

#### MINERAL RESOURCE STATEMENT - 2022

# GROUP GOLD RESOURCES INCREASE BY 15.6% TO 1.37Moz WITH RESOURCE GRADE UP BY 29%

# Highlights:

- Gascoyne Group Mineral Resources:
  - o 36.74Mt @ 1.16g/t gold for 1,370,800 ounces
- Initial Mineral Resource Estimate for the recently discovered Gilbey's North Never Never Gold Deposits:
  - o 1.43Mt @ 2.32g/t gold for 107,200 ounces, comprising,
    - 0.66Mt @ 3.78g/t for 79,600 ounces Never Never Gold Deposit
    - 0.78Mt @ 1.10g/t for 27,600 ounces Gilbey's North Gold Deposit
- Murchison Region Mineral Resources:
  - o 20.17Mt @ 1.3g/t gold for 833,700 ounces (ounces up by 28.5%, grade up by 61%)
  - Increase in ounces and grade primarily driven by;
    - Addition of Yalgoo Gold Project Melville and Applecross Gold Deposits
    - Addition of Gilbey's North Never Never Gold Deposits
    - Addition of Archie Rose Gold Deposit
    - Change in cut-off grade for the Gilbey's Gold Deposit Complex
- Supporting the Murchison Region and the centrally located 2.5Mtpa Dalgaranga processing plant by de-risking feed sources through high-grade discoveries and systematic resource growth remains the Company's core focus.
- Key to this focus is the emerging high-grade Never Never Gold Deposit, discovered earlier this year and less than 1km from the Dalgaranga Plant with an initial Resource of:
  - o 0.66Mt @ 3.78g/t gold for 79,600 ounces, consisting of,
    - 0.33Mt @ 2.27g/t gold for 24,200 ounces in the Indicated category
    - 0.32Mt @ 5.31g/t gold for 55,500 ounces in the Inferred category
- Drilling of infill holes to convert the Never Never Inferred material to Indicated has already been completed (assays pending) and will be reported in the December Quarter.
- Current drilling of the Never Never Gold Deposit is targeting rapid resource extension with several high-grade Reverse Circulation (RC) intercepts already received outside the current Never Never Resource envelope. (see ASX announcement 6 September 2022).



• Diamond drilling, to increase confidence and understanding, is also underway, with the first diamond hole yielding a +50m wide mineralised intercept with visible gold, on target and another ~80m further down-plunge of the declared Never Never Resource envelope. (see ASX announcement 6 September 2022).

Gascoyne Resources Managing Director and CEO, Mr Simon Lawson, said: "We continue to systematically focus on the key elements of our business – managing costs, retaining people, retiring debt, increasing mine life and importantly improving grade.

"This annual Resource statement gives an account of the way we are creating value across our business, specifically what we are doing to extend the mine life of our key operation at Dalgaranga and how we are working to improve the head-grade of the 2.5Mtpa processing plant there, the centrepiece hard asset of our business.

"To this end, we are very pleased to add the initial Mineral Resource Estimate for the Gilbey's North -Never Never and Archie Rose Gold Deposits to our Murchison Region Resources. An additional 146,000 ounces of shallow, high-grade material, with over 100,000 of those ounces coming from the recently discovered Gilbey's North - Never Never Gold Deposits, located less than 1km from our plant and on a granted Mining Lease.

"Further, we have modified the cut-off grade for the main Gilbey's Complex at the Dalgaranga Gold Project from 0.25g/t gold to 0.5g/t gold. Increasing the COG reflects a more realistic statement of Resource ounces at Gilbey's and also streamlines the cut-off grades used across the various gold deposits of the DGP.

"An upward shift in COG decreases overall resource ounces on paper, however, the addition of the new shallow, high-grade Gilbey's North - Never Never Resource ounces offsets and replaces those lower grade more expensive "paper" ounces.

"The Gascoyne team is purposefully aligned in building a strong business around our core gold assets and we are all genuinely excited about the future as we continue to drive value creation with the drill bit!"



*Figure 1:* Aerial image of active drilling of the Gilbey's North - Never Never Gold Deposit during a recent rainfall event. Note: Diamond drill rig in the foreground and RC drill rig to the right of the square "turkeys nest" water dam.



Gascoyne Resources Limited ("**Gascoyne**" or "**Company**") (ASX: GCY) is pleased to present its 2022 Mineral Resource Statement.

GROUP MINERAL RESOURCES						
Category	Tonnes (Mt) Grade (g/t) Contained Metal (koz Au)					
Measured	0.59	0.93	17.6			
Indicated	27.96	1.14	1,024.9			
Inferred	8.19	1.25	328.3			
GRAND TOTAL	36.74	1.16	1,370.8			

 Table 1: Group Mineral Resource Estimates for Gascoyne Resources Ltd (at various cut-offs)

MURCHISON REGION <sup>1</sup>						
Category	Tonnes (Mt)	Contained Metal (koz Au)				
Measured	0.59	0.93	17.6			
Indicated	14.23	1.24	569.2			
Inferred	5.35	1.44	246.9			
TOTAL	20.17	1.29	833.7			
	GASCOYNE REGION <sup>2</sup>					
Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)			
Category Indicated	Tonnes (Mt) 13.73	Grade (g/t) 1.03	Contained Metal (koz Au) 455.7			
Category Indicated Inferred	Tonnes (Mt)           13.73           2.84	Grade (g/t) 1.03 0.89	Contained Metal (koz Au) 455.7 81.4			
Category Indicated Inferred TOTAL	Tonnes (Mt)           13.73           2.84           16.57	Grade (g/t) 1.03 0.89 1.01	Contained Metal (koz Au) 455.7 81.4 537.1			
Category Indicated Inferred TOTAL	Tonnes (Mt) 13.73 2.84 16.57 GROUP MINE	Grade (g/t) 1.03 0.89 1.01 RAL RESOURCE	Contained Metal (koz Au) 455.7 81.4 537.1 S			
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 Table 2: Mineral Resource Estimates by Region for Gascoyne Resources Ltd (at various cut-offs)

1 "Murchison Region" Mineral Resource includes Dalgaranga Gold Project (DGP) and Yalgoo Gold Project (YGP). The DGP also includes the Gilbey's North – Never Never and Archie Rose mineral resources. Cut-off grades are 0.5g/t Au at DGP and 0.7g/t Au at YGP.

2 "Gascoyne Region" Mineral Resource includes Glenburgh Gold Project (GGP) and Mt Egerton Gold Project (EGP). Cutoff grades range are 0.25g/t Au at GGP open pit, 2.0g/t Au at GGP underground, and 0.7g/t Au at EGP open pit.

# **Global Mineral Resource Commentary**

The waterfall chart below (Figure 2) shows the changes from the May 2021 Group Mineral Resource Estimate to the current September 2022 Group Mineral Resource Estimate. Key changes relate to depletion for mining, an increase in reporting cut-off grade from 0.25g/t Au to 0.50g/t Au within the Gilbey's Complex group of deposits and includes the removal of low-grade stockpiles (removal of 2.14Mt and 23,900 contained ounces of gold).

Initial Mineral Resource Estimates have been included for Gilbey's North - Never Never and Archie Rose Gold Deposits and, along with the Gilbey's Complex, are collectively included in the Dalgaranga Gold



Project (DGP). The Melville and Applecross Gold Deposits are collectively included in the Yalgoo Gold Project (YGP). The Murchison Region Resource logically includes DGP and YGP.

No changes have been made to Glenburgh Gold Project (GGP) or Egerton Gold Project (EGP) mineral resource estimates, collectively the Gascoyne Region Resource.



Figure 2: Group Mineral Resources Waterfall Chart – 2021 to 2022 (0.5g/t-0.7g/t Au cut-off for open pit and 2.0g/t Au for underground)

# **Murchison Region Resource**

To rationalise tabulation of mineral resources by region Gascoyne has grouped the Dalgaranga Gold Project (DGP) and Yalgoo Gold Project (YGP) as the "Murchison Region Resource" to be processed at the Dalgaranga process plant.

MURCHISON REGION <sup>1</sup>						
Category	Tonnes (Mt) Grade (g/t) Contained Metal (koz					
Measured	0.59	0.93	17.6			
Indicated	14.23	1.24	569.2			
Inferred	5.35	1.44	246.9			
TOTAL	20.17	1.29	833.7			

Table 3: Mineral Resource Estimates for the Murchison Region

1 "Murchison Region" Mineral Resource includes Dalgaranga Gold Project (DGP) and Yalgoo Gold Project (YGP). The DGP also includes the Gilbey's North and Archie Rose mineral resources. Cut-off grades are 0.5g/t Au at DGP and 0.7g/t Au at YGP.



# Dalgaranga Gold Project (DGP)

The Mineral Resource Estimate of the overall "Gilbey's Complex" Gold Deposits, including Gilbey's, Plymouth, Sly Fox as well as the developing areas of Gilbey's East, and to a lesser extent Gilbey's South, areas has been updated. This overall MRE is presented here as the "Gilbey's Complex" MRE update.

The initial Mineral Resource Estimates for the Gilbey's North - Never Never Gold Deposits and the Archie Rose Gold Deposit are presented here for the first time.

Dalgaranga Gold Project (DGP)						
Category	ory Tonnes (Mt) Grade (g/t) Contained Metal (koz A					
Measured	0.59	0.93	17.6			
Indicated	10.88	1.17	408.8			
Inferred	3.46	1.47	163.6			
TOTAL	14.93	1.23	590.1			

Table 4: DGP Mineral Resource statement for in-situ and surface stockpile resources above 0.5g/t Au

# "Gilbey's North - Never Never" Mineral Resource Estimate

Gascoyne engaged external consultants Entech Mining ("Entech") to generate an initial Mineral Resource model and estimation for the Gilbey's North gold prospect, which included the high-grade Never Never "lode" discovery. During the course of the MRE process and supported by input from ongoing drill programs, it became apparent the Never Never "lode" was in fact a standalone gold prospect with a substantially different mineralisation style and significantly higher grades and volumes than the Gilbey's North prospect. For the purposes of maintaining the timeframe of this global resource update we refer to the combined prospects as "Gilbey's North", however, the two Gold Deposits will be reported separately in future updates.

The total Mineral Resource Estimate (MRE) for Gilbey's North – Never Never includes <u>16,519 m</u> of drilling from 151 reverse circulation (RC) drill holes completed since 1997. Of the drill metres underpinning the MRE, 98% were completed by Gascoyne Resources Ltd (GCY) from late 2021 into 2022. The depth from surface to the current vertical limit of the MRE is approximately 190 m (240 mRL). *Note: subsequent drilling has shown that the mineralisation continues beyond this depth and remains open down-plunge (refer ASX release dated 6 September 2022)*.

The Entech MRE has additionally been audited and verified by a third-party Independent Technical Expert (ITE), Mr Ted Coupland of Westoaks Enterprises Pty Ltd. Mr Coupland (the ITE) is a qualified geologist and geostatistician with 35 years of resource estimation, mine geology and investment banking experience. In particular, the ITE has had significant experience in the resource estimation, grade control, mining and reconciliation of a wide range of gold deposits styles and has sufficient experience to undertake an Independent Technical review of the 2022 Gilbey's North – Never MRE.

The Mineral Resource Statement for the Gilbey's North – Never Never initial Mineral Resource estimate was prepared during August 2022 and is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

In the opinion of Entech, the resource evaluation reported herein is a reasonable representation of the global gold Mineral Resources within the Gilbey's North – Never Never deposit, based on sampling data from RC drilling available as of 9 August 2022. Mineral Resources are reported below topography and comprise oxide, transitional and fresh rock.

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GILBEY'S NORTH - NEVER NEVER GOLD DEPOSIT								
	NEVER NEVE	R GOLD DEPOSIT	•					
Category	Tonnes (Mt)	Tonnes (Mt) Grade (g/t) Contained Metal (koz Au)						
Indicated	0.33	2.27	24.2					
Inferred	0.32	5.31	55.5					
TOTAL	0.66	3.78	79.6					
	GILBEY'S N	IORTH DEPOSIT						
Category	Tonnes (Mt) Grade (g/t) Contained Metal (k							
Indicated	0.61	1.14	22.2					
Inferred	0.17	0.98	5.4					
TOTAL	0.78	1.10	27.6					
TOTAL GILBI	EY'S NORTH - N	IEVER NEVER GO	LD RESOURCE					
Category	Tonnes (Mt) Grade (g/t) Contained Metal (k							
Indicated	0.94	1.54	46.3					
Inferred	0.50	3.81	60.9					
GRAND TOTAL	1.43	2.32	107.2					

Table 5: Gilbey's North - Never Never Initial Mineral Resource statement for in-situ resources (above 0.5g/t Au).

The reported Mineral Resource was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 190 m below surface (240 mRL) and within the Gascoyne tenement boundary. Entech considers material at this depth would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework, with existing Dalgaranga pits currently excavated to 250 m RL. The Gilbey's North – Never Never deposits are located on an existing mining lease within 1 km of Gascoyne Resources 2.5 Mtpa Dalgaranga processing plant.





Figure 3: Gilbey's North - Never Never Section 4920N (Looking South) JORC Indicated and Inferred ResCats

**Note:** Subsequent to producing and reviewing the Gilbey's North - Never Never MRE, Entech Mining and the ITE recommended a number of resource conversion drillhole "pierce points" to assist in converting Inferred material to the Indicated resource classification. As of the date of this release, the recommended drilling has already been completed, with assays pending. Extension drilling continues to target the high-grade Never Never lode system for volume and at depth. Grade Control drilling of the upper 50 metres has also been scheduled to commence mid-September 2022, with an updated MRE scheduled for the December Quarter.

Preliminary mine planning has commenced with respect to open pit scenarios, with an updated Ore Reserve and LOM scheduled to be completed late September in anticipation of mining approval which is expected to be received shortly.





Figure 4: Gilbey's North - Never Never Section 4920N (Looking South) Block + Drill Grades (+/-25m)





Figure 5: Gilbey's North - Never Never Plan View 402.5mRL (+/-12.5m) Oxide Mineralisation





Figure 6: Gilbey's North - Never Never Plan View 282.5mRL (+/-12.5m) Primary Mineralisation

# **Drilling Techniques**

Exploration / Resource Definition drilling commenced in late 2021 following up an anomalous historic AC drilling intercept 140m north of the current Gilbey's Open Pit.

The majority of shallow holes are on a 25m grid infilling the Gilbey's North prospect and the parts of the upper reaches of the Never Never prospect. Further down-plunge on the Never Never prospect uses a 40 to 50m grid. The majority of drill holes have a dip of -60° and the azimuth is predominantly east but varies as a number of confirmatory "scissor" and orthogonal "volume validation" holes have also been drilled. For this announcement the drilling method was almost entirely RC drilling derived assays with limited Diamond drilling logging used to validate mineralisation.

RC drilling was used to obtain 1m samples which were split by a cone splitter at the rig to produce a 3 - 5 kg sample. The samples were shipped to the laboratory for analysis via 500g Photon assay.



Where diamond drilling was undertaken or as diamond tails extending RC holes ½ core was sampled while for PQ, HQ or NQ holes with analysis via 500g Photon assay. Current QAQC protocols include the analysis of field duplicates and the insertion of appropriate commercial standards and blank samples. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.

# **Historical Drilling**

The Gilbey's North - Never Never prospect area was previously drilled as part of a sterilisation programme for the Dalgaranga Western Waste Dump Extension. The sterilisation drilling was Aircore and generally wide spaced 100m x 200m and drilled east. Due to the deep regolith and clay profile (>100m), many holes did not reach refusal.

Some limited RC follow up drilling was conducted on anomalous AC sampling, but not directly over the Gilbey's North or Never Never Gold Prospects. The original AC intercept was found to be part of the Gilbey's North or "G-Fin Extension" Lode, identical to that seen in the Gilbey's Gold Deposit to the south, not the much higher volume and higher grade, west-striking Never Never Lode system.

#### **Sampling and Sub-Sampling Techniques**

RC chips were cyclone split at the rig. Samples were generally dry. A sample size of between 3 and 5 kg was collected. This size is considered appropriate, and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected. RC samples are then air or kiln dried at the lab in preparation for assay.

Although no diamond core assays were used in the current MRE, core to be sampled is consistently cut lengthwise with the left-hand side of the core sampled. Once crushed and coarse split, if the sample weight is greater than 3kg, the coarse sample is riffle split. Samples are then crushed to 2mm prior to photon assaying.

Field duplicates were collected during RC drilling as part of Gascoyne's routine QAQC policy. Samples are routinely randomly selected for Fire Assay checks and compared to the Photon method. The QAQC results are routinely analysed each quarter.

# **Historical Sampling**

A 4m composite sample of approximately 3 - 5 kg was collected for all AC drilling using the spear sampling technique. Sample quality is generally indicative of gold mineralisation and not considered appropriate for the precision and accuracy required for resource estimation.

# **Sample Analysis Method**

RC and DD samples were sent to MinAnalytical Laboratory Pty Ltd for analysis, by Photon Assay. A 500g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.

Photon Assaying is considered a non-destructive next-generation technique, using high-energy X-rays. The technology continues to provide faster, more accurate assaying, reduce emissions and protect operators by removing hazardous chemicals from the analytical process.

For Photon Assay, the sample is crushed to nominal 85% passing 2mm, linear split and a nominal 500g sub sample taken (method code PAP3502R). The 500g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control standards.

Further sampling (lab umpire assays) are conducted routinely – policy is for 3% of grading assays greater than 0.2gpt Au are selected for Fire Assaying.



# **Historical Analysis**

Analysis of historic AC composites was via a 25g Aqua Regia digest with reading via a mass spectrometer. Where anomalous results were detected, single metre samples were collected for subsequent analysis via a 25g Fire Assay - however this was not routine for the Gilbey's North area.

#### **Geology and Mineralisation**

Regionally, the Dalgaranga project lies in the Archean aged Dalgaranga Greenstone Belt in the Murchison Province of Western Australia. At the Gilbey's Main deposit, most gold mineralisation is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining within a porphyry-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Porphyry Zone). The Gilbey's North prospect is the northerly extension of the Gilbey's Main Porphyry Zone which trends north – south and dips moderately-to-steeply to the west (local grid).

While all drill types were used for mineralisation modelling at Gilbey's North, RAB and AC samples were excluded from interpolation owing to the style of drilling and potential for sampling bias. Only data from RC drilling were used for estimation.

Entech understands that mineralisation is largely structurally controlled at Gilbey's North. Shale units provide a reasonable ore definition proxy, with mineralisation often existing between and more commonly on the hangingwall of shale units. The structural understanding of the Gilbey's North deposit is an ongoing process, with the collection of structural data from oriented drill core and structural modelling in progress.

Two mineralisation styles are present at Gilbey's North. The first is analogous to mineralisation styles present in Gilbey's Main deposit where mineralisation is understood to be structurally controlled, and where silicification and the presence of sulphides typically accompany mineralisation. Owing to the deep clay profile at Dalgaranga, however, mineralisation is difficult to determine visually in the field.

A second and new style of mineralisation named the 'Never Never' zone has been identified at Gilbey's North. The Never Never zone is a high-grade, mineralised, thickened zone located on the hangingwall of the northwest-striking shale unit. It is noticeably different in geometry, grade tenor and alteration to other mineralisation styles at Dalgaranga. In fresh material, the Never Never mineralisation is associated with highly silicified, sericite altered rock with abundant fine-grained pyrrhotite and pyrite.

Portable X-ray fluorescence (pXRF) and geochemical analysis have not yet led to identification of any elemental proxies for mineralisation.

# **Geology and Geological Interpretation**

Geological logging, veining and presence of sulphides were used for lithology and mineralisation modelling. The identification and understanding of the orientation, volume and continuity component of the Never Never zone (domains 1030, 1230, 1080 and 1280) is an ongoing process. However, owing to Entech's conservative approach to domain volume modelling and application of classification boundaries, this does not present a material risk to Mineral Resource estimate outcomes.

Lithological models of the shale units were generated prior to the mineralisation domain interpretation commencing. The mineralisation geometry and tenor had a strong relationship with the lithology, particularly at the point of interaction between the two main shale units (north striking and north-west striking). Entech broadly aligned the orientation of the main mineralised domains to the hangingwall contact of the two main shale units. Entech considers further drilling will lead to better definition of the relationship between lithology and mineralisation at the deposit.

Weathering surfaces were created by interpreting the existing drill logging for oxidation state and were extended laterally beyond the limits of the Mineral Resource model. Entech reviewed the weathering



contacts in relation to mineralisation controls but found no clear evidence of a relationship between weathering contacts and grade distribution.

Mineralisation interpretations were informed by 181 drill holes – comprising RC (151), RAB (19) and AC (11) – and supported by a nominal drill density of 20 m along strike × 20–30 m down dip.

Entech's interpretations of domain continuity were undertaken in Leapfrog software. The mineralisation intercepts correlating to individual domains were manually selected prior to creating both vein and intrusion models using Leapfrog Geo implicit modelling software. High-grade sub-domains were interpreted for three domains (1010, 1030 and 1080) using indicator-based numerical modelling (Leapfrog Indicator RBF Interpolants) at individual cut-offs. Cut-offs were based on exploratory data analysis (EDA) of the mineralisation sample population as well as visual review of the mineralisation tenor and strike, and dip continuity. Interpretation was a collaborative process with GCY geologists to ensure modelling appropriately represented observations and the current understanding of geology and mineralisation controls.

A total of 13 domains were interpreted at Gilbey's North: 10 mineralisation domains and three high-grade mineralisation sub-domains.

A cut-off grade of 0.3 g/t Au was used to guide the geological continuity of the interpreted mineralisation. Selection of the cut-off grade was based on statistical and spatial analysis of composite data indicating a natural mineralisation population exists above 0.3 g/t Au. Within the mineralised wireframe, if an intercept fell below the nominal cut-off but continuity was supported by host lithologies, the intercept was retained for continuity purposes due to the commodity and the style of deposit.

Mineralised domains at Gilbey's North extend over a 375 m local grid north–south strike length. Lode thicknesses are highly variable and range from 1 m to 20 m in the local grid north–south striking domains, and up to 50 m in the Never Never mineralised thickened zone (domains 1030, 1230, 1080 and 1280). Mineralisation exists from surface and extends 240 m to a lower limit of 185 mRL at its deepest.



*Figure 7.* Long section of Gilbey's North deposit looking North showing mineralised domains, weathering and topography. High-grade mineralised sub-domains (1230 and 1280) in the Never Never zone are depicted in red.





**Note**: Mineralised domains (as interpreted) do not represent Mineral Resource estimate classification extents. Domains 1060 and 1100 demonstrate drill targets (due to limited drill information) and were not included in the Mineral Resource.

**Note:** Domain 1000 (supergene) is not pictured for illustration clarity purposes of underlying domains. Red = RC drilling. Greay = RAB/AC/DD drilling. Mineralised domains (as interpreted) do not represent Mineral Resource estimate classification extents. Domains 1060 and 1100 demonstrate drill targets (due to limited drill information) and were not included in the Mineral Resource.

Alternative mineralisation geometries were compared against indicator-based numerical modelling (Leapfrog Indicator RBF Interpolants) at varying cut-offs and probability outcomes. These alternative models supported the metal distribution within the interpreted mineralised wireframes.

Entech considers confidence in mineralisation continuity and distribution, as implied within the Mineral Resource estimate classification of Indicated and Inferred, is moderate, given the regularised drill pattern, drill centre spacing (20–30 m) and orthogonal drilling informing these Mineral Resources.

# **Estimation Methodology**

Sample data within mineralisation domains were composited to 1 m downhole lengths using a best-fit methodology and 0.6 m minimum threshold on inclusions. No residual composites resulted from this approach.

Figure 8. Plan section of Gilbey's North deposit showing drill hole traces (RC in red) and mineralisation domains.



Declustering of composite data within individual mineralised domains were analysed in Supervisor™ software, using a fixed grid per domain. Table 6 summarises the declustered cells used for each mineralisation domain.

Domain	Cell Size (m) (X, Y, Z)
1000 (Supergene)	15, 15, 5
1010,1020,1030,1040,1050,1060,1210,1230,1280	5, 15, 15
1080	5, 10, 10
1090,1100	30, 30, 10

Table 6	: Summar	of declustered	cells per domain
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Exploratory data analysis (EDA) of the declustered composited gold variable within the mineralised domain groups was undertaken using Datamine's Supervisor software. Analysis for sample bias, domain homogeneity and top-capping was undertaken. Evidence for further sub-domaining of composite data by weathering or lithology boundaries, for the purposes of interpolation, was not supported by statistical and spatial analysis.

Assessment and application of top-capping for the estimate were undertaken on the gold variable in individual domains. Top-caps were initially applied on a global basis within individual domains to limit the potential influence of obvious statistical outliers. Global top-caps are presented in Table 7.

Domain	Top-cut g/t	Percentage of metal cut	Number of samples cut
1000	4	8.0%	5
1010/1210	10	5.8%	12
1020	-	-	-
1030	6.5	6.1%	2
1040	3.5	14.6%	2
1050	1.5	13.0%	1
1060	-	-	-
1080	8	6.9%	6
1090	4	42.1%	2
1100	-	-	-
1230	60	13.10%	5
1280	13	3.50%	2

 Table 7: Summary of global top-caps applied per domain

In addition to the global top-caps, composites were also examined spatially to identify any individual composites where there was an elevated risk of a disproportionate metal contribution owing to their isolated spatial positions. Using this methodology, 10 individual composites across nine domains have been capped. A distance-limiting constraint was applied during interpolation for metal control in domains 1000, 1010, 1090 and 1230.



Variography was undertaken on the capped, declustered gold variable. Two–spherical structure, normal scores anisotropic variograms were modelled for domains 1010, 1030 and 1080. Domains were grouped based on spatial, statistical and mineralisation similarities, with variography from Domain 1010 applied to domains 1020, 1040, and 1050. High-grade sub-domains were combined with their lower-grade counterparts for variography analysis. There were insufficient data to conduct variography on domain 1090. As such, variogram parameters based on an average of better-informed domains at the Gilbey's North deposit, with a nugget of 40% and maximum continuity range of 45 m were applied to this domain. Excluding Domain 1000 (supergene), nugget values between 34% and 46% were modelled, with continuity ranges of 31–43 m in the major direction. For Domain 1000, a two–spherical structure, normal scores isotropic variogram was modelled, with a moderate nugget value of 34% and maximum continuity range of 74 m.

Interpolation was undertaken using Ordinary Kriging (OK) in GEOVIA Surpac<sup>™</sup> within parent cell blocks. Dimensions for the interpolation were Y: 10 mN, X: 5 mE, Z: 10 mRL, with sub-celling of Y: 0.3125 mN, X: 0.3125 mE, Z: 0.3125 mRL. The model was not rotated. Considerations relating to appropriate block size include drill hole data spacing, conceptual mining method and search neighbourhood optimisations (QKNA).

A one-pass estimation search strategy was employed for all domains except domains 1010/1210, which used a two-pass search strategy. Domain 1000 (supergene) was estimated within a maximum distance of 80 m. All other domains were estimated within a maximum distance of 40–55 m. The number of neighbourhood composites ranged from a minimum of 6 to a maximum of 16 samples for the first pass, except for Domain 1020, which used a minimum of 4 composites in the first pass. A minimum of 4 composites was applied to the second pass.

Domain boundaries represented hard boundaries, whereby composite samples in that domain were used to estimate blocks within the domain. Global and local validation of the gold variable estimated outcomes was undertaken by means of statistical analysis, swath plots and visual comparison (cross and long sections) against input data. Internal audits and peer review underpin Entech's validation process, with a focus on independent resource tabulation, block model validation, verification of technical inputs, and peer review of approaches to domaining, interpolation and classification.

