Kingsgate
Consolidated Limited

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Manager
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Challenger 2013 Mineral Resources & Ore Reserves Update

Kingsgate Consolidated Limited (ASX: KCN) is pleased to announce the updated gold Mineral Resource inventory and Ore Reserves at its Challenger mine, as at 30th June 2013. The new statement incorporates implementation of the new mine plan focussing on the higher grade Challenger West ore body and mining depletion over the 12 months ending June 2013.

Challenger Mineral Resources are reported at 5.0g/t gold cut-off grade for underground and 1.5g/t gold cut-off grade for open pit are now estimated at 750,000 ounces of gold, compared to the June 2012 estimate of 1,080,000 ounces of gold. The reduction reflects the reassessment of the gold endowment at Challenger Deeps largely around and below the 79 Fault/215 Shear. This is only partially offset by greater delineation of the Challenger West structure that is now defined for over almost 2km down plunge.

Challenger underground Ore Reserves are estimated at an average cut-off grade of 6.4g/t gold and now stand at 102,100 ounces of gold at 6.81g/t gold compared to 640,000 ounces gold in 2012. This Ore Reserve is effectively the interim mine plan being implemented as part of the transition to the Challenger West ore body. The drill program now underway at Challenger West is being undertaken to better define the ore body and hence determine the longer term mine plan. The program will take several months to complete and it is anticipated that a revised Ore Reserve statement will be released during the 2013/14 year incorporating results from this drilling.

The Mineral Resources and Ore Reserves have been reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition).

Gavin Thomas, Kingsgate's Managing Director and Chief Executive Officer, said "the 2013 Challenger Reserve and Resource statement should be regarded as an interim position. The transition to a Challenger West focussed operation is occurring earlier than previously anticipated with implementation of the new mine plan.

"As the current drill program at Challenger West advances, the longer term outlook for Challenger will become better defined", he said.

"We acknowledge that Challenger is currently in a transition phase but remain confident in the gold endowment in the system and the potential to grow reserves over the next 12 months and beyond."

MINERAL RESOURCES

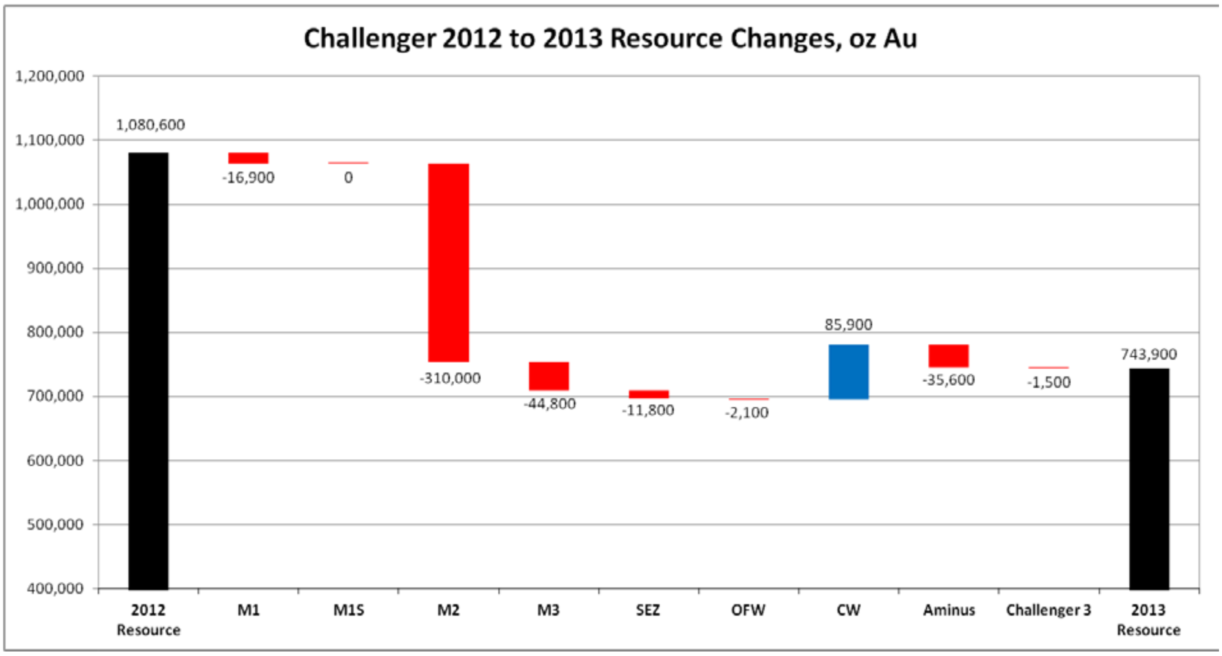
As at 30 June 2013 Mineral Resources at Challenger at 5.0g/t gold cut-off grade total 750,000 ounces of gold in 2.16 million tonnes with corresponding Ore Reserves at 6.4g/t gold cut-off grade of 100,000 ounces of gold in 0.47 million tonnes of ore. The reduction in Mineral Resources compared to last year is due mainly to measures taken to mitigate poor mining reconciliation, particularly for the M2 Lode below the 215 Shear (details below) from which 310,000 ounces of gold were reclassified as waste (Graph 1).

Challenger Mineral Resource (Inclusive of Ore Reserves)				
Source	Category	Tonnes	Grade	Contained Metal
			Gold	Gold
		(Million)	(g/t)	(M oz)
CHALLENGER	Measured	0.44	8.97	0.13
	Indicated	1.04	10.6	0.35
	Inferred	0.68	12.1	0.26
	Total	2.16	10.7	0.75

1. Note: Rounding of some figures may cause numbers not to add correctly.

Table 1: Mineral Resources, inclusive of Ore Reserves and Stockpiles, Challenger Gold Mine June 2013

The Challenger Gold Mine Mineral Resources are composed of several zones of complexly folded plunging mineralisation and include the following lodes: main M1 and M2 lodes, M1South ("M1S") lode, M3 lode, the narrow high grade South East Zone ("SEZ") lode, Orthogonal Footwall Zone ("OFW") lode, Challenger West lode, Aminus zone and Challenger 3 open pit.



Graph 1: Challenger Resource changes by shoot

The major change to the interpretation of the Challenger framework has been the determination that it is the 215 Shear rather than the 79 Fault that offsets the lodes at depth. This results in the lodes being moved laterally by approximately 220m rather than 120m as previously thought and results in a continuity gap due to the orientation of the shear in relation to the lodes (Figure 1). The overall impact is significant truncation of the lodes on levels affected by this displacement, leading to poor reconciliation of the levels below the 215 shear compared to what was expected in the 2012 resource.

