wau Township and ~90km south west of the Lae City, in the Morobe Province of Papua New Guinea. The project extends across two exploration tenements, EL497 and EL2313, both of which are owned 100% by Harmony Gold (PNG) Exploration limited. The tenement area can be accessed by road. Airstrips are also located at Bulolo and Wau. The main co-ordinate system used on site is the PNGMG94 UTM (WGS84) based grid. Refer map 1 below.
		(ii)	*Country profile: present information pertaining to the project host country that is pertinent to the project, including relevant applicable legislation, environmental and social context etc. Assess, at a high level, relevant technical, environmental, social, economic, political and other key risks.* Many assessments of PNG suggest a higher level of risk than is probably justified, especially at the political level, complexity rather than high-risk would be a better description. PNG is yet to find a strong level of government continuity, and has seen a high turn-over of governments due to the inability of any party to dominate the political scene and elections. While this apparent instability seems set to continue for some years yet, all the changes have been constitutional and have not seemingly had a major impact on the economic development of the country. Changes to the electoral and parliamentary system have worked to help stabilize the government, and reduce the number of 'turnovers'. This has contributed to better continuity of governance for PNG. Whilst there is a high incidence of armed political activity in the Highlands it is more a 'way of life' than a factor threatening overall political stability of the region or country. There are no apparent looming issues which are likely to spark off any widespread conflict or unrest in the medium-term. Relying on the stability of world commodity prices (minerals and gas), most economist are cautiously optimistic that PNG should enjoy reasonable growth levels and have the capacity to steadily improve service delivery and infrastructure development. There is, however, a

			heavy expectation within the country of the mining sector to boost development, perhaps at a level that creates unrealistic expectations of mining's likely impact. Recent history, the current situation and the likely prognosis for PNG suggests that key aspects of government policy affecting mining and security of concessions rights are likely to stay stable. There is a great deal of external pressure and influence at work to help keep things on this steady path. Social instability is one of the more serious risk factors at work in PNG, and is at a level where it could disrupt large projects. There are a number of factors at work which threaten to cause occasional social conflict and disruption. A part of this aspect is the central importance of land rights, and traditional group's claims on land. It is an aspect which needs careful managing and strong local knowledge. Levels of labour organization and militancy in PNG are relatively low, and a fairly stable labour scene exists. Large investors at times find it difficult to integrate modern labour practices with the complexities of PNG's traditionalist indigenous society and Melanesian culture. Crime levels are high compared to advanced developed nations, but no more than average in the developing world. There is a relatively low level of international and organized crime presence in PNG.
		(iii)	*Provide a general topocadastral map.*



460,000 mE
465,000 mE
470,000 mE
9,205,000 mN
9,200,000 mN
9,195,000 mN
9,190,000 mN
Lae
Wau
Port Moresby
Wau Location Plan
N
0
5
kilometers
PNGMG94 UTM (WGS84)
EL 2313
EL 497
Wau
Bulolo
WATUT
DIVIDE

			Map 1: General topocadastral map of Wau with diagram showing location relative to major towns.
1.3	Adjacent Properties	(i)	*Discuss details of relevant adjacent properties. If adjacent or nearby properties have an important bearing on the report, then their location and common mineralised structures should be included on the maps. Reference all information used from other sources.* Not Applicable as there are no immediately adjacent properties, there are however several nearby deposits of note, they include Eddie Creek, Upper Ridges and Hidden Valley.
1.4	History	(i)	*State historical background to the project and adjacent areas concerned, including known results of previous exploration and mining activities (type, amount, quantity and development work), previous ownership and changes thereto.* Hard rock gold was first discovered at Golden Ridges in 1929 with initial open pit mining being undertaken from 1932 -1941. Subsequently further discoveries were made at Golden Peaks and Upper Ridges. At Upper Ridge underground mining of seven discrete lodes produced 111,000oz Au at an average grade of 13.8g/t Au until 1962 while open-pit mining between 1962 and 1989 (from 1982-1989 by RGC) produced 130,000oz from ores grading <2g/t Au. During the period 1982– 1984, RGC/GFEL completed several systematic exploration programs in and around the Wau mines with the aim of replacing/increasing mine resources. In 1989 the Wau Mine closed after 63 years of operation. In total the Wau Gold Mine produced 3.52Mt @ 6.47g/t Au (0.56Moz Au) with a summary of mine production and reserve presented in Table 1.

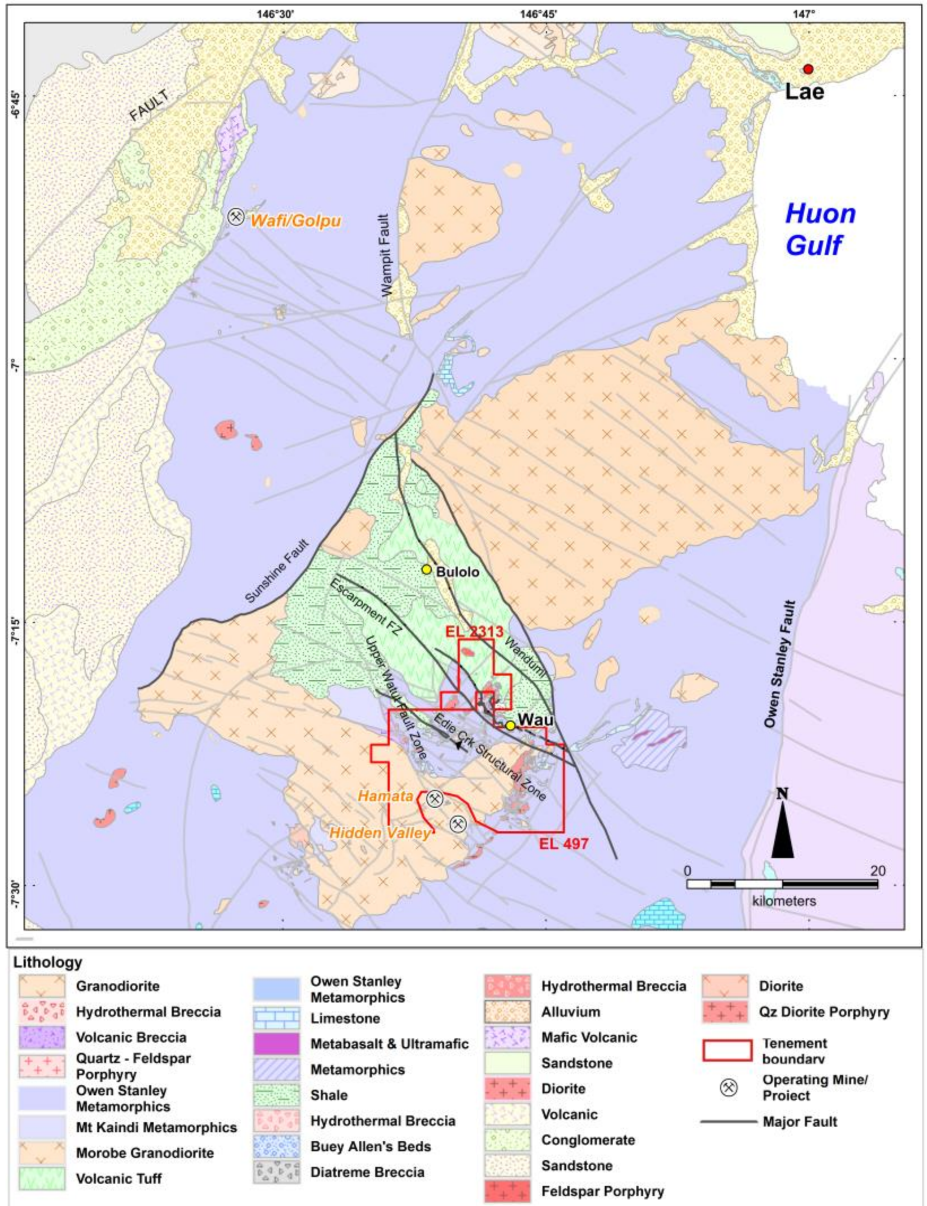
Deposit	Period	Production	Head Grade Au g/t	Recovered Grade Au g/t
Upper Ridges UG	1933-1941 1952-1957	254000	13.7	11.4
Anderson Crk	1936-1941 1952-1962	23000	16	13
Golden Ridges (Homestead)	1933-1941 1952-1960	210000	21.1	15.9
Golden Ridges (Demetrius & Davidson)	1961-1977	174000	3.1	2.7
Golden Peak OP	1953-1976	1476000	4.8	4.5
Upper Ridges	1982 - 1989	1380000	1.74	-

Table 2: Wau Gold Mine - gold production history

		(ii)	*Present details of previous successes or failures with reasons why the project may now be considered potentially economic.* The closure of the Wau Mine in 1989 coincided with the development of Porgera Gold Mine by RGC and a period of depressed gold prices. The current program aim is to test a variety of targets with potential to deliver resources to supplement feed at Hidden Valley operation.
1.5	Legal Aspects and Permitting		**Confirm the legal tenure to the satisfaction of the CP, including the following information:**
		(i)	*Discuss the nature of the issuer's rights (e.g. prospecting and/or mining) and the right to use the surface of the properties to which these rights relate. Disclose the date of expiry and other relevant details.*