A third-party external audit has been carried out by Mr Ted Coupland, Westoaks Enterprises Pty Ltd. No material issues were identified during the audit.

The 3D block model was coded with density, weathering and Mineral Resource classification prior to evaluation for Mineral Resource reporting.

# **Specific Gravity**

Bulk density values at the Gilbey's North deposit were derived from 412 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along-strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox and Plymouth. The samples were located between 2,985 mN and 4,000 mN, approximately 0.7–1.7 km along strike to the south of the Gilbey's North prospect. Samples were taken nominally from 1 m to 350 m downhole to provide a representative density profile across oxidation states. While samples have not been taken at Gilbey's North, Entech considers it reasonable to apply proxy density values based on the mining history at Dalgaranga and geological similarities to the along-strike deposits. Entech recommends a density measurement campaign be undertaken at Gilbey's North to confirm assumptions.

Gascoyne supplied Entech with bulk density values. Independent verification of raw data was carried out by Entech, and the following bulk density values were determined and applied in the block model:

- Oxide: 1.70 t/m<sup>3</sup>
- Transitional: 2.60 t/m<sup>3</sup>



• Fresh: 2.80 t/m<sup>3</sup>.

Both wet and dry density measurements are captured in the MS Access database suggesting a water immersion methodology, however this cannot be verified. Density measurements were undertaken on oxide (28) transitional (54) and fresh (330) drill core samples.

#### Classification

Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity and mineralisation volumes. Additional considerations were the stage of project assessment, amount of RC drilling undertaken, current understanding of mineralisation controls and mining selectivity within an open pit mining environment.

In Entech's opinion, the drilling, surveying and sampling undertaken, and analytical methods and quality controls used, are appropriate for the style of deposit under consideration.

<u>Indicated Mineral Resources</u> were defined where a moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:

- Blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 20 m or less or where drilling was within approximately 20 m of the block estimate.
- Blocks were interpolated with a neighbourhood largely informed by the maximum number of samples.

<u>Inferred Mineral Resources</u> were defined where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:

- Drill spacing averaged a nominal 40 m or less, or where drilling was within 40 m of the block estimate.
- Estimation quality was considered low, as delineated by a conditional bias slope nominally between 0.1 and 0.5.

The reported Mineral Resource was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 190 m below surface. All classified Mineral Resources were reported inside the tenement boundary (M59/749), as provided by Gascoyne. Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained unclassified.

Mineral Resources that are not Ore Reserves do not have demonstrated economic viability. The Mineral Resource estimate does not account for mining selectivity, mining loss and ore dilution. This Mineral Resource estimate includes Inferred Mineral Resources which are unable to have economic considerations applied to them, nor is there certainty that further sampling will enable them to be converted to Measured or Indicated Mineral Resources. Variances to the tonnage, grade, and metal tonnes of the Mineral Resource estimate are expected with further definition drilling.

The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.



# **Mining Factors or Assumptions**

The reported Mineral Resource was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 190 m below surface (240 mRL) and within the GCY tenement boundary.

Entech considers material at this depth would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework, with existing Dalgaranga pits currently excavated to 250 m RL.

The Gilbey's North prospect is located on an existing mining lease within 1 km of the 2.5 Mtpa Dalgaranga processing plant. No previous mining has been conducted at Gilbey's North. No dilution or recovery factors have been applied.

#### **Metallurgical Factors and Assumptions**

A gold recovery of 87.4% in fresh material, 90% in transitional and 93% in oxide is currently in use at Dalgaranga by processing through a carbon-in-leach (CIL) processing circuit. Low recoveries (77%) are associated with carbonaceous shales that occur within the mineralised sequence at Dalgaranga. Shale units have been modelled using Leapfrog Geo implicit vein modelling tool and are coded into the Mineral Resource estimate. Shale material is blended at ~15% to smooth recovery lows.

Based on discussions with Gascoyne geologists, Entech understands there are no metallurgical amenability risks which would be material to the Mineral Resource estimate.

No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations.

#### **Environmental Factors or Assumptions**

The deposits being assessed are situated on a granted Mining Lease within an operating mine site and have no identified areas of Environmental concern or consideration. Vegetation clearance is managed under permit.

No environmental factors are applied to the Mineral Resources or resource tabulations.

#### **Reporting Cut-off grade**

The Mineral Resource cut-off grade for reporting of global gold resources at the Gilbey's North and Never Never gold prospects was 0.5g/t. This was based on consideration of grade-tonnage data (Figure 9), potential open pit mining method, and economic cut-offs applied at other operational Dalgaranga deposits. Tonnages were estimated on a dry basis. No historical mining has been undertaken at the Gilbey's North - Never gold prospect.





*Figure 9*: Grade-tonnage curve for the Gilbey's North - Never Never Gold Deposits – Indicated and Inferred Mineral Resources

# "Gilbey's Complex" Mineral Resource Estimate – Update 2022

Gascoyne engaged external consultants Cube Consulting Pty Ltd ("Cube") to update the Plymouth Deposit based on drilling to April 2022. The remainder of the Gilbey's Complex (Gilbey's Main, Gilbey's East, Gilbey's South and Sly Fox) have only been updated for depletion through to 30 June 2022.

The Mineral Resource estimate is depleted to 30 June 2022 and reported within the A\$2,800/oz optimised pit shell used in 2021 using a 0.5g/t Au cut-off grade which has had a material impact on reportable resources.

The updated global Dalgaranga Mineral Resource estimate is shown below in Table 8.

Category	Mt	Au g/t	Au Koz
Measured	0.59	0.93	17.6
Indicated	9.94	1.13	362.5
Inferred	1.76	1.13	63.7
TOTAL	12.29	1.12	443.8

**Table 8:** Gilbey's Complex (Gilbey's, Gilbey's South, Gilbey's East, Plymouth and Sly Fox deposits) Mineral Resourcestatement for in-situ resources above 0.50g/t Au combined with stockpiles (>0.5g/t Au) on surface, as of 30 June 2022

Notes:

Effective date of 30 June 2022.



- Mineral Resources that are not Ore Reserves do not have demonstrated economic viability at the Ore Reserve gold price. The
  estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing,
  or other relevant issues.
- In-Situ Mineral Resources are reported at a variable block cut-off grade of 0.50 g/t Au for all lodes and material types
   In-Situ Mineral Resources are reported within a constraining with the U(0) RECORDER OF AUTOMATING AND AUTOMATING AND AUTOMATING AND AUTOMATING AND AUTOMATING AUTOMATING AND AUTOMATING AUTOM
- In-Situ Mineral Resources are reported within a constraining pit shell ('GIL\_PF\_GP2800\_ Shell 35 \_070521.dtm'), provided to Cube by Gascoyne, based on a gold price of A\$2,800/oz and based on Measured, Indicated and Inferred categories.
- Totals may not add up due to rounding.

Changes to the in-situ Mineral Resource as at 31 March 2021 compared to 30 June 2022, excluding low grade (0.3-0.5 g/t Au) stockpiles are summarised below in Table 9:

	March 20	21			June 2022	2		Variance	9
Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	1.4	0.69	30.6	0.6	0.93	17.6	-0.8	0.24	-13.0
Indicated	18.2	0.87	508.7	9.9	1.13	362.5	-8.3	0.26	-146.2
Inferred	3.6	0.74	85.1	1.8	1.13	63.7	-1.8	0.39	-21.4
TOTAL	23.2	0.84	624.4	12.3	1.12	443.8	-10.9	0.28	-180.6

 

 Table 9: Gilbey's Complex (Gilbey's, Gilbey's South, Gilbey's East, Plymouth and Sly Fox deposits) Mineral Resource insitu resources comparison

Notes:

• Effective date of 30 June 2022.

• Variance from Mining depletion, changes to cut-off grade, removal of low grade stockpile material

• Totals may not add up due to rounding.

# **Dalgaranga Deposit Geology and Geological interpretation**

# **Regional Geology**

The Dalgaranga Gold Project is located within the Dalgaranga Greenstone Belt in the Murchison Province of Western Australia. The predominantly northeast trending belt consists of high magnesium basalt, tholeiitic basalt, intermediate volcanic, felsic intrusive porphyry, and a folded volcano-sedimentary sequence dominated by black shale and volcaniclastic lithologies. Felsic volcanic rocks outcrop on the western side of the belt, north of the Gilbey's and Golden Wings deposits. The Greenstone sequence is intruded by large gabbro complexes in the north (Mt Farmer, Mt Charles) and to the west (Dalgaranga Hill).

# **Gilbey's Complex**

Gold mineralisation in the Gilbey's Complex area (Gilbey's, Gilbey's South, Gilbey's East, Sly Fox and Plymouth) is mainly hosted within the folded volcanoclastic sequences, with the main Gilbey's deposit located on the northern limb of a regional anticline, within a dextral ductile shear 100-200m wide. The shear zone trends northeast and dips northwest, sub-parallel to the stratigraphy which strikes between 055° - 065°.

The main body of mineralisation in the Gilbey's deposit varies from 20m to 110m in width (see Figure 10 below). The combined thickness of the main zone and parallel-mineralised zones is up to 200m wide in



places. The style of mineralisation at Gilbey's can be described as a quartz-pyrite-carbonate veined ductile shear system.



Figure 10: Plan view of the Gilbey's Complex MRE as at 30 June 2022.



Figure 11: Long section view looking East of the Gilbey's Complex MRE as at 30 June 2022.

# **Plymouth**

The Plymouth deposit is located roughly adjacent the south-east corner of the main Gilbey's pit and extends northwest of the Sly Fox pit. At Plymouth the higher-grade mineralisation is related to a north-

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trending and steeply westerly-dipping zone defined to date by drilling to be over 150m in strike length; folded around to the Sly Fox easterly orientation to the south, possibly offset to the north towards Gilbey's East and open down-dip. Gold mineralisation occurs within quartz veined and silica-pyrite-biotite altered schists. Mineralisation is most consistent at a vertical depth of ~60-150m.

# Sly Fox

The Sly Fox deposit is located approximately 500m southeast of the Gilbey's deposit the eastern limb of the southerly plunging anticline, within a dextral ductile shear zone in the equivalent portion of the stratigraphy that hosts the Gilbey's Main Porphyry Zone in the northern limb.

The Sly Fox deposit occurs within a shear zone that trends northwest for approximately 300m. Gold mineralisation is associated with silica-sericite-pyrite altered biotite-carbonate schists and black shale zones.

# Gilbey's East

The Gilbey's East prospect area is currently reported as part of the global resource for the "Gilbey's Complex", however, recent drilling and re-interpretation of the area indicates that this area is sufficiently different, in terms of geological host, structural characteristics, mineralisation volume and grade to be considered a "standalone" gold prospect. As such an updated MRE is currently underway to define a specific Mineral Resource Estimate for the Gilbey's East area.

Mineralisation in Gilbey's East is mainly confined to the footwall Gabbro unit rather than the central Porphyry-intruded Volcaniclastic sequence that hosts the main Gilbey's Gold Deposit. The mineralisation style is generally as a series of discrete quartz vein arrays that appear to splay northwest off but trend roughly parallel to the strike of the main Gilbey's Deposit footwall contact. Mineralisation is generally silica-sericite-pyrite in vein sets hosted within moderately foliated gabbro rocks.

# **Drilling and Sampling, and Sample Analysis Techniques**

The Gilbey's, Sly Fox, and Plymouth gold deposits have been sampled using Trenches ("**TR**"), Rotary Air Blast ("**RAB**") drilling, Air Core ("**AC**") drilling, Reverse Circulation ("**RC**") drilling and Diamond ("**DD**") drilling over numerous campaigns by several companies and currently by Gascoyne.

Detailed logging for most historical holes exists in the Gascoyne database. No sample recovery information is available for historical drilling.

# **Drill Spacing and Orientation**

Resource Definition drilling ("**RDV**") in most of the Dalgaranga Project areas is nominally at a 25m – 40m spacing, but becomes less dense at depth.

The majority of drill holes have a dip of -60° towards local grid east. For the east – west striking Sly Fox and Gilbey's South deposits, holes are appropriately oriented towards local grid south.

The vast majority of the drill holes used are thus considered to be oriented near-optimally for intersection of gold mineralisation structures, ruling out any material bias due to drill orientation.



# **Sample Security**

The chain of custody is managed by Gascoyne. The samples are sent once or twice weekly directly to MinAnalytical Laboratory via the Company's preferred transport provider. Consignments are specific to Gascoyne, thereby limiting potential security issues.

#### Analyses

Various analytical methods have been used since 2017 including Fire Assay, Pulverise and Leach ("**PAL**") and more recently Photon non-destructive techniques. All assays have been QA/QC checked to ensure reliability of assays for inclusion in the Mineral Resource estimate.

#### **Quality Assurance and Quality Control**

Primary assay data for MinAnalytical Laboratory for the period investigated a total of 33,111 RC samples, which include 1,342 CRMs, 670 Blanks, and 659 Field Duplicates based on a QAQC analysis by GCY of all drill assaying with Gilbey's Complex (RCGC and ResDev/Expl) from March 2021 to June 2022.

The quality of the assay data was assessed by analysing the Certified Reference Material (CRM or Standards) and duplicate samples in terms of accuracy and precision and were deemed acceptable.

#### **Mineral Resource Estimation Methodology**

The approach taken for the interpretation of mineralisation domains is similar to that used in the April 2020 Mineral Resource Estimate ("**MRE**"). The Gilbey's Main Porphyry Zone ("**GMPZ**") has been subdivided into three sub-domains (Domains 100, 101 and 102) on the basis of knowledge gained with respect to the structural controls on mineralisation. The higher-grade domains in the GMPZ, Domains 101 and 102, are referred to as the GMZ. This update estimate has focussed on delineating broad mineralisation envelopes with a high tolerance for internal waste, based on areas of similar geological controls.

The estimation within the Grade Control ("**GC**") volume was undertaken using Ordinary Kriging ("**OK**") of 1 m downhole composited drilling data into a three-dimensional block model, with an ultimate Selective Mining Unit ("**SMU**") block size of 5 mE x 5 mN x 2.5 mRL (local grid). Outside of the GC volume, in forward-looking areas informed by relatively wide-spaced RDV drilling, Localised Uniform Conditioning ("**LUC**") was applied to produce a model suitable for reporting above grade cut-offs and for mine planning purposes based on the same SMU size. The LUC estimate also incorporated an "Information Effect" correction to allow for possible lack of definition due to incomplete information on the local recoverable model.

All reporting of in-situ Mineral Resources in this document is based on the final block model which has been depleted using the appropriate DTM surfaces representing pre-mining topography and also the topography inclusive of surface mining as at the end of June 2022.

# The Criteria used for classification, including drill and data spacing and distribution

The Mineral Resource has been classified and reported in accordance with the 2012 JORC Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). The Dalgaranga mineralisation is sufficiently drilled to allow classification as Measured, Indicated or Inferred.



# Mining and Metallurgical Methods and Parameters, and other material modifying factors considered to date

Mill Production Sampling has shown that gold recovery is currently averaging >90% over the last six months for cyanide recoverable gold. Black (carbonaceous) shales occurring within the mineralised sequence are known to result in lower recoveries. The black shales have been modelled using implicit methods (Leapfrog) and were flagged in the block model. An average gold recovery of 77% is currently in use for shale ore, based on metallurgical test work that was undertaken on black shale material.

#### **Environmental Factors and Assumptions**

There are no environmental factors or assumptions included as part of this Mineral Resource Estimate.

# **Reporting Cut-off Grade**

Gascoyne reviewed the 0.25g/t gold cut-off grade applied to the previous Mineral Resource Estimate for the Gilbey's Complex and has elected to increase the cut-off grade to 0.50g/t gold as supported by the below graph (Figure 12).



Figure 12: Grade/tonnage curves

A table showing grade, tonnage and metal at various cut-offs for in-situ material is shown below in Figure 13:



Cut-Off (Au g/t)	Mt	Au g/t	Au koz
0	84.4	0.22	605
0.15	23.7	0.72	550
0.25	19.7	0.83	525
0.30	17.9	0.89	509
0.40	14.6	1.01	473
0.50	12.0	1.13	436
0.60	9.7	1.26	395
0.70	8.1	1.39	360
1.00	4.8	1.77	272

Figure 13: Grade, tonnage and metal above cut-off in the reporting pit shell, depleted to 30<sup>th</sup> June 2022.

# **Archie Rose Mineral Resource Estimate**

Gascoyne identified Archie Rose as a potential oxide satellite open pit approximately 7km from the mill. Drilling has defined shallow gold mineralisation over 350 metres of strike and a depth from 5 metres to 130 metres below surface. The Company conducted an internal MRE, which was subsequently peer reviewed by Entech Mining noting no fatal flaws.

The MRE is based off data from 59 reverse circulation holes for 5,675 metres, with the majority drilled by Gascoyne Resources in 2018 (51 holes for 5,048 metres). Given the 50 metre by 20 metre drill -spacing the resource is classified as Inferred.

ARCHIE ROSE GOLD DEPOSIT							
Category Tonnes (Mt) Grade (g/t) Contained Metal (koz Au							
Inferred	1.21	1.01	39.1				
TOTAL	TOTAL 1.21 1.01 39.1						

 Table 10: Archie Rose Initial Mineral Resource statement for in-situ resources above 0.5g/t Au.

The reported Mineral Resource was constrained at depth by the available drill hole spacing outlined for Inferred classification, nominally 120 m below surface (300 mRL), the deposit is located on tenement E59/2053.

Archie Rose remains high in the targeting pipeline. Infill drilling has been planned for resource conversion and extension targeting, in addition to collecting additional data to support geotechnical and metallurgical test work.





Figure 14: Archie Rose Deposit - Plan View of domains and drill collars





Figure 15: Archie Rose Cross-Section 522200 E +/-25m

# **Geology and Mineralisation**

The Dalgaranga Greenstone Belt is intruded by a number of post tectonic granites separated by zones of amphibolite and mafic schists intruded by pegmatites. East-west trending Proterozoic dykes of dolerite and gabbro intrude the Greenstone sequences. The southern portion of the tenement area is gold dominated, while the layered mafic intrusives and felsic volcanics in the northern area of the tenement are also prospective for VHMS base metals and pegmatite related mineralisation.

The Archie Rose Gold Deposit is part of the Greencock gold prospect, located ~9km NW of the Dalgaranga Processing plant on the Tenement. The prospect lies in a package of mafic rocks adjacent to sediments along what is interpreted to be the extension of the Big Bell Lineament – a major regional geological fault zone.

RC drilling predominantly in 2018, at Archie Rose was successful in defining broad zones of gold mineralisation in silica-sulphide altered quartz gabbro's over a 300-metre strike length

# **Geology and Geological Interpretation**

Regolith was initially interpreted (BOCO and TOFR) as a first step to understanding the geological setting. Without structural data available, variations on the surfaces have outlined potential thrust-faulting which fits the regional interpretation.

18 mineralisation domains were sectionally interpreted using an arbitrary lower cut-off grade of 0.2gpt Au. Material below the cut-off grade was included to maintain continuity of the mineralised envelope.



Mineralised domains are broadly grouped into oxide (100 series), transitional (200 series) and primary (300 series) mineralised envelopes. The regolith interpretation assisted with defining the mineralised domains, particularly the fault offsets and north-dipping lodes (201, 202, 205) where they made sense.

# **Drilling Techniques**

Drilling has been completed from surface using RC, RAB and AC drilling techniques. The RC drilling used in the MRE was a nominal  $5\frac{1}{2}$  inch diameter face-sampling hammer. AC drilling used a conventional  $3\frac{1}{2}$  inch face sampling blade to refusal or a  $4\frac{1}{2}$  inch face sampling hammer to a nominal depth.

The most recent campaign by Gascoyne was conducted in 2018 drilling the deposit to a 50m x 20m grid totalling 50 Reverse Circulation holes for 5,038 metres.

RAB and AC samples have been excluded from gold interpolation for this Mineral Resource estimate since these sampling methods are considered to be of insufficient quality for the purpose of resource definition. These lower quality results, were, however, used to assist in the interpretation of mineralisation domains for interpolation of gold grade, and assist in defining the regolith horizons (BOCO, TOFR).

# **Sampling and Sub-Sampling Techniques**

Using a cone splitter, 1 m RC samples were split and collected at the drill rig, with each RC sample weighing approximately 3–5 kg. The RC and AC chips were geologically logged over 1 m intervals.

Sample recovery and metreage were visually assessed and recorded where either were significantly reduced.

Routine checks for correct RC sample depths were undertaken and sample recoveries were visually checked for recovery, moisture and contamination. Flushing with compressed air and manual cleaning of the cyclone was conducted at 30 m intervals. The RC samples collected were all predominantly dry.

Gascoyne's QAQC protocols include the collection and analysis of field duplicates and the insertion of appropriate commercial standards (certified reference materials) and blank samples. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.

# **Historical Sampling**

During historical (pre-2017) resource drilling campaigns, RC drilling was used to obtain 1m samples which were split by either cone or riffle splitter at the rig to produce a 3 - 5kg sample. In some cases, a 4m composite sample of approximately 3 – 5kg was collected from the top portion of the holes considered unlikely to host significant mineralisation.

The samples were transported to the laboratory for analysis via 25g Fire Assay. Where anomalous results were detected in the 4m composites, single metre re-split samples were collected for subsequent analysis, also via 25g Fire Assay.

#### Sample Analysis Method

RC chips were riffle or cone split at the rig to produce a 2 - 4kg sample at 1m intervals. AC samples were collected as 4m composites (unless otherwise noted) using a spear of the drill spoil. Samples were generally dry. 1m AC resamples are riffle split or speared.

At MinAnalytical the samples were analysed by Fire Assay, the technique involves drying the sample. For Fire Assay the sample is crushed and pulverised then assayed for gold using a 50g charge lead collection Fire Assay with AAS finish.

Field QAQC procedures call for the insertion of 1 in 25 certified reference materials ("CRM") 'standards' and 1 in 50 field duplicates for RC and AC drilling and the insertion of "blank" samples.



Field duplicates were collected during RC and AC drilling. Further sampling (lab umpire assays) is conducted if it is considered necessary.

A sample size of 2 - 5 kg was collected from the original RC sample of 20 - 40kg depending on material density. This size is considered appropriate, and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected, as an industry standard.

# **Historical Analysis**

All historical RC samples were analysed using a 25 or 50g charge Fire Assay with an AAS finish which is an industry sample for gold analysis. Recent (Gascoyne) RC samples have been assayed by Fire Assay method.

A 25g Aqua Regia digest with an MS finish has been used for AC samples. Aqua Regia can digest many different mineral types including most oxides, sulphides and carbonates but will not totally digest refractory or silicate minerals. Historically the samples have been analysed by both Aqua Regia digest and a leachwell process. Significant differences were recorded between these analytical techniques.

No QAQC results are available for historical (pre-Gascoyne) sampling.

#### **Estimation Methodology**

An Inverse Distance estimation/interpolation squared (ID2) approach was used for gold grades using Vulcan software.

Statistical analysis of data established a 1m composite length. Top-cut analysis indicated a lack of highgrade gold outliers, with a maximum composite grade of 7.85gpt Au. Based on the 97 percentile, a 4.0gpt top cut was selected.

Parent block size reflected a sub-set of the drill spacing ( $25m \times 10m \times 5m$ ), with sub-celling down to  $6.25m \times 2.5m \times 1.25m$  which reflects the SMU. Volume checks were conducted on 3D wireframes vs block model as a high-level validation check.

No deleterious elements or variables have been estimated. Bulk densities have been assigned to material types based on data collected by Gascoyne from across the operations.

The orientation of the mineralised domains and the drill spacing were used to define the estimate, ensuing a minimum and maximum number of samples. Three estimation passes were conducted, the first pass based on the approximate drill spacing, the second and third pass extending the search ellipse to ensure all blocks are filled and ascertain the confidence in the estimate. No distance limiting parameters were applied.

Other restrictions included a minimum/maximum samples per estimate, min/max samples per drillhole, and min/max drillholes per estimate.

This is a maiden interpretation and resource estimation; the deposit does not outcrop at surface and no historic production has taken place.

The block model was validated by comparison of global composite means and block estimate means. Swath plots by easting, northing and elevation slice were generated to compare composite grades to estimated block grades at the semi-local scale. In areas of high data support, the correlation between composite and block grades performed well. Visual checks of the block estimates against the raw assay data were undertaken, with good local agreement being observed.



# **Specific Gravity**

As per Gilbey's some 434 density measurements were available for density estimation, deemed appropriate as within the same geological region.

Density is measured using the water immersion technique. Moisture is accounted for in the measuring process and measurements were separated for lithology, mineralisation and weathering.

It is assumed there are minimal void spaces in the rocks within the Gilbey's deposit. Values applied in the Gilbey's block model are similar to other known bulk densities from similar geological terrains.

Previously, density values of 2.00, 2.50, 2.80t/m<sup>3</sup> were assigned respectively to alluvium/ the oxide zone, the transitional zone and the fresh zone.

# Classification

The Mineral Resource was classified as Inferred Mineral Resource (ResCat 3) based on data quality, sample spacing, geological understanding of mineralisation controls and geological/mineralisation continuity. Four mineralised domains were excluded (ResCat 4, or unclassified) due to lack of data support.

The input data is comprehensive in its coverage of the mineralisation in most areas and does not favour or misrepresent in-situ mineralisation. Validation of the block model shows good correlation of the input data to the estimated grades.

The Mineral Resource estimate appropriately reflects the view of the Competent Person.

#### **Mining Factors or Assumptions**

Open pit mining is currently underway at Dalgaranga, cut-off grades for ore grade are 0.5g/t Au

Pitshells have been generated to evaluate future mining scenarios and assist with reserve drill planning and technical data collection.

#### **Metallurgical Factors and Assumptions**

Initial 'sighter' metallurgical test work was conducted on RC a limited number of composite samples from the 2018 campaign for the oxide and primary material types only. Results indicate lower recoveries for primary mineralisation, however further test work is required to ascertain the variability within the deposit.

Comprehensive test work will be conducted on material collected in upcoming drilling campaigns.

#### **Environmental Factors or Assumptions**

No consideration has yet been given to environmental matters such as waste and process residue disposal options or the environmental impacts of a mining and processing operation.

The Mineral Resource Estimates assume that the Company will be able to obtain all required environmental permitting in a matter that does not adversely affect the Resource estimates.

# **Reporting Cut-off grade**

The Mineral Resource cut-off grade for reporting of global gold resources at the Archie Rose deposit was 0.5g/t. This was based on consideration of grade-tonnage data, potential open pit mining method, and economic cut-offs applied at other operational Dalgaranga deposits. Tonnages were estimated on a dry basis. No historical mining has been undertaken at the Archie Rose prospect.



# Yalgoo Gold Project (YGP)

No material changes have been made to the Melville or Applecross Gold Deposit MRE, as a whole the "Yalgoo Gold Project", since they were released by Gascoyne Resources in December 2021. As such the details of those individual MRE can be found in ASX release dated 6 December 2021 and titled "24% increase in Yalgoo Gold Resource to 243,613oz strengthens Dalgaranga Growth Pipeline".

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	3.35	1.49	160.4
Inferred	1.88	1.37	83.2
TOTAL	5.24	1.45	243.6

 Table 11: YGP Mineral Resource statement for in-situ resources above 0.7g/t Au.