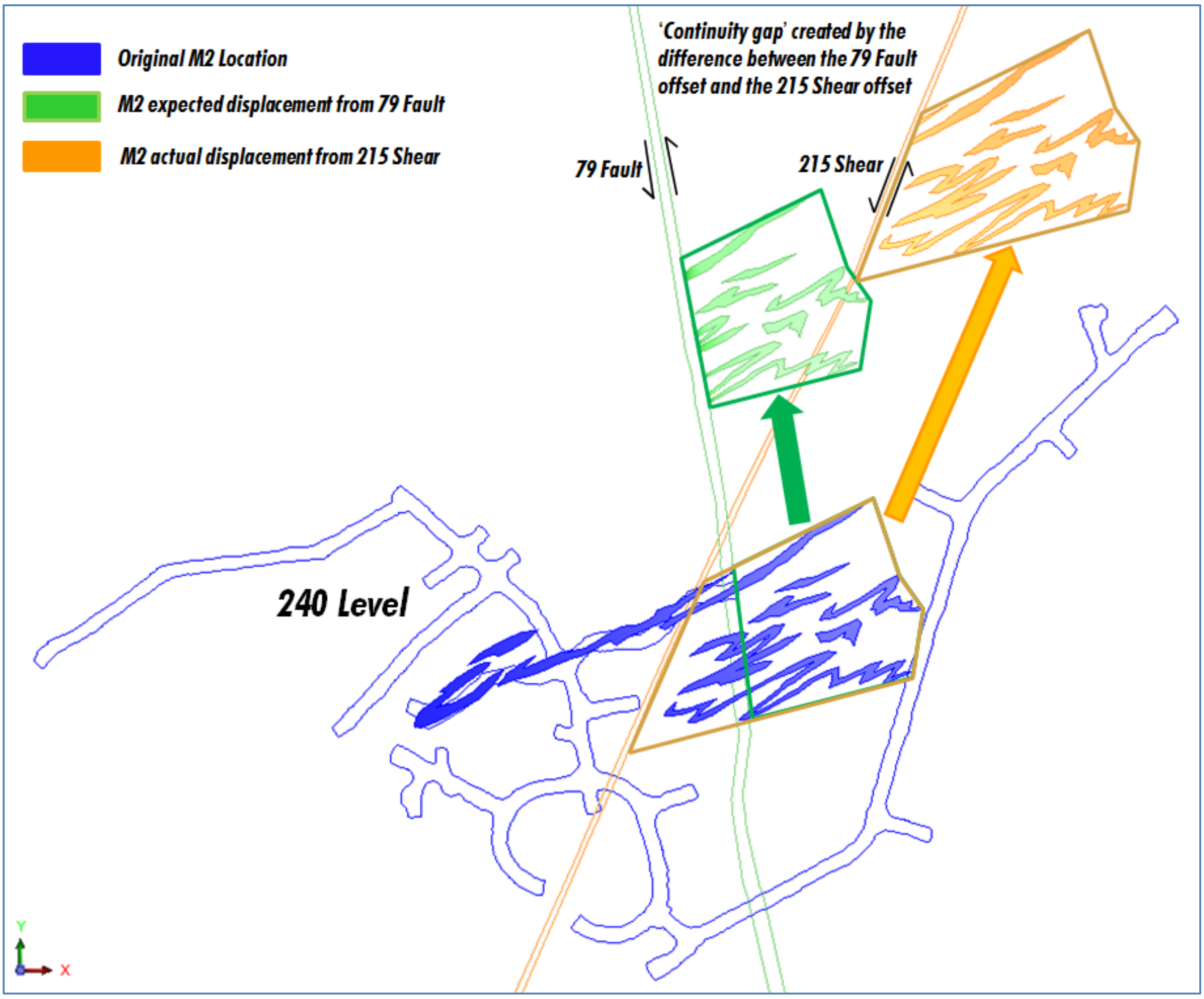


Figure 1: Challenger Lode offset at 240 Level showing the 'continuity gap'

Summary of Resource Estimate and Reporting Criteria

Geology and geological interpretation

Challenger occurs within the Mulgathing Complex of the Gawler Craton and the area is characterized by Archaean to mid-Proterozoic gneissic country rock. High-grade gold mineralisation is associated with coarse-grained quartz veins with feldspar, cordierite and sulphides dominated by arsenopyrite, pyrrhotite and lesser telluride.The gold mineralisation is structurally controlled through emplacement of the partial melt into relatively low-strain positions.

The geological interpretation of the Challenger deposit has been a work in progress since before commencement of mining in 2002. The current interpretation is based on a combination of drilling results, face sampling and geological mapping of development headings by the site team with individual experience with the deposit of up to nine continuous years.

Sampling and sub-sampling techniques

All sampling used in resource estimation was derived from diamond core drilling of BQ, HQ or NQ size, which is sampled generally at 1m intervals but can vary between 0.30m for visible gold intersections and 2.00m for known barren intrusive intersections using industry standard protocols and QAQC procedures. These protocols and procedures are fully documented.

Surface diamond drill core is cut in half, lengthways along the orientation line, by an automatic core saw. One half of the core is submitted to the site laboratory for analysis, the other half is retained in core trays that are marked with the hole id and tray number.

Drilling techniques

Surface diamond drilling is undertaken by RC collar (through a cyclone for sampling) to a depth where diamond drilling can commence (<100m) followed by a diamond tail to a maximum depth of 1,672m to date.

The running gear is HQ/HQ2 or NQ/NQ2 standard wire line tubes from a drill rig. All drill core is oriented with an electronic orientation tool to provide each six metre run with an orientation mark.

Underground diamond drilling is wire line BQ or NQ2 thin-wall tube. Orientation of core is done by spear marking for each three metre core run.

Classification criteria

The classification categories for the resource are measured, indicated and inferred. The categories are classified according to the strict criteria outlined in the detailed tables in Appendix 1.

These classifications have been used by the competent person to classify the Challenger resource and reflect their view of the deposit based on nine years of experience with the deposit.

Sample analysis method

Assaying on site is done using the PAL (pulverizing aggressive leach) followed by analysis in an Atomic Absorption Spectrometer (AAS) The AAS is calibrated for each sample run using analytical reagent prepared standards (of 1.0, 5.0, 10.0 and 20.0 g/t Au).

Estimation methodology

Estimation and modelling techniques used for the Challenger Resource comprise ‘geological grade calculations’, generic models and block modelling. Full details are included in Appendix 1.

The resource is calculated for gold only.

Cut-off grades

The resource grade calculation upper cut-off grades are 180.0g/t for all shoots except Aminus, which has a top cut of 80g/t.

The resource figures have a 5.0g/t lower cut-off for overall grade applied as a lower economic cut-off for underground workings and a 1.5g/t lower cut-off for overall grade applied as a lower economic cut-off for open pits.

Mining and metallurgical methods and parameters

Mining of the resource will be a combination of up-hole retreat stoping (mechanical) and air-leg stoping (for narrow, high grade areas and remnants). The minimum drive width is 4.0m wide and the minimum stoping width is 1.8m. Internal and external dilution has been included in the resource shapes to take in complex structural areas such as thickening of a stope shape due to parasitic folding of the shoot.

The ore is to be processed at the site CIP plant.

ORE RESERVES

Challenger Ore Reserves				
Source	Category	Tonnes	Grade	Contained Metal
			Gold	Gold
		(Million)	(g/t)	(M oz)
CHALLENGER	Proved	0.25	5.52	0.04
	Probable	0.22	8.30	0.06
	Total	0.47	6.82	0.10

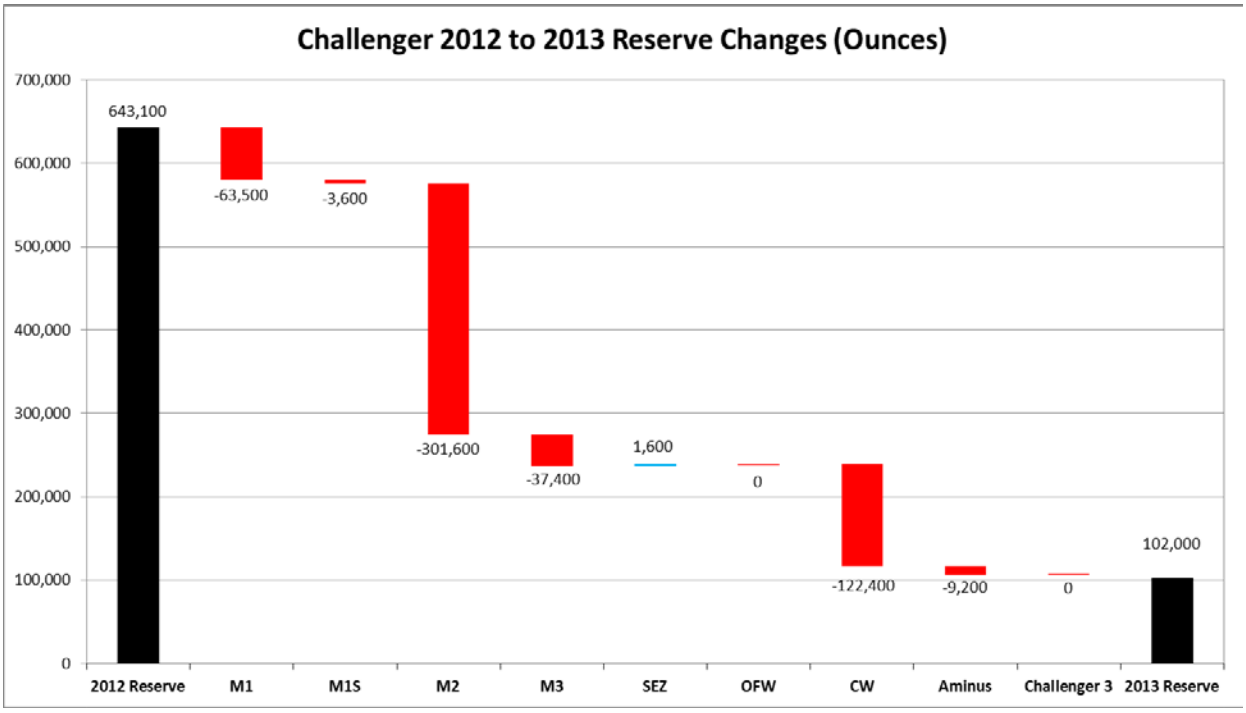
Notes:

1. Reserves are based on a gold price of US$1,480/oz and a silver price of US$26/oz.
2. All reserves are based on detailed block models.
3. Rounding of figures may cause numbers not to add correctly.