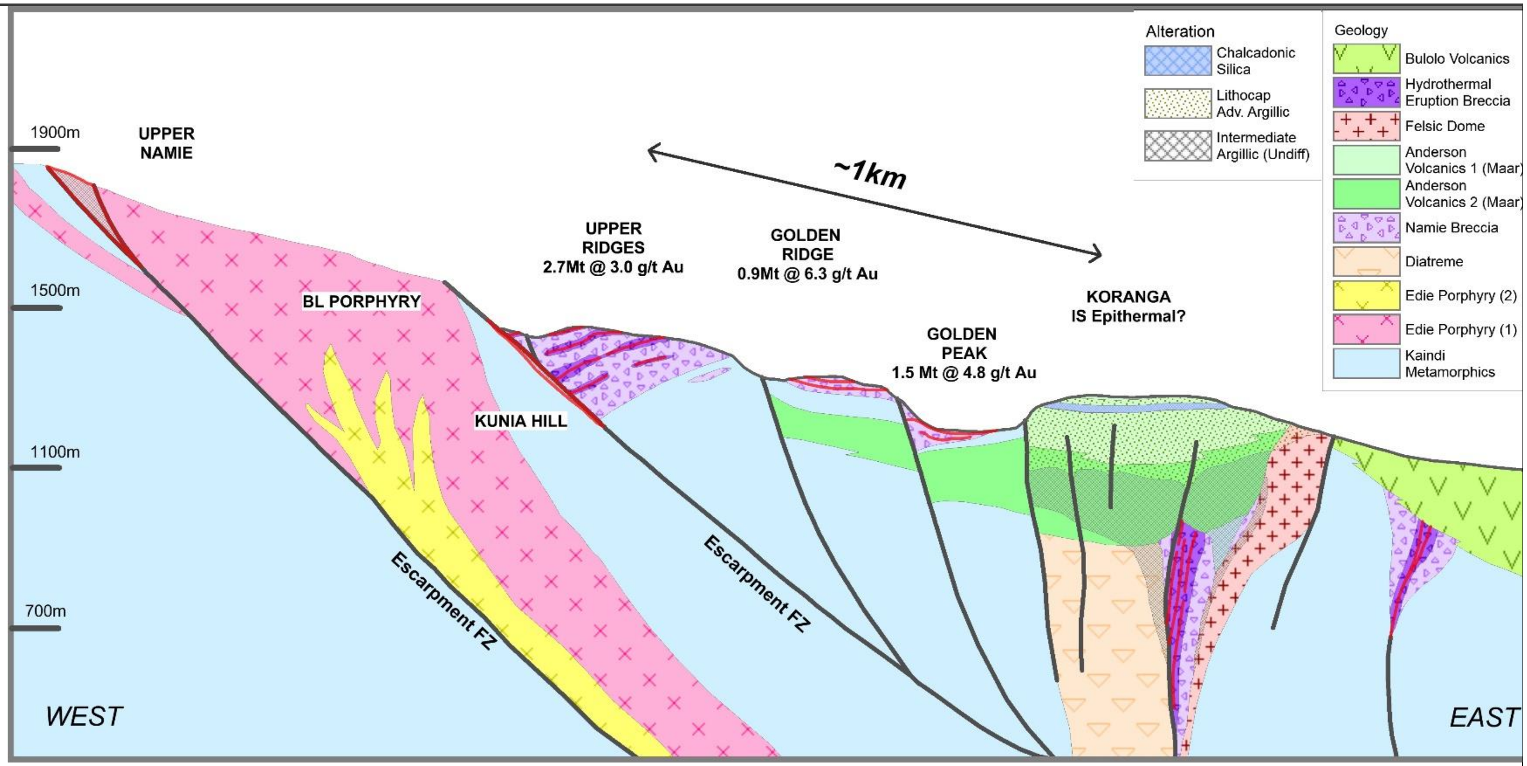
			Harmony Gold (PNG) Exploration Limited was transferred ownership of EL497, EL677 and EL2313 on the 29th July 2017. Harmony Gold (PNG) Exploration Ltd is a fully owned subsidiary of Harmony Gold Mining Company. The tenement areas granted are shown below. Under the 1992 PNG Mining Act Exploration licenses need to be renewed every 2 years following a standard application process. EL497 was granted 25 August 2016. Its next statutory renewal is due 24 August 2018. EL677 was granted 18 February 2017. Its next statutory renewal is due 17 February 2019. EL2313 was granted 24 December 2016. Its next statutory renewal is due 23 December 2018. Under the 1992 PNG Mining Act the State reserves the right to elect to purchase up to 30% interest in any project at a price pro-rata to the accumulated exploration expenditure, and contribute to expenditure and development accordingly thereafter.
		(ii)	*Present the principal terms and conditions of all existing agreements, and details of those still to be obtained, (such as, but not limited to, concessions, partnerships, joint ventures, access rights, leases, historical and cultural sites, wilderness or national park and environmental settings, royalties, consents, permission, permits or authorisations).* There are no known significant historical and cultural sites that affect Exploration activities on the tenements. The broader EL497 tenement area overlaps the Mt Kaindi Wildlife Management Area and the broader EL2313 tenement area overlaps the Mc Adams National Park however the prospect area discussed here in does not overlap or encroach on either. The PNG Mining Act 1992 sets out principals of compensation to local landholders in Section 154 and Harmony Gold Exploration (PNG) Limited have negotiated access on this basis. Where applicable compensation for vegetation damage is determined with reference to the values for economic trees published by the Valuer-General. The PNG Environmental Act 2000, requires Environmental permits for water extraction and discharge for drill programs where the aggregate depth of all holes drilled is greater than 2500m of drilling. The current applicable environment permits for EL497 and EL2313 are in compliance with this requirement EP-L2 (579/580) and were issued on 2nd October 2017 and are current for ten (10) years to 1st November 2027.
		(iii)	*Present the security of the tenure held at the time of reporting or that is reasonably expected to be granted in the future along with any known impediments to obtaining the right to operate in the area. State details of applications that have been made.* EL497 and EL2313 are 100% held by Harmony Gold Exploration (PNG) Limited, a wholly owned subsidiary of Harmony Gold Mining Company Limited. EL497 was granted 25 August 2016. Its next statutory renewal is due 24 August 2018. EL2313 was granted 24 December 2016. Its next statutory renewal is due 23 December 2018.
		(iv)	*Provide a statement of any legal proceedings, for example, land claims, that may have an influence on the rights to prospect or mine for minerals, or an appropriate negative statement.* There are no current legal proceedings against the ownership of EL497 or EL2313. Customary land ownership disputes are ongoing in the PNG court system over land parcels overlapped by both EL497 and EL2313. A key principle underpinning the PNG Mining Act 1992 is that minerals are the property of the State. Royalties (payable as a result of extraction of minerals under a Mining Lease (ML) or its equivalent) are determined either a Minerals Development Contract or Memorandum of Agreement which are negotiated in conjunction with the grant of an ML or its equivalent. Whilst a component of royalties is invariably negotiated in favour of local landowners, when disputed, determination of legitimate landownership is determined under the Land Disputes Settlement Act 1975.
		(v)	*Provide a statement relating to governmental/statutory requirements and permits as may be required, have been applied for, approved or can be reasonably be expected to be obtained.* The exploration licence is described in Section 1 and Environmental permits are described in section 1.5(ii). There are no further statutory permits require at this stage of development.
1.6	Royalties	(i)	*Describe the royalties that are payable in respect of each property.*