# **Gascoyne Region Resource**

No material changes have been made to the Mineral Resource Estimates of the Glenburgh Gold Project or the Mt Egerton Gold Project since they were released by Gascoyne Resources in May 2021. The detail of the Glenburgh MRE can be found in ASX release dated 17 December 2020 and titled "*Group Mineral Resources Grow to Over 1.3Moz*". Detail for the Mt Egerton MRE can be found in ASX release dated 31 May 2021 and titled *"2021 Mineral Resource and Ore Reserve Statements"*.

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	13.73	1.03	455.7
Inferred	2.84	0.89	81.4
TOTAL	16.57	1.01	537.1

 Table 12: Gascoyne Region Total Mineral Resource statement for in-situ resources above 0.25g/t Au for open pit at Glenburgh, above 2.0 g/t Au for underground at Glenburgh and above 0.7g/t Au for open pit at Egerton.



#### **Competent Persons Statement**

The information in this announcement that relates to Mineral Resources for the Gilbey's, Gilbey's South, Plymouth, and Sly Fox gold deposits at the Dalgaranga project has been compiled under the supervision of Mr Michael Job and Mr Michael Millad. Mr Michael Job is a Principal Geologist/Geostatistician at Cube Consulting Pty Ltd and a Fellow in good standing of the Australian Institute of Mining and Metallurgy. Mr Michael Millad is a Director and Principal Geologist/Geostatistician at Cube Consulting Pty Ltd, and a Member in good standing of the Australian Institute of Geoscientists. Both Mr Job and Mr Millad have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that was undertaken to qualify as Competent Persons, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition). Mr Michael Job and Mr Millad consent to the inclusion of the data in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources for the Gilbey's North - Never Never gold deposit at the Dalgaranga project has been compiled under the supervision of Ms Lisa Milham. Ms Milham is a Senior Geology Consultant at Entech Pty Ltd and is a Member in good standing of the Australian Institute of Geoscientists. Ms Milham has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that was undertaken to qualify as a Competent Person, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition). Ms Milham consents to the inclusion of the data in the form and context in which it appears.

Information in this announcement relating to the Dalgaranga Gold Project (Gilbey's, Gilbey's South, Plymouth, Sly Fox and Gilbey's North / Never deposits) are based on, and fairly represents data compiled by Gascoyne's Senior Exploration Geologist Mr Monty Graham, who is a member of The Australasian Institute of Mining and Metallurgy. Mr Graham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results. Mr Graham consents to the inclusion of the data in the form and context in which it appears.

The information in this announcement that relates to Exploration Results and Mineral Resources for the Archie Rose gold deposit at the Dalgaranga Gold Project is based on, and fairly represents information and supporting documentation reviewed, collated and compiled by Mr Simon Lawson, a full-time employee and the Managing Director of Gascoyne Resources Ltd. Mr Lawson is a professional geoscientist and Member of The Australian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves. Mr Lawson consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

The Mineral Resource estimate for the Yalgoo Gold Project referred to in this announcement is extracted from the ASX announcement dated 6 December 202 and titled "24% INCREASE IN YALGOO GOLD RESOURCE TO 243,613oz STRENGTHENS DALGARANGA GROWTH PIPELINE". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

The Mineral Resource estimate for the Glenburgh Project referred to in this announcement is extracted from the ASX announcement dated 18 December 2020 and titled "Group Mineral Resources Grow to Over 1.3M oz". The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

The Mineral Resource estimate for the Mt Egerton Project referred to in this announcement is extracted from the ASX announcement dated 31 May 2021 and titled "2021 Mineral Resource and Ore Reserve Statements".



The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

Information in this announcement relating to the Glenburgh and Mt Egerton Gold Projects is based on, and fairly represents, data compiled by Gascoyne's Senior Exploration Geologist Mr Monty Graham, who is a member of The Australasian Institute of Mining and Metallurgy. Mr Graham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results. Mr Graham consents to the inclusion in this announcement of the data relating to the Glenburgh and Mt Egerton Gold Projects in the form and context in which it appears.



Figure 16: Location of Gascoyne Resources Ltd Projects



# **Authorisation**

This announcement has been authorised for release by the Board of Gascoyne Resources Limited.

#### For further information, please contact:

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# **BACKGROUND ON GASCOYNE RESOURCES**

Gascoyne is a debt-free Australian gold producer which operates the 100%-owned Dalgaranga Gold Mine, located in the Murchison region of Western Australia. The operation is underpinned by a modern, 2.5Mtpa CIL gold processing plant which represents a strategic asset in the district. Dalgaranga produced over 71,000oz of gold in the 2022 financial year.

While production is currently sourced predominantly from the Gilbey's and Plymouth open pits, Gascoyne has enjoyed recent considerable near-mine exploration success which has highlighted the potential to develop new higher-grade ore sources within a 1-2km radius of the existing plant. These near-mine exploration activities are currently a priority focus for the Company and formed the basis for an updated Mineral Resource Estimate released in the first half of the September 2022 Quarter. An update to the Ore Reserve statement is also due for release in the September 2022 Quarter.

#### **Forward-looking statements**

This announcement contains forward-looking statements which may be identified by words such as "believes", "estimates", "expects', "intends", "may", "will", "would", "could", or "should" and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place.

Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and management of the Company. These and other factors could cause actual results to differ materially from those expressed in any forward-looking statements.

The Company cannot and does not give assurances that the results, performance or achievements expressed or implied in the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.



# JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

# Dalgaranga Gold Project - Gilbey's North - Never Never Deposits

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>Gilbey's North - Never Never was previously drilled as part of sterilisation drilling for waste dumps. Exploration / Resource Definition drilling commenced in late 2021 following up a historic AC drilling intercept.</li> <li>The majority of holes are on a 25m grid either infilling or extending known prospects. The exploration areas have wider spaced drilling. The majority of drill holes have a dip of -60°but the azimuth varies. For this announcement it was RC drilling with limited Diamond drilling.</li> <li>RC drilling was used to obtain 1m samples which were split by a cone splitter at the rig to produce a 3 – 5 kg sample. The samples were shipped to the laboratory for analysis via 500g Photon assay.</li> <li>Where diamond drilling was undertaken or as diamond tails extending RC holes ½ core was sampling while for PQ, HQ or NQ holes with analysis via 500g Photon assay. Current QAQC protocols include the analysis of field duplicates and the insertion of appropriate commercial standards and blank samples. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.</li> </ul>
Drilling techniques	<ul> <li>RC drilling used a nominal 5 ½ inch diameter face sampling hammer.</li> <li>The diamond drilling was undertaken from surface. Core sizes range from NQ, HQ or PQ (to allow metallurgical samples to be collected).</li> </ul>
Drill sample recovery	<ul> <li>RC sample recovery is visually assessed and recorded where significantly reduced. Very little sample loss has been noted.</li> <li>Diamond drilling was undertaken and the core measured and orientated to determine recovery, which was generally 100%. RC samples were visually checked for recovery, moisture and contamination. A cyclone and cone splitter were used to provide a uniform sample and these were routinely cleaned</li> <li>Sample recoveries are generally high. No significant sample loss has been recorded.</li> <li>Field duplicates produce consistent results. No sample bias is anticipated, and no preferential loss/gain of grade material has been noted.</li> </ul>



Criteria	Commentary
Logging	<ul> <li>Detailed logging exists for most historic holes in the data base. Current RC chips are geologically logged at 1 metre intervals and to geological boundaries respectively. RC chip trays have been stored for future reference.</li> <li>RC and AC chip logging recorded the lithology, oxidation state, colour, alteration and veining.</li> <li>Diamond drill holes have all been geologically, structurally and geotechnically logged.</li> <li>The Diamond core photographed tray by tray wet and dry.</li> <li>All current drill holes are logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>RC chips were cone split at the rig. Samples were generally dry.</li> <li>A sample size of between 3 and 5 kg was collected. This size is considered appropriate, and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected.</li> <li>RC samples are dried. If the sample weight is greater than 3kg, the sample is riffle split.</li> <li>The diamond core has been consistently sampled with the left-hand side of the core sampled.</li> <li>Samples are coarse crushed to 2mm prior to photon assaying.</li> <li>Field duplicates were collected during RC drilling. Further sampling (lab umpire assays) are conducted if it is considered necessary – policy is for 3% of grading assays greater than 0.2gpt Au are selected for Fire Assaying.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>RC and DD samples were sent to MinAnalytical Laboratory Pty Ltd for analysis, by Photon Assay. A 500g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.</li> <li>For Photon Assay, the sample is crushed to nominal 85% passing 2mm, linear split and a nominal 500g sub sample taken (method code PAP3502R).</li> <li>The 500g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.</li> <li>Field QAQC procedures include the insertion of both field duplicates and certified reference 'standards' and 'blank' samples. Assay results have been satisfactory and demonstrate an acceptable level of accuracy and precision. Laboratory QAQC involves the use of internal certified reference standards, blanks, splits and replicates. Analysis of these results also demonstrates an acceptable level of precision and accuracy.</li> <li>No downhole geophysical tools etc. have been used at Dalgaranga.</li> </ul>


Criteria	Commentary
Verification of sampling and assaying	<ul> <li>At least 3 Company personnel verify all intersections.</li> <li>No twinned holes have been drilled to date by Gascoyne Resources, however three different orientations have tested the mineralised trend, each verifying the geometry of the mineralised shoot.</li> <li>Field data is collected using Log Chief on tablet computers. The data is sent to the Gascoyne Database Manager for validation and compilation into a SQL database server.</li> <li>No adjustments have been made to assay data apart from values below the detection limit which are assigned a value of negative the detection limit.</li> </ul>
Location of data points	<ul> <li>The RC and diamond drill holes have been picked up by DGPS. A down hole survey was taken at least every 30m in RC holes by gyro survey tool by the drilling contractors.</li> <li>The grid system is MGA_GDA94 Zone 50.</li> </ul>
Data spacing and distribution	<ul> <li>Initial drilling was conducted on 25m-100m east-west (local grid) aligned grid spacing which aligns with the main Gilbey's trend and stratigraphy.</li> <li>Defining the orientation of the Never Never deposit saw alternative drilling orientations to pin down the strike and geometry, which included drilling north-east, south-east, and north-south orientation.</li> <li>The mineralised domains have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Drilling sections are orientated perpendicular to the strike of the mineralised host rocks at Dalgaranga. This varies between prospects and consequently the azimuth of the drill holes also varies to reflect this. The drilling is angled at between -50 and -60° which is close to perpendicular to the dip of the stratigraphy.</li> <li>As per above, Never Never deposit is perpendicular to the main Gilbey's trend and given its pipe-like dimensions has drilled both east-west, and north-south.</li> <li>No orientation-based sampling bias has been identified in the data at this point.</li> </ul>



Criteria	Commentary
Sample security	<ul> <li>Chain of custody is managed by Gascoyne Resources. Drill Samples are dispatched weekly from the Dalgaranga Gold Project site.</li> <li>Currently Beattie Haulage and Toll delivers the samples directly to the assay laboratory in Perth. In some cases, Company personnel have delivered the samples directly to the lab.</li> <li>Diamond drill core is transported directly to Perth for cutting and dispatch to the assay lab for analysis.</li> </ul>
Audits or reviews	<ul> <li>Data is validated by the Gascoyne Database Manager whilst loading into database. Any errors within the data are returned to relevant Gascoyne geologist for validation.</li> <li>Prior to resource modelling and estimation, the dataset for Gilbey's North - Never Never has been audited by Entech Mining Consultants, with any variations reported to the DBA for updating the main data set.</li> </ul>



# Section 2 Reporting of Exploration Results

# Dalgaranga Gold Project - Gilbey's North - Never Never Deposits

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status Exploration done by other parties	<ul> <li>Dalgaranga project is situated on Mining Lease Number M59/749 and the Gilbey's North - Never Never deposits are on this lease. The tenement is 100% owned by Gascoyne Resources Limited.</li> <li>Other project Tenements include E59/1709, E59/1904, and E59/1906 which Gascoyne Resources has an 80% interest.</li> <li>The Archie Rose deposit lies on E59/2053 and is 100% owned by Gascoyne Resources.</li> <li>The Tanqueray prospect lies on E59/1709 and E59/1904 where Gascoyne Resources has an 80% interest.</li> <li>The Hendricks prospect lies on E59/1709 which Gascoyne Resources has an 80% interest.</li> <li>The Hendricks prospect lies on E59/1709 which Gascoyne Resources has an 80% interest.</li> <li>The tenements are in good standing and no known impediments exist.</li> <li>The tenement areas have been previously explored by numerous companies including BHP, Newcrest and Equigold.</li> <li>Previous Mining was carried out by Equigold in a JV with Western Reefs NL from 1996 – 2000.</li> </ul>
Geology	<ul> <li>Regionally, the Dalgaranga project lies in the Archean aged Dalgaranga Greenstone Belt in the Murchison Province of Western Australia. At the Gilbey's deposit, most gold mineralisation is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining within a porphyry-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Porphyry Zone). The Gilbey's Main and Gilbey's North prospect Porphyry Zone trends north – south and dips moderately-to-steeply to the west on local grid while Sly Fox deposit trends east – west and dips steeply to the north. These two trends define the orientation of the limbs of an anticlinal structure, with a highly disrupted area being evident in the hinge zone.</li> <li>At the Sly Fox deposit gold mineralisation occurs in quartz veined and silica, pyrite, biotite altered schists.</li> <li>The Plymouth deposit lies between Gilbey's and Sly Fox within the hinge zone of anticlinal structure – mineralisation at Plymouth is related to quartz veins and silica, pyrite, biotite altered zones hosted in basalts</li> <li>At Hendricks and Vickers gold mineralisation occurs in quartz-pyrite veined and altered zones hosted in basalts</li> <li>The Never Never deposit at Gilbey's North appears to be an intersection between a significant mineralised structure and the mine sequence – the lode plunges moderately to the west and is characterised by strong quartz – sericite – fucite alteration, with fine to very fine pyrite sulphide mineralisation.</li> </ul>
Drill hole Information	<ul> <li>A total of 30,439.55 m of drilling from 297 drill holes was available for the Mineral Resource estimate. Mineralisation interpretations were informed by RC, rotary air blast (RAB) and air core (AC) drilling (297 holes, of which 181 intersect the resource), for 2,438.5 m of drilling intersecting the resource.</li> <li>At the time of interpretation, 17 drill holes were in progress or complete but not assayed including one diamond drill hole (DGDH028) that was missing both lithological</li> </ul>

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Criteria	Commentary
Data aggregation methods	<ul> <li>and assay data thus was removed from interpretation and estimation.</li> <li>The Mineral Resource estimate includes 16,519 m of drilling from 151 reverse circulation (RC) drill holes completed since 1997. Of the drill metres underpinning the Mineral Resource, 98% were completed by Gascoyne Resources Ltd (GCY) in 2021 and 2022. Historical drilling includes three holes (2% of the drill metres) completed in 1997 by previous owners.</li> <li>Collar details have been previously published by Gascoyne Resources</li> <li>All reported assays have been length weighted if appropriate. No top cuts have been applied. A nominal 0.5ppm Au lower cut off has been applied to the RC and diamond results.</li> <li>High grade Au intervals lying within broader zones of Au mineralisation are reported as included intervals.</li> <li>No metal equivalent values have been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The mineralised zones at Dalgaranga vary in strike between prospects, but all are relatively steeply dipping.</li> <li>Drill hole orientation reflects the change in strike of the rocks and consequently the downhole intersections quoted are believed to approximate true width unless otherwise stated in the announcement.</li> </ul>





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Criteria		Commentary
Balanced reporting	•	Exploration results are not being reported.
Other substantive exploration data	•	Not applicable.
Further work	•	RC and Diamond resource definition and extension drilling is ongoing. Grade control drilling (RCGC) is planned to commence in late September 2022. Geotechnical logging of existing core has been completed, further geotechnical logging and test work is planned on current diamond core. Metallurgical test work has commenced on composite samples covering all material types, lithologies and mineralisation styles.
	•	An updated MRE is planned for the December 2022 Quarter, encompassing all additional drilling information

## Section 3 Estimation and Reporting of Mineral Resources

## Dalgaranga Gold Project - Gilbey's North - Never Never Deposits

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Database integrity	<ul> <li>Drill logging data were entered into LogChief at the drill rig or in the geology office. LogChief integrates into Datashed, a Microsoft SQL Server database that stores user settings, allowing only approved data to be entered. All logs were validated by the Project Resource Development Geologist prior to being sent to the Database Administrator for import into GCY's overarching MS Access database. Historical drilling data have been captured from historical drill logs. Drilling results were visually reviewed and validated in Micromine.</li> </ul>
	• Drilling data were retained for resource definition drilling only. Reverse circulation (RC) chips were stored in sea containers in the geology lay-down yard and diamond drill core was stored in GCY's Osborne Park core processing facility. Grade control RC chips were discarded. The Datashed database was updated as new information was acquired, with cross-checks conducted by GCY's dedicated Database Administrator. No external third-party reviews were undertaken.
	<ul> <li>Prior to using the drilling data in the Mineral Resource estimate, Entech undertook a database audit. Entech's database checks included the following:         <ul> <li>Checking for duplicate drill hole names and duplicate coordinates in the collar table.</li> <li>Checking for missing drill holes in the collar, survey, assay, and geology tables based on drill hole names.</li> <li>Checking for survey inconsistencies including dips and azimuths &lt;0°, dips &gt;90°, azimuths &gt;360°, and negative depth values.</li> </ul> </li> </ul>



Criteria	Commentary
	• Checking for inconsistencies in the 'From' and 'To' fields of the assay and geology tables. The inconsistency checks included the identification of negative values,
	overlapping intervals, duplicate intervals, gaps and intervals where the 'From' value is greater than the 'To' value.
	<ul> <li>Entech's database checks were conducted in MS Access, Leapfrog and GEOVIA Surpac™ mining software.</li> </ul>
	• A blanket elevation exists for all rotary air blast (RAB) holes at Gilbey's North (425 mRL), resulting in collars being up to 3 m below the topographic surface. Entech did
	not sight accurate elevation coordinates for these historical holes. Consequently, 42 RAB holes in the area of interest, and those that were interpreted to be on the
	undisturbed surface, were draped to the topographic surface. Entech did not identify any other inaccuracies. Entech also undertook a site visit as part of its due diligence
	process.
	• The drill hole data were considered suitable for underpinning Mineral Resource estimation of global gold ounces. The data included drilling results available up to and
	including 9 August 2022. GCY's Monty Graham was appointed Competent Person for Sampling Techniques, Exploration Results and Data Quality underpinning the
	Mineral Resource estimate. Mr Graham has conducted multiple and regular site visits to the Gilbey's North - Never Never Deposits.
Site visits	• Entech visited the Dalgaranga project, inclusive of the Gilbey's North - Never Never deposits, on 10 and 11 June 2022 to review drilling and sampling processes for RC
	drilling and inspect drill hole chips for consideration in the upcoming Mineral Resource estimate. Entech inspected mineralisation exposures in operational pits
	(Dalgaranga) ~0.5–1.5 km to the south of Gilbey's North, with mineralisation style and controls in operational pits considered analogous to Gilbey's North local grid
	north-south striking domains ('GFin Extension Lodes').
	Based on site visit observations, Entech made the following recommendations relevant to the Mineral Resource estimate:
	<ul> <li>Undertake a density measurement campaign to build on the existing limited dataset.</li> </ul>
	<ul> <li>Conduct regular laboratory audits of both PhotonAssay<sup>™</sup> and Fire Assay techniques for Dalgaranga material being processed.</li> </ul>
	<ul> <li>Increase insertion rates of Blanks/Field Duplicates to 5%.</li> </ul>
	<ul> <li>Execute check assay programs (including standards), pulp repeats and umpire analysis.</li> </ul>
	<ul> <li>Implement grind checks at a sample ratio of 1:50.</li> </ul>
Geoloaical	• Entech was supplied MS Access database 'Gilbey's Datashed' comprising 25,386 collar records in table 'MM_GILB_Collars'. Of this total, 297 collar records are for the
interpretation	Gilbey's North - Never Never deposits, which has the following defined extents:
	Local Northing: 4620mN – 5300mN
	Local Easting: 9600mE – 10400mE.
	• These data, together with input from GCY geologists, guided the initial approach to the interpretation of mineralisation at the Gilbey's North deposit. At the time of
	interpretation, 17 collar records were in progress or complete but not assayed and one diamond drill hole (DGDH028) was missing both lithological and assay data thus
	was removed from interpretation and estimation. Mineralisation interpretations are constrained to the Gilbey's North prospect.
	• While all drill types were used for mineralisation modelling, RAB and air core (AC) samples were excluded from interpolation owing to the style of drilling and potential
	for sampling bias. Only data from RC drilling was used for estimation.
	• Entech understands that mineralisation is largely structurally controlled at Gilbey's North. Shale units provide a reasonable ore definition proxy, with mineralisation often



Criteria	Commentary
Criteria	<ul> <li>Existing between and more commonly on the hangingwall of shale units. The structural understanding of the Gilbey's North deposit is an ongoing process, with the collection of structural data from oriented drill core and structural modelling in progress.</li> <li>Two mineralisation styles are present at Gilbey's North. The first is analogous to mineralisation styles present in Gilbey's Main deposit where mineralisation is understoad to be structurally controlled, and where silicification and the presence of sulphides typically accompany mineralisation. Owing to the deep clay profile at Dalgaranga, however, mineralisation is difficult to determine visually in the field. A second and new style of mineralisation named the 'Never Never' zone has been identified at Gilbey's North. The Never Never deposit is a high-grade, mineralisation styles at Dalgaranga. In fresh material, the Never Never interalisation is associated with highly silicified, sericite altered rock with abundant fine-grained pyrrhotite and pyrite.</li> <li>Portable X-ray fluorescence (pXRF) and geochemical analysis have not yet led to identification of any elemental proxies for mineralisation gometries were compared against indicator-based numerical modelling leapfrog Indicator RBF Interpolants) at varying cut-offs and probability outcomes. These alternative models supported the metal distribution within the interpreted mineralised wireframes. The identification and understanding of the orientation, volume and continuity component of the Never Never zone (domains 1030, 1230, 1080 and 1280) is an ongoing process. However, owing to Entech's conservative approach to domain volume modelling and application of the single durine, this does not present a material risk to Mineral Resource estimate outcomes.</li> <li>Lithological models of the shale units were generated prior to the mineralisation domain interpretation commencing. The mineralisation geometry and tenor had a strong relationship with the lithology, particularly at the point of interact</li></ul>
	<ul> <li>Limited number of structural readings as a result of RC drilling</li> <li>The structural framework underpinning the mineralisation controls of the Never Never 'mineralised thickened zone' is not comprehensively understood.</li> </ul>
	<ul> <li>Factors which aided the confidence of the geological interpretation included:         <ul> <li>Grid drilled and perpendicular 20 m × 20 m drill data within the central core of the deposit</li> <li>Shale modelling providing a reliable proxy for hangingwall gold mineralisation for the Gilbey's North main lode (domains 1010/1210) and the Never Never 'mineralised thickened zone' (domains 1030/1230 and 1080/1280).</li> </ul> </li> </ul>



Criteria	Commentary
	<ul> <li>In Entech's opinion, the available drilling density supports the continuity implied by the interpreted mineralisation domains, both along strike and down dip.</li> <li>Entech considers confidence in mineralisation continuity and distribution, as implied within the Mineral Resource estimate classification of Indicated and Inferred, is moderate, given the regularised drill pattern, drill centre spacing (20–30 m) and orthogonal drilling informing these Mineral Resources.</li> <li>Entech's interpretations of domain continuity were undertaken in Leapfrog software. The mineralisation intercepts correlating to individual domains were manually selected prior to creating both vein and intrusion models using Leapfrog Geo implicit modelling software. High-grade sub-domains were interpreted for three domains (1010, 1030 and 1080) using indicator-based numerical modelling (Leapfrog Indicator RBF Interpolants) at individual cut-offs. Cut-offs were based on exploratory data analysis (EDA) of the mineralisation sample population as well as visual review of the mineralisation sand the current understanding of geology and mineralisation controls.</li> <li>A total of 13 domains were interpreted at Gilbey's North: 10 mineralisation domains and 3 high-grade mineralisation sub-domains.</li> <li>A cut-off grade of 0.3 g/t Au was used to guide the geological continuity of the interpreted mineralisation. Selection of the cut-off grade was based on statistical and spatial analysis of composite data indicating a natural mineralisation population exists above 0.3 g/t Au. Within the mineralised wireframe, if an intercept fell below the</li> </ul>
Dimensions	<ul> <li>nominal cut-off but continuity was supported by host lithologies, the intercept was retained for continuity purposes due to the commodity and the style of deposit.</li> <li>Mineralised domains at Gilbey's North extend over a 375 m local grid north–south strike length. Lode thicknesses are highly variable and range from 1 m to 20 m thick in the local grid north–south striking domains, and up to 50 m thick in the Never Never 'mineralised thickened zone' (domains 1030, 1230, 1080 and 1280). Mineralisation exists from surface and currently extends 240 m to a lower limit of 185 mRL at its deepest.</li> </ul>
Estimation and modelling techniques	<ul> <li>Sample data were composited to a 1 m downhole length using a best-fit method. Top-caps were applied prior to block grade estimation, with the maximum distance of possible extrapolation in each domain being based on variogram analysis and the geological understanding of the deposit.</li> <li>EDA and variography analysis of the capped and declustered composited gold variable within domain groups whose relation similarities were underpinned by observed spatial and statistical analysis. All EDA was completed in Datamine's Supervisor software and data were exported for further visual and graphical review.</li> <li>An Ordinary Kriging (OK) interpolation approach in GEOVIA Surpac™ was selected for all interpreted domains. All estimates used domain boundaries as hard boundaries for grade estimation where only composite samples within that domain are used to estimate blocks coded as falling within that domain.</li> <li>Following variography analysis (two-spherical structure, normal scores variograms), anisotropic models were established for domains 1010, 1030 and 1080. Domains were grouped based on spatial, statistical and mineralisation similarities, with variography from Domain 1010 applied to domains 1020, 1040 and 1050. High-grade sub-domains were combined with their lower-grade counterparts for variography analysis. There was insufficient data to conduct variography on domain 1090. As such, variogram parameters were based on an average of better-informed domains at the Gilbey's North deposit with a nugget of 40% and maximum continuity range of 74 m.</li> <li>A check estimate in 3D was undertaken for all domains using the Inverse Distance Squared method. The check estimate results were, on average, 1.4% higher in metal</li> </ul>