Table 2: Ore Reserves at Challenger Gold Mine June 2013

Luke Phelps, in compliance with the JORC Code 2012, compiled the Challenger deposit Ore Reserves. The 2013 Ore Reserves (102,000 contained Oz Au) is significantly smaller than the 2012 reserve (643,100 contained Oz Au). This is due mainly to the imposition of higher cut-off grades and stricter evaluation of the economic parameters associated with each lode.

The following graph summarises the gains and losses in the reserve between 2012 and 2013.



Graph 2 – Challenger Reserve changes by shoot

Summary of Ore Reserve Estimate and Reporting Criteria

Study status

The Challenger Gold Mine is a fully operational underground mining operation with a carbon in leach and gravity processing plant on site. A full feasibility of each separate lode within the Challenger mineral resource was conducted. Each lode was assessed individually against the required production parameters, the related operation costs along with the applied modifying factors to determine the economic viability and justification for conversion to reserve.

Classification criteria

The Challenger Mineral Resource was used as a basis for the conversion to Ore Reserve estimate. The resource data included diamond drill and sludge assay data, reconciled ore drive and stope data, stope reports for past, present and future stoping areas, stope void DTMs and historical dilution and metallurgical recovery data. This data was compared to the grade control estimates of the 2013 mineral resource to determine the validity of the resource for conversion to reserve.

Mining method and assumptions

The mine design was based around an uphole retreat, top down stoping sequence with the use of Airleg operations to extract high grade remnant ore. The narrow vein Challenger lodes have been designed around a minimum mining width of 1.8m. Based on historical mining at Challenger an external dilution of 30% has been applied in the calculation of all reserves, unless the development has been completed and a full stope analysis has been completed with variations based on geotechnical input. A 90% stope extraction factor has also been applied to the reserves estimation to allow for material left behind due to the plunge of the orebody and stability pillar requirements.

A 20% dilution factor has been applied to calculate the reserve estimate for the SEZ Open pit.

No Inferred mineral resources have been included in the 2013 Ore Reserve estimation.

Processing method and assumptions

The processing method at Challenger Carbon In Leach technology and gravity recovery processing. A 95% recovery has been assumed in the ore reserve estimation based on the historical data of the processing plant.

Cut-off parameters

The resource tonnes and grade of each level have been analysed individually using site fixed costs and the contractor rates against the level physicals, forecast metallurgical recovery and a set gold price based on the operations locked-in hedge price. The individual economic analysis of each level was preferred to a specific cut-off grade due to the inclusion of remnant resources with varied levels of completion.

A 1.2g/t cut-off grade has been applied to the South East Zone (SEZ) open pit reserve based on current site fixed costs and contractor rates.

Relative accuracy and confidence

The 2013 Mineral Resource was analysed on a level by level basis to derive the 2013 Ore Reserve estimates. The historical site fixed costs and operational contractor rates generate a high level of confidence in the costs applied to the estimated reserve. The partially hedged gold price of AUD$1,435 has limited the impact of any adverse trend in the market conditions, increasing the confidence in the estimate. Three quarters of the 2013 ore resource has an indicated classification and the high nugget factor in the resource material makes the high percentage of Probable Ore Reserve difficult to elevate to Proven without local development and sludge data. The areas classified as Proven Ore Reserves, that have a high level of data, compare well with the reconciled data from the depleted zones of the resource.

The key modifying factors of 30% dilution, 90% extraction and 95% milling recovery are consistence with historical performance of the areas and lodes contained in the reserve.

Mine Production 2012-13 FY

Mine production leads to a depletion of Ore Reserves. Challenger Mine production for the year totalled 502,034t of ore at a reconciled grade of 4.17g/t comprising 356,009t at 5.26g/t of high grade ore and 146,025t @1.52g/t of low grade material.

Lode Name	Ore Mined FY 11-12				Ore Mined FY 12-13			
	Tonnes	g/t	Ounces	Lode	Tonnes	g/t	Ounces	% Au
M1	80,654	4.41	11,446	12%	67,153	3.93	8,492	13%
M2	380,042	5.16	63,012	68%	250,518	3.7	29,768	44%
M3	72,044	3.13	7,252	8%	33,195	3.23	3,451	5%
CW	30,706	7.31	7,216	8%	117,612	5.68	21,479	32%
Aminus	34,188	2.81	3,089	3%	33,556	3.87	4,172	6%
SEZ	8,722	1.49	419	0%	-	-	-	0%
OFW	303	0.31	3	0%	-	-	-	0%
Total	**606,659**	**4.74**	**92,437**	**100%**	**502,034**	**4.17**	**67,362**	**100%**

Table 3: Reconciled Ore Mined FY11-12 and FY12-13

The main M2 Lode provided 44% of mined ounces with 13% of ounces mined from M1. Compared to the previous financial year, M2 contributed a lower percentage of the total ounces mined due to increased contributions from the Challenger West. Challenger West Lode, which was mined for the first time in 2012, contributed an encouraging 32% of the total ounces.

Ore production from the Main M2 and M1 lodes during the year was strongly impacted by the 215 Shear due to its foreshortening of the lodes in advance of the predicted '79' fault. This resulted in less ore above the '79' fault, impacting the schedule.

Gavin Thomas
Managing Director & CEO
Kingsgate Consolidated Limited

Competent Persons Statements:

In this report, information relating to Challenger Mineral Resources Estimation is based on and fairly represents information compiled by Stuart Hampton who is an employee of the Kingsgate Group and a member of The Australasian Institute of Mining and Metallurgy. In this report, information relating to Challenger Ore Reserves is based on and fairly represents information compiled by Luke Phelps who is an employee of the Kingsgate Group and a member of The Australasian Institute of Mining and Metallurgy. These people qualify as Competent Persons as defined in the Australasian code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 edition) and possess relevant experience in relation to the mineralisation of being reported herein. Each Competent Person has consented to the Public reporting of these statements and the inclusion of the material in the form and context in which it appears.

Forward Looking Statements:

This announcement contains forward-looking statements which involve a number of risks and uncertainties. These forward looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

APPENDIX 1 - **Table 1**

Section 1 - Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	• All surface diamond drill core (generally HQ) is split along the orientation line using an automated core saw. All core is sampled based on geological intervals determined during logging. Sample length is generally 1.00m but can vary between 0.30m for visible gold intersections and 2.00m for known barren intrusive intersections. Any intercepts over 5.00gtm Au are considered significant. Any significant intercept in surface core, and adjacent samples (generally three on either side) are submitted to an external laboratory for check analysis. • All RC/RAB samples are collected on 1.00m intervals from the drilling tube by cyclone into a riffle-splitter. Historically, 1.00m samples may be composited into larger intervals through spear sampling of the larger plastic bags, rather than using a riffle splitter. Any intercepts over 5.00gtm Au are considered significant. Any significant intercept in the RC/RAB, and adjacent samples (generally three on either side) are submitted to an external laboratory for check analysis. • Face chip samples are collected by breaking fragments of rock <0.1m across from the face at approx. 1.5m from the floor. Sample intervals are guided by geology with sample intervals from 0.30m (for visible gold) to 1.40m (broad, unmineralised zones or intrusives). These samples are taken in as representative a fashion as possible by ensuring that the overall makeup of the face is presented in the sample (i.e. an interval with 10% veining should produce a sample with 10% veining). • All underground diamond drill core (generally BQ) is sampled as whole core to provide as large a sample as possible. Any NQ2 core that is drilled is half cored. Sample length is generally 1.00m but can vary between 0.30m for visible gold intersections and 2.00m for known barren intrusive intersections. Any intercepts over 5.00gtm Au are considered significant. Any significant intercept in underground core, and adjacent samples (generally three on either side) are submitted to an external laboratory for check analysis on an annual basis to provide QAQC coverage for the site laboratory. • Production drill sampling is undertaken using a 'sludge rig', comprising a 'stuffing box', hose and 'carousel' in conjunction with a Tamrock Solo, using a 76mm percussion bit. All sludge holes are designed at a minimum of +15 degrees from the horizontal to ensure the sample flushes from the hole. The sample interval has historically been 0.75m, but has recently changed to 0.90m due to longer solo drill rods. All samples are submitted to the site laboratory for analysis. Any intercepts over 10.00gtm Au are considered significant. Any significant intercept in sludge samples, and adjacent samples (generally three on either side) are submitted to an external laboratory for check analysis on an annual basis to provide QAQC coverage for the site laboratory.
Drilling techniques	• Surface diamond drilling is undertaken by contractors with their own equipment. Surface drilling is undertaken by RC collar (through a cyclone for sampling) to a depth where diamond drilling can commence (<100m) followed by a diamond tail to a maximum depth of 1,672m to date. The running gear is HQ/HQ2 or NQ/NQ2 standard wire line tubes from a drill rig. All drill core is oriented with an electronic orientation tool to provide each six metre run with an orientation mark. • Surface RC/RAB drilling is undertaken by contractors with their own equipment. RC/RAB drilling is undertaken to a maximum depth of 285m for RC (with booster) and 93m for RAB to date. RAB is generally conducted to blade/bit refusal, but sometimes a hammer is added to extend the hole. All sample is passed through a