			EL497 and EL2313 are under exploration only and are owned 100% as Harmony Gold Exploration (PNG) Limited. No royalties are applicable.
1.7	Liabilities	(i)	*Describe any liabilities, including rehabilitation guarantees, that are pertinent to the project. Provide a description of the rehabilitation liability, including, but not limited to, legislative requirements, assumptions and limitations.* Security deposit of Kina 5,000 each are held by the Mineral Resource Authority over EL497 and EL2313. Under terms of the environmental permits EP – L2 (579/580) Harmony Gold Exploration (PNG) Limited are required to undertake progressive vegetation regeneration / rehabilitation work at sites that are no longer required for further use or development after drilling are completed. This rehabilitation extends to landform rehabilitation and topsoil management. An extensive environmental monitoring and quarterly reporting regime is in place as part of the permit requirements, and Harmony's drill program activities are in compliance. There are no outstanding environmental liabilities.
			Section 2: Geological Setting, Deposit, Mineralisation
2.1	Geological Setting, Deposit, Mineralisation	(i)	*Describe the regional geology*. The tenements are located within the New Guinea Orogenic Belt, which resulted from oblique convergence between the north moving Australian Plate and the north-westerly moving Pacific Oceanic Plate in the Late Cretaceous. Micro plates of continental, oceanic and volcanic arc were accreted onto the northern margin of the Australian Craton during this process (Davies et al, 1997). Intensely folded and foliated sedimentary units with extensive thrusting and faulting and multi-phase intrusives characterise this zone which represents the suture between the Australian and Pacific Plates. The tenements lie within the Bulolo Graben, a 15km by 35km Pliocene intra-arc graben formed within the extensional tectonism region between the Western and Eastern parts of the New Guinea Orogen (Corbett,1996). The Bulolo Graben is characterised by intensely faulted, foliated and metamorphosed sedimentary units with multi-phase intrusive suites. Other known projects like Hamata, Kerimenge, Hidden Valley, and Wafi are hosted within the Bulolo Graben (Ulaiwi, 2005). The Mesozoic Owen Stanely Metamorphics (OSM) form the basement to the Wau area. The unit is intensely metamorphosed, faulted and intruded by Mid – Miocene batholith of Morobe Granodiorite and the Pliocene Edie Porphyry (Pigram and Davies, 1987; Rogerson et. Al.,1987). The metamorphic complex comprises phyllite and schist of low-grade green schist facies, locally known as the "Kaindi Metamorphics," (Dow et. al., 1974). This basement unit is intruded by medium to coarse grained granodiorite with minor variants of monzonite, diorite, tonalite, hornblende and gabbro. To the northwest lies the Bulolo Volcanics and resting unconformable on the volcanics is the Otibanda Formation. These are poorly sorted lacustrine sequence consisting of conglomerates, sandstones and re-worked tuffaceous materials. The resurgence of volcanic activities during Pliocene (4Ma to at least 2Ma) was responsible for the emplacement of stocks and dykes of Edie Porphyry, eruption of endogenous domes, agglomerates and tuffs of Bulolo Volcanics, subsequent diatreme activities and gold mineralisation (Lowenstein, 1982). The N-NW trending Bulolo Graben has numerous high angle NW & NE trending intra-graben faults. The graben is bounded to the east by Wandumi Lineament and west by Upper Watut Fault, (Akiro, 1986). These faults were facilitated by NE trending transfer structures. Snake Fault and Kereminge Fault bound the northern and southern ends of the graben, respectively. Prominent NE trending faults that run through the area are Edie, Kobiak and Booth Faults. These faults controlled most known alteration and mineralisation in the area (Ulaiwi, 2005).



146°30'
146°45'
147°
-6°45'
-7°
-7°15'
-7°30'
FAULT
Lae
Wafi/Golpu
Wampit Fault
Huon
Gulf
Sunshine Fault
Bulolo
Escarpment FZ
EL 2313
Wandumi
Upper Watut Fault Zone
Edie Crk Structural Zone
Wau
Owen Stanley Fault
Hamata
Hidden Valley
EL 497
N
0
20
kilometers
Lithology
Granodiorite
Hydrothermal Breccia
Volcanic Breccia
Quartz - Feldspar Porphyry
Owen Stanley Metamorphics
Mt Kaindi Metamorphics
Morobe Granodiorite
Volcanic Tuff
Owen Stanley Metamorphics
Limestone
Metabasalt & Ultramafic
Metamorphics
Shale
Hydrothermal Breccia
Buey Allen's Beds
Diatreme Breccia
Hydrothermal Breccia
Alluvium
Mafic Volcanic
Sandstone
Diorite
Volcanic
Conglomerate
Sandstone
Feldspar Porphyry
Diorite
Qz Diorite Porphyry
Tenement boundary
Operating Mine/ Project
Major Fault

			Map 2: Figure shows Morobe Province regional geology and structure.
		(ii)	*Describe the project geology, including deposit type, geological setting and style of mineralisation*. A series of variably eroded, flow banded and locally brecciated felsic endogenous domes were recognised by Sillitoe (1984) within the greater Wau Mine area. Two principal endogenous domes termed Dick's Dome (Lower Edie Porphyry) and Max's Dome (unclassified porphyry) respectively defined by: 1) biotite dacite porphyry with a well-developed foliation dipping in various directions at 50-60 degrees and 2) hornblende-biotite andesite porphyry with a near vertical flow foliation close to contacts (Sillitoe, 1982). While domes are not directly economic Dick's dome was reported as hosting chalcedony-pyrite stockwork while Max's Dome is altered at its margins. Additionally, boulders derived from Dick's dome occur at the base of the Wau maar fill suggesting it was emplaced contemporaneously or immediately after diatreme formation. The Namie Breccia represents the first rock type directly associated with the generation of the Wau maar-diatreme and forms a distinctive unit composed of grit to pebble sized, angular to sub-rounded fragments generally of Kaindi Metamorphics and dacite/rhyolite (Bulolo) porphyry set within a grey rock flour matrix. Both massive and bedded units have been recognised and respectively inferred to have sub-aerial and intrusive phreatomagmatic breccia forming origins. The adjacent (overlying) Wau Maar comprises a deformed and hydrothermally altered sequence of pyroclastics and volcanoclastics extending over a 1400m x 1400m area, bound by ring faults and estimated to exceed 200m in thickness. The volcanoclastic part of the intramaar sequence overlies the pyroclastic component with the former consisting of reworked breccia, grits, sandstones and finely laminated mudstones. Several bodies of Hydrothermal Explosion Breccia (HEB) were identified by Sillitoe, (1982) and interpreted to be most closely associated with gold mineralisation at the Wau Mine area. HEB units are chaotic and consist of angular to rounded polymitic fragments of nearby rocks hosted by a muddy/plastic matrix. At Upper Ridges, Golden Ridges and Golden Peaks, fragments of Namie Breccia and Kaindi Metamorphics are prominent while at Koranga dome breccias are lithologically distinct and carry intramaar pyroclastics, diorite clasts, pyritised and silicified material (including wood), plastic mud but lack evidence for juvenile clasts (Sillitoe et al, 1984). HEB has been interpreted to have formed from hydrothermal explosions induced by failure of a self-sealed cap rock resulting in the flashing of water to steam (Sillitoe, et al, 1984). Explosion is considered repetitive and results in the building up of aprons of ejecta around hydrothermal vents. The exposed hydrothermal explosion breccias at Wau are inferred as narrow (only 10-30m thick) however, vents may be underlain by breccia pipes. Minor dyke-like bodies of explosion breccia were reported at Golden Ridges while at Golden Peaks drilling intersected Namie Breccia to depths of 100m which was reinterpreted as a hydrothermal explosion breccia pipe. The smaller vent at Upper Ridges was intersected in RGC drilling until 54m however, its apron has subsequently been removed by erosion and/or mining. The Koranga Crater hydrothermal explosion breccia is the youngest with its latest apron formed in 1967 by an inferred explosion which was marked by the presence of volatile rich fumaroles with the site today marked by native sulphur encrustations (Pigram et. al., 1977). Four of the craters or vents are situated on or close to the maar edge. This is considered to be the likely place for on-going hydrothermal explosion activity. Near this site the drilling of RCG drillhole DDH 4 encountered fluid pressures of 1000psi which ceased drilling. A 1.3km x 0.9km feldspar destructive alteration zone is present over the central parts of the Wau Maar however this was probably larger prior to the commencement of mining and mining related erosion. The feldspar destructive zone is ~10m thick and characterised by a flat lying basal layer of chalcadonic/opaline quartz with up to 20% pyrite/marcasite. Alteration above the basal zone is characterised by advanced argillic clays (dickite – kaolinite – alunite – sericite - pyrophillite). Below the basal zone sericite levels are reported to increase with depth. The basal quartz zone is interpreted to mark the zone of boiling at the paleo- water table with overlying advanced argillic alteration potentially marking the effects of steam heated acid leaching. Deeper underlying sericite alteration could be attributed to the ascent of hotter temperature fluids within a closed system or less likely the presence of an overprinting earlier hydrothermal event. Further drilling is required to better define the detail of the geological model however the various features of the mineralisation at Wau are interpreted as indications of the presence of a well-developed intermediated sulphidation epithermal system.



Section 1: Figure shows schematic section through the historic Wau mining area illustrating conceptualised mineralisation models for the various target areas. Tonnes and grades quoted represent historic production.