Criteria	Commentary
	<ul> <li>content.</li> <li>No assumptions with respect to by-products were made.</li> </ul>
	No deleterious elements or other non-grade variables were interpolated.
	<ul> <li>Interpolation was undertaken using OK in GEOVIA Surpac<sup>™</sup> within parent cell blocks. Dimensions for the interpolation were Y: 10 mN, X: 5 mE, Z: 10 mRL, with sub-celling of Y: 0.3125 mN, X: 0.3125 mE, Z: 0.3125 mRL. The model was not rotated. Considerations relating to appropriate block size include drill hole data spacing, conceptual mining method and search neighbourhood optimisations (OKNA).</li> </ul>
	<ul> <li>Only RC drill data were used in the Mineral Resource estimate. The average drill spacing ranges from 20 m to 30 m.</li> </ul>
	• A one-pass estimation search strategy was employed for all domains except domains 1010/1210 which used a two-pass search strategy. Domain 1000 (supergene) was estimated within a maximum distance of 80 m. All other domains were estimated within a maximum distance of 40–55 m. The number of neighbourhood composites ranged from a minimum of 6 to a maximum of 16 samples for the first pass, except for Domain 1020, which used a minimum of 4 composites in the first pass. A minimum of 4 composites was applied to the second pass.
	No selective mining units were assumed.
	No correlated variables have been investigated or estimated.
	• All domain estimates were based on mineralisation domain constraints underpinned by geological logging (lithology, mineralogy and veining) and a nominal cut-off grade of 0.3 g/t Au. The mineralisation constraints have been used as hard boundaries for grade estimation wherein only composite samples within that domain are used to estimate blocks coded as falling within that domain.
	• Assessment and application of top-capping for the estimate were undertaken on the gold variable in individual domains. Top-caps were initially applied on a global basis within individual domains to limit the potential influence of obvious statistical outliers. Global top-caps are as follows:
	• Domain 1000: Top-cap = 4 g/t and 8% metal reduction
	• Domain 1010/1210: Top-cap = 10 g/t and 5.8% metal reduction
	• Domain 1030: Top-cap = 6.5 g/t and 6.1% metal reduction
	<ul> <li>Domain 1040: Top-cap = 3.5 g/t and 14.6% metal reduction (the moderate percentage of metal reduction is due to the effect of two statistical and spatial composite outliers)</li> </ul>
	• Domain 1050: Top-cap = 1.5 g/t and 13% metal reduction (the moderate percentage of metal reduction is due to the effect of a single statistical and spatial composite outlier)
	• Domain 1080: Top-cap = 8 g/t and 6.9% metal reduction
	• Domain 1090: Top-cap = 4 g/t and 42.1% metal reduction (the high percentage of metal reduction is due to the effect of two statistical and spatial composite outliers)
	<ul> <li>Domain 1230: Top-cap = 60 g/t and 13.1% metal reduction (the moderate percentage of metal reduction is due to the effect of five statistical composite outliers)</li> <li>Domain 1280: Top-cap = 13 g/t and 3.5% metal reduction.</li> </ul>
	• In addition to the global top-caps, composites were also examined spatially to identify any individual composites where there was an elevated risk of a disproportionate



Criteria	Commentary
	<ul> <li>metal contribution owing to their isolated spatial positions. Using this methodology, 10 individual composites across nine domains have been capped. A distance-limiting constraint was applied during interpolation for metal control in domains 1000, 1010, 1090 and 1230.</li> <li>Validation of the estimation outcomes was completed by global and local bias analysis (swath plots) and statistical and visual comparison (cross and long sections) with input data.</li> </ul>
Moisture	Density and tonnage was estimated on a dry in situ basis.
Cut-off parameters	• The Mineral Resource estimate cut-off grade for reporting of open pit global gold resources at Gilbey's North - Never Never was 0.5 g/t Au. This was based on consideration of grade-tonnage data, potential open pit mining method, and economic cut-offs applied at other operational Dalgaranga deposits.
Mining factors or assumptions	Open pit mining methods were assumed at Gilbey's North - Never Never deposist. No mining dilution or minimum mining widths were assumed or applied within the Mineral Resource.
	<ul> <li>The Mineral Resource estimate extends nominally 190 m below the topographic surface to 240 mRL. Entech considers material at this depth would fall under the definition of 'reasonable prospects for eventual economic extraction' (RPEEE) in an open pit mining framework, with existing Dalgaranga pits currently excavated to 250 m RL. The Gilbey's North - Never Never deposits is located on an existing mining lease within 1 km of the 2.5 Mtpa Dalgaranga processing plant.</li> <li>No historical mining has been undertaken at the Gilbey's North - Never Never deposits.</li> <li>No dilution or cost factors were applied to the estimate.</li> <li>A series of pit shell optimisations are in progress as part of the planning process.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>A gold recovery of 87.4% in fresh material, 90% in transitional and 93% in oxide is currently in use at Dalgaranga by processing through a carbon-in-leach (CIL) processing circuit. Low recoveries (77%) are associated with carbonaceous shales that occur within the mineralised sequence at Dalgaranga. Shale units have been modelled using the Leapfrog Geo implicit vein modelling tool and are coded into the Mineral Resource estimate. Shale material is blended at ~15% to smooth recovery lows.</li> <li>Composite samples have been collected at Gilbey's North - Never Never and submitted by Gascoyne for metallurgical testwork. Samples have been collected across different lithology and weathering types. Initial multielement assay results indicate no substantial penalty elements.</li> <li>Based on discussions with Gascoyne geologists, Entech understands there are no metallurgical amenability risks which would be material to the Mineral Resource estimate.</li> <li>No metallurgical recovery factors were applied to the Mineral Resources or resource tabulations.</li> </ul>
Environmental factors or assumptions	No environmental factors were applied to the Mineral Resources or resource tabulations.



Criteria	Commentary
Bulk density	<ul> <li>Bulk density values at the Gilbey's North - Never Never deposit were derived from 412 validated measurements taken from 10 drill holes completed during 2015, 2017 and 2019 within the along strike deposits of Gilbey's Main Zone, Gilbey's South, Sly Fox, and Plymouth.</li> </ul>
	<ul> <li>The samples were located between 2,985 mN and 4,000 mN, approximately 0.7–1.7 km along strike to the south of the Gilbey's North prospect. Samples were taken nominally from 1 m to 350 m downhole to provide a representative density profile across oxidation states. While samples have not been taken at Gilbey's North - Never Never, Entech considers it reasonable to apply proxy density values based on the mining history at Dalgaranga and geological similarities to the along-strike deposits. Entech recommends undertaking a density measurement campaign at Gilbey's North - Never Never to confirm assumptions.</li> <li>Gascoyne supplied bulk density values. Independent verification of raw data was carried out by Entech, and the following bulk density values were determined and applied in the block model: <ul> <li>Oxide: 1.70 t/m3</li> <li>Transitional: 2.60 t/m3.</li> <li>Fresh: 2.80 t/m3.</li> </ul> </li> <li>The methodology for density measurements is not recorded in the MS Access database; however, Gascoyne personnel stated the water immersion technique has been used for all density measurements collected. This approach is adequate in accounting for void spaces and moisture in the deposit. Density measurements were undertaken on oxide (28), transitional (54) and fresh (330) drill core samples.</li> <li>Due to the statistical variation in lithology, bulk densities were averaged in each weathering unit. An average bulk density value based on weathering coding has been assigned for tonnage reporting.</li> <li>Density data is currently being collected from recent diamond drilling, to add to the existing dataset for future MREs at Dalgaranga.</li> </ul>
Classification	<ul> <li>Mineral Resources were classified as Indicated and Inferred to appropriately represent confidence and risk with respect to data quality, drill hole spacing, geological and grade continuity and mineralisation volumes. Additional considerations were the stage of project assessment, amount of RC drilling undertaken, current understanding of mineralisation controls and mining selectivity within an open pit mining environment.</li> <li>In Entech's opinion, the drilling, surveying and sampling undertaken, and analytical methods and quality controls used, are appropriate for the style of deposit under consideration.</li> <li><i>Indicated Mineral Resources</i> were defined where a moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:         <ul> <li>blocks were well supported by drill hole data, with the distance to the nearest sample being approximately within 20 m or less or where drilling was within approximately 20 m of the block estimate</li> <li>blocks were interpolated with a neighbourhood largely informed by the maximum number of samples.</li> </ul> </li> <li><i>Inferred Mineral Resources</i> were defined where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:         <ul> <li>blocks were interpolated with a neighbourhood largely informed by the maximum number of samples.</li> <li><i>Inferred Mineral Resources</i> were defined where a low to moderate level of geological confidence in geometry, continuity and grade was demonstrated, and were identified as areas where:</li> <li>drill spacing averaged a nominal 40 m or less, or where drilling was within 40 m of the block estimate</li> <li>estimation quality was considered low, as delineated by a conditional bias slope nominally between 0.1 and 0.5.</li> </ul> </li> <li>The reported Mineral Resourc</li></ul>

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Criteria	Commentary						
Audits or	<ul> <li>All classified Mineral Resources were reported inside the tenement boundary (M59/749), as provided by Gascoyne.</li> <li>Mineralisation within the model which did not satisfy the criteria for classification as Mineral Resources remained unclassified.</li> <li>Consideration has been given to all factors that are material to the Mineral Resource outcomes, including but not limited to confidence in volume and grade delineation, quality of data underpinning Mineral Resources, mineralisation continuity and variability of alternate volume interpretations and grade interpolations (sensitivity analysis).</li> <li>In addition to the above factors, the classification process considered nominal drill hole spacing, estimation quality (conditional bias slope, number of samples, distance to informing samples) and reliability of input data.</li> <li>The delineation of Indicated and Inferred Mineral Resources appropriately reflects the Competent Person's view on continuity and risk at the deposit.</li> <li>Entech undertook internal audits and peer review with a focus on independent resource tabulation, block model validation, verification of technical inputs, and peer review</li> </ul>						
reviews	<ul> <li>of approaches to domaining, interpolation and classification.</li> <li>A third-party external audit was conducted on Entech Mining's Gilbey's North - Never Never MRE by Independent Technical Expert ("ITE") Mr Ted Coupland, engaged through Westoaks Enterprises Pty Ltd.</li> <li>Mr Coupland (the ITE) is a qualified geologist and geostatistician with 35 years of resource estimation, mine geology and investment banking experience. In particular, the ITE has had significant experience in the resource estimation, grade control, mining and reconciliation of a wide range of gold deposits styles and has sufficient experience to undertake an Independent Technical review of the 2022 Gilbey's North - Never Never Mineral Resource Estimate.</li> <li>There are no fatal flaws with the August 2022 Gilbey's North - Never Never Mineral Resource Estimate.</li> <li>The 2022 Gilbey's North - Never Never MRE represents a fair and reasonable quantification of the 'Global' Mineral Resources for the Gilbey's North - Never Never Never gold deposit.</li> <li>The 2022 Gilbey's North - Never MRE has been appropriately classified and reported in accordance with the 2012 JORC Code.</li> </ul>						
Discussion of relative accuracy/ confidence	<ul> <li>Variances to the tonnage, grade, and metal tonnes of the Mineral Resource estimate are expected with further definition drilling. It is the opinion of the Competent Person that the classification criteria for Indicated and Inferred Mineral Resources appropriately capture and communicate these variances and risks.</li> <li>The Mineral Resource estimate is considered fit for the purpose of underpinning feasibility-level studies.</li> <li>The Mineral Resource Statement relates to global tonnage and grade estimates.</li> <li>No formal confidence intervals or recoverable resources were undertaken or derived.</li> <li>No relevant open pit or underground mining has been undertaken. As the Gilbey's North - Never Never deposits are immediately adjacent to the Gilbey's Main deposit that is currently being mined, Gilbey's North - Never Never is currently at mining study and design stage.</li> </ul>						



## JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

## Dalgaranga Gold Project - Archie Rose Gold Deposit

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>The Archie Rose Gold deposit has been sampled using Rotary Air Blast ("RAB") drilling, Air Core ("AC") drilling, Reverse Circulation ("RC") drilling over numerous campaigns by several companies and currently by Gascoyne Resources Limited ("Gascoyne" or "GCY") and its wholly owned subsidiaries including GNT Resources Pty Ltd ("GNT").</li> <li>The most recent campaign by GCY was conducted in 2018 drilling the deposit to a 50m x 20m grid totalling 50 Reverse Circulation holes for 5,038 metres.</li> <li>RAB and AC samples have been excluded from gold interpolation for this Mineral Resource estimate since these sampling methods are considered to be of insufficient quality for the purpose of resource definition. These lower quality results, were, however, used to assist in the interpretation of mineralisation domains for interpolation of gold grade, and assist in defining the regolith horizons (BOCO, TOFR).</li> <li>Sampling procedures followed by historic operators are assumed to be in line with industry standards at the time.</li> <li>During historical (pre-2017) resource drilling campaigns, RC drilling was used to obtain 1m samples which were split by either cone or riffle splitter at the rig to produce a 3 - 5kg sample. In some cases, a 4m composite sample of approximately 3 - 5kg was collected from the top portion of the holes considered unlikely to host significant mineralisation. The samples were transported to the laboratory for analysis via 25g Fire Assay. Where anomalous results were detected in the 4m composites, single metre re-split samples were collected for subsequent analysis, also via 25g Fire Assay.</li> </ul>
Drilling techniques	• Resource definition RC drilling used a nominal 5½ inch diameter face sampling hammer. AC drilling used a conventional 3½ inch face sampling blade to refusal or a 4 ½ inch face sampling hammer to a nominal depth.
Drill sample recovery	<ul> <li>RC and AC sample recovery was visually assessed and recorded where significantly reduced. Very little sample loss was noted.</li> <li>RC samples were visually checked for recovery, moisture and contamination. A cyclone and splitter were used to provide a uniform sample and these were routinely cleaned. AC samples were visually checked for recovery moisture and contamination. A cyclone was used and routinely cleaned. 4m composites were speared to obtain the most representative sample possible for AC drilling.</li> <li>Sample recoveries are generally high. No significant sample loss was recorded with a corresponding increase in gold present. Sample bias is not anticipated, and no preferential loss/gain of grade material was noted.</li> </ul>

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Criteria	Commentary
Logging	<ul> <li>Detailed logging exists for most historic holes in the data base.</li> <li>Current RC and AC chips are geologically logged at 1m intervals and to geological boundaries respectively. RC Resource hole chip trays and end of hole chips from AC drilling have been stored for future reference.</li> <li>RC and AC chip logging recorded the lithology, oxidation state, colour, alteration and veining.</li> <li>All GCY drill holes were logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>RC chips were riffle or cone split at the rig to produce a 2 - 4kg sample at 1m intervals. AC samples were collected as 4m composites (unless otherwise noted) using a spear of the drill spoil. Samples were generally dry. 1m AC resamples are riffle split or speared.</li> <li>At MinAnalytical the samples were analysed by Fire Assay, the technique involves drying the sample. For Fire Assay the sample is crushed and pulverised then assayed for gold using a 50g charge lead collection Fire Assay with AAS finish.</li> <li>Field QAQC procedures call for the insertion of 1 in 25 certified reference materials ("CRM") 'standards' and 1 in 50 field duplicates for RC and AC drilling and the insertion of "blank" samples.</li> <li>Field duplicates were collected during RC and AC drilling. Further sampling (lab umpire assays) is conducted if it is considered necessary.</li> <li>A sample size of 2 - 5 kg was collected from the original RC sample of 20 - 40kg depending on material density. This size is considered appropriate, and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected, as an industry standard.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All historical RC samples were analysed using a 25 or 50g charge Fire Assay with an AAS finish which is an industry sample for gold analysis. Recent (GCY) RC samples have been assayed by Fire Assay method.</li> <li>A 25g Aqua Regia digest with an MS finish has been used for AC samples. Aqua Regia can digest many different mineral types including most oxides, sulphides and carbonates but will not totally digest refractory or silicate minerals. Historically the samples have been analysed by both Aqua Regia digest and a leachwell process. Significant differences were recorded between these analytical techniques.</li> <li>No geophysical tools have been used at Archie Rose</li> <li>No QAQC results are available for historical (pre-GCY) sampling.</li> <li>GCY Field QAQC procedures include the insertion of both field duplicates and standards, as well as 'blank' samples. Laboratory QAQC involves the use of internal certified reference materials, blanks, splits and replicates.</li> <li>The blank samples returned satisfactory results for all assay methods and laboratories.</li> </ul>



Criteria	Commentary
Verification of sampling and assaying Location of data points	<ul> <li>Significant intersections were visually field verified by company geologists.</li> <li>No twinned holes have been drilled to date – however a number of scissor holes have been drilled, assisting with the interpretation – postulating a potential north-dipping lode which requires validation from future drilling campaigns.</li> <li>Field data were collected using Field Marshal software on tablet computers for pre-2018 drilling campaign, post January 2018 the Geobank Mobile software was used to collect Geological logging data. The data pre-2018 was sent to Mitchell River Group for validation and compilation into an SQL database server, for post January 2018 the data was processed and validated by in-house database administration and compiled into the SQL database</li> <li>Assay values that were below detection limit were adjusted to equal half of the detection limit value, with a minimum floor value of 0.001g/t Au set in all such instances.</li> <li>Unsampled intervals denoted by a large negative value were reset to null values and were therefore ignored during estimation.</li> <li>All drill hole collars were surveyed in the MGA94 Zone 50 grid.</li> <li>Historical collars were surveyed to within +/- 1m.</li> <li>GCY drill collars have been surveyed by DGPS equipment and mine site Surveyors. A down hole survey was taken at least every 10m to 30m in RC holes by electronic multi-shot or Gyro tool by the drilling contractors.</li> <li>A topographic surface was constructed using surveyed drill hole collars and is considered appropriate for an initial Inferred-level JORC resource estimate. A detailed high-resolution DTM survey is planned as part of scoping studies.</li> </ul>
Data spacing and distribution Orientation of data in relation to geological structure	<ul> <li>The drill holes lie on existing 50m grid lines and an approximate 20m hole spacing, deemed appropriate for an Inferred resource classification under the 2012 JORC Code.</li> <li>Drill assay intervals were composited to 1m for the purpose of gold grade estimation, matching the 1m sample length of RC drilling.</li> <li>The majority of drill holes have a dip of -60° towards GDA north (360 to 5 degrees). Typically one hole per section was drilled -60 degrees towards GDA south (176 to 184 degrees)</li> <li>The majority of the drill holes used are thus considered to be oriented near-optimally for intersection of gold mineralisation structures, ruling out any material bias due to drill orientation. The south-dipping 'scissor' holes have been useful for potentially defining a porth-dipping mineralised lode.</li> </ul>
Structure	



Criteria	Commentary
Sample security	<ul> <li>Chain of custody is managed by GCY. RC samples collected pre-2018 were delivered daily to the Toll depot in Mt Magnet by GCY personnel. Toll delivered the samples directly to the assay laboratory in Perth. In some cases company personnel have delivered the samples directly to the laboratory.</li> <li>The 2018 drilling samples are collected immediately as drilled and stored in a designated area at the Dalgaranga mine site administration office. They are stored in closed bulk bags, numbered and ordered ready for transport. To ready the bulk bags for transport they are strapped to pallets, limiting the chance to tamper with sample bags during transport. The samples are sent once or twice weekly directly to MinAnalytical Laboratory via the company's preferred transport provider. Consignments are specific to GCY, thereby limiting potential security issues.</li> </ul>
Audits or reviews	• Data pre-2018 was validated by Mitchell River Group prior to loading into the SQL database. Any errors within the data were returned to GCY for validation. All data collection and sampling protocols are to an industry standard and have passed independent technical review.

# Section 2 Reporting of Exploration Results:

## Dalgaranga Project - Archie Rose Gold Deposit

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Archie Rose Gold Deposit is located on tenement E59/2053 (100% interest held by Gascoyne), part of the Dalgaranga Gold Project, located approximately 9km from the operating mill.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	• The tenement area has been previously explored by numerous companies including BHP, Newcrest and Equigold.
Geology	• The Tenement lies in the Dalgaranga Greenstone Belt in the Murchison Province of WA. The northeast trending belt consists of high magnesium basalts, tholeiitic basalts



Criteria	Commentary							
	<ul> <li>and sediments - mainly black shales. Felsic volcanic rocks outcrop on the western side of the belt. The sequence is intruded by large gabbro complexes in the north (Mt Farmer, Mt Charles) and to the west (Dalgaranga Hill). The stratigraphy has been folded into two regional synforms which plunge in opposite directions separated by a regional fault/shear that trends along the western side of the Mt Farmer gabbro sill westwards to the south side of the gabbroic Dalgaranga Hill.</li> <li>The Dalgaranga Greenstone Belt is intruded by a number of post tectonic granites separated by zones of amphibolite and mafic schists intruded by pegmatites. East-west trending Proterozoic dykes of dolerite and gabbro intrude the Greenstone sequences. The southern portion of the tenement area is gold dominated, while the layered mafic intrusives and felsic volcanics in the northern area of the tenement are also prospective for VHMS base metals and pegmatite related mineralisation.</li> <li>The Archie Rose Gold Deposit is part of the Greencock gold prospect, located ~9km NW of the Dalgaranga Processing plant on the Tenement. The prospect lies in a package of mafic rocks adjacent to sediments along what is interpreted to be the extension of the Big Bell Lineament – a major regional geological fault zone.</li> <li>RC drilling predominantly in 2018, at Archie Rose was successful in defining broad zones of gold mineralisation in silica-sulphide altered quartz gabbro's over a 300-metre strike length</li> </ul>							
Drill hole Information		Drill hole statistics included in the MRE						
		Hole_Type	Purpose	#holes	Metres			
		DD	RDV	-	-			
		RCDD	RDV	-	-			
		RC	RDV	67	6,507			
		RC	GC	-	-			
		Tot	al	67	6,507			
		Exclusion	of the drill inf	ormation wil	l not detract f	rom the understanding of the report.		
Data againstica		Not applie	able as a Min	eral Resource	e is being rep	orted.		
methods		<ul> <li>Metal equivalent values have not been used.</li> </ul>						
Relationshin		The geom	etry of miner	alisation is in	terpreted to b	be striking GDA East-West and dipping approximately 40-50 degrees to the south.		
between		The major	rity of holes ta	argeting Arch	ie Rose are ar	gled to the north so that intersections are orthogonal to the expected orientation of mineralisation.		
mineralisation		It is interp	preted that tru	ue width is ap	proximately 7	70-100% of downhole intersections.		
widths and								
intercept lengths								
	1							













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Criteria	Commentary					
Balanced reporting	Exploration results are not being reported.					
Other substantive exploration data	<ul> <li>Bulk densities used in the MRE are averages used from the GCY database, collected over all material types.</li> <li>No groundwater was observed in the drilling by GCY.</li> <li>Limited 'sighter' metallurgical test work was previously conducted by GCY on composite samples from oxide and primary mineralisation types.</li> <li>Results indicate 95% recoveries from the oxide composite. Results from the primary composites indicate a recovery ranging between 53%-64%, with higher arsenic values indicating potentially a refractory component.</li> <li>Further test work is required to test the variability of recoveries within the primary zone, as localised metallurgical variabilities are a feature of Dalgaranga Gold Deposits.</li> <li>GCY also noting no test work has yet been completed within the transitional zone.</li> </ul>					
Further work	<ul> <li>RC is planned to infill the Archie Rose Gold project to a 25m x 20m grid. Additionally, Diamond Drilling (DD) is planned to collect structural, geotechnical and metallurgical data.</li> <li>Additional metallurgical testwork.</li> <li>A detailed high-resolution topographical survey is planned to be conducted by site surveyors.</li> </ul>					

## Section 3 Estimation and Reporting of Mineral Resources

## Dalgaranga Project - Archie Rose Gold Deposit

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria		Commentary
Database integrity	•	For GCY drilling, geological and field data is collected using Field Marshall or Geobank Mobile software on tablet computers. Historical drilling data has been captured from historical drill logs.
integinty	•	The data is verified by company geologists before being sent either to Mitchell River Group for validation or passing Geobank Software validation protocols for further review by staff Geologists and compilation into a SQL database server. Historic data has been verified by checking historical reports on the project.

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Criteria	Commentary
	<ul> <li>The data is verified by company geologists before the data is sent to Mitchell River Group (pre-2018) for further validation and compilation into a SQL database server. Historic data has been verified by checking historical reports on the project. Current data is verified by company geologists into present SQL database</li> <li>Entech has conducted a peer review of the MRE, including undertaking a number of validation checks on the database, which include, but are not limited to, checks for overlapping intervals, checks for missing data/records, visual checks on drill hole traces to identify any possible survey issues, checks for out of range values and checks of survey, assay and geology table depths relative to the recorded maximum depth of drilling. No major issues were detected.</li> <li>All drill types, including RAB, AC and RC were utilised for geological domain modelling in particular regolith (COVER, BOCO, TOFR) which assisted in defining a number of potential north-dipping thrust faults.</li> <li>59 RC drillholes were considered valid for mineralisation</li> </ul>
Site visits	• The Competent Persons for this resource estimate conducted a site visit in February 2022, the Archie Rose drilling conducted in 2018 has been rehabilitated, and no available sample material from the 2018 campaign is remaining.
Geological interpretation	<ul> <li>The confidence in the geological interpretation is considered moderate for the south-dipping lodes, which demonstrate reasonable continuity over 300 metres. The north-dipping lodes are poorly defined and may have some relationship with the thrust-faulting.</li> <li>Alternative interpretations whereby extending the north-dipping lodes may have a material effect on future MREs, however will require further drilling to support.</li> <li>There is variability in some of the previous lithological logging, in particular inconsistent records of porphyry in proximity to mineralisation. Future drilling campaigns will ensure a focus on consistency and validation of logging.</li> <li>The porphyry-shale-mafic zones are clearly more favourable for the development of relatively continuous mineralisation, while peripheral areas are less favourable. This knowledge has been considered during the modelling and classification work for the Mineral Resource estimate</li> </ul>
Dimensions	<ul> <li>The Archie Rose Mineral Resource has an overall GDA grid east-west strike length of approximately 300 metres. Geophysics indicates mineralisation may be fault bound to the east, however, remains open to the west.</li> <li>The overall mineralised width of Archie Rose varies but for the majority is approximately 120m wide. The elevation extent is from approximately 5-10m below surface (transported cover) to 300m RL. Range is approximately 120m vertical.</li> </ul>
Estimation and modelling techniques	<ul> <li>An Inverse Distance estimation/interpolation squared (ID2) approach was used for gold grades using Vulcan software.</li> <li>Regolith was initially interpreted (BOCO and TOFR) as a first step to understanding the geological setting. Without structural data available, variations on the surfaces have outlined potential thrust-faulting which fits the regional interpretation.</li> <li>18 mineralisation domains were sectionally interpreted using an arbitrary lower cut-off grade of 0.2gpt Au. Material below the cut-off grade was included to maintain continuity of the mineralised envelope.</li> <li>Mineralised domains are broadly grouped into oxide (100 series), transitional (200 series) and primary (300 series) mineralised envelopes. The regolith interpretation assisted with defining the mineralised domains, particularly the fault offsets and north-dipping lodes (201, 202, 205) where they made sense.</li> <li>Statistical analysis of data established a 1m composite length. Top-cut analysis indicated a lack of high-grade gold outliers, with a maximum composite grade of 7.85gpt Au. Based on the 97 percentile, a 4.0gpt top cut was selected.</li> </ul>



Criteria	Commentary
	<ul> <li>Parent block size reflected a sub-set of the drill spacing (25m x 10m x 5m), with sub-celling down to 6.25m x 2.5m x 1.25m which reflects the SMU. Volume checks were conducted on 3D wireframes vs block model as a high-level validation check.</li> <li>No deleterious elements or variables have been estimated. Bulk densities have been assigned to material types based on data collected by GCY from across the</li> </ul>
	<ul> <li>operations.</li> <li>The orientation of the mineralised domains and the drill spacing were used to define the estimate, ensuing a minimum and maximum number of samples. Three estimation passes were conducted, the first pass based on the approximate drill spacing, the second and third pass extending the search ellipse to ensure all blocks are filled and ascertain the confidence in the estimate. No distance limiting parameters were applied.</li> </ul>
	<ul> <li>Other restrictions included a minimum/maximum samples per estimate, min/max samples per drillhole, and min/max drillholes per estimate.</li> <li>This is a maiden interpretation and resource estimation; the deposit does not outcrop at surface and no historic production has taken place.</li> <li>The block model was validated by comparison of global composite means and block estimate means. Swath plots by easting, northing and elevation slice were generated to compare composite grades to estimated block grades at the semi-local scale. In areas of high data support, the correlation between composite and block grades performed well. Visual checks of the block estimates against the raw assay data were undertaken, with good local agreement being observed.</li> </ul>
Moisture	Density and tonnage was estimated on a dry in situ basis.
Cut-off parameters	• A cut-off grade of 0.5g/t Au was used for reporting the Mineral Resource, consistent with other resources at Dalgaranga, and considered appropriate for reflecting a potential open pit mining scenario.
Mining factors or assumptions	<ul> <li>Open pit mining is currently underway at Dalgaranga, cut-off grades for ore grade are 0.5g/t Au</li> <li>Pitshells have been generated to evaluate future mining scenarios and assist with reserve drill planning and technical data collection.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>Initial 'sighter' metallurgical test work was conducted on RC a limited number of composite samples from the 2018 campaign for the oxide and primary material types only. Results indicate lower recoveries for primary mineralisation, however further test work is required to ascertain the variability within the deposit.</li> <li>Comprehensive test work will be conducted on material collected in upcoming drilling campaigns.</li> </ul>
Environmental factors or assumptions	No assumptions were made regarding environmental restrictions.