Criteria	Commentary
	cyclone into sample bags as described above. • Underground diamond drilling is undertaken by contractors with LM75 drill rigs running wire line BQ or NQ2 thin-wall tube. Drill core is oriented on request due to the bulk of this drilling being production rather than exploration focused. Orientation of core is done by spear marking for each three metre core run. • Sludge drilling is undertaken using a Tamrock Solo drill rig with a 64mm percussion bit in an open hole. This open hole is capped by the stuffing box of the sludge rig, allowing for sample collection.
Drill sample recovery	• All drill core is presented as whole core in core trays by the contractor. Core loss is noted by the diamond driller on an additional core block if required. This core is assembled and marked up using core blocks inserted at the end of every run. Any loss of core is discussed with the drilling contractor in a process of constant improvement to maximize returns. • Surface RC and RAB samples are all passed though cyclones to maximize sample return. There is a known loss of very fine material from the cyclone when conditions are dry and a possibility for sample cross contamination when sample condition is wet. This sample loss is systematic and is taken into consideration when comparing this data to that of other drilling types. There is no established relationship between fines loss and grade bias.
Logging	• All drill core (100%) is geologically (lithology, mineralisation, structure) and geotechnically (Q-system) logged down to cm-scale (for fine structures). Any leucosome greater than 0.20m in length is recorded as a separate lithology. The logging is quantitative in nature as lithology percentages and compositions are recorded and all geotechnical logging relies on measurements for calculation of Q. All drill core is digitally photographed with the photos kept on the site server for reference. • All RC/RAB samples (100%) have a portion washed and placed into a chip tray for logging. This logging comprises qualitative geological records (lithology and mineralisation) on a sample scale (generally 1.00m samples). • Face chips are logged through either a face map and/or digital photograph of the face. Qualitative geology (dm-scale) is recorded on the face sheet and the face photographs are stored on the site server for reference. • All Sludge samples (100%) have a portion washed and placed into a chip tray for logging. This logging comprises qualitative geological records (lithology and mineralisation) on a sample scale (generally 0.75-0.90m samples).
Sub-sampling techniques and sample preparation	• Surface diamond drill core is cut in half, lengthways along the orientation line, by an automatic core saw. One half of the core is submitted to the site laboratory for analysis, the other half is retained in core trays that are marked with the hole id and tray number. • Surface RC/RAB samples are either (currently) riffle split from the rig cyclone into sample bags and retention samples or (historically) sampled by spear into either 1.00m or 2.00m composite samples. These sub-samples are submitted to the site laboratory for analysis. • All face chip samples are sampled to be as representative as possible of the source material and are entirely processed by the site laboratory. If any re-analysis is required, the reject sample (see below) is riffle split to produce another PAL sample. • Underground diamond drill core is sampled as whole core, due to its use for production purposes. • Sludge samples are submitted as entire samples to the site laboratory, in the calico bags they were collected in. Due to their small fragment size, crushing is not required.

Criteria	Commentary
	• All samples submitted to the site laboratory are processed in the same way. The samples are dried at a maximum of 90 degrees. After drying, the samples are crushed (if required) in a Boyd Crusher to approximately 4mm in size and then split through a rotary sample splitter to produce a sub-sample. The crusher is cleaned regularly, and in the case of exploration samples it has barren material (bricks) crushed through it to ensure no smearing prior to the sample run being crushed. Each reject is retained for resampling (re-splitting) if needed and each sub-sample (400 - 600g) is stored in individual, numbered plastic containers for analysis. • Each sample can be tracked by its sample number through the entire laboratory process and results for the original samples and all QAQC samples are presented in digital form to the Geologists.
Quality of assay data and laboratory tests	• Assaying on site is done using the PAL (pulverizing aggressive leach) process. Each sample is pulverized in aqueous solution with cyanide bearing assay tabs and two ball bearings. • All samples submitted to the site laboratory are clayey regolith (near surface), gneiss or an intrusive (mafic or lamprophyre). In the case of clayey and exploration samples, a blank sample run is conducted between sample jobs to ensure no smearing and that all of the clayey material is removed from the PAL. • Every twentieth sample is duplicated for the original sample bag (re-split) to produce a duplicate. Every sample run (53 samples) will contain at least two duplicates, a blank and a standard (prepared by Gannet Holdings Pty Ltd). • Following PAL processing, the samples are individually decanted, centrifuged and prepared for analysis in an AAS by solvent separation using DIBK (20 minutes). The sample is then aspirated through the AAS to produce a reading. The AAS is calibrated for each sample run using analytical reagent prepared standards (of 1.0, 5.0, 10.0 and 20.0 g/t Au). • For each sample job; blanks, standards and duplicates are examined to ensure that the blanks are below detection (0.01ppm), the standards are within 8% (experimental accuracy) and that the duplicates are 'reasonable' with respect to the nugget effect of the Challenger deposit.
Verification of sampling and assaying	• Any significant intercepts in exploration drilling and selected significant intercepts from underground production diamond and sludge drilling are submitted to Genalysis at least annually for external analysis. This analysis is undertaken by SP-02 or SP-03 sample preparation followed by partial fire assay using a 50 gram charge (FA50). While the two analysis processes are different, a correlation 0.98 has been achieved for the last comparison, undertaken in May 2013, and >0.93 over the last two years. • Challenger Gold Mine does not use twinned holes due to time and budgetary constraints, however, production grades based on site sampling have, over the life of the mine, reconciled to within 5% of the predicted grade. Indicating that the sampling regime on site is producing data that is representative of the material produced from the mine. • Face sampling is recorded on face sheets, retained on site for reference. Core, RC/RAB and Sludge logging is undertaken directly onto standard logging forms on laptop PCs. The forms for these logs have in-built filters to ensure that the correct logging codes are used. This merged data (logs, collar information and assays) are all imported to the site Diamond Drilling Database in MS Access for use in Surpac.
Location of data points	• All surveys on site are carried out by qualified Surveyors using a Total Station Leica theodolite from known wall stations determined from surface stations located by GPS. Drill hole collars are surveyed in the same way as the rest of the workings with collar dip and azimuth determined by surveying a rod that fits into the drill holes. All

Criteria	Commentary
	sludge and RC/RAB drill holes are assumed to be straight due to their short length. On site surveying of sludge holes (using diamond drill electronic Eastman cameras) have shown that while the sludge holes do experience minor clockwise deviation, the overall effect on the hole is negligible. Down hole surveying of diamond drill core (surface and underground) is undertaken with a single-shot electric down hole compass/camera at a minimum of every 30m down hole, although multi-shot and gyroscope units have been trialled in surface diamond drill holes. • Face locations are determined by the site Geologists using development pickups and measured distances for each face from known survey stations. • All mine voids are surveyed by an OPTEC V400/533 cavity monitoring system (CMS) in conjunction with the theodolite. The resultant CMS files are merged in Surpac to produce single stope voids. • All survey data is stored as local Challenger Mine Grid. Challenger Mine Reduced Level (RL) = AHD + 1000m so AHD 193m level = 1193mRL. Transformations between AMG and local grids: origin, azimuth AMG origin and azimuth conversions are based on the following coinciding points.