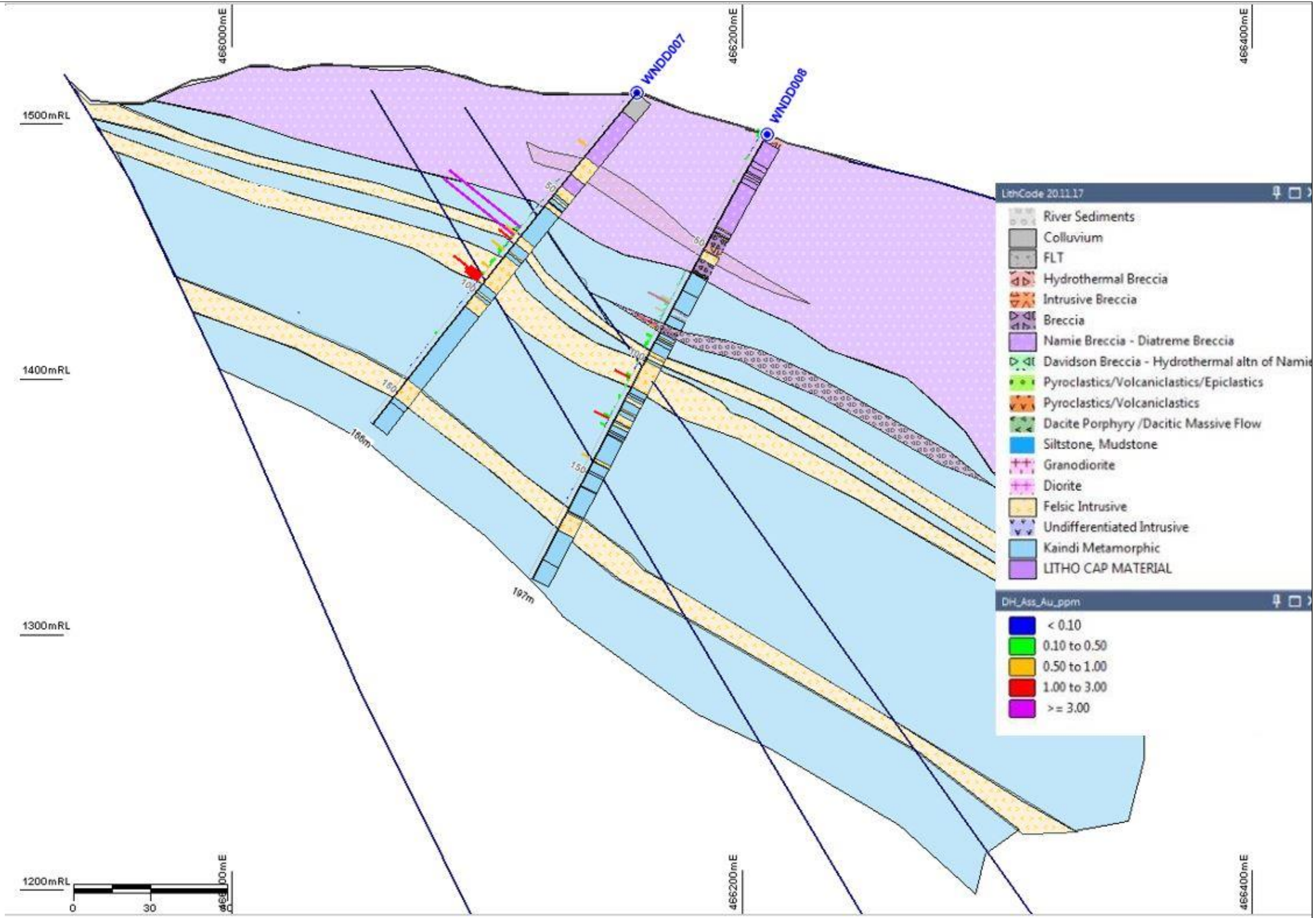
(iii) *Discuss the geological model or concepts being applied in the investigation and on the basis of which the exploration program is planned. Describe the inferences made from this model*.

Kunai Hill: Drill targets are following up historical results with aim to define a new resource area. 6 historic drillholes were completed intersecting sub-economic to economic mineralisation. The mineralisation was associated with a N-S shear zone dipping moderately (55°) to the east and located parallel and 75m east within hangingwall of Escarpment Fault (Upper Namie analogue). Mineralisation: strike length ~200m x 15m @2.2g/t Au. Mineralised zone transects a series of sub-horizontal sericitized porphyry dykes intruding into brecciated Kaindi phyllite.

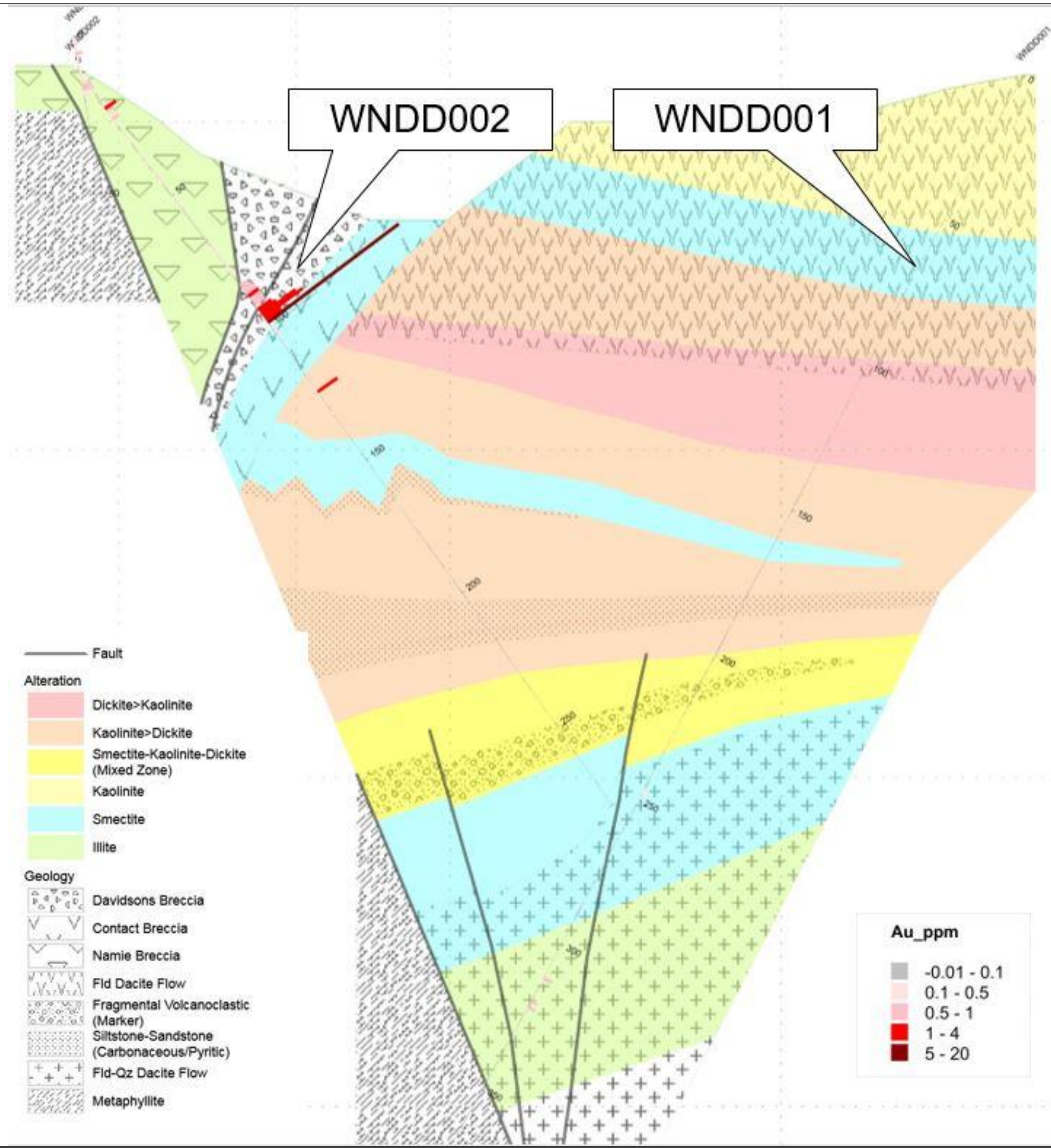
2017 Kunai Hill drilling geology: 3 main rock types: i) Polylithic, poorly sorted volcanic breccia with crosscutting phreatic breccias; 0m – 64.80m ii)Kaindi Metamorphics muscovitic-chloritic phyllite, 64.80m – 197.0m iii) Dacite fsp-qz-biotite phyric dykes; 51.40m – 147.0m.
The narrow dacite dykes hosts qz-cb-basemetal sulphide mineralisation. Strong kaolinite-quartz alteration zones. Significant structural zone with faulting/shearing and brecciation.

Namie Body: Defined post the 1966-1967 RGC drilling program but left out of 1976 Ore Reserves Calculation. The Forgotten Body “0.3Mt @ 3.8g/t Au" was included in the 1983 and 1985 Ore Reserve Calculations as Block “F” with estimate of 0.12Mt @3.17g/t & 6g/t Ag using 1.0 g/t and 10.0 g/t Au cut-offs. Ore block configuration was 100m x 15m x 26m. The western half of the block is overlain by ~36m of barren overburden while to the east (Anderson Crk) and north (Golden Peak pit) mineralisation is exposed at surface. Host rocks display oxidised