Criteria	Commentary
Bulk density	<ul> <li>As per Gilbey's some 434 density measurements were available for density estimation.</li> <li>Density is measured using the water immersion technique. Moisture is accounted for in the measuring process and measurements were separated for lithology, mineralisation and weathering.</li> <li>It is assumed there are minimal void spaces in the rocks within the Gilbey's deposit. Values applied in the Gilbey's block model are similar to other known bulk densities from similar geological terrains.</li> <li>Density values of 2.00, 2.50, 2.80t/m3 were assigned respectively to alluvium/ the oxide zone, the transitional zone and the fresh zone based on analysis of data extracted from the GCY database. These were also confirmed by Entech Mining as appropriate for the deposit and Inferred Resource Classification.</li> <li>Further bulk density work is planned as part of ongoing drilling and technical studies.</li> </ul>
Classification	<ul> <li>The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC).</li> <li>The Mineral Resource was classified as Inferred Mineral Resource (ResCat 3) based on data quality, sample spacing, geological understanding of mineralisation controls and geological/mineralisation continuity. Four mineralised domains were excluded (ResCat 4, or unclassified) due to lack of data support.</li> <li>The input data is comprehensive in its coverage of the mineralisation in most areas and does not favour or misrepresent in-situ mineralisation. Validation of the block model shows good correlation of the input data to the estimated grades.</li> <li>The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
Audits or reviews	• The Mineral Resource data compilation, statistical analysis, estimation domains, estimation process and block model have been externally peer reviewed by Entech Mining consultants, supporting the approach adopted
Discussion of relative accuracy/ confidence	<ul> <li>The reported Mineral Resources constitute a local resource estimate.</li> <li>Inferred Mineral Resources are not available for economic evaluation.</li> </ul>



### JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

## Dalgaranga Gold Project - Gilbey's Complex

### (Incorporating Gilbey's Main, Gilbey's East, Gilbey's South, Plymouth, Sly Fox)

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>The Dalgaranga gold deposits have been sampled using Trenches (TR) Rotary Air Blast (RAB) drilling, Air Core (AC) drilling, Reverse Circulation (RC) drilling and Diamond (DD) drilling over numerous campaigns by several companies and currently by Gascoyne Resources Limited ("Gascoyne" or "GCY" or "Company") and its wholly owned subsidiaries including GNT Resources Pty Ltd ("GNT"). Grade Control (GC) RC drilling has been undertaken by GCY since 2018 (ie, since commencement of mining) with the majority of holes drilled on a 10m x 7.5m grid over modelled mineralisation. The TR, RAB and AC samples have been excluded from gold interpolation for this Mineral Resource actimate size these sampling methods are considered to be of insufficient quality for the purpose of resource of resource definition. There is a considered to be of insufficient quality for the purpose of resource of resource and the provide size these sampling methods are considered to be of insufficient quality for the purpose of resources of resource and the provide size these samples have been excluded from gold interpolation for this many finance of the purpose of resources of resources of resources and the provide size these samples have been excluded from gold interpolation for this many finance of the purpose of resources of resources of resources of resources of resources and the provide size the purpose of resources of r</li></ul>
	were, however, used to assist in the interpretation of mineralisation domains for interpolation of gold grade.
	• Sampling procedures followed by historic operators are assumed to be in line with industry standards at the time.
	<ul> <li>During historical (pre-2017) resource drilling campaigns, RC drilling was used to obtain 1m samples which were split by either cone or riffle splitter at the rig to produce a 3 - 5kg sample. In some cases, a 4m composite sample of approximately 3 – 5kg was collected from the top portion of the holes considered unlikely to host significant mineralisation. The samples were transported to the laboratory for analysis via 25g Fire Assay. Where anomalous results were detected in the 4m composites, single metre re-split samples were collected for subsequent analysis, also via 25g Fire Assay.</li> </ul>
	• A 4m composite sample of approximately 3 – 5kg was collected for all AC drilling. This was transported to the laboratory for analysis via a 25g Aqua Regia digest with reading via a mass spectrometer. Where anomalous results were detected, single metre samples were collected for subsequent analysis via a 25g Fire Assay.
	• The diamond drilling was undertaken as complete diamond holes or diamond tails to completed RC holes. The majority of the diamond holes were NQ core holes that were sampled by ½ core sampling while the HQ hole was ¼ core sampled. The samples are assayed using 50g charge fire assay with an AAS finish.
	• GC RC drilling, which commenced in 2018, collected samples at 1m intervals via a static cone split at the rig to produce a 2 - 4kg sample. The samples were sent to the
	Dalgaranga Site Lab or commercial Laboratory -MinAnalytical for analysis. At MinAnalytical the samples were initially analysed by Fire Assay and then, from mid-2018,
	<ul> <li>Proton Assay. At the Daigaranga site Lab samples were assayed using the Daigaranga Mine Site laboratory using the Pulverise and Leach (PAL) assaying process.</li> <li>Resource Definition (RDV) and Near-Mine Exploration RC Drilling submits 3-5kg single metre interval samples for Photon Assaying.</li> </ul>



Criteria	Commentary
Drilling techniques	• Resource definition RC drilling and RCGC drilling used a nominal 5½ inch diameter face sampling hammer. AC drilling used a conventional 3½ inch face sampling blade to refusal or a 4½ inch face sampling hammer to a nominal depth. The diamond drilling was undertaken as diamond tails to the RC holes or diamond holes.
Drill sample recovery	<ul> <li>RC and AC sample recovery was visually assessed and recorded where significantly reduced. Very little sample loss was noted. The diamond drilling recovery was excellent with very little or no core loss identified.</li> <li>RC samples were visually checked for recovery, moisture and contamination. A cyclone and splitter were used to provide a uniform sample, and these were routinely</li> </ul>
	cleaned. AC samples were visually checked for recovery moisture and contamination. A cyclone was used and routinely cleaned. 4m composites were speared to obtain the most representative sample possible for AC drilling.
	• DD drilling was undertaken, and the core measured and orientated to determine recovery, which was generally 100%. The diamond core has been consistently sampled with the left-hand side of the NQ hole sampled, while for the HQ, the left-hand side of the left-hand half was sampled.
	• Sample recoveries are generally high. No significant sample loss was recorded with a corresponding increase in gold present. Sample bias is not anticipated, and no preferential loss/gain of grade material was noted.
Logging	<ul> <li>Detailed logging exists for most historic holes in the data base.</li> <li>Current RC and AC chips are geologically logged at 1m intervals and to geological boundaries respectively. RC Resource hole chip trays and end of hole chips from AC drilling have been stored for future reference.</li> </ul>
	Drill chips from GC RC drill holes are not retained, with exceptions being retained to confirm lithological logging.
	• DD drill holes have all been geologically, structurally and geotechnically logged. The diamond core was photographed tray-by-tray, both wet and dry.
	RC and AC chip logging recorded the lithology, oxidation state, colour, alteration and veining.
	All GCY drill holes were logged in full.
Sub-sampling techniques and sample preparation	• Diamond drilling completed by GCY was sawn as ½ core (for NQ) or ¼ core (for HQ) and sampled. Previous companies have conducted diamond drilling - it is unclear whether ½ core or ¼ core was taken by previous operators.
	• RC chips were riffle or cone split at the rig to produce a 2 - 4kg sample at 1m intervals. AC samples were collected as 4m composites (unless otherwise noted) using a spear of the drill spoil. Samples were generally dry. 1m AC resamples are riffle split or speared.
	• At MinAnalytical the samples were analysed by either Fire Assay or from mid-2018, by Photon Assay. Both techniques involve drying the sample. For Fire Assay the sample is crushed and pulverised then assayed for gold using a 50g charge lead collection Fire Assay with AAS finish. For Photon Assay, the sample is crushed to nominal
	85% passing 2mm, linear split and a nominal 500g sub sample taken (method code PAP3502R). The 500g sample is assayed for gold by Photon Assay (method code PAAU2) along with quality control samples including certified reference materials, blanks and sample duplicates.
	<ul> <li>At the Dalgaranga Site Lab, samples were assayed using the PAL assaying process. The PAL technique involves drying of the drill chips, followed by a split to 250-500g of material, which is processed in the PAL1000 for 65 minutes; 100ml of solution is collected and centrifuged, 10ml aliquot is collected and assayed for gold by AAS technique.</li> </ul>



Criteria	Commentary
	• Field QAQC procedures call for the insertion of 1 in 25 certified reference materials (CRM) 'standards' and 1 in 50 field duplicates for RC and AC drilling and the insertion
	of "blank" samples. Diamond drilling has 1 in 25 CRMs included.
	<ul> <li>Field duplicates were collected during RC and AC drilling. Further sampling (lab umpire assays) is conducted if it is considered necessary.</li> </ul>
	• A sample size of 2 - 5 kg was collected from the original RC sample of 20 – 40kg depending on material density. This size is considered appropriate, and representative
	of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected, as an industry standard.
Quality of	• All historical RC samples were analysed using a 25 or 50g charge Fire Assay with an AAS finish which is an industry sample for gold analysis. Modern (GCY) RC samples
assav data and	have been assayed either by Fire Assay or the Photon method.
laboratory	• A 25g Aqua Regia digest with an MS finish has been used for AC samples. Aqua Regia can digest many different mineral types including most oxides, sulphides and
tests	carbonates but will not totally digest refractory or silicate minerals. Historically the samples have been analysed by both Aqua Regia digest and a leachwell process.
	Significant differences were recorded between these analytical techniques.
	• The DD sampling was assayed using Fire Assay with a 50g charge and an AAS finish. Additional quartz washes of the grinding mills are undertaken by the lab, before and
	after samples which contain visible gold.
	• Photon Assay of RC grade control in 2018 and 2019 has utilised the same QAQC protocols to ensure quality of the assays, the non-destructive nature of the Photon
	Assay technique provides an alternative assay technique to Fire Assay and is considered a partial technique due to the fact matrix characteristics will alter the detection
	limits, this is not considered significant at a grade control level.
	• The PAL assay method used at the Dalgaranga Site Lab is considered to be a partial method, with gold extraction dependent on a leaching process. The majority of the
	RC GC data used in the estimate were assayed by PAL.
	Recent RC GC (since 2021) uses Photon Assaying – which is included in the Plymouth 2022 update.
	No geophysical tools have been used at Dalgaranga.
	No QAQC results are available for historical (pre-GCY) sampling.
	• GCY Field QAQC procedures include the insertion of both field duplicates and standards, as well as 'blank' samples. Laboratory QAQC involves the use of internal certified
	reference materials, blanks, splits and replicates.
	• Analysis of the field duplicates for the period April 2020 to March 2021 shows that for the PAL and Photon assays, there is an acceptable degree of repeatability, with
	the average ACV being at 24% and 31%, respectively ('acceptable' range is 20% to 40%). The Fire Assay duplicate samples, also fall within the 'acceptable' range with
	an average ACV of 26%. The ACV is assessed only for samples returning a grade greater than 0.1g/t Au.
	• The PAL and Photon assay CRMs for April 2020 to March 2021 pass the accuracy test, with no significant bias being evident. However, all of the PAL and 2 out of 4
	Photon CRMs fail the precision test for CRMs according to criteria laid out by Abzalov (2008). The Fire Assay samples pass both the accuracy and precision tests for
	CRMs.
	The blank samples returned satisfactory results for all assay methods and laboratories.
	• The actual insertion rates for duplicates are considered to be slightly too low, while those for blanks are deemed to be satisfactory. However, the insertion rates have



Criteria	Commentary
	<ul> <li>increased significantly since 2020.</li> <li>While precision appears to be a noteworthy issue for GC samples assayed by the PAL method, the QAQC results are believed to be sufficiently satisfactory to support the use of the drill assay data for Mineral Resource estimation. Greater than 90% of the gold metal reported in this Mineral Resource is informed by Resource Development (RDV) drilling analysed by Fire Assay and Photon methods, which returned relatively good QAQC results.</li> </ul>
Verification of sampling and assaying	<ul> <li>No independent sampling has been undertaken by Cube.</li> <li>Significant intersections were visually field verified by company geologists.</li> <li>No twinned holes have been drilled to date -ongoing GC drilling has confirmed mineralisation thickness and grade in primary material below pallid zone depletion.</li> <li>Mineralised zones within the southern end of Plymouth are orientated at right angles (Plymouth north-south trend vs Sly Fox east-west trend), with a number of holes scissoring to define the intersection point.</li> <li>Field data were collected using Field Marshal software on tablet computers for pre-2018 drilling campaign, post January 2018 the Geobank Mobile software was used to collect Geological logging data. The data pre-2018 was sent to Mitchell River Group for validation and compilation into an SQL database server, for post January 2018 the data was processed and validated by in-house database administration and compiled into the SQL database</li> <li>Assay values that were below detection limit were adjusted to equal half of the detection limit value, with a minimum floor value of 0.001g/t Au set in all such instances.</li> <li>Unsampled intervals denoted by a large negative value were reset to null values and were therefore ignored during estimation.</li> <li>Null or missing assay intervals were examined on a case-by-case basis. Some of these intervals cross known zones of mineralisation and in such instances no action was taken (i.e., null retained). In cases where the surrounding results and specific location supported the assumption that the assay intervals were not sampled due to a</li> </ul>
Location of data points	<ul> <li>decision taken by a geologist on the lack of visible mineralisation, grade values of 0.001g/t Au were inserted.</li> <li>All drill hole collars were surveyed in the MGA94 Zone 50 grid.</li> <li>Historical collars were surveyed to within +/- 1m.</li> <li>GCY drill collars have been surveyed by DGPS equipment and mine site Surveyors. A down hole survey was taken at least every 30m in RC holes by electronic multi-shot tool by the drilling contractors. Gyro surveys have been undertaken on selected holes to validate the multi shot surveys. GC drill holes completed after August 2018, except for a few holes where equipment was not available, were surveyed with a minimum of two surveys per hole.</li> <li>The hole collars and downhole survey azimuths were transformed to Gilbey's local grid for use in this mineral resource estimate.</li> </ul>
Data spacing and distribution	<ul> <li>An aerial topographic survey was flown in 2016. A 5m resolution DTM was used for Mineral Resource estimation and is considered appropriate. Monthly DTM and orthophoto images are collected via drone photography providing excellent ongoing control on topography.</li> <li>Initial exploration by GCY was targeting discrete areas that may host mineralisation. Consequently, Resource drilling pre-2018 was not grid based. However, when viewed with historic data, the drill holes lie on existing grid lines and within 25m - 100m of an existing hole.</li> <li>RDV drilling in most of the Dalgaranga Project areas is nominally at a 25m – 40m spacing but becomes less dense at depth.</li> <li>GC drilling has been to test areas of modelled resources and is generally at a spacing of 10m x 7.5m.</li> <li>The RDV drill spacing in unmined volumes is sufficiently dense in areas where relatively long-range mineralisation continuity has been demonstrated, the best examples</li> </ul>



Criteria	Commentary
	of this being the Main Porphyry Zone at Gilbey's (previously mined by Equigold) and at Sly Fox. Peripheral zones at Gilbey's, such as the Gilbey's Eastern Cutback, Gilbey's GFIN, Gilbey's Starter Pit and Gilbey's South areas, have been proven by GC drilling to be much more discontinuous, and therefore difficult to model with high confidence using RDV data only. However, the mineralised zones have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification categories specified under the 2012 JORC Code.
Orientation of data in relation to geological structure	<ul> <li>The majority of drill holes have a dip of -60° towards local grid east. One program of 10m x 10m spaced holes in early 2018 tested an alternative drilling direction of -60° towards local grid southeast, however the change was not seen as an improvement and all subsequent drilling has been towards local grid east at the Gilbey's deposit and the Plymouth deposit, where local grid north – south striking mineralisation predominates.</li> <li>For the east – west striking Sly Fox and Gilbey's South deposits, holes are appropriately oriented towards local grid south.</li> <li>The vast majority of the drill holes used are thus considered to be oriented near-optimally for intersection of gold mineralisation structures, ruling out any material bias due to drill orientation.</li> </ul>
Sample security	<ul> <li>Chain of custody is managed by GCY. RC samples collected pre-2018 were delivered daily to the Toll depot in Mt Magnet by GCY personnel. Toll delivered the samples directly to the assay laboratory in Perth. In some cases company personnel have delivered the samples directly to the laboratory. DD core was transported directly to Perth for cutting and dispatch to the assay laboratory for analysis.</li> <li>All drilling samples are collected immediately as drilled and stored in a designated area at the Dalgaranga mine site administration office. They are stored in closed bulk bags, numbered and ordered ready for transport.</li> <li>To ready the bulk bags for transport they are strapped to pallets, limiting the chance to tamper with sample bags during transport. The samples are sent once or twice weekly directly to MinAnalytical Laboratory via the company's preferred transport provider. Consignments are specific to GCY, thereby limiting potential security issues.</li> </ul>
Audits or reviews	<ul> <li>Data pre-2018 was validated by Mitchell River Group prior to loading into the SQL database. Any errors within the data were returned to GCY for validation. Post 2018 all data is validated by an in-house DBA using Datashed SQL based software, including QAQCR analysis prior to export. All data collection and sampling protocols are to an industry standard and have passed independent technical review by Cube Consulting.</li> </ul>



# Section 2 Reporting of Exploration Results

## Dalgaranga Gold Project-Gilbey's Complex

#### (Incorporating Gilbey's Main, Gilbey's East, Gilbey's South, Plymouth, Sly Fox)

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary								
Mineral	٠	• The Dalgaranga Gold Operation is situated on tenement number M59/749. GNT Resources Pty Ltd (100% Gascoyne Resources Limited - wholly owned subsidiary company)							
tenement and		has a whole 100% interest in the tenement.							
land tenure	•	The tenement is in good standing and no known impediments exist.							
status									
	•	The tenement	area has he	en nrevio	usly evolored	by numerous companies including BHP. Newcrest and Equipold. Mining was carried out by Equipold in a IV with Western			
Exploration done	•	Reefs NI from	1996 - 2000		usiy explored	by numerous companies including bin, newcrest and Equigola. Mining was carried out by Equigola in a sv with western			
by other parties		Neels NE Hom	1550 2000						
Geology	Regionally, the Dalgaranga Gold Project lies within the Archean Dalgaranga Greenstone Belt in the Murchison Province of Western Australia.								
Geology	•	At the Gilbey's deposit, most gold mineralisation is associated with shears situated within biotite-sericite-carbonate pyrite altered schists with quartz-carbonate veining within							
		a porphyry-shale-mafic (dolerite, gabbro, basalt) rock package (Gilbey's Main Porphyry Zone and Sly Fox). The Gilbey's Main Porphyry Zone trends north – south and dips							
		moderately-to-steeply to the west on local grid while Sly Fox trends east – west and dips steeply to the north. These two trends define the orientation of the limbs of an							
		anticlinal structure, with a highly disrupted area being evident in the hinge zone.							
	•	• Lesser amounts of mineralisation outside of the porphyry-shale-mafic zones are associated with highly discontinuous structures in the footwall and hangingwall of the sheared							
		porphyry-shale-mafic lithologies.							
Drill hole	٠	Drill hole statis	tics include	d in the M	RE				
Information		Hole_Type	Purpose	#holes	Metres				
		DD	RDV	32	8,718				
		RCDD	RDV	16	4,818				
		RC	RDV	673	75,401				
		RC	GC	4,837	119,311				
	Total		5,558	208,247					



Criteria	Commentary
	<ul> <li>It is not practical to summarise all of the holes here in this release.</li> <li>Exclusion of the drill information will not detract from the understanding of the report.</li> </ul>
Data aggregation methods	Not applicable as a Mineral Resource is being reported.
	Metal equivalent values have not been used.
Relationship between	• Most drill holes are angled to local grid east for the Gilbey's and Plymouth deposits and grid south for the Sly Fox and Gilbey's South deposits so that intersections are
	orthogonal to the expected orientation of mineralisation. It is interpreted that true width is approximately 70-100% of downhole intersections.
widths and	
intercept lengths	





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# Section 3 Estimation and Reporting of Mineral Resources

## Dalgaranga Gold Project

### (Incorporating Gilbey's Main, Gilbey's East, Gilbey's South, Plymouth, Sly Fox)

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Database integrity	<ul> <li>For GCY drilling, geological and field data is collected using Field Marshall or Geobank Mobile software on tablet computers. Since 2021, all drill hole logging is collected using Log Chief using set look up tables for active data validation. Historical drilling data has been captured from historical drill logs.</li> <li>The data is verified by company geologists before being sent either to Mitchell River Group for validation or passing Geobank Software validation protocols for further review by staff Geologists and compilation into a SQL database server. Historic data has been verified by checking historical reports on the project.</li> <li>The data is verified by company geologists before the data is sent to Mitchell River Group (pre-2018) for further validation and compilation into a SQL database server. Historical data has been verified by checking historical reports on the project. Current data is verified by company geologists into present SQL database</li> <li>Cube has undertaken a number of validation checks on the database, which include, but are not limited to, checks for overlapping intervals, checks for missing data/records, visual checks on drill hole traces to identify any possible survey issues, checks for out of range values and checks of survey, assay and geology table depths relative to the recorded maximum depth of drilling. No major issues were detected.</li> <li>All drill types, including RAB, Trench and AC sample types, were utilised for mineralisation domain modelling. However, the RAB, Trench and AC samples were not considered valid for gold grade estimation/interpolation (insufficient sample quality) and so were excluded from these processes. The predominant drill type used for estimation is RC, with a minor number of DD samples being available for use.</li> </ul>
Site visits	One of the Competent Persons for this resource estimate (Michael Job) visited site on a regular basis between January and April 2019.
Geological interpretation	<ul> <li>The confidence in the geological interpretation is considered to be variable. Within the Gilbey's Main Porphyry Zone and at Sly Fox, the confidence is high, being based on previous mining history and visual confirmation in outcrop and within the Gilbey's and Sly Fox open pits. Confidence in areas peripheral to the porphyry-shale-mafic packages is significantly lower, given the discontinuous nature of the geological structures and mineralisation, allied with a high degree of weathering in the relatively shallow cutbacks mined by GCY to date, which limits the usefulness of visual outcrop observations. Recent mining at Plymouth has, however, resulted in an enhanced understanding of mineralisation controls in this area.</li> <li>Geochemistry and geological logging have been used to assist identification of lithology and mineralisation. Outcrops of mineralisation and host rocks within the open pits have assisted with definition of the geometry of the mineralisation.</li> </ul>
	• Alternative interpretations of the mineralisation, particularly in the peripheral discontinuous zones, have been shown to have a significant impact on the Mineral Resource


Criteria	Commentary
	estimation. The assumptions of continuity need to be identified and carefully considered in such areas, in order to avoid misrepresenting the mineralised volume and continuity. The identification of the orientation component of the mineralisation geometry, primarily structurally controlled, does not present as large a risk and is significantly better understood in this Mineral Resource update relative to the previous estimate.
	• The porphyry-shale-mafic zones are clearly more favourable for the development of relatively continuous mineralisation, while peripheral areas are less favourable. This knowledge has been considered during the modelling and classification work for the Mineral Resource estimate.
	• Grade control drilling has confirmed overall geological continuity. It has also highlighted areas of poor grade continuity due to near surface depletion and less favourable geological factors. Grade continuity appears to be increasing at depth, even in more erratic peripheral areas, with decreased weathering.
Dimensions	• The Gilbey's Mineral Resource has an overall local grid north-south strike length of approximately 2,000m. The overall mineralised width of Gilbey's varies but for the majority is approximately 800m wide. The elevation extent of Gilbey's is from -100mRL to 450mRL (i.e., to roughly 550m below surface).
	• The Plymouth Mineral Resource has an overall local grid north-south strike length of approximately 350m. The average mineralised width is approximately 150m. The elevation extent of Plymouth is from 250mRL to 450mRL (i.e., to roughly 200m below surface).
	• The Sly Fox Mineral Resource has an overall local grid east-west strike length of approximately 600m. The average mineralised width is approximately 150m. The elevation extent of Sly Fox is from 250mRL to 450mRL (i.e., to roughly 200m below surface).
Estimation and modelling techniques	<ul> <li>Two estimation/interpolation approaches were used for gold grade.</li> <li>The first method used was Localised Uniform Conditioning (LUC), which is a non-linear method developed specifically for the estimation of the grade distribution for blocks that are small relative to the available data spacing (i.e., Selective Mining Unit [SMU] sized blocks). LUC is able to produce SMU scale block grade estimates that are not oversmoothed. Over-smoothing is a problem that has long been recognised when using standard linear methods such as Ordinary Kriging (OK) for positively skewed and highly variable gold grade distributions, where the data spacing is relatively wide. The Dalgaranga gold grade distributions are universally positively skewed and highly variable gold grade distribution down were the data spacing is relatively of C drilling (10m x 7.5m spacing). The use of a linear estimate in areas informed by such dense data is considered to be appropriate.</li> <li>Fifteen broad mineralisation domains were interpreted for LUC gold interpolation using Surpac 7.2 software. An additional mineralised waste 'halo' domain was also defined surrounding the fifteen domains, out to the limit of drilling, in order to provide a representation of gold grade for future exploration and infill drill targeting purposes.</li> <li>Six LUC domains were defined on the north- south limb of the anticline, corresponding roughly to the porphyry-shale-mafic lithological zone (Domain codes 100 through 105). Domains 101 and 102 represent the Gilbey's Main Zone (GMZ), and encapsulates the most continuous, abundant and voluminous mineralisation. Domain 100 is situated within the Main Porphyry Zone, but is of lesser grade and is characterised by narrow, less continuous oblique structural control. Domain 103 is to the north of Domains 100 to 102 and represents a less continuous zone of mineralisation that has been displaced to the west by a cross-cutting fault. Domain 104 is south of Domains 100 to 102 and encapsulates a near-surface zone of m</li></ul>



Criteria	Commentary
	• LUC Domains 201 and 202 represent a relatively narrow band of westerly dipping mineralisation in the hangingwall (i.e., to the west) of the Main Porphyry Zone. This structure
	is oblique to the GMZ and gradually approaches it to the north, where it eventually merges with the GMZ mineralisation.
	• LUC Domains 401 and 402 represent NNE-SSW striking diffuse and discontinuous mineralisation in the footwall (i.e., to the east) of the Main Porphyry Zone. These domains
	have recently been mined by GCY in the Gilbey's Eastern cutback.
	• LUC Domains 501 and 502 are situated at the far southern end of the project area and encompass erratic and discontinuous mineralisation situated within the east – west
	striking limb of the anticline to the immediate south of the Main Porphyry Zone. These domains have recently been mined by GCY in the stand-alone Gilbey's South pit.
	• LUC Domains 601 and 602 represent the Plymouth deposit, which is situated at the western end of Sly Fox, but strikes north – south, and may be a southern extension to the
	Domain 401 and 402 footwall mineralisation. Plymouth is also characterised by complex structure, being situated in the anticline hinge zone. Plymouth is being actively mined,
	with the pit having progressed down to ~390mRL as at end-June 2022; this has resulted in a better understanding of the geology and controls on mineralisation at Plymouth.
	Recent drilling has delineated and confirmed a relatively high-grade zone at depth in the south.
	LUC Domain 701 represents the Sly Fox mineralisation envelope, which strikes east – west on local grid.
	The mineralised waste 'halo' LUC domain has been designated Domain 900.
	• In addition to the aforementioned geological associations, the LUC domain boundaries were designed so as to capture very broadly the main mineralisation trends and settings.
	A very high tolerance for incorporation of internal waste was therefore applied. Where possible, a nominal grade cut-off of 0.2g/t Au was employed, but, especially in the more
	erratic peripheral zones, the boundaries were often defined at a lower grade, in order to ensure that all the potential mineralisation was captured in a sensibly continuous
	shape, while at the same time ensuring that the relatively depleted near-surface pallid zone was excluded (unless assay data showed otherwise) and while limiting the
	extrapolation of volume beyond the available drill data.
	• The domains for OK estimation in the GC volume were defined by intersecting the volume covered by the GC drilling with the estimation domains discussed above.
	Gold grade composites were produced to equalise sample support using the 'best-fit' method in Surpac 7.2, with a target length of 1m.
	• Gold grade caps were selected per domain, with due consideration given to the robustness of the upper tail of the gold distribution and the spatial continuity within the domain.
	• LUC estimation was undertaken using an initial 'Panel' block size of 15mE x 15mN x 5mRL (local grid). The E and N dimension were chosen based on a nominal RDV drill spacing
	of between 25m and 30m in most areas. The vertical Panel dimension was set at double the current flitch height of 2.5mRL, and is supported by the dense 1m composite data
	in the downhole direction. The ultimate SMU estimation block size for the LUC was set at 5mE x 5mN x 2.5mRL, in order to reflect the current view on practical mining selectivity,
	with the vertical dimension matched to the flitch height. Equal E and N dimensions were selected for the blocks since the block model represents a mix of north – south and
	east – west striking ore bodies on the local grid.
	• The master Surpac block model was designed with a 5mE x 5mN x 2.5mRL parent block size, with allowance for sub-blocks down to 2.5mE x 2.5mN x 1.25mRL for accurate volume definition.
	• Gold grade variogram models were undertaken for all LUC and OK GC domains by transforming the composite data to Gaussian space, modelling a Gaussian variogram, and
	then back-transforming the Gaussian models to real space for use in interpolation. This transformation method de-skews the gold data and thereby enhances the detection of
	the true underlying spatial structure. All available valid RDV and GC composites were used for variography, thus ensuring the best possible definition at short ranges.