	AMG Co-ordinates			Challenger Mine Grid		
Station Name	mN	mE	mAHD	mN	mE	mRL
CH10	6693784.890	363338.265	194.977	10524.890	19860.005	1194.977
CH20	6693917.900	363657.477	50.069	10499.951	20204.989	1050.069
Origin	6693379.301	363699.494	194.410	10000.000	20000.000	1194.410
Flat Battery	6693411.735	363510.463	194.314	10114.083	19845.777	1194.314

Criteria	Commentary
	Challenger Mine Grid North 0° = 329 MAGNETIC Challenger Mine Grid North 0° = 33314'41" AMG (grid bearing + 26°45'19" = AMG bearing) Challenger Mine Grid 31° = Magnetic North 0° • Topographic control is taken from the surface stations (above) and traversed to the operating areas through the use of wall stations. The underground surveying was calibrated by gyro-survey in 2008.
Data spacing and distribution	• Surface drill hole data (both exploration and production) is designed to provide a 12.5 to 25 metre hole separation on section, as perpendicular to the ore body as possible. Historically surface exploration drilling has been undertaken on 125m sections, at right angle to the plunge of the ore body. NAVI drilling has been undertaken to drill vertical fans of holes at the required spacing. • Underground drilling is drilled at either 20m horizontal or from 20 to 100m vertically spaced fans. Holes are designed to intersect the lodes at 15 to 25m spacing along strike, as close to perpendicular to the strike of the lodes with fold closures specifically targeted. • Face sampling is undertaken for every (practical) face in mineralized development, and as required elsewhere. This results in face and wall information every 3 to 4 metres along all of the ore drives. • Sludge drilling is undertaken at five to ten metre ring spacing, at right angles to the plunge/strike of the lodes (145/325 degrees azimuth, mine grid) acting as an infill pattern between development and diamond drilling. Sludge spacing down dip can vary from five to fifteen metres as required to prove continuity and structural behaviour of the lodes. • Data spacing is critical in the Challenger deposit, with higher data density provided from face and sludge drilling providing the coverage required to fully model this structurally complex deposit. For areas with less data density (i.e. diamond drilling only), modeling from more data dense areas is projected into the less dense areas using the data available.

Criteria	Commentary
	• Resource data is composited by geological modelling to inform either a length weighted grade model (e.g. in the case of M1 or M2) or to inform a block model (e.g. in the case of Challenger West where 0.5m composites were used).
Orientation of data in relation to geological structure	• The orientation of any sampling (face, sludge, RC/RAB or core) are designed to be as perpendicular to the lode system as possible. The only instance where this is not possible is in the instance of sludge drilling where the only drilling platform is the ore drive. In this instance, drilling is designed to pass through structure at as low an angle as possible but these still result in drill holes that pass along the structure, often resulting in a very high grade drill hole representing a (possibly) quite narrow feature.
Sample security	• Samples are submitted to the laboratory as soon as practical after sampling in individually numbered calico sample bags. Analysis is not undertaken until all descriptive paperwork is correctly submitted for the samples. Any discrepancy between submitted samples and the paperwork is identified and may result in the entire sample job being resampled form original material prior to analysis. External laboratories utilize their own systems for sample tracking.
Audits or reviews	• Data reviews are undertaken on an ongoing basis by site Geologists while using the data. Any errors identified (either by staff, MS Access or Surpac) is queried and corrected as a part of a program of continual improvement. • Sampling reviews have been undertaken through both duplicate sampling of original materials (faces, core etc.) and through comparison of sample types. • Lab audits are done annually, showing that operating procedures for sample management, QAQC and result consistency are being adhered to.

Section 2 – Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• All exploration referred to in the Challenger portion of the 2012-13 Annual Report was undertaken at the Challenger Gold Mine on EL 4468 'Jumbuck'.
Exploration done by other parties	• All exploration undertaken during the reporting period was undertaken by Challenger Gold Operations
Geology	• Challenger occurs within the Mulgathing Complex of the Gawler Craton and the area is characterized by Archaean to mid-Proterozoic gneissic country rock. Original granulite facies metamorphism is overlaid by retrograde amphibolite facies recrystallization around 1650 - 1540 Ma (Tomkins, 2002). Saprolitic clays extended to 50 m depth within the ore zone, reflecting a deeper base of oxidation. • High-grade gold mineralisation is associated with coarse-grained quartz veins with feldspar, cordierite and sulphides dominated by arsenopyrite, pyrrhotite and lesser telluride. • The gold mineralisation is structurally controlled through emplacement of the partial melt into relatively low-strain positions. • The Challenger Structure can be defined as a laterally extensive shear zone with shoots that plunge 30° to 029° (AMG). These ore shoots are defined by leucosome veins, which are characteristically ptygmatically folded. The small-scale folding is parasitic to the overall larger scale folding that can be interpreted from drill core. The folding is interpreted as prepeak metamorphism along with gold

Criteria	Commentary
	mineralisation. Post-folding, the Challenger shoots were subjected to extreme WNW-ESE shortening and extension directed shallowly to the NE.
Drill hole Information	• *Please refer to Table 1, below.*
Data aggregation methods	• For all results at Challenger Gold Mine, a low cut-off of 0.01g/t Au is applied (limit of detection), these results are replaced with 0.001g/t Au in the drilling database to flag that they are below detection. • All Significant Intersections must grade >5g/t. • No metal equivalents are used in exploration reporting due to exploration being solely for gold. Trace silver is known but is not factored into contained metal.
Relationship between mineralisation widths and intercept lengths	• All mineralisation widths are reported as depths down hole as all exploration drilling is designed to be as perpendicular to the lodes as possible.
Diagrams	• No significant discovery is being reported. All exploration drilling was undertaken on expected mineralized areas of the Challenger and associated deposits to upgrade the resource.
Balanced reporting	• As these exploration holes are drilled to infill (on various scales) previous drilling, as a result any results/modelling based on these results are balanced by existing drilling.
Other substantive exploration data	• No other meaningful or material exploration has been undertaken.
Further work	• Planned exploration for the next financial year focuses on increasing the Challenger West resource below 500mRL to extend the mine life. This work will be predominantly testing the endowment, continuity and structural framework of the Challenger West shoot.

Table 1 - Challenger Exploration Drill hole information

Exploration Diamond Drill hole Details							**Intercept Details**					
Hole ID	Collar mN	Collar mE	Collar mRL	Hole Length	Collar Dip	Collar Azi	From (m)	To (m)	Interval (m)	Au (g/t)	Shoot	Midpoint (mRL)
12CUD1013	21,413.90	11,215.42	212.894	131.55	-16.0	323.9	116.00m	116.39m	0.39m @	43.83g/t	Aminus 2	180mRL
12CUD1014	21,413.63	11,215.21	212.854	134.65	-16.0	317.0	116.50m	117.40m	0.90m @	8.32g/t	Aminus 2	181mRL
13CUD1125	20,772.35	10,796.95	644.361	338.49	-46.0	326.1	181.00m	182.40m	1.40m @	14.98g/t	Aminus Corridor	514mRL
12CUD0963	20,189.83	10,317.16	1,098.13	50.03	0.2	136.9	26.88m	29.00m	2.12m @	10.09g/t	SEZ	1080mRL
12CUD0969	20,190.79	10,319.02	1,097.54	80.2	-18.2	89.0	45.00m	46.00m	1.00m @	16.56g/t	SEZ	1084mRL
12CUD1011	20,189.59	10,317.07	1,098.05	398.5	-2.4	141.8	31.00m	33.40m	2.40m @	14.53g/t	SEZ	1096mRL
12CUD1022	20,189.76	10,317.05	1,098.03	626.94	-2.3	138.0	30.06m	32.00m	1.94m @	12.23g/t	SEZ	1096mRL
12CUD0967	20,187.54	10,316.81	1,099.72	71.9	28.8	193.4	35.80m	36.92m	1.12m @	21.65g/t	SEZ	1114mRL
12CUD0987	20,374.17	10,491.48	944.858	122.7	0.7	128.6	88.45m	88.82m	0.37m @	15.48g/t	SEZ	945mRL
12CUD0997	21,547.95	11,217.98	290.464	212.7	-10.1	335.1	22.79m	24.68m	1.89m @	54.21g/t	SEZ	286mRL
12CUD1039	21,608.82	11,298.06	213.857	89.89	12.9	48.2	72.00m	72.46m	0.46m @	9.21g/t	SEZ	230mRL
12CUD1039	21,608.82	11,298.06	213.857	89.89	12.9	48.2	81.00m	82.48m	1.48m @	6.97g/t	SEZ	232mRL
13CUD1164	21,672.61	11,493.63	182.398	131.6	4.6	127.3	113.77m	114.08m	0.31m @	63.92g/t	SEZ	191mRL
12CUD1010	21,410.78	11,102.09	225.474	494.67	-2.4	274.8	173.00m	174.00m	1.00m @	12.00g/t	M1 FW	217mRL
12CUD0997	21,547.95	11,217.98	290.464	212.7	-10.1	335.1	118.56m	119.15m	0.59m @	7.26g/t	M1 OHW	269mRL
13CUD1107	20,575.97	10,772.07	661.6	212.49	-46.9	346.4	4.00m	6.00m	2.00m @	6.67g/t	M2 FW	660mRL