			breccia facies locally strongly pyritic with veining including calcite, black manganese and quartz. Inferred late barren hydrothermal breccia cuts ore body to the south. 2017 Namie Body drilling geology: 3 main rock types: i) Namie breccia; Minor intervals of sand and re-brecciation via later phreatomagmatic events. This unit extends to a depth 91.20m and is in faulted-contact with the underlying volcanic sequences ii) Andersons volcanics; Fsp-rich dacitic volcanics, breccias and pyroclastics and basal surge-flow units. This unit is very strongly argillic altered with kaolinite in fractures and replacing grains. Was drilled to 161.40m at which depth the drilhole was ended. iii) Hydrothermal phreatic breccias; Occur as narrow intervals, crosscut the Andersons volcanics and can host clasts of massive sulphide (py-mac-+aspy). Historic horizontal lode model needs testing. Potentially vertical through Andersons. Kuranga Lithocap: Conceptual geology target with mineralisation located (blind) below a lithocap blanket. Analytical Spectral Device mapping of minerals confirms an acid environment interpreted as acid sulphate overprinting Namie Breccia. A single drill hole was completed in the area by CRAE in 1970 however no data from this is available. A fence of drill holes across Golden Ridge was proposed where potential for an upflow zone was identified and a single hole planned to test geochemical anomalism possibly associated with leakage along the margin adjacent to Max's Dome and the headwaters to Kurunga Creek. 2017 Kuranga Lithocap drilling geology: 3 main rock types: i) ASD down hole logging developing alteration model suggests preserved lithocap interpretation still valid. Volcaniclastic package with breccias developed on faulted margin. Known mineralisation may represent leakage from mineralised source below volcaniclastics.
		(iv)	*Discuss data density, distribution and reliability and whether the quality and quantity of information are sufficient to support statements, made or inferred, concerning the Exploration Target or Mineralisation*. No resource estimates are presented associated with these exploration drill targets. Historical resources estimates from the Wau Mine have not been recalculated.
		(v)	*Discuss the significant minerals present in the deposit, their frequency, size and other characteristics. Include minor and gangue minerals where these will have an effect on the processing steps. Indicate the variability of each important mineral within the deposit*. No geometallurgy studies have been completed during this early stage exploration processes.
		(vi)	*Describe the significant mineralised zones encountered on the property, including a summary of the surrounding rock types, relevant geological controls, and the length, width, depth, and continuity of the mineralisation, together with a description of the type, character, and distribution of the mineralisation*. The historic Wau Mine exploited mainly high grade oxide gold mineralization from multiple hydrothermal breccias, stockwork and disseminated lodes. Lodes formed shallowly dipping discontinuous lenticular bodies up to 10m thick and 300m long located within or at the base of hydrothermal breccia bodies of sub-surface or sub aerial origin (Sillitoe et al., 1984). Major veins were noted to be overlain by one or more less extensive veins that were paralleled by pre-existing dacite porphyry sill like bodies. Two main stages of mineralization identified in the Upper Ridges deposit include: 1a. Early silica-sericite-pyrite veins or vein breccias hosted by diatreme breccia (Namie Breccia) and Kaindi Metamorphics carrying variable gold grades, 1b. Silicified/altered porphyry and 2. Late stage quartz-manganese-carbonate-sulphide lodes crosscutting diatreme breccia (Namie Breccia). Current exploration for new lodes is in a reconnaissance stage and correlation of intercepts between drill sections is yet to be confirmed.
		(vii)	*Confirm that reliable geological models and / or maps and cross-sections that support the interpretations exist*. Example cross sections through Kunai Hill, Namie Body and Kuranga Lithocap are included below illustrating the geological logging and ASD data driven alteration interpretation. The models and data are available for a range of software including Leapfrog, Micromine, and MapInfo, and an extensive hardcopy plan library of maps and plans is located onsite. Kunai Hill Section:



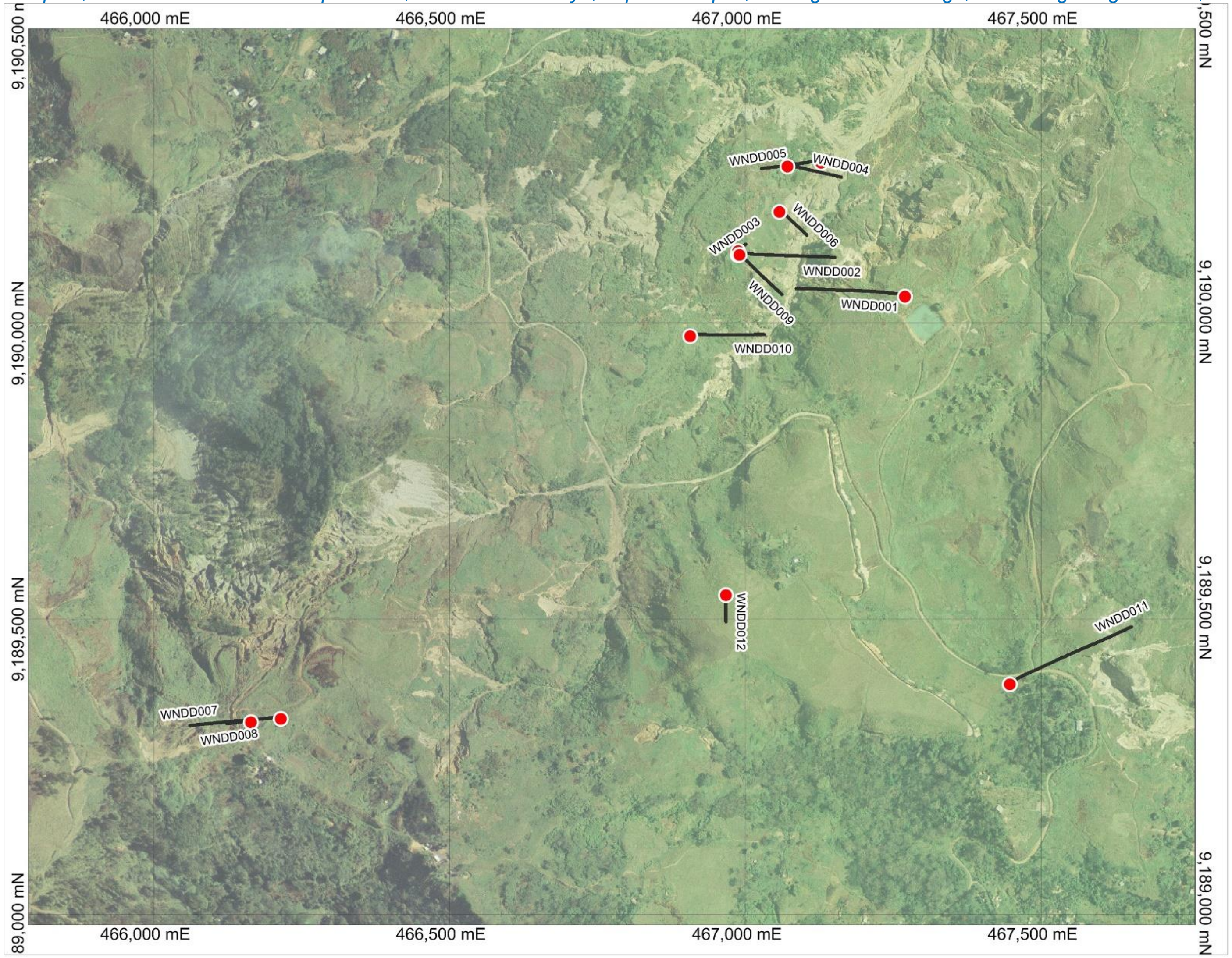
Namie Body and Kuranga Section:


WNDD002
WNDD001
Fault
Alteration
Dickite>Kaolinite
Kaolinite>Dickite
Smectite-Kaolinite-Dickite (Mixed Zone)
Kaolinite
Smectite
Illite
Geology
Davidsons Breccia
Contact Breccia
Namie Breccia
Fld Dacite Flow
Fragmental Volcanoclastic (Marker)
Siltstone-Sandstone (Carbonaceous/Pyritic)
Fld-Qz Dacite Flow
Metaphyllite
Au_ppm
-0.01 - 0.1
0.1 - 0.5
0.5 - 1
1 - 4
5 - 20

Section 3: Exploration and Drilling, Sampling Techniques and Data			
3.1	Exploration	(i)	*Describe the data acquisition or exploration techniques and the nature, level of detail, and confidence in the geological data used (i.e. geological observations, remote sensing results, stratigraphy, lithology, structure, alteration, mineralisation, hydrology, geophysical, geochemical, petrography, mineralogy, geochronology, bulk density, potential deleterious or contaminating substances, geotechnical and rock characteristics, moisture content, bulk samples etc.). Confirm that data sets include all relevant metadata, such as unique sample number, sample mass, collection date, spatial location etc.* Geologic Mapping Geological observations were recorded into the Harmony mapping database and onto field fact maps. Geological fact mapping, structural data and interpretation plans were later digitised using MapInfo software. Drilling Type and Details Drill holes were commenced in PQ size and subsequently reduced to HQ and NQ as hole depth and ground conditions required. The drill hole orientation so far has been variable due to topographical restrictions on drill pad location and the evolving geological model, however it is predominantly orientated to the southwest and northeast. Spacing off the drill pad locations is typically 50m to 100m, however a number of pads have been utilised numerous times to test both shallow and deeper targets from the same collar location. Drill core recovery is measured for each run by comparing the actual measured core to the drilled depth recorded on the core blocks at the end of each run. Triple tube drilling is used to maximise core recovery and typically core recovery is satisfactory with 80% of all runs achieving better than 90% recovery and 65% of all runs achieving 100% recovery. Intervals of core loss are typically associated with fracture controlled clay alteration within the intrusive units and also with fractures and broken zones within the marble and limestone units. Processing of the drill core is completed by the following steps: 1. At the rig site the core is removed from the splits and placed into core trays with a core block stating the hole depth, run length and any core loss placed at the end of the run. 2. The core trays are loaded into purpose built core cages and slung by helicopter form the rig site back to the base camp. 3. The core trays are laid out in sequence on the core racks at the core shed for processing 4. The core is measured and metre intervals are marked on the core. 5. The trays are labelled with the start and end depths 6. Basic geotech logging is completed with core recovery and RQD measurements for each run logged 7. Geological logging is completed 8. Samples are selected for bulk density measurement 9. Each tray is photographed 10. Sample run sheet is completed by the geologist and the core is wrapped in masking tape where required 11. The core is cut using a core saw (quarter core for PQ and half core for HQ and NQ) 12. Sampling of the core is completed as per the relevant run sheet, into pre numbered calco sample bags. 13. The calico sample bags are packaged into larger polyweave bags of approximately 20kg weight prior to dispatch from site. 14. The core trays with the remaining core is stacked in sequence in the undercover core storage areas. Sampling The majority of the drilling has been sampled on 1m lengths. All lithologies were sampled in all drill holes. Core is continuously sampled along metre intervals and not split on lithological or alteration based boundaries. Drill hole WNDD002 was the anomaly to this rule where a section of the drill hole was sampled between drill run markers due to excessive core loss through a fault zone. The core is split using a core saw with quarter core samples taken in the PQ section and half core samples taken in the HQ and NQ sections. For intervals of very broken core, samples are collected by taking approximately half the core over the relevant sample interval. The remaining core is stored onsite. The core samples sent for assay are bagged in labelled calico sample bags which are then placed within larger poly weave bags for transport to the laboratory. Samples are dispatched by Harmony vehicle direct to the Lae Intertek Laboratories receiving yard.