Criteria	Commentary
	<ul> <li>LUC estimation was undertaken initially using just RDV data as input. During a series of trial LUC runs for previous versions of the MRE, it was realised that the use of standard capping and search parameters was unable to account for the reduced grade observed in some of the more erratic and discontinuously mineralised areas once GC drilling was undertaken. The RDV data only LUC runs were therefore compared to the OK GC models within the various GC volumes. Distance limiting above a specified grade threshold was applied to the Panel estimate in the LUC workflow, in order to inhibit the propagation of high-grade composites in the estimation. The distance limiting thresholds were picked by identifying inflexions in the gold grade distribution and distance limits were based largely on the practical range of the relevant gold grade variograms. The practical range is defined as being the distance at which the variogram reaches between 80% and 90% of the sill value. The distance limiting parameters are believed to reflect the reality that some parts of the Dalgaranga Project are characterised by high grade continuity that is significantly less that the RDV drill spacing. This exercise thus serves the important purpose of 'calibrating' the forward-looking part of the Mineral Resource model, which is informed primarily by relatively wide spaced RDV data, by reference to the densely sampled GC volume. The distance limiting parameters defined by this exercise were utilised in all subsequent LUC runs, which used all available valid data (i.e., RDV + GC).</li> <li>LUC estimation and variogram model to define a gold grade distribution at the SMU block scale. An Information Effect correcton, which accounts for the imperfect predictions that dense GC data will produce, was modelled as part of the COS, assuming a GC drill spacing of 8mX x 10mY x 1mRL. Uniform Conditioning (UC) was then undertaken to produce a model of the SMU block grade, tonnage and metal distribution within each Panel, which is conditioned</li></ul>
	radius. Anisotropic composite selection was activated, whereby the distance to a sample is considered to be a proportion of the distance to the ellipsoid surface. In addition, four quadrants were used in the search, with a maximum limit set for the number of allowable composites for each quadrant, in order to limit the number of samples selected from a single hole. A minimum of 2 and maximum of 12 samples were allowed for estimation. No distance limiting parameters were applied.
	<ul> <li>In the case of both the LUC and OK GC estimation, locally varying rotations were used for both the variogram model and search neighbourhood. These were based on interpreted surfaces that reflect the plane of maximum continuity of the gold mineralisation within each domain. The major and semi-major axes of the variograms and searches were thus</li> </ul>

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Criteria	Commentary
	<ul> <li>oriented parallel to these planes.</li> <li>The OK GC model was merged with LUC model by volume weighting into the SMU blocks. The OK GC and LUC estimates were first devolved to sub-block level (2.5m x 2.5m x 1.25m). The OK GC and LUC sub-block grades were then re-blocked back to the 5m x 5m x 2.5m SMU block size, combining the two estimates at the juncture of the two zones using the volume proportions derived from the corresponding number of sub-blocks for each.</li> <li>Isatis v2018.4 was used to undertake the LUC and OK GC estimation, with the results being imported into the master Surpac block model.</li> <li>No variables other than gold grade were interpolated.</li> <li>The gold model was validated by comparison of global composite means and block estimate means. Swath plots by northing and elevation slice were generated to compare composite grades to estimated block grades at the semi-local scale. In those areas where distance limiting was applied during interpolation, the global and semi-local checks reveal that the mean estimated gold grade is somewhat lower than the composite means, as would be expected, but the estimated grade fluctuations are observed to mirror those of the input composites. Agreement between composites and block estimates was generally observed to be good. Visual checks of the block estimates against the raw assay data were undertaken, with good local agreement being observed. A check Inverse Distance Squared estimate, with distance limiting parameters identical to those used in the LUC process, was also compared and agreed well with the primary estimates.</li> </ul>
Moisture	Density and tonnage was estimated on a dry in situ basis.
Cut-off parameters	• The cut-off grade has been changed from 0.25g/t Au (0.3g/t in shales) to 0.5g/t to reflect the current economic mining cut-off grade.
Mining factors or assumptions	<ul> <li>Open pit mining is currently underway at Dalgaranga. The existing LOM plan calls for the continuation of open pit mining to access and extract the remaining portion of the more continuous Gilbey's Main Porphyry Zone contained in the current cut-back and to advance the Plymouth pit to completion.</li> <li>The LUC and OK GC models comprising the reportable Mineral Resource are considered to account for the vast majority of mining dilution due to incorporation of all data in a broad envelope for the base estimation processes. Cube has recommended that ore loss factors due to mining be set at a higher level within areas peripheral to the Gilbey's Main Porphyry Zone, since such areas represent highly discontinuous mineralisation that is likely to prove relatively difficult to correctly classify during grade control and mining procedures. Mining within the broader and more continuous mineralisation of the Gilbey's Main Porphyry Zone is much less likely to result in material misclassification.</li> <li>For Open pit areas Optimisation pit shells were generated in based on:</li> <li>Gold Price assumption of A\$2800/oz</li> <li>Gascoyne Dalgaranga cost experience for Mining, Processing and Administration</li> </ul>
Metallurgical factors or assumptions	• Black (carbonaceous) shales occurring within the mineralised sequence are known to result in lower recoveries. The black shales have been modelled using implicit methods (Leapfrog) and were flagged into the block model. A gold recovery of 77% is currently in use, which is at the lower end of metallurgical test work that was undertaken on black shale material.

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Criteria	Commentary
Environmental factors or assumptions	No assumptions were made regarding environmental restrictions.
Bulk density	<ul> <li>Some 434 density measurements from sample collected at Gilbey's Were available for density estimation.</li> <li>Density is measured using the water immersion technique. Moisture is accounted for in the measuring process and measurements were separated for lithology, mineralisation and weathering.</li> <li>It is assumed there are minimal void spaces in the rocks within the Gilbey's deposit. Values applied in the Gilbey's block model are similar to other known bulk densities from similar geological terrains.</li> <li>Previously, density values of 1.8, 2.0, 2.4 and 2.8t/m3 were assigned respectively to alluvium/dumps, the oxide zone, the transitional zone and the fresh zone. The only slight revision to these assigned values in this update was to the transitional zone, where a density of 2.5t/m3 has now been assigned.</li> </ul>
Classification	<ul> <li>The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC).</li> <li>The Mineral Resource was classified as Measured, Indicated and Inferred Mineral Resource based on data quality, sample spacing, geological understanding of mineralisation controls and geological/mineralisation continuity.</li> <li>At the Gilbey's Main Porphyry Zone (Domains 100, 101 &amp; 102), the Measured Mineral Resource was defined within areas of grade control drilling. The Indicated Mineral Resource was defined within areas of close spaced diamond and RC drilling of less than 40m to 50m, and where the continuity and predictability of the lode positions was considered to be good. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 50m, where mineralisation continuity can only be assumed.</li> <li>In the Sly Fox, Plymouth, Gilbey's North, Gilbey's South and Gilbey's Starter Pit areas no Measured Mineral Resources were defined. The high level of geological complexity, relatively limited geological and mineralisation continuity and low sample precision precluded classification at the Measured level of confidence. Indicated Mineral Resources were defined in areas of dense 10m x 7.5m GC drilling, except for Sly Fox, where Indicated Resources were defined where drill spacing was less than 40m x 40m. The Inferred Mineral Resource was assigned to areas to areas outside of the GC volume, which are informed only by relatively wide spaced RDV drill holes.</li> <li>The input data is comprehensive in its coverage of the mineralisation in most areas and does not favour or misrepresent in-situ mineralisation. The model has been confirmed by infill and GC drilling, which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades.</li> <li>The Mineral Resource estimate appropriate</li></ul>
Audits or reviews	• The Mineral Resource estimation domains, estimation process and block model have been internally peer reviewed at Cube Consulting, supporting the approach adopted.



Criteria	Commentary
Discussion of relative	<ul> <li>The reported Mineral Resources constitute a local resource estimate. All Measured and Indicated Mineral Resources would be available for economic evaluation.</li> <li>Historical production data and reconciliation undertaken between Equigold mining, and Mineral Resources indicate an excellent correspondence with the Mineral Resource estimate in the Gilbey's Main Porphyry Zone.</li> </ul>
confidence	<ul> <li>The Gilbey's 2020 Resource LUC model performed well when compared to Declared Ore Mined (DOM) reconciliations. From FYQ1 2020 to FYQ3 DOM Ounces returned 99% of the LUC model at a cut-off grade of &gt;0.5g/t. This is off total gold factors.</li> <li>An updated reconciliation review is underway to assess ongoing performance of the LUC model.</li> </ul>



#### JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

## Yalgoo Gold Project - Melville / Applecross Gold Deposits

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>All Reverse Circulation ('RC') samples consist of 1m length primary samples taken in calico bags directly off the cyclone splitter. This method of sampling is considered industry standard for narrow-vein Archaean lode gold deposits.</li> <li>Historical sampling has consisted of 1m to 4m RC sample composites for pre-2008 drilling.</li> <li>Firefly Resources (FIREFLY) sampling was undertaken using industry standard practices including the use of duplicates, standards and blanks at regular intervals. All RC samples are split to 1-3kg in weight through the cyclone splitter on the drill rig for 1m drill intervals.</li> <li>All co-ordinates are in UTM grid (GDA 94 Zone 50). All drill hole collars are surveyed professionally on a campaign basis to an accuracy of 0.5 m. Initially all holes are picked up by the geologist with an accuracy of ± 2m using a hand-held GPS.</li> <li>No compositing of samples is currently conducted.</li> <li>The ~2-3kg primary samples are pulverised to produce a 500g charge for ore grade Au by accelerated cyanide leach using Assay Tabs/LeachWELL<sup>m</sup> 60x reagent and AAS for a total of 4-hour leach (Au-AA15). All results equal to or greater than 0.5g/t are determined by AAS from a 50g fire assay performed on a cyanide leach residue (Au-AA26R) These protocols are used to deliver a preliminary understanding of total gold content and potential CIL plant recovery. Screen fire assay (Au-SCR22AA) and gravimetric (Au-GRA22) protocols are undertaken on select high grade gold samples.</li> <li>All 1m samples are split to 1-3kg in weight through a cyclone splitter which is air blasted clean at the end of each rod. Individual samples weigh less than 3kg to ensure total preparation at the laboratory pulverisation stage. The sample size is deemed appropriate for the grain size of the material being sampled. Samples are sent to ALS Laboratories (ALS) in Wangara where they are prepared and analysed using Au-AA15 (Lower limit of 0.01g/t Au and upper limit of 300g/t Au). Where</li> </ul>
	<ul> <li>More recent (2021) RC and DD drilling samples from Melville and Applecross were sent to North Australian Laboratories Pty Ltd (NAL) in Pine Creek, NT, where they are prepared and analysed using FA40 (Lower limit of 0.01g/t Au and upper limit of 100g/t Au). A blank quartz wash is inserted between every sample during preparation.</li> </ul>
Drilling techniques	<ul> <li>RC drilling accompanied by Auxiliary and Booster and a 5.5" face sampling hammer.</li> <li>Down hole surveys are undertaken at a maximum of 30m intervals using a north seeking gyroscopic tool not subject to magnetic interference.</li> <li>A total of 41 RC holes have been drilled by Firefly Resources Limited ("Firefly"), now wholly owned by Gascoyne Resources Limited, at Melville and 20 RC holes at Applecross. Six (6) diamond holes for geotechnical and metallurgical sampling were drilled at Melville.</li> </ul>

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Criteria	Commentary
	Historical RAB, AC, RC and DD drilling has been undertaken by several companies over a period of 30 years.
Drill sample recovery	<ul> <li>RC 1m primary samples are collected and assayed. Any high grade or bonanza grades are isolated, and duplicate sampled for reliability. Sample weights, dryness and recoveries are observed and noted in a field Toughbook computer by Firefly field staff.</li> <li>Firefly contracted drillers use industry appropriate methods to maximise sample recovery and minimise downhole contamination including using compressed air to maintain a dry sample in RC drilling. A cyclone splitter is utilised to split 1-3kg of sample by weight. The splitter is air blasted clean at the end of each rod.</li> <li>Historical sampling recovery data is not available for pre-2008 drilling, assuming best practices were adopted at the time of drilling.</li> <li>No significant sample loss or bias has been noted in current drilling or has been found in historical exploration reports.</li> </ul>
Logging	<ul> <li>All geological, structural and alteration related observations are validated before being imported into an AcQuire SQL database.</li> <li>Lithology, structure, alteration, mineralisation, weathering, colour, and any other important features of RC drill chips have been logged on a 1 m basis or in specific composite intervals.</li> <li>All drill holes are logged in full on completion.</li> </ul>
Sub-sampling	• Some historic HQ and NQ diamond core is used in this estimate. The sampling of diamond core, typically half core, has intervals ranging from 0.1m to 3m in length.
techniques and	• Every 1 m RC interval is sampled dry as a bulk calico primary bag taken off the cyclone.
sample preparation	<ul> <li>Drill sample preparation and precious metal analysis is undertaken by a registered laboratory's (ALS and NAL). Sample preparation is by dry pulverisation to 85% passing 75 microns.</li> </ul>
p p	<ul> <li>Firefly field QAQC procedures involve the use of certified standards. (1:40), blanks (1:40) and duplicates at appropriate intervals for early-stage exploration programs. High, medium and low gold standards are used.</li> </ul>
	Historical QAQC procedures were not available for pre-2008 drilling assuming best practices were adopted at the time of drilling.
	<ul> <li>Sampling is carried out using standard protocols and QAQC procedures as per industry practice.</li> <li>Duplicate samples are taken (~1:40) and more frequently when in prospective zones of mineralisation. These duplicates are routinely checked against the originals.</li> </ul>
	at the end of each program.
	<ul> <li>Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of gold mineralisation.</li> </ul>
Quality of assay data and	<ul> <li>On 1m cyclone split samples, analysis is undertaken by ALS laboratories (a registered laboratory), with Assay Tabs/LeachWELL™ 60x reagent and AAS for a total of 4-hour leach (Au-AA15). A screen fire assay is undertaken on select high-grade gold samples.</li> </ul>
	• Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards. This methodology is considered appropriate for gold



Criteria	Commentary
laboratory tests	<ul> <li>mineralisation at the exploration stage.</li> <li>No geophysical tools were used to estimate mineral or element percentages.</li> <li>Firefly field QAQC procedures involved the use of certified reference standards (1:40), duplicates (~1:30) and blanks (1:40) at appropriate intervals for early-stage exploration programs. Historical QA/QC procedures are unclear for pre-2008 drilling, assuming best practices were adopted at the time of drilling.</li> </ul>
Verification of sampling and assaying	<ul> <li>Firefly samples were verified by the geologist before importing into the main Firefly database (AcQuire). High-grade coarse gold related samples are managed and validated by laboratory staff in conjunction with company personnel.</li> <li>Some twin holes and scissor holes have been drilled at Melville to confirm lode geometry, true width and grade reproducibility.</li> <li>Primary data is collected using a standard set of templates.</li> <li>Geological sample logging is undertaken on one metre intervals for all RC drilling with colour, structure, alteration, and lithology recorded for each interval. Data is verified before loading to the database. Geological logging of all samples is undertaken.</li> <li>To prevent errors in various spatial software programs any intersects reported by the lab as &lt;0.01 g/t Au are normalised to 0.00 g/t Au.</li> </ul>
Location of data points	<ul> <li>All maps and location data are in UTM grid (GDA 94 Zone 50), and historical drill hole collars have been surveyed or measured by hand-held GPS with an accuracy of ± 2m. Where collars and unable to be located, historical drilling has been registered to a high-resolution digital terrain model.</li> <li>Down hole surveys are undertaken using a downhole camera and/or north-seeking gyroscope down hole tool at regular 30m intervals.</li> </ul>
Data spacing and distribution	<ul> <li>Variable drill hole spacings are used to adequately test targets and are determined from geochemical, geophysical and geological data together with historical drilling information.</li> <li>At the centre of the Melville ore body, a general grid of 20m drill spacings on 10-25m spaced lines was completed over multiple drill campaigns.</li> <li>At Applecross drilling has been conducted on 50m spaced lines sufficient to demonstrate geological and grade continuity.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Most historical drill holes at the Melville and Applecross deposits were drilled at a dip of -60 degrees and an azimuth of 090. The mineralisation is interpreted to dip between 45-60 degrees and striking NNE.</li> <li>The true width of historical intercepts is interpreted to be &gt;75% of the drill intersection width.</li> <li>All current drilling is being undertaken at the same orientation for consistency and validation purposes.</li> <li>No orientation-based sampling bias is known at this time.</li> </ul>



Criteria	Commentary
Sample security	<ul> <li>Chain of custody was managed by Firefly internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth (ALS Laboratories in Wangara) or to NAL Labs in the Northern Territory.</li> <li>When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Webtrieve system).</li> <li>Information not available for analysis completed prior to 2008.</li> </ul>
Audits or reviews	• Firefly geologists reviewed the historic sampling techniques, where available, upon the acquisition of Firefly of the Yalgoo Gold Project in 2020. Firefly geologists conducted regular reviews of data to ensure sampling is effective and accurate. The NAL lab has been audited by Firefly geologists and reviewed by Gascoyne geologists.

# Section 2 Reporting of Exploration Results

# Yalgoo Project - Melville/Applecross

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Melville and Applecross Gold Deposits are located on granted tenement E59/2077 (100% interest) in the Yalgoo mineral field of Western Australia.</li> <li>The tenement is held by Yalgoo Exploration Pty Ltd, a wholly-owned subsidiary of Gascoyne Resources Limited.</li> <li>The tenure is currently in good standing.</li> <li>The Yalgoo project tenements are partially subject to standard Native Title heritage agreements and state royalties. Third party royalties are present on some individual tenements. A tribute mining agreement is present on one individual tenement.</li> </ul>
Exploration done by other parties	<ul> <li>Historical drilling, surface sampling, soil sampling and geophysical surveys have been undertaken in different areas within the tenement intermittently by multiple third parties over a period of ~30 years.</li> </ul>
Geology	<ul> <li>Gold mineralisation at the Melville and Applecross Gold Deposits is hosted in folded Banded Iron Formation sediments within the Norie Group.</li> <li>Mineralisation is characterised by predominantly stratiform to stockwork alteration zones within iron-rich bands of the Banded-Iron-Formation host, lesser high-grade quartz veins and mineralised porphyritic intrusives.</li> </ul>



Criteria	Commentary
	<ul> <li>Northwest-striking orthogonal shearing appears to control the structural modification of the BIF host and subsequent introduction of gold mineralising fluids into the north-striking BIF.</li> </ul>
Drill hole Information	<ul> <li>All requisite drill-hole information has been released previously by Firefly / Gascoyne.</li> <li>It is not practical to summarise all of the holes here in this release.</li> <li>Exclusion of the drill information will not detract from the understanding of the report.</li> </ul>
Data aggregation methods	<ul> <li>Significant assay intervals are generally recorded above 0.3/t Au. Up to 2m of internal dilution (&lt;0.1g/t Au) may be included in reporting of significant assay intervals.</li> <li>No cut-off has been applied to any sampling.</li> <li>Reported intervals are generally aggregated using individual assays above 0.3g/t Au.</li> <li>Up to 4m of internal dilution (&lt;0.1g/t Au) may be included in reporting of significant assay intervals.</li> <li>No cut-off has been applied to any sampling.</li> <li>No metal equivalent values are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	• Drill intersections of the main lodes at Melville and Applecross are considered very close to true widths as drilling is planned perpendicular to predicted intercept.











# Section 3 Estimation and Reporting of Mineral Resources

## Yalgoo Project - Melville/Applecross

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Database	<ul> <li>Historic data has been compiled utilising available open file data accompanied by data acquired through acquisition of projects.</li> <li>Data has been compiled into industry recognised AcQuire software after review by a Firefly geologist, and more recently Gascovne geologists. Firefly employed and</li> </ul>
integrity	independent contract database administrator who was responsible for the maintenance and validation of data. The data is now being managed by a Gascoyne Database
	Manager.
	• Firefly field sample data was collected on formatted Excel spreadsheets using a fixed format to prevent the introduction of erroneous data and alignment with database
	fields.
	The data sheets are imported into AcQuire and automatically report any errors which are addressed then and there.
	Data is continually audited and visually validated by Gascoyne geologists to ensure quality of information.
Site visits	• The Competent Person has undertaken multiple site visits, including, but not limited to, drill-site inspections, rock-chip and drill-core analyses, outcrop sampling and
	mapping, historic workings investigation and geological assessment of estimated resource area.
Geological	• The drill data available indicates the resource is hosted within a significant Banded-Iron-Formation (BIF) later cross-cut by structure and intruded by mineralising fluids.
interpretation	• The interpretation of the deposit has been based on high quality, high confidence drill data, with multiple confirmatory drill-holes completed by Firefly and reviewed by
-	Gascoyne to increase confidence in critical areas of the resource.
	• The interpretation is guided by the interpreted geology along with broader structural controls (block faulting), with mineralised envelopes conforming to major geological
	units observed in the drilling data.
	• Mineralisation occurs as large-scale enrichment along with discrete quartz veining and quartz-porphyry intrusives within, and adjacent to the host BIF unit in both the
	Melville and Applecross deposits.
Dimensions	• The Melville and Applecross resources cover an area approximately 900m long, 400m wide and to a depth of 220m below surface. The flat-lying oxide component of the
	resource is included in these extents.
	• Drill spacing is typically 20m to 25m across the length of the resource with many areas at 10m to 15m drill spacing.
	• The Applecross resource has overall dimensions of 300m (north), 400m (east) and has been projected to around 170m below surface. Drill spacing is along 50m spaced
	lines.



Criteria	Commentary
Estimation and modelling techniques	<ul> <li>Interpretation was performed in Seequent Leapfrog and Maptek Vulcan software. Wireframing of ore domains was performed manually in Maptek Vulcan software on a section-by-section basis. Compositing of sample data was performed in Maptek Vulcan software. Statistical and spatial analyses of composites was performed in Snowden Supervisor software. Estimation was performed in Maptek Vulcan software. Visual validation and report validation of the MRE was performed using Maptek Vulcan software.</li> </ul>
	• The block model was created using an unrotated parent block of 5m (N) by 5m (E) by 5m (Z) for various reasons, including equilateral block size, relation to likely Selective Mining Unit (SMU) and a rational subdivision of the 20m to 25m drill spacing.
	• Sub-blocking was completed at 0.5m (N) by 0.5m (E) by 0.5m(Z) as a rational subdivision of parent block size and to fill domain volume.
	• A number of default variables were written into the empty block model at this stage for a number of reasons, including but not limited to, reference, recording of various outputs of the estimation and for classification purposes post-estimation.
	• Wireframing or Domaining Firefly geologists interpreted each individual mineralised unit on a section-by-section basis snapping to each relevant drill-hole interval and then "wireframing" between sections to create a valid 3-dimensional solid or "domain", constraining the drill-hole grades within the domain.
	• Each domain was checked as valid and closed prior to coding of the domains into the block model. If the centroid of the parent block or sub-block fell within the domain extent, then the block was coded with that specific domain identifier.
	Gascoyne geologists have reviewed and verified the above interpretation and methodology of the estimation and modelling.
	• Compositing of the constrained sample data was performed by running the drill holes against the constrained domains. The compositing run used a 1m length starting at the up-hole intersection of the wireframe against the first "snapped" interval of the drill hole. Compositing continued downhole and through the domain to the downhole or last "snapped" sample interval. Any residual lengths less than the minimum sample length of 0.3m were merged back into the previous up-hole composite to reduce the influence of small composites.
	• Each composite interval was individually coded by domain during the compositing process. Gascoyne geologists have reviewed and verified the compositing.
	• Statistics, Variography, Top cuts - Composite data from within each domain was interrogated statistically and spatially to determine top-cuts, search orientations and search ranges for each estimation pass. Each search ellipsoid was also visually compared to the relevant domain to optimise search parameters.
	• Limiting parameters, such as individual top cuts were defined at this stage to use in the estimation process to restrict statistical outliers and anomalous grade distribution. All domains had individual top cuts applied to them based on their individual statistical population characteristics.
	• The estimation of the mineral resource was performed using the Inverse Distance to the power of 2 (ID2) interpolation method.
	• The estimation used three passes for each domain and estimated an uncut and cut grade value, as well as recording a number of other variables, such as but not limited to, the pass that successfully estimated the block, the number of samples used in the estimation of the block and the average distance of the samples to the block etc
	• The use of octant search and min/max sample restrictions was used to de-cluster data and to address the known limitations of Inverse Distance interpolation with respect to clustered data.
	• The resultant Mineral Resource Estimate has been visually validated and various checks and spreadsheet comparisons made including but not limited to, wireframe/domain volumes against block volumes (blocking efficiency) and composite grades against block grades.