Exploration Diamond Drill hole Details							**Intercept Details**					
Hole ID	Collar mN	Collar mE	Collar mRL	Hole Length	Collar Dip	Collar Azi	From (m)	To (m)	Interval (m)	Cu (%)	Shoot	Midpoint (mRL)
12CUD1011	20,189.59	10,317.07	1,098.05	398.5	-2.4	141.8	374.35m	374.75m	0.40m @	4.23%	Kelpie Trend	1082mRL

Surface Exploration RC Drill hole Details							**Intercept Details**					
Hole ID	Collar mN	Collar mE	Collar mRL	Hole Length	Collar Dip	Collar Azi	From (m)	To (m)	Interval (m)	Au (g/t)	Shoot	Midpoint (mRL)
13CDRC0452	21,278.69	10,683.61	1,193.51	60	-60.0	315.0	10.00m	11.00m	1.00m @	25.56g/t	Challenger 3	1185mRL
13CDRC0455	21,875.71	11,336.84	1,186.00	60	-60.0	325.0	28.00m	30.00m	2.00m @	5.28g/t	Voyager	1160mRL
13CDRC0464	19,600.00	10,273.00	1,186.84	132.5	-60.0	180.0	129.00m	130.00m	1.00m @	9.46g/t	Challenger SSW	1075mRL

Section 3 - Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	• All data is logged into pre-built MS Excel logging sheets that have drop-down selections for the logging codes and formulas to highlight incorrect information (such as overlapping depths).
Site visits	• The competent person (Stuart Hampton) works at the Challenger Mine Site.
Geological interpretation	• The geological interpretation of the Challenger deposit has been a work in progress since before commencement of mining in 2002. The current interpretation is based on a combination of drilling results, face sampling and geological mapping of development headings by the site team with individual experience with the deposit of up to nine continuous years. This has resulted in a high level of confidence in the geological interpretation, due to the interpretations success in predicting development and production for the last eleven years. The only assumptions made in geological modelling are based on empirical data, these being: o Intrusive lithologies (Mafics, Lamprophyre and Pyroxenite) are barren. o Structural displacement in small to medium joints is minimal. o To date there are only two major structures that dislocate the lode system, the 79 Fault and the 215 Shear. • Due to the complex nature of the Challenger deposit, the geological interpretation is under constant scrutiny for changes in the structural patterns i.e. parasitic folds or refolded areas. • Mineral resource estimation is guided entirely by geology in this case due to the structural complexity of the system. The continuity of grade and geology in the Challenger deposit is affected by primary gold distribution before migmitisation, folding generations/strain regimes during metamorphism and post-metamorphism modification.
Dimensions	• The Challenger deposit resource extends from ~1193mRL (surface) to -300mRL as a series of gold bearing folded migmatite packages. These packages occur as a series of 'short-limb' folded packages (up to 50m wide x 80m long, in plan) comprising m-scale folded veins) connected by 'long-limb' more highly strained packages (up to 200m long (in plan) m-scale parasitically folded veins). Total strike length of the resource is approx. 750m along strike and 250m across strike.
Estimation and modelling techniques	• The resource is calculated for gold only and does not take into account contained silver. This is a by-product and is not analysed for. • In addition the resource does not take into account deleterious elements due to the lack of these factors. The host rock is not acid generating, and the deposit has only minor arsenopyrite or base metal sulphides. • All shoots in a lode are geologically modelled based on the structure and grade. These models take into account intrusive materials and dislocating structures.. Only those shoots that have a grade calculated above the mining cut-off (5.0g/t) are included in the resource. • Due to the high nugget effect in the Challenger deposit, a top cut is applied to the grade calculations. This technique has proved robust in the calculation of production estimates when reconciled to mill production. As a result, this technique has been applied to the resource to provide as representative and balanced an estimate as possible. • The resource is validated as an ongoing process by comparing the resource figures to production figures and the mill reconciliation. In addition the figures are compared between iterations of the resource. This comparison has highlighted the importance of data density in resource estimation at Challenger Gold Mine. • Estimation and modelling techniques used for the Challenger Resource comprise

Criteria	Commentary
	‘geological grade calculations’, generic models and block modelling.

Geological Grade Calculations

- These calculations are undertaken as a part of the production process to determine the tonnes and grade of production stopes on site. This technique had been determined over a number of years to be robust, as it reconciles well with mill production. This technique is only used on areas that have sufficient data to determine shoot continuity and structural details i.e. Indicated or Measured Resources. This method has been used to create M2 Remnant and SEZ resources and is used in the creation of generic resources.
- Modelling for these calculations are undertaken in Surpac using 5.0m sections (same sections used for sludge drilling). Modelling is done based on face/drive geology, projection from adjacent levels and grade intercepts in sampling/drilling.
- This modelling is done over short distances (max 40mRL) in areas of good data coverage (data points a maximum of 15m apart). Extreme grades are balanced by using a top cut for the resource.
- The model is intersected with the site sampling database (faces and all drilling) to flag all portions of the sampling inside the shoot model in question. These flags are then used to composite the grade of the intercepts into a string file. The tonnage of the shoot block is determined through outersection of the shoot model with development to ensure that only material still in-situ is reported.

Generic Modelling

- For areas of the mine where there is little data but enough to show shoot location and/or continuity, or where the shoot has been adequately stoped in other areas of the mine, a generic tonnes and grade is determined for the shoot. This technique is used to create Indicated or Inferred resources. This has been used in the M1 Shadow Zone, M2 and Challenger West to populate the resource.
- The generic is determined through examination of prior production or calculated production (using the geological grade calculations, above, or block modelled figures, below) from adjacent portions of the shoot. At least four levels (80mRL) are used to create the generic, thus having enough data to show any underlying trend in grade increase or decrease with depth.

Block Modelling

- Block modelling is used for portions of the Challenger resource where the structure is linear and has good continuity, based on drilling. The shoots that have been block modelled in the resource are M3, Aminus and Challenger West. This technique has been used to generate Measured and Indicated resources.
- All block modelling is undertaken based on 3DM models that are snapped to drill hole intersections. With the following block model details:

Challenger West

- Sub blocking was enabled due to the narrow modelled lodes to avoid holes appearing Block dimensions chosen reflect the geometry of the lodes, employing a 2:1 strike\vertical ratio (due to the ~30 degree plunge), and a width of 0.5m due to the narrow nature. The strike dimension was greater than half of the face sampling spacing (generally 3m between faces), and half the sludge sampling spacing (5m).

Criteria	Commentary

Block Model Geometry

Min Coordinates	Y	10240	X	19450	Z	-50
Max Coordinates	Y	10340	X	21800	Z	1200
User block Size	Y	0.5	X	2.5	Z	1.25
Min. block Size	Y	0.25	X	1.25	Z	0.625
Rotation	Bearing	-28	Dip	0	Plunge	0

- Inverse distance was the preferred estimation method based on historical difficulty with completing variography at Challenger (due to the domains not being geostatistically similar, coupled with a high nugget effect), and power 2 was chosen to best reasonably extrapolate data from diamond holes that are historically known to underestimate grades. 3x3x3 discretisation points was enabled as well as a minimum 10% of drill hole samples in any down hole composite, and composite lengths were fixed at 0.5m (any smaller than this will negate the distance projection effect of any narrow HG intersections). The min/max informing values for each point were 1 and 15 respectively for all lodes.
- Ellipsoid orientations used for ID for lode geometry are shown below.