			To maintain sample quality during cutting it is current practice to wrap partially broken and fractured intervals of core in masking tape where possible to prevent it from breaking up during cutting. When core orientation has been successful the core is cut along the orientation line at the bottom of hole to reduce the possibility of sample bias. Sample numbers and their associated drill hole intervals are recorded by the responsible geologist and given to the core yard technician for cutting and sampling. A sample despatch sheet documenting the sample numbers and required assay work is sent along with the batch to the laboratory.
		(ii)	*Identify and comment on the primary data elements (observation and measurements) used for the project and describe the management and verification of these data or the database. This should describe the following relevant processes: acquisition (capture or transfer), validation, integration, control storage, retrieval and backup processes. It is assumed that data are stored digitally but hand-printed tables with well-organized data and information may also constitute a database*. Logging Drill hole logging data is completed on site using laptops and the Maxwell's LogChief program, which is then synchronised each evening to the main database in Brisbane. All core is geologically and geotechnically logged by Harmony Exploration geologists and field technicians and entered into the LogChief logging system prior to synchronising to the main SQL database. LogChief contains a number of validation checks through which the entered data must comply and further validation is completed once the logging is loaded to the main database. All core is digitally photographed onsite prior to cutting and sampling, with the core photos stored on the onsite server. Assay files are received from the laboratory in digital and hardcopy format and imported into the database using standard import templates for the relevant results file by the Database Administrator. Validation In addition to the database validation inherent in the LogChief logging software and the Datashed database management system additional validation checks were run using Micromine's Drillhole database validation runs. Moreover, the drill traces were visually checked on screen and any anomalous bends in the traces checked and corrected where required.
		(ii)	*Acknowledge and appraise data from other parties and reference all data and information used from other sources*. Earlier drill holes completed by NGG and RGC were also drilled using a diamond core rig with PQ and HQ size drilling equipment. Drill holes were vertical. Recovered data sets from these drilling campaigns are incomplete and where available have been digitised from the original maps and sections.
		(iv)	*Clearly distinguish between data / information from the property under discussion and that derived from surrounding properties* All work presented here is data from the property under discussion. No data from off the area has been used, or reported.
		(v)	*Describe the survey methods, techniques and expected accuracies of data. Specify the grid system used*. Harmony drill hole collars are surveyed using a hand-held GPS with accuracy of ±5m and reported using UTM WGS84 Zone55 grid coordinates. Downhole surveys are taken using a Reflex EZ downhole survey tool. Surveys are taken at 30m intervals during drilling and depending on ground conditions, a multishot survey at 6m intervals is completed at end of hole when the casing is retrieved. Downhole surveys are loaded into the SQL database and assessed for magnetic interference and assigned a priority for inclusion in the exported downhole survey results. Accuracy is uncertain, but deemed adequate for the first pass drill program.
		(vi)	*Discuss whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the estimation procedure(s) and classifications applied*. Drilling is ongoing at the exploration phase. At present there is not sufficient data on which to base a resource estimate and no such attempt has been made. Sampling is completed on 1-2m intervals downhole and reported at 0.1% and 0.3% copper grade cut-off composites.

(vii) *Present representative models and / or maps and cross sections or other two or three dimensional illustrations of results, showing location of samples, accurate drill-hole collar positions, down-hole surveys, exploration pits, underground workings, relevant geological data, etc*



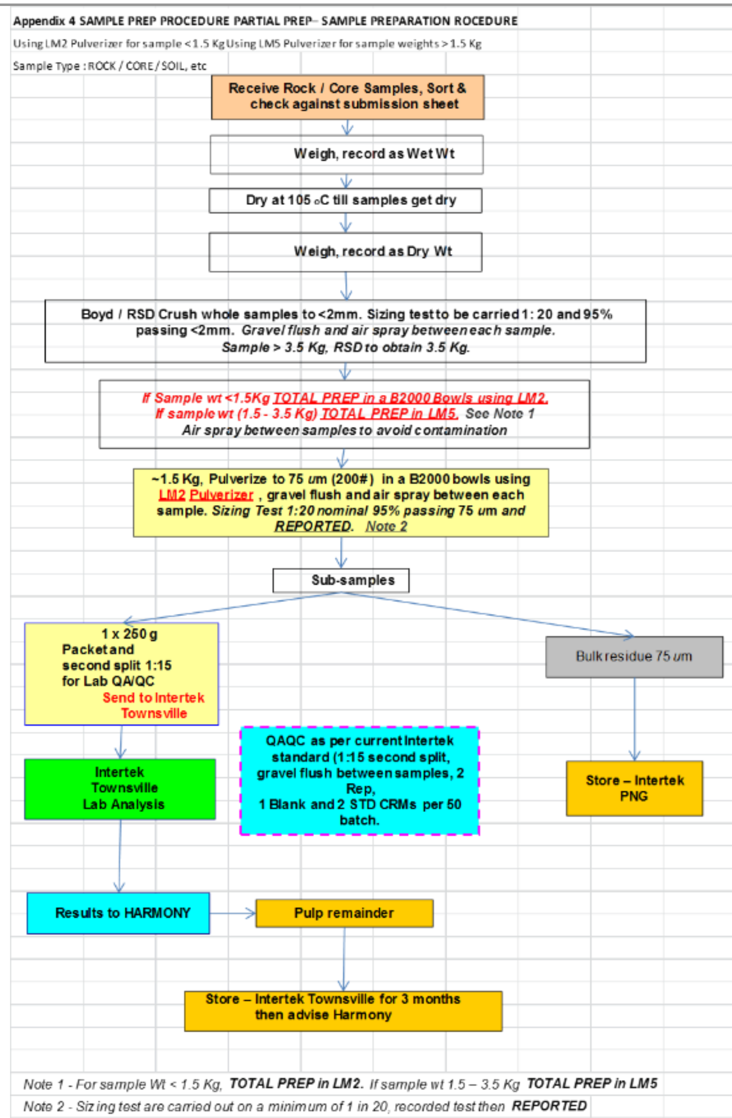
Map 3: Plan image of historic Wau mining area with collar locations and drill traces of drilling completed in current program.

(Viii) *Report the relationships between mineralisation widths and intercept lengths. The geometry of the mineralisation with respect to the drill hole angle is particularly important. If it is not known and only the down-hole lengths are reported, confirm it with a clear statement to this effect (e.g. 'down-hole length, true width not known').*