Criteria	Commentary
	<ul> <li>There has been no mining at Melville to allow comparison or reconciliation of actual production against the MRE.</li> <li>The MRE block size of 5m x 5m x 5m is derived from the rational assumption that similar SMU are used in open-pit mining of gold and other commodities in Western Australia and elsewhere.</li> <li>Gascoyne is not aware of any deleterious or non-grade variables or by-products of economic significance within the Melville Resource area.</li> </ul>
Moisture	Density and tonnage was estimated on a dry in situ basis.
Cut-off parameters	• The Gascoyne JORC-2012 compliant MRE is reported using a 0.7g/t cut-off grade as a conservative measure should the current price of gold move to the downside. The economic cut-off grade of a similar unmined surface gold deposit could be as low as 0.5g/t on the current price of gold, however a conservative view at this stage is taken.
Mining factors or assumptions	<ul> <li>No mining has been completed within the Melville resource zone. No official mining assumptions or factors have been made; however, Gascoyne has undertaken pit optimisation studies over the Melville MRE to ascertain the likelihood of eventual economic extraction.</li> <li>The pit optimisation presented a number of scenarios whereby Melville could be potentially economically extracted using medium-scale open pit methods due to its proximity to suitable milling facilities, ore-body thickness and orientation and the style of mineralisation. Six diamond drill-holes within the "best-case" pit optimisation shell to define the geotechnical and metallurgical characteristics of the Melville resource have been completed.</li> <li>Metallurgical testing is underway along with geotechnical studies.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>Metallurgical test work has been undertaken on samples from Melville. The test work was managed by Minelogix and conducted at independent laboratory ALS Metallurgy Limited.</li> <li>Leach test work confirmed rapid leaching kinetics post gravity recovery and leach extractions exceeded 90% for all domains at a feed grade of &gt;1.5g/t Au, at an optimum grind P80 of 90µm.</li> </ul>
Environmental factors or assumptions	No assumptions have been made regarding environmental factors during the estimation process.
Bulk density	<ul> <li>Specific Gravities for the Melville Resource Estimate have been defined on three categories or zones - oxide, transitional and fresh.</li> <li>The Specific Gravity of each zone has been assigned directly into the block model using Oxide – 2.6t/m3, Transitional – 2.8t/m3 and Fresh 2.9t/m3.</li> <li>These values are based on the test-work of the previous property owners, Prosperity Resources and are considered by the Competent Person to be reasonable given the nature of the host rocks.</li> </ul>



Criteria	Commentary
Classification	<ul> <li>The MRE was 100% default coded as Inferred or ResCat = 3 when the block model was created.</li> <li>After careful consideration, the Competent Person considers the parameters used in Pass 1 of the estimation process, the highest confidence estimation pass, defining the maximum search distance at 40m as well as the min/max number of samples per drill hole and octant search limitations, combined with consideration of 20-25m drill spacing or better, the continuous nature of mineralisation and the low variability of grade across the ore body, as sufficient to convert blocks estimated in Pass 1 to Indicated category or ResCat =2.</li> <li>This method of classification converts approximately 80% of the Inferred material to Indicated for Melville. The Applecross MRE is in the Inferred category.</li> <li>The Mineral Resource Estimate, including the classification of Indicated material, appropriately reflects the view of the Competent Person.</li> </ul>
Audits or reviews	• This Mineral Resource Estimate was commenced by Firefly geologists and subsequently reviewed and finalised by Gascoyne geologists.
Discussion of relative accuracy/ confidence	<ul> <li>The relative accuracy of the Mineral Resource Estimate is reflected in the reporting of the MRE as per the guidelines of the 2012 edition of the JORC Code for Reporting of Mineral Resources.</li> <li>The statement relates to global estimates of tonnes and grade.</li> <li>There has been no production from the Melville and Applecross Resource areas.</li> </ul>



### JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

# Glenburgh Gold Project

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>The project has been drilled using Rotary Air Blast (RAB), Air Core (AC), Reverse Circulation (RC) and Diamond (DD) drilling over numerous campaigns. The majority of holes are on a 25m grid either infilling or extending known prospects or deposits. Most holes are drilled towards the Southeast with a dip of -60°.</li> <li>Sampling was carried out under Gascoyne Resources Limited ("Gascoyne" or "GCY" or "Company") sampling and QAQC protocols as per industry best practice.</li> <li>Exploration diamond core was HQ in size. HQ core was geologically logged and sampled to lithological contacts or changes in the nature of mineralisation. Maximum samples length of 1.2m with a minimum sample length of 0.4m. HQ core was half core sampled. Analysis was via 25g Fire Assay.</li> <li>RC drilling was used to obtain 1m samples which were split by either cone or riffle splitter at the rig to produce a 3 – 5kg sample for shipment to the laboratory where it was analysed via 25g Fire Assay.</li> <li>A 4m composite sample of approximately 3 – 5kg was collected for all AC and RAB drilling. This was shipped to the laboratory for analysis via a 25g Aqua Regia digest with reading via a mass spectrometer. Where anomalous results were detected, single metre samples were collected for subsequent analysis via an Aqua Regia digest. All samples were analysed.</li> </ul>
Drilling techniques	• RC drilling used a nominal 5 ½ inch diameter face sampling hammer. AC drilling used a conventional 3 ½ inch face sampling blade to refusal or a 4 ½ inch face sampling hammer to a nominal depth. RAB drilling used a conventional blade to refusal.
Drill sample recovery	<ul> <li>RC, AC and RAB sample recovery is visually assessed and recorded where significantly reduced. Minimal sample loss has been recorded.</li> <li>RC samples were visually checked for recovery, moisture, and contamination. A cyclone and splitter were used to provide a uniform sample, and these were routinely cleaned. AC samples were visually checked for recovery moisture and contamination. A cyclone was used and routinely cleaned. 4m composites were speared to obtain the most representative sample possible. RAB samples by nature may be contaminated, however a visual assessment is made, and every effort is made to obtain the most representative sample possible.</li> <li>Sample recoveries are generally high. No significant sample loss has been recorded with a corresponding increase in Au present. Field duplicates produce consistent results. No sample bias is anticipated, and no preferential loss/gain of grade material has been noted.</li> </ul>



Criteria	Commentary
Logging	<ul> <li>RC chips are geologically logged in metre intervals. AC and RAB chips are logged to geological boundaries. Diamond core, RC chip trays and end of hole chips for AC and RAB drilling have been stored for future reference.</li> <li>Diamond core and chip logging recorded the lithology, oxidation state, colour, alteration, and veining. Diamond core was photographed as both wet and dry trays.</li> <li>All drill holes were logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>RC chips were riffle or cone split at the rig. AC and RAB samples were collected as 1m composites (unless otherwise noted) using a spear of the drill spoil. Samples were dry.</li> <li>A sample size of between 3 and 5kg was collected. This size is considered appropriate and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected.</li> <li>Diamond Core was half core sampled. The core was cut using an automatic core saw, to divide the mineralisation consistently down the hole.</li> <li>For diamond core, the rock is dried then crushed to ~10mm followed by pulverisation of the sample to a grind size where 85% of the sample passes 75 micron. For RC, AC and RAB samples, the material is dried, riffle split if the sample is greater than 3kg, then pulverised to a grind size where 85% of the sample passes 75 microns.</li> <li>Field QAQC procedures included the insertion of 4% certified reference material and 2% field duplicates for RC drilling. Standards and duplicates were not inserted during RAB drilling or for diamond core.</li> <li>QAQC protocols include the analysis of field duplicates and the insertion of appropriate certified reference 'standards' and 'blanks'.</li> <li>Field duplicates were collected during RC drilling and some AC drilling. Historic diamond core has been recut to quarter core and re-assayed. No significant differences were detected.</li> <li>Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All diamond and RC samples, and some AC samples were analysed using a 25g charge Fire Assay with an AAS finish which is an industry standard for gold analysis. A 25g aqua regia digest with an MS finish has been used for some AC and all RAB samples. Aqua regia can digest many different mineral types including most oxides, sulphides and carbonates but will not totally digest refractory or silicate minerals, however testing of the Glenburgh ore has revealed that it is free milling.</li> <li>No geophysical tools have been used at Glenburgh.</li> <li>Field QAQC procedures include the insertion of both field duplicates and certified reference 'standards'. Assay results have been satisfactory and demonstrate an acceptable level of accuracy and precision. Laboratory QAQC involves the use of internal certified reference standards, blanks, splits, and replicates. Analysis of these results also demonstrates an acceptable level of precision and accuracy.</li> </ul>



Criteria	Commentary
Verification of sampling and assaying	<ul> <li>At least three GCY personnel verify all intersections in both diamond core and drill chips.</li> <li>One historic diamond hole has been twinned with an RC hole. The results are comparable</li> <li>Field data is collected using Field Marshal software on tablet computers. The data is sent to the Company's database manager for validation and compilation into an SQL database server.</li> <li>No adjustments have been made to assay data apart from values below the detection limit which are assigned a value of negative the detection limit. Prior to Mineral Resource estimation, these values were changed to half the detection limit.</li> </ul>
Location of data points	<ul> <li>Diamond and RC drill hole collars are routinely picked up by MHR Surveyors to an accuracy of 0.02m Easting and Northing, and 0.05m elevation. AC and RAB holes are located by hand-held GPS with an accuracy of about 5m. Diamond and RC holes have a down hole survey at least every 30m with a single shot camera tool, with many holes having been surveyed with a DMS camera every 5m.</li> <li>Diamond and RC drill hole collars are routinely picked up by MHR Surveyors to an accuracy of 0.02m Easting and Northing, and 0.05m elevation. AC and RAB holes are located by hand-held GPS with an accuracy of about 5m. Diamond and RC holes have a down hole survey at least every 30m with a single shot camera tool, with many holes having been surveyed with a DMS camera every 5m.</li> <li>The grid system is MGA_GDA94 Zone 50.</li> <li>The topographic surface is defined by a DTM survey completed by Tesla Airborne Geoscience Pty Ltd for Helix Resources (holders of the tenements prior to GCY) using a Radar Altimeter with a recording interval of 0.1sec (approx. 7m) and a nominal sensor height of 50m.</li> </ul>
Data spacing and distribution	<ul> <li>Known prospects have been drilled on a nominal 25 x 25m or 25 x 50m grid. In areas of greenfield exploration, the target size and position determine the drill hole density, although drill holes are generally spaced at 25m intervals along grid lines.</li> <li>The drilling data spacing is adequate to determine the geological and grade continuity for reporting of Mineral Resources.</li> <li>4m composite samples were collected during RAB and some AC drilling.</li> </ul>



Criteria	Commentary
Orientation of data in relation to geological structure	<ul> <li>Drilling sections are orientated perpendicular to the strike of the mineralised host rocks at Glenburgh. The drilling is angled at -60° which is close to perpendicular to the dip of the stratigraphy. Analysis of diamond core confirmed the correct drill orientation has been made.</li> <li>Diamond drilling has confirmed that drilling orientation has not introduced any sampling bias.</li> </ul>
Sample security	• Chain of custody is managed by GCY. Samples are stored on site until delivery to Centurion or Toll depot in Carnarvon by GCY personnel. Centurion or Toll delivers the samples directly to the assay laboratory in Perth. Some samples are directly delivered to assay Lab directly by GCY employees.
Audits or reviews	<ul> <li>Data is validated by GCY's database manager whilst loading into database. Any errors within the data are returned to GCY for validation. RPM reviewed drilling and sampling procedures during the 2012 site visit and found that all procedures and practices conform with industry standards.</li> <li>Several reviews have been undertaken by previous companies and independent consultants detailed in historical reports.</li> </ul>

# Section 2 Reporting of Exploration Results:

# Glenburgh Gold Project

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>Glenburgh project is situated on tenement numbers M09/148, E09/1325, E09/1764, E09/1865, E09/1866, E09/2148, E09/2025. These tenements are currently held 100% by GCY. The bulk of the resources lie on M09/0148. The Thunderbolt deposit (formerly the Southwest Deposit) lies on E09/1325. Most of the tenements lie within the Wajarri Yamatji Native Title area.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	The tenements have been previously explored by Helix Resources and Eagle Mining.



Criteria	Commentary
Geology Drill hole Information	<ul> <li>The Glenburgh project area consists of an ENE trending Paleoproterozoic sequence of highly metamorphosed and migmatised sediments.</li> <li>The sequence is dominated by pelitic metasediments, now quartz, feldspar, biotite, ± garnet, ±magnetite gneiss, with interlayered quartz, quartzite, calc-silicate, and amphibolite.</li> <li>Gold occurs in quartz- feldspar- biotite-garnet gneiss with a general observation of higher grades occurring in silica "flooded" zones.</li> <li>It is not practical to summarise all of the holes here in this release.</li> <li>Exclusion of the drill information will not detract from the understanding of the report.</li> </ul>
Data aggregation methods	<ul> <li>Not applicable as a Mineral Resource is being reported.</li> <li>Metal equivalent values have not been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The mineralized horizons at Glenburgh strike approximately 065/245° and dip approximately 70° to the NW.</li> <li>Drill holes orientated at -60° towards 155° are close to perpendicular to the mineralisation.</li> <li>Reported down hole intersections are believed to approximate true width.</li> </ul>















Criteria	Commentary
Balanced reporting	Exploration results are not being reported.
Other substantive exploration data	• Infill drilling has progressed over several campaigns as the size and extent of the mineralisation became clear. Other significant exploration data has been collected by GCY and has been incorporated into Exploration Results that have been reported in previous announcements to the ASX.
Further work	• Further exploration will be conducted to target possible new zones of mineralisation along strike from the current zones and further test geochemical anomalies.

## Section 3 Estimation and Reporting of Mineral Resources

# Glenburgh Gold Project

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Database integrity	<ul> <li>The drilling database for the Glenburgh Deposits is maintained by GCY database administrator.</li> <li>Sampling and geological logging data is collected in the field and uploaded digitally. Logging and sampling software utilise lookup tables, fixed formatting, and validation routines to ensure data integrity prior to upload to the central database.</li> <li>Sampling data is sent to, and received from, the assay laboratory in digital format.</li> <li>Drill hole collars are picked up by differential GPS and delivered to the database in digital format.</li> <li>Down hole surveys are delivered to the database in digital format.</li> <li>The Mineral Resource estimate (MRE) used Air Core, RC and DDH assay data from 1993 onwards. No Auger, Vacuum or RAB holes have been used.</li> <li>Validation checks completed prior to MRE work by the Competent Person (CP) for the MRE included the following:</li> <li>Collar duplications, hole collar checks with natural surface topography</li> <li>Downhole survey deviation checks in 3D software, survey quality ranking</li> <li>Maximum hole depths check between sample/logging tables and the collar records</li> <li>Checking for sample and logging overlaps; Reporting of missing assay intervals</li> </ul>



Criteria	Commentary
	• A validated assay field was included into the Assay table (au_use) to convert any intercepts that have negative values or blanks in the primary Au field (Au ppm).
	QAQC data checks
	• The CP conduced independent data research on WAMEX to source historical reports and information on drilling and exploration programs conduced at Glenburgh. Current
	database information was reviewed for the drilling, sampling, and assaying conducted within the deposit areas.
	Any data validation issues were recorded and forwarded to GCY data administrator for follow up.
Site visits	• Monty Graham (GCY Senior Exploration Geologist) is the CP for Sections 1 and 2 of Table 1 and has conducted regular site visits and is responsible for all aspects of the
0.00 0.000	project.
	Brian Fitzpatrick (Principal Geologist at Cube) who is the CP for Section 3 of Table 1, has not undertaken a site visit to date.
	The CP has relied upon information provided by GCY staff, and data room documentation sourced from GCY and WAMEX files.
Geoloaical	• The confidence in the geological interpretation of the Glenburgh Deposits is good as a result of recent infill RC and diamond core drilling programs confirming drilling
interpretation	results from previous drilling programs. The geological interpretations are also based on visual confirmation in outcrop.
	Continued drilling has shown that the approximate tenor and thickness of mineralisation is predictable within predominantly broad foliated and gneissic granitic rocks
	As the deposit has good grade and geological continuity the CP regards the confidence in the geological interpretation as high.
	• Geological and prospect scale structural interpretations based on geochemical and geophysical surveys, along with drillhole logging and surface mapping have been used
	to assist identification of lithology, alteration, and mineralisation.
	Previous interpretations and modelling of sub-vertical to steeply dipping high grade metamorphic gneiss have been confirmed by recent infill RC drilling and deep diamond drill core. The recent drilling has supported and refined the model to be more rebut with loss isolated and parrow minoralisation demains interpreted.
	Locally outgraps of minoralization and best rocks confirm the geometry of the minoralization often observed with malanoseme and lousestratic layers
	Locally outcrops of initial and host rocks continuit the geometry of the initial astronometry of the initial
	<ul> <li>Aeromagnetic (This survey) data has previously been used to extrapolate and interpret the geology and several prospect scale major fault structures. A major he trending fault structure (Deadman's Fault) and associated parallel faults and splays appear to offset the ENE-WSW mineralisation trends with sinistral movement.</li> </ul>
	• The Zone 126 mineralisation clearly displays a steep NW high grade plunge, open at depth. This plunge orientation has not been identified in other deposits and to date is
	not well understood.
Dimensions	<ul> <li>The Glenburgh Mineral Resource area extends over a strike length of 13,000m (from 4,450mE – 17,450mE)</li> </ul>
Dimensions	Mineralisation has been defined over 3 zones:
	• East Zone strike extent ~2,420m and a vertical depth extent currently defined at ~450m (325mRL to -125mRL)
	• Central Zone strike extent ~3,350m and a vertical depth extent currently defined at 300m (300mRL to 0mRL)
	<ul> <li>West Zone strike extent ~3,050m and a vertical depth extent currently defined at 150m (285mRL to 135mRL)</li> </ul>



Criteria	Commentary
Estimation and modelling techniques	<ul> <li>Three block models were constructed to enable efficient gold estimation of the East, Central and West Zone deposits         <i>Estimation Methods:</i></li> <li>Ordinary Kriging (OK) and Local Uniform Conditioning (LUC) were the estimation methods used for the Glenburgh deposits. Most good quality drilling within each zone is</li> </ul>
techniques	on regular drill spacing – 25/50m x 25m for the East and Central Zones, and 50m x 25m for the West Zone.
	• LOC was used where the interpretations in the East Zone and Central Zone included several broader mineralisation domains (+ZSm true thickness). This estimation method was used as it attempts to provide better local grade estimation for mining evaluation. This method estimates a block grade into each SMU.
	<ul> <li>OK Estimation was used for all other much smaller and narrower mineralisation domains for the East, Central, and all West Zone domains. The domains estimated using OK mostly have far less concentrated drilling and data points which are more suitable to OK method. <i>Domaining and Compositing:</i></li> </ul>
	• The estimation domains are informed by good quality drilling within each zone on regular drill spacing – 25/50m x 25m for the East and Central Zones, and 50m x 25m for the West Zone. Maximum extrapolation of wireframes from drilling was 50m down-dip. Maximum extrapolation was generally half drill hole spacing.
	• The 3DM mineralisation domains acted as hard boundaries for later grade interpolation. A broad waste domain halo was created tightly around the drill limits and domain extents for each zone.
	• Drill hole sample data was flagged using domain codes generated from 3D mineralisation domains. Sample data was composited over the full downhole interval. Intervals with no assays were assigned background grades for the compositing routine as these un-assayed intervals in the drill holes were assumed to be waste.
	• Assessment of the raw assay interval lengths and raw gold assay values were completed in order to determine the most appropriate length for compositing of the samples. The most common sample length is 1.0m and covers the range of the Au grades. Therefore, 1m composes were used as the source data for the gold grade estimates.
	<ul> <li>All domain composites included coding by weathering for oxide/transition versus fresh material. Statistical analysis of grade distribution for the well-informed domains by weathering was conducted, mainly to assess if further sub-domaining was required (e.g., evidence of supergene enrichment). No consistent variability in the sub-domaining by weathering was noted across the zones.</li> <li>Treatment of Extreme Grades:</li> </ul>
	• Gold grade distributions within the estimation domains were assessed to determine if high grade cuts or distance limiting should be applied. Distance limiting thresholds and the effects of grade capping were reviewed and applied on a domain basis where it was deemed appropriate – extreme high-grade outliers, high grade clustering, high coefficient of variation (CV).
	<ul> <li>Grade Interpolation and Search Parameters:</li> <li>The mineralised domain wireframes were used to code the block model and the volume between the wireframe models and the coded block model were checked in order</li> </ul>
	to ensure that the sub-blocking size are appropriate for the interpreted domains.
	• Estimation was carried out on capped and uncapped gold grade. Hard domain boundaries were used between the mineralised domains, meaning only composites within the domain are used to estimate inside that domain. The variogram orientations were used as the orientation of the search ellipse.
	Gold values were estimated in 2 passes – 1st pass using optimum search distances for each domain (mostly 150 m) as determined through the KNA process, 2nd pass set



Criteria	Commentary
	<ul> <li>at longer distances in order to populate all blocks (2nd = max 300 m).</li> <li>A waste domain boundary encompassing the mineralisation domains and within the limits of the drilling and host units was modelled for each deposit and included in the grade estimation runs. This allowed for any isolated zones and any mineralised haloes proximal to the hard boundary mineralised blocks to be estimated for estimation of dilution within pit optimisation limits.</li> <li>Interpolation parameters were set to a minimum number of 6 or 8 composites and a maximum number of 16 or 20 composites for the estimate. A maximum of 5 samples</li> </ul>
	<ul> <li><i>LUC estimation:</i></li> <li>The initial step in a LUC estimation is undertaken using the OK method to estimate into relatively large Panels (10mE x 10mN x 10mRL) and therefore can be considered as being (diluted) as the Panels are estimated using all data within a bread minoralized envelope incorrecting sub-grade and waste material.</li> </ul>
	<ul> <li>A Change of Support (CoS) correction is then applied to the large, diluted panels in order to predict the likely grade-tonnage distribution at single mining unit (SMU) of 5mE x 5mN x 5mRL selectivity within each Panel.</li> </ul>
	<ul> <li>A further CoS correction was applied called the Information Effect - a theoretical 'penalty' adjustment to the SMU grade-tonnage distribution to account for the anticipated misclassification when making mining selectivity decisions based on future grade control spaced data.</li> <li>Software Used:</li> </ul>
	<ul> <li>Leapfrog Geo – Database validation, mineralisation zone economic compositing at lower grade cut-offs, mineralisation trends</li> <li>Surpac v6.9.0 – Drillhole validation, weathering surface DTMs, final mineralisation interpretation and wireframe modelling and minor zones OK estimation</li> </ul>
	<ul> <li>Supervisor v8.13 – geostatistics, variography, KNA analysis.</li> <li>Isatis software– primary grade estimation for LUC/OK for major domains</li> <li>Check Estimates: This estimate used ID2 estimation as a check estimate against the OK estimation, with no significant variations in global estimate results for the well-</li> </ul>
	informed mineralisation domains for each zone. <b>Previous Estimates:</b> A previous MRE was completed by RPM in 2014 Variances between the 2020 Mineral Resource and 2014 MRE have been attributed to the following:
	<ul> <li>Significant updates of all mineralisation interpretations and domain modelling based on the new drilling and also interpretation criteria adjustments (e.g., removal of very narrow, high grade internal sub-domaining)</li> </ul>
	<ul> <li>Estimation methodology – use LUC estimate for major mineralisation domains for the East Zone and Central Zone</li> <li>Previous Mining Records: There has been no previous mining activity at the Glenburgh Gold Project and so there are no historical production records.</li> <li>No recovery of by-products is anticipated.</li> </ul>
	<ul> <li>Only gold was interpolated into the block model. There are no known deleterious elements within the deposits, with previous metallurgical test work having recorded +95% recoveries.</li> <li>The parent block dimensions used in the 3 block models were:</li> </ul>



Criteria	Commentary
	o <b>East Zone Model</b> : 5 m E by 2.5 m N by 2.5 m RL, with sub-cells of 2.5 m by 1.25 m by 1.25 m.
	• Central Zone Model: 5 m E by 2.5 m N by 2.5 m RL, with sub-cells of 2.5 m by 1.25 m by 1.25 m.
	<ul> <li>West Zone Model: 12.5 m E by 5 m N by 5 m RL, with sub-cells of 6.25 m by 1.25 m by 2.5 m</li> </ul>
	• For the block model definition parameters, the primary block size and sub-blocking deemed appropriate for the mineralisation and to provide adequate volume definition
	where there are narrow zones or terminations, or disrupted zones due to contacts or surface boundaries.
	• The parent block size was selected on the basis one eighth of the maximum drill spacing of 25m E by 25m N in Inferred areas, and one quarter of the minimum drill spacing
	of 25m E by 25m N" in Indicated areas.
	• For LUC estimation, selective mining unit size of 5 m x 5 m x 5 m was used for the panel estimation.
	Only gold assay data was available, therefore correlation analysis was not possible
	• The mineralisation domain interpretation was used at all stages to control the estimation. Overall, the mineralisation was constrained by wireframes constructed using a
	nominal 0.3g/t Au cut-off grade lower threshold within a broad high-grade metamorphic gneiss host rock.
	• Statistical analysis was carried out for all domains. This involved a combination of top-cut analysis tools (grade histograms, log probability plots and coefficient of variation
	(CV)), and spatial analysis. The high CV and the presence of extreme grade values observed on the histogram for some of the domains suggested that high grade cuts were required for subsequent geostatistical analysis. The remaining domains were left uncut.
	• Top cuts were applied on a domain basis by application of grade capping for a domain composite data or using a grade distance threshold option in the interpolation module in Surpac.
	• The influence of extreme grade values was reduced by applying a grade-distance threshold limit for the estimation domains containing high grade outliers. Outside a distance of 25m diameter (nominal drill spacing distance), a top cut was applied to the estimation domains.
	Grade capping values and effects are summarised as follows:
	• <i>East Zone Model</i> – range of top cut values = 5g/t to 45g/t (total of 25 samples cut); Overall reduction: Au mean = -18%, CV = -23%; Metal loss based on composite mean and ratio of samples = -18%.
	• <b>Central Zone Model:</b> – range of top cut values = 3g/t to 20g/t (total of 35 samples cut); Overall reduction: Au mean = -10%, CV = -27%; Metal loss based on composite mean and ratio of samples = -7.2%.
	• West Zone Model: – range of top cut values = 10g/t to 20g/t (total of 21 samples cut); Overall reduction: Au mean = -14%, CV = -23%; Metal loss based on composite
	mean and ratio of samples = -6%.
	Block model validation was conducted by the following means:
	• Visual inspection of block model estimation in relation to raw drill data on a section-by-section basis.
	<ul> <li>Volumetric comparison of the wireframe/solid volume to that of the block model volume for each domain.</li> </ul>
	• A global statistical comparison of input and block grades, and local composite grade (by Easting and RL) relationship plots (swath plots), to the block model estimated grade for each domain.