Lode	Max Search Radius (m)	Bearin g	Plunge	Dip
CW 1	100	65	-33	88
CW 2	160	58	-33	88
CW 3	200	61	-27	88
CW 4	200	61	-27	88

- Major/minor and major/semi-major anisotropy ratios applied were 10 and 2 respectively for all lodes, which essentially means that the down plunge continuity was applied at 10 times the lateral (across strike) continuity & 2 times the up/down dip continuity. These were based on historical variography completed on the M1 lode by consultants. Recent variography on site was completed on CW lodes 3 & 4 and verified these parameters within a reasonable tolerance of the variography interpretation. It is supported by historical mining at Challenger that the dominant continuity of grade exists down plunge. In addition, this variography suggested that the nugget effect can be up to 75%.

Aminus

- The Aminus block model is in many ways similar to Challenger West as it sits in a similar geological domain, is narrow & HG and has a limited LG Au halo. Small blocks and sub blocking was enabled due to the narrow modelled lodes, otherwise too many holes appear. Block dimensions chosen reflect the geometry of the lodes, employing a 2:1 strike\vertical ratio (due to the ~30 degree plunge), and a width of 0.5m due to the narrow nature. The strike dimension was greater than half of the face sampling spacing (generally 3m between faces), and half the sludge sampling spacing (5m).

Block Model Geometry

Min Coordinates	Y	10650	X	20400	Z	0
Max Coordinates	Y	10750	X	21900	Z	840
User block Size	Y	0.5	X	2.5	Z	1.25
Min. block Size	Y	0.25	X	1.25	Z	0.625
Rotation	Bearing	-32	Dip	0	Plunge	0

- Inverse distance was the preferred estimation method based on historical difficulty with completing variography at Challenger (due to the domains not being geostatistically similar, coupled with a high nugget effect), and power 2 was chosen to best reasonably extrapolate data from diamond holes that are historically known to underestimate grades.

Criteria	Commentary

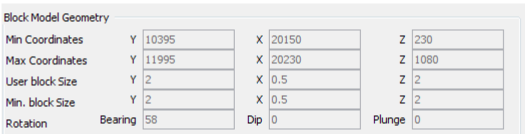
- Ellipsoid orientations used for ID for lode geometry are shown below.

Lode	Max Search Radius (m)	Bearin g	Plunge	Dip
1	100	58	-30	-80
2	100	58	-28	80
3	200	59	-28	89
4	250	59	-28	-80
5	250	59	-28	-85

- Major/minor and major/semi-major anisotropy ratios were 10 and 2 respectively for all lodes, and the min/max values for each point were 1 and 15 respectively for all lodes. No new variography was completed to do this as it is historically known at Challenger that the dominant continuity of grade exists down plunge.
- The Lamprophyre model partly stopes out the ore and this has been taken account in this block model by applying 0g/t. All underground voids were included in the materials attribute for exclusion ability when reporting.

M3

- The M3 block model is split in two parts, the underground up to the 1075mRL lamprophyre and the surface block model (together with SEZ).
- The underground M3 block model is also in many ways similar to Challenger West as it sits in a similar geological domain, is narrow & HG and has a limited LG Au halo. Small blocks were enabled due to the narrow modelled lodes, otherwise too many holes appear.



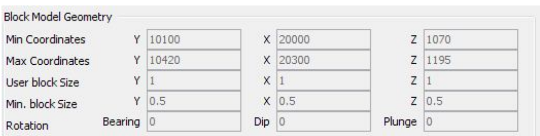
Block Model Geometry

Min Coordinates	Y	10395	X	20150	Z	230
Max Coordinates	Y	11995	X	20230	Z	1080
User block Size	Y	2	X	0.5	Z	2
Min. block Size	Y	2	X	0.5	Z	2
Rotation	Bearing	58	Dip	0	Plunge	0

- Inverse distance was the preferred estimation method based on historical difficulty with completing variography at Challenger (due to the domains not being geostatistically similar, coupled with a high nugget effect), and power 2 was chosen to best reasonably extrapolate data from diamond holes that are historically known to underestimate grades.
- Ellipsoid orientations used for ID for lode geometry are shown below.

Lode	Max Search Radius (m)	Bearing	Plunge	Dip
HW	150	57	-27	-85
FW	150	57	-27	-85

- Major/minor and major/semi-major anisotropy ratios were 10 and 4 respectively for both lodes. No new variography was completed to do this as it is historically known at Challenger that the dominant continuity of grade exists down plunge.
- All underground voids were included in the materials attribute for exclusion ability when reporting.
- The surface M3 block model has the following geometry and differences



Block Model Geometry

Min Coordinates	Y	10100	X	20000	Z	1070
Max Coordinates	Y	10420	X	20300	Z	1195
User block Size	Y	1	X	1	Z	1
Min. block Size	Y	0.5	X	0.5	Z	0.5
Rotation	Bearing	0	Dip	0	Plunge	0

- Block sizes were small due to the narrow nature of the lodes and dimensions reflect

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
<tr><td></td><td>the minimum mining width in an open pit. Sub blocking and 1x1x1 discretisation points were enabled and major/minor and major/semi-major anisotropy ratios were 10 and 2 respectively for both lodes. No new variography was completed to do this as it is historically known at Challenger that the dominant continuity of grade exists down plunge.
• Ellipsoid orientations used for ID for lode geometry are shown below.
<table>
<tr><th>Lode</th><th>Max Search Radius (m)</th><th>Bearing</th><th>Plunge</th><th>Dip</th></tr>
<tr><td>M3</td><td>100</td><td>58</td><td>-29</td><td>73</td></tr>
</table>
• All Block models are validated visually in section to compare with the drill hole data. The blocks were also checked that they matched the lode geology and that lamprophyres had 0g/t applied to them.</td></tr>
<tr><td>Moisture</td><td>• Tonnages are estimated on a dry basis.</td></tr>
<tr><td>Cut-off parameters</td><td>• The resource grade calculation upper cut-off grades are 180.0g/t for all shoots except Aminus, which has a top cut of 80g/t.
• The resource figures have a 5.0g/t lower cut-off for overall grade applied as a lower economic cut-off for underground workings and a 1.5g/t lower cut-off for overall grade applied as a lower economic cut-off for open pits.</td></tr>
<tr><td>Mining factors or assumptions</td><td>• Mining factors taken into consideration for the resource are that the resource will be mined using a combination of up-hole retreat stoping (mechanical) and air-leg stoping (for narrow, high grade areas and remnants). The minimum drive width is 4.0m wide and the minimum stoping width is 1.8m. Internal and external dilution has been included in the resource shapes to take in complex structural areas such as thickening of a stope shape due to parasitic folding of the shoot.</td></tr>
<tr><td>Metallurgical factors or assumptions</td><td>• Metallurgical factors taken into consideration for the resource are that the ore will continue to be processed at the site CIP plant.</td></tr>
<tr><td>Environmental factors or assumptions</td><td>• Environmental impact factors used in the resource are that the waste (which is not acid generating) will continue to be stockpiled on site in designated waste dumps. Process residue will continue to be disposed of in the licensed Tails Storage Facility (TSF2).</td></tr>
<tr><td>Bulk density</td><td>• Specific gravity (SG) of material at Challenger Gold Mine has been determined in two phases. The initial SG value for the Challenger rock mass was determined during the mine feasibility study, based on core samples from 1,200 to 1,090mRL and was determined to be 2.72 for the Christie Gneiss, which comprises the Challenger deposit.</td></tr>
<tr><td>Classification</td><td>• The basis for the classification categories for the resource is as follows:
Measured
o Must be developed/stoped above and below.
o Must have sufficient data density to show continuity/structural complexity.
o Has geological mapping/face photos to guide modelling.
o Must have sufficient information to create a tonnage/grade estimate for production purposes. Data density is used to upgrade in indicated resource to measured if there is no adjacent level.
Indicated
o May be developed/stoped on one level only.
o Does not have sufficient information to fully inform structural complexity (i.e. 25m spaced diamond drilling that cannot provide sufficient granularity to show up m-scale parasitic folding), but shows lode presence.
o Does not have sufficient information to fully inform lode continuity (i.e. spacing</td></tr>
</table>

Criteria	Commentary
	of drilling such that it is difficult to determine which intercepts are which part of the system) , but shows lode presence. Inferred o No development had been undertaken adjacent to the resource. o Sufficient information to determine the presence of a lode structure but not enough to determine continuity. • These classifications have been used by the competent person to classify the Challenger resource and reflect their view of the deposit based on nine years of experience with the deposit.
Audits or reviews	• The 2013 Challenger mineral resource estimates have been internally reviewed by Paul Androvic (Group Geologist and prior Chief Geologist of Challenger Gold Mine) and Ronald James (General Manager Exploration and Resource Development). No changes have been required
Discussion of relative accuracy/ confidence	• The mineral resource has been calculated to the satisfaction of the competent person as being representative of the Challenger deposit, based on available data. The resource has been determined in accordance with techniques used in previous reporting periods. • The grade calculation techniques used to determine the remnant and generic grades are also used in stope design, these have reconciled as slightly conservative against mill production (Table 2). As a result the confidence in this technique for resource estimation is high.