			Ongoing drilling is being directed to better define the strike, continuity and extent of the mineralization associated with the various targets. As an epithermal system in an area of very complex geology in the early stages of exploration there are no specific target structures with which to orientate the drill holes. Drilling aims to drill normal to the general trend of mineralisation however all reported intersections should be read as "down-hole length" and not "true-width".
3.2	Drilling Techniques	(i)	*Present the type of drilling undertaken (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Banka, sonic, etc) and details (e.g. 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).* Drilling has been completed using a Sandvik DE740 diamond drill rig utilising PQ3, HQ3 and NQ3 size drilling equipment.
		(ii)	*Describe whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, Technical Studies, mining studies and metallurgical studies*. The drill core has recoveries recorded by competent and supervised geologist as part of Harmony Exploration's standard drilling, geotechnical and geological logging process. Recoveries are continuously assessed and zones of poor recovery investigated. Experienced drillers are employed by the drilling contractor to oversee and manage the drill rig to ensure maximum recovery is achieved. Core recovery and grade has been reviewed and there is no correlation between sample recovery and grade which would lead to a bias in the sample results.
		(ii)	*Describe whether logging is qualitative or quantitative in nature; indicate if core photography (or costean, channel, etc.) was undertaken*. All core is geologically and geotechnically logged by company geologists and digitally input into the LogChief logging system. Logged data must pass several validation checks within LogChief and then are again validated upon import into the companies SQL database. Core is digitally photographed and stored in the company's core farm onsite.
		(iv)	*Present the total length and percentage of the relevant intersections logged*. All core is logged regardless of its mineralisation status.
		(v)	*Discuss the results of any downhole surveys of the drill-holes*. Downhole surveys are taken using a Reflex EZ downhole survey tool. Surveys are taken at 30m intervals during drilling and depending on ground conditions, a multishot survey at 6m intervals is completed at end of hole when the casing is retrieved. Downhole surveys are loaded into the SQL database and assessed for magnetic interference and assigned a priority for inclusion in the exported downhole survey results.
3.3	Sampling Method, Collection, Capture and Storage	(i)	*Describe the nature and quality of sampling (e.g. 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*. Only diamond core has been drilled and sampled. PQ core is quarter cut and HQ and NQ half cut using a diamond saw. A preliminary hand held XRF assay is taken every 100cm down hole and the sampled core is then bagged and sent to a NATA accredited laboratory for assaying. The Sampling process is monitored and of high quality.
		(ii)	*Describe the sampling processes, including sub-sampling stages to maximise representivity of samples. This should include whether sample sizes are appropriate to the grain size of the material being sampled. Indicate whether sample compositing has been applied*. PQ core; ¼ core is collected at 1m intervals down hole HQ and NQ drill core; ½ core is collected at 1m intervals down hole. The samples are cut using a core saw, if core is broken the core is first wrapped in masking tape prior to the cutting process. Very broken core is sampled by taking approximately half of the core over the interval of interest. The sampling method is appropriate for the mineralization styles.

			QAQC procedures are in place and use a variety of duplicates, certified standards and blanks. QAQC is reviewed formally on a weekly and monthly basis. In addition, QAQC data is assessed informally as results come in on a batch by batch basis. No compositing of sample occurs prior to assay.
		(ii)	*Appropriately describe each data set (e.g. geology, grade, density, quality, diamond breakage, geometallurgical characteristics etc.), sample type, sample size selection, and collection methods*. Geology; All core (whether mineralised or not) is geologically logged at a designated core shed by experienced geologists. Grade; PQ ¼ core and, HQ and NQ drill ½ core is collected at 1m intervals down hole. The full 1m of sampled core is dispatched for assay. All core is assayed. Density; Collection of drill core samples for bulk density testing has been completed at 30m intervals downhole. Quality; Core recovery and geotechnical parameters (including RQD) are logged by the geologist and is registered in the database. It is easily compared to grades, geology or any other database fields.
		(iv)	*Report the geometry of the mineralisation with respect to the drill-hole angle. State whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. State if the intersection angle is not known and only the downhole lengths are reported*. Exploration drilling is yet to define specific target structures with which to orientate the holes as such all intersections should be considered downhole. Drilling aims to drill normal to the general trend of the mineralisation and provide representative pierce points throughput the deposit.
		(v)	*Describe retention policy and storage of physical samples (e.g. core, sample reject, etc.).* All half core sample are kept on site in the company's core storage facility. Coarse rejects from the assay laboratory sample are kept for 3 months and then discard unless otherwise requested. This allows time for resamples or QA/QC checks.
		(vi)	*Describe the 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 and 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*. Core recovery is logged by the geologist using markers measured by the drill crew. Core recovery is registered in the database and is easily compared to grades, geology or any other database fields. Core recovery in the host rock is very good and there appears no relationship between variable core recovery and grade and no sample bias has occurred.
		(vii)	*If a drill-core sample is taken, state whether it was split or sawn and whether quarter, half or full core was submitted for analysis. If a non-core sample, state whether the sample was riffled, tube sampled, rotary spilt etc, and whether it was sampled wet or dry*. For PQ core; ¼ core is collected at 1m intervals down hole For HQ and NQ drill core; ½ core is collected at 1m intervals down hole. The samples are cut using a core saw, if core is broken the core is first wrapped in masking tape prior to the cutting process. Very broken core is sampled by taking approximately half of the core over the interval of interest. Core is metre marked, measured and wrapped in masking tape where required prior to cutting. Core is continuously sampled to bottom of hole, specific mineralised zones are not selected out for testing.
3.4	Sample Preparation and Analysis	(i)	*Identify the laboratory/laboratories and state their accreditation status and Registration Number or provide a statement that the laboratories are not accredited*. Cut 1m samples are bagged into calico bags and dispatched to Intertek Lae for preparation and Gold Fire assay. The laboratory is NATA certified for the assaying techniques used. The lab is accredited under the Papua New Guinea Laboratory Accreditation Scheme with accreditation number 46.

			Sampling and assaying follows procedures that conform to internationally accepted best practices. Prepared pulps are sent to Intertek's Townsville laboratory for ICP OES and ICP MS analysis.
		(ii)	*Identify the analytical method. Discuss the nature, quality and appropriateness of the assaying and laboratory processes and procedures used and whether the technique is considered partial or total*. Prepared pulps are sent to Intertek's Townsville laboratory for ICP OES and ICP MS analysis.
		(iii)	*Describe the process and method used for sample preparation, sub-sampling and size reduction, and likelihood of inadequate or non-representative samples (i.e. Improper size reduction, contamination, screen sizes. granularity, mass balance, etc.).*



3.5	Sampling Governance	(i)	*Discuss the governance of the sampling campaign and process, to ensure quality and representivity of samples and data, such as sample recovery, high-grading, selective losses or contamination, core/hole diameter, internal and external QA/QC, and any other factors that may have resulted in or identified sample bias*. All assaying is completed by a NATA accredited Lab with their own internal auditing and validation processes, including pulverisation fineness (95% passing 75 micron), and laboratory standards and blanks. Assays are regularly reviewed to ensure they conform to expected results and do not show any form of bias.

			External checks on the laboratory are undertaken (round robin).
		(ii)	*Describe the measures taken to ensure sample security and the chain of custody*. Samples are bagged, sealed, and numbered and transported directly to Lae by company personnel. Samples are checked at the Laboratory and sample receipts issued on confirmation.
		(iii)	*Describe the validation procedures used to ensure the integrity of the data. e.g. transcription, input or other errors, between its initial collection and its future use for modelling (e.g. geology, grade, density, etc.).* All drilling data is logged digitally and stored in a normalised SQL database with an industry standard front end (Maxwell's Datashed) which handles the management of the SQL database. All laboratory standards and blanks, together with Harmony's own QAQC samples are captured by the database and reviewed. Significant intersections are reviewed by the logging geologist and the senior geologist on site.
		(iv)	*Describe the audit process and frequency (including dates of these audits) and disclose any material risks identified*. The data and sampling techniques are audited internally by the company's competent persons. Peer review (formal and informal) of the reports and technical documents generated are also undertaken utilising the company's subject matter experts.
3.6	Quality Control / Quality Assurance	(i)	*Demonstrate that adequate field sampling process verification techniques (QAJQC) have been applied, e.g. the level of duplicates, blanks, reference material standards, process audits, analysis, etc. If indirect methods of measurement were used (e.g. geophysical methods), these should be described, with attention given to the confidence of interpretation*. The following QA/QC measures are employed by Harmony Gold as part of ongoing monitoring of drill core samples submitted for assay: • At each interval of 20 samples a pulp Certified Reference Material (CRM) or Gravel Blank was included as a sample. • The project Senior Geologist is responsible for ensuring the insertion of CRMs into the sampling and dispatch process. An appropriate CRM is chosen by the Senior Geologist based on the elements of interest and the expected grade of the samples in the batch (i.e. low grade, medium grade Au-Cu ore or high grade Cu - Au ore). • A photograph of the relevant standard and sample id is recorded and used to reduce uncertainty regarding samples mix-ups. • If the sample batch is less than 40 samples, a minimum of 1 pulp CRM is inserted. • Laboratory QA/QC procedures include pulp duplicates, analytical blanks, CRMs and pulp particle size distribution tests. Sample pulps are stored for a nominal 3-month period at the assay laboratory unless otherwise requested by Harmony Gold. QAQC reports are generated from the database and reviewed on a weekly and monthly basis from the database. In addition, QAQC results are reviewed for each batch during the loading of assay results in the database and any immediate QAQC issues addressed on a batch by batch basis. Gravel blank material is purchased from Intertek Lae and comprises river gravels collected from a local source. The material is not a homogenous rock type and although barren, is not an ideal blank material due to the uncertainty associated with the heterogeneous nature and whether anomalous results are related to laboratory issues or underlying source material. Alternative sources of blank material from homogeneous single rock types are being investigated. Three main certified standards were used for were used as QAQC control for copper gold and molybdenum results. These controls standards were derived from Wafi-Golpu porphyry mineralisation over a number of grade ranges and certified by OREAS via analysis at 10 commercial laboratories. The three control standards used at Wau were: 1. WG_VLG_01 (Very low grade standard) 2. WG_LG_02 (Low grade standard) 3. WG_MG_01 (Medium grade standard)

3.7	Bulk Density	(i)	*Describe the method of bulk density determination with reference to the frequency of measurements, the size, nature and representativeness of the samples*. Collection of drill core samples for bulk density testing has been completed at 30m intervals downhole. Oven drying facilities are installed and a dry weight was determined for samples. The weight of the sample submerged in water is also measured. The bulk density is determined as per the below equation: **Bulk Density** $= \frac{M_{dry}}{M_{sat} - M_{sat\ in\ water}}$
		(ii)	*If target tonnage ranges are reported, state the preliminary estimates or basis of assumptions made for bulk density*. No tonnages ranges have been reported in this study.
		(iii)	*Discuss the representivity of bulk density samples of the material for which a grade range is reported*. Bulk density measurements are taken at regular 30m intervals downhole and are considered representative of the material for all grade ranges.
		(iv)	*Discuss the adequacy of the methods of bulk density determination for bulk material with special reference to accounting for void spaces (vugs, porosity etc.), moisture and differences between rock and alteration zones within the deposit*. Further work is required to determine the variation in bulk density between the different rock types and alteration assemblage, however the average values assigned are in line with expected bulk density values for these rock types.
3.8	Bulk Sampling and / or Trial Mining	(i)	*Indicate the location of individual samples (including map)*. There has been no bulk sampling or trial mining as exploration is still in its infancy with extensional and infill drilling still ongoing.
		(ii)	*Describe the size of samples, spacing/density of samples recovered and whether sample sizes and distribution are appropriate to the grain size of the material being sampled*. Not applicable – refer comment in section 3.8(i).
		(iii)	*Describe the method of mining and treatment*. Not applicable – refer comment in section 3.8(i).
		(iv)	*Indicate the degree to which the samples are representative of the various types and styles of mineralisation and the mineral deposit as a whole*. Not applicable – refer comment in section 3.8(i).
Section 4: Estimation and Reporting of Exploration Results and Mineral Resources			
4.1	Geological Model and Interpretation	(i)	*Describe the geological model, construction technique and assumptions that forms the basis for the Exploration Results or Mineral Resource Estimate. Discuss the sufficiency of data density to assure continuity of mineralisation and geology and provide an adequate basis for the estimation and classification procedures applied*. No resource estimation has been completed. The modelling completed is conceptual and relates to exploration targeting. It incorporates all available information including drilling, mapping, geophysics and remotely sensed data.
		(ii)	*Describe the nature, detail and reliability of geological information with which lithological, structural, mineralogical, alteration or other geological, geotechnical and geometallurgical characteristics were recorded*. Geological information is gathered primarily from mapping and the logging, analysis and interpretation of the diamond drill core. This mapping and core logging by competent geologist under supervision of senior experienced geologists and subject to Harmony QA/QC checks and peer review. Core is logged by lithological, alteration and/or mineralisation units. Structures and geotechnical logging is done to

			a high level of detail with all structure recorded and RQDs recorded on a one metre basis. Peer review suggest this data is of high quality and consistency.
		(iii)	*Describe any obvious geological, mining, metallurgical, environmental, social, infrastructural, legal and economic factors that could have a significant effect on the prospects of any possible exploration target or deposit.* The project is at an early level of exploration. There are no fatal flaws identified that would preclude development in the Wau area however normal economic criteria need to be applied to create a business case worthy of investment. The Wau historic mining area is situated within potential trucking distance to the Hidden Valley plant. Harmony believes there is potential for synergies between brownfield exploration targets around Hidden Valley and future life of mine plans for the operation.
4.2	Estimation and Modelling Techniques	(i)	*Describe in detail the estimation techniques and assumptions used to determine the grade and tonnage ranges.* No Estimation or modelling has been completed on this project due to the early exploratory nature of the work. Refer to comments in section 4.1(i)
4.3	Reasonable and realistic prospects for eventual economic extraction	(i)	*Disclose and discuss the geological parameters. These would include (but not be limited to) volume, tonnage, grade and value of quality estimates, cut-off grades, strip ratios, upper- and lower- screen sizes*. The assumption of reasonable and realistic extraction not applicable to Exploration Results. There are no Reserves declared at Wau. Harmony strategy is to exploring with the aim to define a resource before embarking on mining studies.
4.4	Classification Criteria	(i)	*Describe criteria and methods used as the basis for the classification of the Mineral Resources into various confidence categories*. The Classification Criteria is not applicable to Exploration Results
4.5	Reporting	(i)	*Discuss the reported low and high grades and widths together with their spatial location to avoid misleading the reporting of Exploration Results*. Intersections are reported at two cut-offs, a lower grade halo (0.3g/t lower cut-off) and a high grade Intersection (0.5g/t lower cut-off - reported as included within the low grade interval).
		(ii)	*Discuss whether the reported grades are regional averages or if they are selected individual samples taken from the property under discussion*. All reported figures have been taken from the current drilling campaign on the property unless otherwise stated.
		(iii)	*State assumptions regarding mining methods, infrastructure, metallurgy, environmental and social parameters. State and discuss where no mining-related assumptions have been made*. No technical studies or assumptions have been made at this juncture due to the early phase of work.
		(iv))	*State the specific quantities and grades I qualities that are reported in ranges and/or widths, and explain the basis of the reporting*. Grades and widths are reported here as evidence of mineralisation intersected; no implication of economic widths is inferred. A significant amount of additional work will need to be completed before more advanced studies are commenced.
		(viii)	*If the CP is relying on a report, opinion, or statement of another expert who is not a CP, disclose the date, title, and author of the report, opinion, or statement, the qualifications of the expert and why it is reasonable for the CP to rely on the other expert, any significant risks, and any steps the CP took to verify the information provided*. The CP is not relying on any previous reporting that has a material impact, historical reports have been used and where they have been used they have been appropriately referenced.

		(ix)	*State the basis of equivalent metal formulae, if applied*. No metal equivalents have been used in reporting these results.
Section 5: Technical Studies			
5.1	Introduction	(i)	Technical Studies are not applicable to Exploration Results.
5.2	Mining Design	(i))	Technical Studies are not applicable to Exploration Results.
5.3	Metallurgical and Testwork	(i)	Technical Studies are not applicable to Exploration Results
5.4	Infrastructure	(i)	Technical Studies are not applicable to Exploration Results.
5.5	Environmental and Social	(i)	Technical Studies are not applicable to Exploration Results.
5.6	Market Studies and Economic Criteria	(i)	Technical Studies are not applicable to Exploration Results.
5.7	Risk Analysis	(i)	Technical Studies are not applicable to Exploration Results.
5.8	Economic Analysis	(i)	Technical Studies are not applicable to Exploration Results.
Section 7: Audits and Reviews			
7.1	Audits and Reviews	(i)	*State type of review/audit (e.g. independent, external), area (e.g. Laboratory, drilling, data, environmental compliance etc.), date and name of the reviewer(s) together with their recognised professional qualifications.* No independent or external audits of the exploration and sampling process has been conducted, however internal oversite and auditing occurs from time to time.
		(ii)	*Disclose the conclusions of relevant audits or reviews. Note where significant deficiencies exist and remedial actions are required*. Refer point 7.1(i)
Section 8: Other Relevant Information			
8.1		(i)	*Discuss all other relevant and material information not discussed elsewhere*. No additional information is relevant; all material information has been disclosed.
Section 9: Qualification of Competent Person(s) and other Key Technical Staff. Date and Signature Page			
9.1		(i)	*State the full name, registration number and name of the professional body or Recognised Professional Organisation (RPO) for all the CPs. State the relevant experience of the CP(s) and other key technical staff who prepared and are responsible for the Public Report*. Ben Rich, a Competent Person who is registered with the Australian Institute of Geoscientists membership ID: 5934
		(ii)	*State the CP's relationship to the issuer of the report*

Ben Rich is a full time employee of Harmony Gold (PNG Services) Pty Ltd.

(iii) *Provide the Certificate of the CP (Appendix 2), including the date of sign-off and the effective date, in the Public Report*.

Report Description

2016 Competent Persons statement:

November 2017 Exploration Results Statement – Wau, PNG

Certificate of Competent Person

As the Competent Person of the report entitled November 2017 Exploration Results Statement – Wau, PNG, I hereby state:-

1. My name is Ben Rich and am the Exploration Manager for Harmony Gold (PNG) Exploration Limited; located at Level 2, 189 Coronation Drive, Milton QLD 4064.

2. I am a member of The Australian Institute of Geoscientists (membership ID: 5934).

3. I have a Bachelor of Science degree (Geology/Geophysics; 1999) and a 1^{st} Class Honours degree (Geochemistry; 2000) from Adelaide University and a Doctorate (Structural Geology) from James Cook University (2004).

4. I have worked continuously since graduation in my field of study, primarily in gold and copper-gold exploration.

5. I am a 'Competent Person' as defined in the SAMREC Code.

6. I have visited the site on many occasions.

8. I am responsible for the entire report.

9. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission of which would make the Report misleading.

10. I declare that this Report appropriately reflects the Competent Person's/author's view.

11. I am ~~independent~~/not independent of Harmony Gold.

12. I have read the SAMREC Code (2016) and the Report has been prepared in accordance with the guidelines of the SAMREC Code.

13. I am an employee in respect of Harmony Gold.

14. At the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that

			is required to be disclosed to make the Report not misleading. Dated at Brisbane and 22/11/2017. [Signed] **Ben Rich**