Table 2 – Reconciliation of Stoping estimates to production, Challenger Gold Mine (fully reconciled levels only).

	DESIGN			RECONCILED MILL FEED			RecMillFeed/Design		
SHOOT	Tonnes (t)	Grade (g/t Au)	Gold (Oz)	Tonnes (t)	Grade (g/t Au)	Gold (Oz)	% t	% g/t	% Oz
M1	1,512,597	8.86	431,069	1,682,789	8.47	458,417	111%	96%	106%
M2	1,064,973	5.69	194,981	1,021,373	5.27	173,120	96%	93%	89%
M3	212,035	4.50	30,670	260,490	3.70	30,974	123%	82%	101%
M1 SZ	17,354	7.17	4,001	16,737	6.83	3,674	96%	95%	92%
AMINUS	6,227	4.42	885	17,108	2.74	1,507	275%	62%	170%
CW	57,059	7.29	13,367	83,962	6.72	18,130	147%	92%	136%
TOTAL	2,870,245	7.31	674,973	3,082,459	6.92	685,821	**107%**	**95%**	**102%**

Section 4 - Estimation and Reporting of Ore Reserves

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• The Challenger mineral resource used as a basis for the conversion to ore reserve estimate was analysed by Luke Phelps, the long term planning engineer at Challenger, who has been a member of the AusIMM for over 15yrs. The resource data included diamond drill and sludge assay data, reconciled ore drive and stope data, stope reports for past, present and future stoping areas, stope void DTMs and historical dilution and metallurgical recovery data. This data was compared to the grade control estimates of the 2013 mineral resource to determine the validity of the resource for conversion to reserve. • The 2013 Challenger Mineral Resource is inclusive of the 2013 Ore

Criteria	Commentary
	Reserves.
Site visits	• Luke Phelps has been employed at the Challenger Mine Site for over 3 years and has a thorough knowledge of the Challenger Orebodies and the methods of data collection used, as well as the geotechnical and operational considerations associated with the mining methods applicable to the sequence of extraction.
Study status	• The Challenger Gold Mine is a fully operational underground mining operation with a carbon in leach and gravity processing plant on site. A full feasibility of each separate lode within the Challenger mineral resource was conducted. Each lode was assessed individually against the required production parameters, the related operation costs along with the applied modifying factors to determine the economic viability and justification for conversion to reserve.
Cut-off parameters	• The resource tonnes and grade of each level have been analysed individually using site fixed costs and the contractor rates against the level physicals, forecast metallurgical recovery and a set gold price based on the operations locked hedge price. The individual economic analysis of each level was preferred to a specific cut-off grade due to the inclusion of remnant resources with varied levels of completion. • A 1.2g/t cut-off grade has been applied to the South East Zone (SEZ) open pit reserve based on current site fixed costs and contractor rates.
Mining factors or assumptions	• The Challenger resource models were used to create a detailed life of mine designs for the extraction of each resource lode. The design was based around an uphole retreat, top down stoping sequence with the use of Airleg operations to extract HG remnant materials, as used currently at Challenger. Any change in sequence at this stage of the mine life would have adverse and uneconomical effects on the mining operation. • The narrow vein Challenger lodes have been designed around a minimum mining width of 1.8m. Based on historical mining at Challenger an external dilution of 30% has been applied in the calculation of all reserves, unless the development has been completed and a full stope analysis has been completed with variations based on geotechnical input. A 90% stope extraction factor has also been applied to the reserves estimation to allow for material left behind due to the plunge of the orebody and stability pillar requirements. • 20% dilution factor has been applied to calculate the reserve estimate for the SEZ Open pit. • No Inferred mineral resources have been included in the 2013 Ore Reserve estimation.
Metallurgical factors or assumptions	• The existing Challenger CIL and gravity processing facility will be utilised to extract the gold targeted in the 2013 Ore Reserve estimation. A 95% recovery has been assumed in the ore reserve estimation based on the historical data of the processing plant.
Environmental	• Waste rock is Non Acid Forming (NAF)

Criteria	Commentary
	• Existing Integrated waste landform (IWL) is permitted and has sufficient capacity to store the planned waste generated by the mine plan. • Tails Storage Facility (TSF) 2 – has sufficient capacity for the mine plan and all required approvals are in place.
Infrastructure	• Based on the current production schedule for the Challenger operations, no further changes are required to site infrastructure.
Costs	• Projected capital costs are based on historical actuals and assessment of the required activities to support the mine plan by on site management. • Operating costs were based on historical actuals for fixed costs and variable costs based on current mining contractor rates. • A gold price of AUD$1435/oz was used in reserve calculations based on the current hedge price. • $4/oz. Transport, treatment and refining costs were based on historical actuals. • A silver credit of $AUD $2 per ounce of gold produced was based on historical performance. • Royalties of AUD$60 per ounce were used in the reserve calculation.
Revenue factors	• The assumed gold price for the 2013 ore reserve estimation has been based on Challenger's hedged gold price of AUD$1,435 / oz for 58% of gold produced 2013/2014.
Market assessment	• The assumed gold price for the 2013 ore reserve estimation has been based on Challenger's hedged gold price of AUD$1,435 / oz for 58% of gold produced. • No supply or demand effects have been considered as it is assumed that the AUD$1,435 / oz will be received for the entire mine plan.
Economic	• The preliminary analysis of the reserves was based on cash flow generated by a variety of possible gold prices. The use of the AUD$1,435 /oz was determined by the hedge price secured for the economic viability of Challenger due to current market conditions.
Social	• A Native Title Agreement is in place with the traditional land owners. • A Pastoral agreement which cover road access with Jumbuck Pastoral group which operate the active pastoral property surrounding the mining lease. • A Woomera Protected Area (WPA) deed of access for operation within the WPA is in place with the Department of Defence.
Other	• There are no identified naturally occurring risks that are likely to impact on the Challenger Operation. • A hedged gold price (covered above) for 58% of the produced gold has secured revenue in any adverse market conditions. The remainder of the gold produced is to be sold on the spot market. • Mining leases for the Challenger Operation are approved by the State

Criteria	Commentary
	Government.
Classification	• The classification of the 2013 ore reserve has been carried out in accordance with the recommendations of the JORC code 2012. • The reserve results reflect the Competent Person's view of the deposit.
Audits or reviews	• No audit of the estimate has been carried out.
Discussion of relative accuracy/ confidence	• The 2013 ore resource was analysed on a level by level basis to derive the 2013 ore reserve estimates. The historical site fixed costs and operational contractor rates generate a high level of confidence in the costs applied to the estimated reserve. The partially hedge gold price of AUD$1,435 has limited the impact of any adverse trend in the market conditions, increasing the confidence in the 2013 ore reserve estimate. Three quarters of the 2013 ore resource has an indicated classification and the high nugget factor in the resource material makes the high percentage of Probable Ore Reserve difficult to elevate to Proven without local development and sludge data. The areas classified as Proven Ore Reserves, that have a high level of data, compare well with the reconciled data from the depleted zones of the resource. • The key modifying factors of 30% dilution, 90% extraction and 95% milling recovery are consistence with historical performance of the areas and lodes contained in the reserve.