Criteria	Commentary
	Comparison of the cut grade drill hole composites with the block model grades for each lode domain in 3D.
	<ul> <li>Comparison with check estimates (ID2, OK) and with previous estimation (with 2014 MRE – global comparison by deposits)</li> </ul>
	• There have been no previous mining operations at Glenburgh and therefore no in-mine reconciliation analysis was able to be completed.
Moisture	Density and tonnage was estimated on a dry in situ basis.
Cut-off	• For Open Pit areas a Cut-off grade of 0.25 g/t Au was applied to all material within mineral resource defined specific open optimisation pit shells. For underground a cut-
parameters	off grade of 2 g/t Au was applied to stope mining shapes.
Mining factors	For Open pit areas Optimisation pit shells were generated in Deswik Pseudoflow based on:
or assumptions	<ul> <li>Gold Price assumption of AUD\$2,800/Oz</li> </ul>
· · · · · · · · · · · · · · · · · · ·	<ul> <li>GCY Dalgaranga cost experience for Mining, Processing and Administration as at 2020/2021</li> </ul>
	<ul> <li>-Wall angles of 50 degrees in fresh material.</li> </ul>
	<ul> <li>GCY Dalgaranga experience of 95% for LUC modelling gold metal recovery</li> </ul>
	<ul> <li>Glenburgh metallurgical test work defined process recoveries of 92.1 to 96.2%</li> </ul>
	• For Underground areas – mining stope shapes were generated based on 3m minimum mining width in all potential mining areas and a filtering cut-off grade then being
	applied to all shape.
Metalluraical	Metallurgical factors and assumption are based on Glenburgh metallurgical test work and process plant design criteria from 2014 preliminary studies.
factors or	<ul> <li>Metallurgical test work was carried out on samples from Zone 102, Zone 126, Icon, and Apollo deposits.</li> </ul>
assumptions	• This test work indicated significant gravity recoverable gold (~50%) was evident in the tested ore samples. Total gold recoveries of >95% were achieved with cyanidation
	leaching at grind sizes <75µm for all the deposits.
	• It is assumed that extraction of gold will be achieved by gravity and cyanide leaching methods, with recoveries of approximately 95% based on these results.
Environmental	• The Glenburgh Project already has an approved mining proposal and mine closure plan with the Department of Mines, Industry Regulation and Safety summarising the
factors or	environmental aspects with no major risks identified.
assumptions	Based on these preliminary studies, the Competent Person assumes there are no known environmental factors that would prevent development.



Criteria	Commentary
Bulk density	<ul> <li>Bulk densities of 2.50 t/m3 for oxide, 2.55t/m3 for transitional, 2.79t/m3 for fresh waste and 2.82t/m3 for fresh mineralisation have been assumed in all models. These densities were determined after averaging the bulk density measurements obtained from core and from metallurgical test work, and bulk density test work taken from geotechnical test pits over the deposits.</li> <li>Bulk density is measured. Moisture is accounted for in the measuring process and measurements were separated for lithology and mineralisation. It is assumed there are no void spaces in the rocks at Glenburgh as the rock observed in drill core is fresh and competent.</li> <li>It is assumed that the bulk density will have little variation within the separate material types across the breadth of the project area. Therefore, a single value applied to each material type is considered acceptable.</li> </ul>
Classification	<ul> <li>The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The resource was classified as Indicated, and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity.</li> <li>The Indicated Mineral Resource was defined within areas of close spaced diamond and RC drilling of less than 25m by 25m, and where the continuity and predictability of the lode positions was good.</li> <li>The Inferred Mineral Resource was assigned to areas of the deposit where drill hole spacing was greater than 25m by 25m and where small, isolated pods of mineralisation occur outside the main mineralised trends.</li> <li>The resource classification is based on the quality of information for the drill types (more recent RC and DD), geological domaining, as well as the drill spacing and geostatistical measures to provide confidence in the tonnage and grade estimates</li> <li>The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains.</li> <li>Validation of the block model shows good correlation of the input data to the estimated grades.</li> <li>The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.</li> </ul>
Audits or reviews	<ul> <li>The 2014 MRE was reviewed by Cube in 2020 with the main recommendations noted as follows:         <ul> <li>Amendments recommended to domain interpretations specifically where sub-mining width high grade domains the inside low grade domain haloes occur – produce more robust mineralisation domain shapes appropriate for open pit mining methods</li> <li>Recommend LUC estimation method which is considered an appropriate method for the estimation of local recoverable resources appropriate for open pit mining SMU.</li> <li>Re-assess the criteria for Resource classification for future MRE; recommendation to remove Measured category due to data spacing; conversion of Inferred resources to Indicated based on infill drilling programs completed since the 2014 MRE, and increased confidence in the geological and grade continuity as a result of diamond drill core.</li> </ul> </li> <li>The current estimation domaining, MRE parameters, classification and reporting have all been internally peer reviewed by qualified professionals at Cube.</li> </ul>



Criteria	Commentary
Discussion of relative accuracy/ confidence	• The addition of recent infill RC and DD drill data has provided further enhancement to the accuracy and confidence in the MRE for the three zones at Glenburgh. This information has increased the knowledge of the geological continuity on mineralisation which has been used to develop the current MRE. The addition of the LUC estimation provides a better estimate of local grade estimate for open pit mining evaluation over OK estimation and is also a robust estimate for a broad bulk mineralised zone within which local variability in grade will be high.
	• Outside of the main deposits within Icon, Apollo, Zone 126 and Zone 102, local variations can be expected within the interpreted mineralised domains where drilling to date is more broadly spaced. The use of OK has assisted in reducing the risk associated with any high nugget observed in the gold distribution.
	• The deposit geometry and continuity has been adequately interpreted to reflect the applied level for Indicated and Inferred Mineral Resources. The data quality is good, and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses.
	<ul> <li>Confidence in the MRE is such that it will provide adequate accuracy for global resource evaluation and for more detailed evaluation at a large scale for open pit mining, and further evaluation of UG resources at Zone 126.</li> <li>There is no historical mining or production from the project as a result no resourciliation connect to completed for the project.</li> </ul>
	<ul> <li>There is no historical mining or production from the project, as a result no reconciliation cannot be completed for the project.</li> </ul>



### JORC Code, 2012 Edition – Table 1 Section 1 Sampling Techniques and Data

## Egerton Project - Hibernian Gold Deposit

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul> <li>The project has been drilled using Rotary Air Blast (RAB), Air Core (AC), Reverse Circulation (RC) and Diamond drilling over numerous campaigns by several companies and currently by Gascoyne Resources Ltd. The majority of holes are on a grid either infilling or extending known prospects. The majority of drill holes have a dip of -60° but the azimuth varies. The azimuth varied between prospects.</li> <li>Sample procedures followed by historic operators are assumed to be in line with industry standards at the time. Current QAQC protocols include the analysis of field duplicates and the insertion of appropriate commercial standards.</li> <li>RC drilling was used to obtain 1m samples from which a 4m composite sample of approximately 3 – 5 kg was also collected. The samples were shipped to a laboratory for analysis via a 25g Aqua Regia digest with reading via a mass spectrometer. Where anomalous results were expected, single metre samples of approximately 3 – 5 kg were collected and also shipped to the laboratory for analysis via a 50g Fire Assay.</li> </ul>
Drilling techniques	• RC drilling used a nominal 5 ½ inch diameter face sampling hammer.
Drill sample recovery	<ul> <li>RC sample recovery is visually assessed and recorded where significantly reduced. Very little sample loss has been noted.</li> <li>RC samples were visually checked for recovery, moisture and contamination. A cyclone and splitter were used to provide a uniform sample and these were routinely cleaned. 4m composites were speared to obtain the most representative sample possible.</li> <li>Sample recoveries are generally high. No significant sample loss has been recorded with a corresponding increase in Au present. No sample bias is anticipated, and no preferential loss/gain of grade material has been noted.</li> </ul>



Criteria	Commentary
Logging	<ul> <li>Detailed logging exists for most historic holes in the data base. Current RC chips are geologically logged at 1 metre intervals. RC chip trays have been stored for future reference.</li> <li>RC chip logging included the recording of lithology, oxidation state, colour, alteration and veining.</li> <li>All current drill holes are logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>No diamond drilling has been completed by Gascoyne Resources on the tenement. Previous companies have conducted diamond drilling; it is unclear whether ½ core or ¼ core was taken.</li> <li>RC chips were collected as 1m samples. 2 and 4m composites using a sample scoop were taken from the 1m RC sample piles. Samples were generally dry. 1m RC samples are also speared.</li> <li>4m composite samples were collected from RC drill holes. Where anomalous results were expected, the single metre speared samples were collected for subsequent analysis.</li> <li>A sample size of between 3 and 5 kg was collected. This size is considered appropriate and representative of the material being sampled given the width and continuity of the intersections, and the grain size of the material being collected.</li> <li>RC samples are dried. If the sample weight is greater than 3kg, the sample is riffle split. It is then pulverised to a grind size where 85% of the sample passes 75 microns.</li> <li>Field QAQC procedures included the insertion of 4% certified reference 'standards' and 2% field duplicates for RC drilling.</li> <li>Field duplicates were collected during RC drilling. Further sampling (lab umpire assays) will be conducted if it is considered necessary.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>Field QAQC procedures include the insertion of both field duplicates and certified reference 'standards'. Assay results have been satisfactory and demonstrate an acceptable level of accuracy and precision. Laboratory QAQC involves the use of internal certified reference standards, blanks, splits and replicates. Analysis of these results also demonstrates an acceptable level of precision and accuracy.</li> <li>All 1m and composite RC samples were analysed using a 25g aqua regia digest with an MS finish which is an industry standard for gold analysis. Aqua regia can digest many different mineral types including most oxides, sulphides and carbonates but will not totally digest refractory or silicate minerals. Single m samples have been analysed using a 50g fire assay technique with an AAS finish.</li> </ul>
Verification of sampling and assaying	<ul> <li>At least 2 company personnel verify all intersections in drill chips.</li> <li>No twinned holes have been drilled to date by Gascoyne Resources.</li> <li>Field data is collected using Field Marshal Software on tablet computers. The data is Gascoyne's Data base Administrator for validation and compilation into an SQL database server.</li> <li>No adjustments have been made to assay data apart from values below the detection limit which are assigned a value of negative the detection limit.</li> </ul>



Criteria	Commentary
Location of data points	<ul> <li>At this stage drill collars have been surveyed by handheld GPS to an accuracy of about 3m. The RC drill holes will be picked up by DGPS in the future.</li> <li>The grid system is MGA_GDA94 Zone 50.</li> <li>The topographic surface has been set at a nominal value at this stage. It is considered to be of sufficient quality to be valid for this stage of exploration.</li> <li>In the case of Hibernian most holes were surveyed by DGPS</li> </ul>
Data spacing and distribution	<ul> <li>Drill spacing ranged from10m x 10m to 20m x 20m within shallow sections of each deposit, increasing to 40m x 40m and 80m x 80m at horizontal extents and at depth.</li> <li>The mineralised domains have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Drilling sections are orientated perpendicular to the strike of the mineralised host rocks at Mt Egerton. This varies between prospects and consequently the azimuth of the drill holes also varies to reflect this. The drilling is angled at -60° which is close to perpendicular to the dip of the stratigraphy.</li> <li>No orientation-based sampling bias has been identified in the data at this point.</li> </ul>
Sample security	• Chain of custody is managed by Gascoyne Resources. Samples are delivered directly by Gascoyne Resources personnel to the assay laboratory in Perth.
Audits or reviews	<ul> <li>Data is validated by Gascoyne's in house Database Administrator whilst loading into a SQL database. Any errors within the data are returned to the supervising geologist for validation. Historical data validation is an ongoing process.</li> </ul>


## Section 2 Reporting of Exploration Results

## Egerton Project - Hibernian Gold Deposit

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>The Mt Egerton project is situated on tenement numbers E52/2117, E52/2515, E52/3574, M52/343 and M52/567. The tenements are owned 100% by Egerton Exploration Pty Ltd a wholly owned subsidiary of Gascoyne Resources Limited ("Gascoyne" or "GCY" or "Company"). The Hibernian deposit lies on M52/343. Gascoyne is the operator of the tenement package.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	• The tenement area has been previously explored by numerous companies including Offshore Exploration, Egerton Gold NL, North Gascoyne Mining and Externa Resources Ltd.
Geology	<ul> <li>The stratigraphy of the Mt Egerton tenements are predominantly quartz-muscovite schist and phyllite of the Gascoyne Complex with mudstone, siltstone chert and dolomite. The majority of the mineralization occurs in shear-hosted mesothermal quartz-pyrite veins. It is concentrated at lithological contacts within the shear zones.</li> <li>The historical underground Hibernian Gold Mine consists of gold lodes in a northern zone and a southern zone. The gold is associated with quartz veins and pyrite enriched rock recorded in the old development drives.</li> <li>Within the northern zone the gold lodes appear to be parallel to the steep, northerly dipping shear planes, whereas in the southern zone it has been recognised, that the gold lodes are folded, then boudinaged and aligned parallel to the superimposed shear structures.</li> <li>In summary, mineralisation continuity between shallowly plunging quartz shoots is good at very low grades but is poor at high-grades and appears to be associated with thin veins and faults within the broad shear zone</li> <li>Previous geological interpretations (Holmes, 2005) were based on the notion that the mineralisation is constrained to shear hosted, quartz-pyrite-carbonate veins and vein selvedges within a predominantly mafic host-rock. At Hibernian, the steeply dipping shear zone is up to 70 m wide and comprises several discrete shears which anastomose about common trends of 270-290°. Multiple phases of deformation have occurred, and several orientations of quartz veins have been identified. High-grade gold mineralisation is best developed along shallowly plunging quartz shoots. Vein geometry and grades of the shallowly plunging shoots are supported by underground geological mapping and mining.</li> <li>The best developed shoot is defined over 100m strike length however typical strike length is around 20m. Mineralisation continuity between shallowly plunging quartz shoots is good at very low grades. and poor at high-grades and appears to be associated with thin veins and f</li></ul>



Criteria	Commentary
Drill hole Information	<ul> <li>It is not practical to summarise all of the holes here in this release.</li> <li>Exclusion of the drill information will not detract from the understanding of the report.</li> </ul>
Data aggregation methods	<ul> <li>Not applicable as a Mineral Resource is being reported.</li> <li>Metal equivalent values have not been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The mineralised zones at Mt Egerton vary in strike between prospects, but all are steeply dipping. Drill hole orientation reflects the change in strike of the rocks and consequently the downhole intersections quoted are believed to approximate true width.</li> </ul>







Criteria	Commentary
Other substantive exploration data	• No other significant exploration work had been completed by Gascoyne Resources.
Further work	<ul> <li>Mt Egerton project will continue to be drilled to extend the known mineralisation at Gaffney's Find and Hibernian deposit to delineate further mineralisation and potential resources at other prospects.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources

## Egerton Project - Hibernian Gold Deposit

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria
Database integrity



Criteria	Commentary
	that the database contained no obvious errors and was easily imported for analysis (Baxter, 2004). Review of QAQC data reported that no material bias has been introduced during the collection and analysis of sub-samples. There also appears to be sufficient correlation with the 1993-95 drilling assay data to conclude that there are no significant errors introduced by merging with the more recent drilling the data set (2004-05).
Site visits	• Monty Graham (Senior Exploration Geologist for GCY) is the CP for Sections 1 and 2 of Table 1 and has conducted regular site visits and is responsible for all aspects of the project.
	Brian Fitzpatrick (Principal Geologist at Cube) who is the CP for Section 3 of Table 1, has not undertaken a site visit to date.
	• The CP has relied upon information provided by Gascoyne staff, and data room documentation sourced from Gascoyne and WAMEX files.
Geological interpretation	• The confidence in the geological interpretation of the mineral deposit is good as a result of the close, optimally spaced RC drilling confirming the location and tenor of mineralisation previously intersected by historical drilling, and by surface exploration, and historical underground (UG) mining activities.
merpretation	• Data is sourced from the historical drill logging and RC chip logging/ DD core logging, and registered mapping information from the old UG workings provided by Gascoyne. Interpreted projections for structures and local mineralisation trends were made between drill sections and extending along strike and down dip based on a drill spacing of 10 m x 10 m.
	• The logging and mining information has been used to inform the mineralisation domains used for the estimation.
	• Weathering surfaces were interpreted for oxide, transitional and primary weathering boundaries from available logging data. This data allowed the density values for the mineral resource estimate to be sub-divided by weathering domains.
	• The RC and DD drilling to date mainly comprises angled holes which tested for shear parallel sheet veins rather than for shallow plunging shoots. Due to this (vector) data gap, it was extremely difficult to construct continuous wire frames that reflected the individual high-grade quartz veins and therefore the estimation was undertaken unconstrained within the broadly defined shear zone.
	• As a result of the findings from previous work, the extent and projection of high-grade mineralisation has been considered in the 2021 mineralisation domain modelling. Mineralisation interpretations have been tightly domained with projections limited to half drill spacing past the last drilling information.
	• Drillhole geology logging information containing lithology codes, weathering, quartz vein percentages, sulphide content and general lithological descriptions were used to assist and guide geology and mineralisation interpretations informing the estimate.
	<ul> <li>Surface geology mapping provide exposure to some of the deposit rock types, structures and styles of mineralisation.</li> </ul>
	• UG backs mapping of development and rises was registered by Gascoyne and provided for interpretation and 3DM wireframing of mineralisation domains.
	• Geological and mineralisation interpretations in plan and cross sections have been followed up with 3D wireframe models based on analysis of all the historical and recent information collated.
	• The bulk of the mineralisation has been constrained within two distinct mineralised shear zones either 270° or 290° local grid. High grade shoots within the mineralisation plunge at 10° W
	Discontinuous linking shears within the main shear zones may contain high grade mineralisation.



Criteria	Commentary
	<ul> <li>Mineralisation is continuous for up to 350m (Northern shear zone) along strike, and approximately 25m parallel to the high-grade lunging shoots.</li> <li>Gold mineralisation are restricted parallel to the shear orientations, with vertical truncations or terminations interpretated as structure offsets (faults) or complex folding or plunging shoots.</li> </ul>
Dimensions	<ul> <li>The resource area extends over a strike length of 1,200 m (from 9,700 mE – 10,900 mE, local grid)</li> <li>Mineralisation domains has been defined over a strike extent up to 350 m and a vertical depth extent currently defined at ~80 m (450 mRL to 380 mRL).</li> <li>14 mineralisation domains have been modelled for the 2021 MRE, with 11 domains modelled in central or main Hibernian deposit (northern and southern zones). New interpretations have included a significant west extension (2 domains over 250m strike length), and minor zones to the east and west.</li> </ul>
Estimation and modelling techniques	<ul> <li>One block model was constructed to enable efficient gold estimation of all mineralisation domains         <i>Estimation Methods:</i> <ul> <li>Ordinary Kriging (OK) and Inverse distance to the power of 2 (ID2) were the estimation methods used for the January 2021 MRE. The data is informed by good quality             drilling on regular drill spacing – 10 m x 10 m for the central area, broadening out to 4 0mE x 20 mN to the east and west. Maximum extrapolation of wireframes from             drilling was 20m along strike or 10m down-dip. Maximum extrapolation was generally half drill hole spacing.             <i>Domaining and Compositing:</i> </li> <li>Drill hole sample data was flagged using domain codes generated from 3D mineralisation domains. Sample data was composited over the full downhole interval.             Intervals with no assays were assigned background grades for the compositing routine as these un-assayed intervals in the drill holes were assumed to be waste.</li> <li>Assessment of the raw assay interval lengths and raw gold assay values were completed in order to determine the most appropriate length for compositing of the         samples. The most common sample length is 1.0 m and covers the range of the Au grades. Therefore, 1 m composes were used as the source data for the gold grade         estimates.</li> <li>All domain composites included coding by weathering for oxide/transition versus fresh material. Statistical analysis of grade distribution for the well-informed domains         by weathering was noted across the zones.         <i>Treatment of Extreme Grades:</i> <ul> <li>Gold grade distributions within the estimation domains were assessed to determine if high grade cuts or distance limiting should be applied. Distance limiting thresholds         and the effects of grade capping were reviewed and applied on a domain basis where it was deemed appropriate i.e., for extreme high-grade outliers, high grade         clustering</li></ul></li></ul></li></ul>



Criteria	Commentary
	Grade Interpolation and Search Parameters:
	• The mineralised domain wireframes were used to code the block model and the volume between the wireframe models and the coded block model were checked in
	order to ensure that the sub-blocking size are appropriate for the interpreted domains.
	• Estimation was carried out on capped and uncapped gold grade. Hard domain boundaries were used between the mineralised domains, meaning only composites within
	the domain are used to estimate inside that domain. The variogram orientations were used as the orientation of the search ellipse.
	The variogram and search parameters for well-informed were used to represent the poorly informed domains.
	• Gold was estimated in two passes – first pass using optimum search distances for each domain (mostly 25/50 m) as determined through the KNA process, second pass
	set at longer distances in order to populate all blocks (2nd = max 50/100 m).
	• A waste domain boundary encompassing the mineralisation domains and within the limits of the drilling and host units was modelled for each deposit and included in
	the grade estimation runs. This allowed for any isolated zones and any mineralised haloes proximal to the hard boundary mineralised blocks to be estimated for
	estimation of dilution within pit optimisation limits.
	<ul> <li>Interpolation parameters were set to a minimum number of 6 composites and a maximum number of 14 composites for the estimate. A maximum of 6 samples per hole was used.</li> </ul>
	Software Used:
	Leapfrog Geo – Database validation, mineralisation zone economic compositing at lower grade cut-offs, mineralisation trends
	• Surpac v6.9.0 – Drillhole validation, weathering surface DTMs, final mineralisation interpretation and wireframe modelling and minor zones OK estimation
	• Supervisor v8.13 – geostatistics, variography, KNA analysis.
	Check Estimates:
	• This estimate used ID2 estimation as a check estimate against the OK estimation, with no significant variations in global estimate results for the well-informed mineralisation domains for each zone
	<ul> <li>Previous Estimates: previous MREs were completed by Continental Resource Management in 2004 (Rayter, 2004) and representative of CSA in 2005 (Holmes, 2005)</li> </ul>
	<ul> <li>Changes between the 2021 Minoral Resource and providus MPE results have been attributed to the following:</li> </ul>
	Changes between the 2021 Mineral Resource and previous MRE results have been attributed to the following.
	<ul> <li>New resource includes additional lower grade mineralisation tiend west of the main indefinition indefinition.</li> <li>Miner changes to mineralisation demain boundaries. Lower grade threshold applied to some demains for wireframe continuity and consideration of provailing gold.</li> </ul>
	<ul> <li>Minor changes to mineralisation domain boundaries - Lower grade threshold applied to some domains for when any consideration of prevaling gold price</li> </ul>
	Lower grade capping was applied for the May 2021 MRE compared with previous estimates.
	No measured resources have been classified for the January 2021 MRE compared with previous estimates.
	January 2021 MRE is reported at a lower COG than previous estimates.
	No recovery of by-products is anticipated.
	Only gold was interpolated into the block model.



Criteria	Commentary
	There was no multi-element assay data provided in order to ascertain any effects of potential deleterious elements.
	The parent block dimensions used in the block model were:
	• 5 m E by 2.5 m N by 5 m RL, with sub-cells of 2.5 m by 1.25 m by 2.5 m.
	• The parent block size was selected on the basis one half/one quarter of the minimum drill spacing of 10/20 m E by 10 m N in Indicated areas and one quarter of the maximum drill spacing of 40 m E by 20 m N in Inferred areas.
	• For the block model definition parameters, the primary block size and sub-blocking deemed appropriate for the mineralisation and to provide adequate volume
	definition where there are narrow zones or terminations, or disrupted zones due to contacts or surface boundaries.
	• The block model definition parameters included a primary block size and sub-blocking deemed appropriate for the mineralisation and to provide adequate volume
	definition where there are narrow or complex zones modelled. These dimensions are suitable for block estimation and modelling the selectivity for an open pit operation.
	<ul> <li>Only gold assay data was available; therefore correlation analysis was not possible.</li> </ul>
	• The mineralisation domain interpretation was used at all stages to control the estimation. Overall, the mineralisation was constrained by wireframes constructed using a
	nominal 0.3 g/t Au cut-off grade lower threshold within shear-hosted, quartz-pyrite-carbonate veins and vein selvedges within a predominantly mafic host-rock.
	• Statistical analysis was carried out for all domains. This involved a combination of grade capping analysis tools (grade histograms, log probability plots and coefficient of
	variation (CV)), and spatial analysis. The high CV and the presence of extreme grade values observed on the histogram for some of the domains suggested that high grade cuts were required for subsequent geostatistical analysis. The remaining domains were left uncut.
	• Top cuts were applied on a domain basis by application of grade capping for a domain composite data or using a grade distance threshold option in the interpolation
	module in Surpac.
	• The influence of extreme grade values was reduced by applying a grade-distance threshold limit for the estimation domains containing high grade outliers. Outside a
	distance of 10 m diameter (nominal drill spacing distance), a top cut was applied to the estimation domains.
	Grade capping values and effects are summarised as follows:
	<ul> <li>range of top cut values = 10 g/t to 150 g/t (total of 21 samples cut)</li> </ul>
	<ul> <li>Metal loss based on composite mean and ratio of samples = -17%.</li> </ul>
	Block model validation was conducted by the following means:
	Visual inspection of block model estimation in relation to raw drill data on a section-by-section basis.
	<ul> <li>Volumetric comparison of the wireframe/solid volume to that of the block model volume for each domain.</li> </ul>
	• A global statistical comparison of input and block grades, and local composite grade (by Easting and RL) relationship plots (swath plots), to the block model estimated
	grade for each domain.
	Comparison of the cut grade drill hole composites with the block model grades for each lode domain in 3D.
	Comparison with check estimates (ID2)
	• No significant validation issues were noted from the model validation process. During interpolation runs, adjustments were made to search parameters to improve local



Criteria	Commentary
	<ul> <li>and semi-local representation of grades where possible.</li> <li>Historical UG mining operations have taken place at Hibernia to a maximum depth of 44m (Dahl, 1998).</li> <li>Previously recorded gold production for the Hibernian area during the period 1912 to 1953 includes 7,242 tonnes of rock crushed for the recovery of 218.9kg of gold at an average grade of 30.2 g/t Au (Gascoyne, 2013).</li> </ul>
Moisture	Density and tonnage was estimated on a dry in situ basis.
Cut-off parameters	• For Open Pit areas a Cut-off grade of 0.7 g/t Au was applied to all material within mineral resource defined by specific open optimisation pit shells.
Mining factors or assumptions	<ul> <li>For Open pit areas Optimisation pit shells were generated in Deswik Pseudoflow based on:</li> <li>Gold Price assumption of A\$ 2800/oz</li> <li>Gascoyne Dalgaranga cost experience for Mining, Processing and Administration during 2020/2021</li> </ul>
Metallurgical factors or assumptions	• Metallurgical factors and assumption are based on Glenburgh metallurgical test work and process plant design criteria from 2014 preliminary studies.
Environmental factors or assumptions	• Only preliminary environmental work has been carried out to date with no inhibiting risks identified to date for Mineral Resource reporting.
Bulk density	<ul> <li>Bulk densities (BD) are assumed based on a previously reported BD assignments collated with BD samples and measurements. The assigned values are dry BD values and are based on the assigned BDs used for the 2005 resource work (Holmes, 2005).</li> <li>Holmes (2005) reported that density measurements were taken on numerous mineralised samples of drill core and the data were analysed by AMMTEC.</li> <li>No descriptions of the BD methodology have been located for the AMMTEC determinations.</li> <li>For the 2021 MRE, Cube assigned BD values for laterite, oxide and transitional material for both ore and waste. Fresh material is based in the assigned BD used in 2005:</li> <li>Laterite - 2.0; Oxide - 2.2; Transitional - 2.4; Fresh - 2.65, Voids - 0.0</li> <li>It is assumed that the bulk density will have little variation within the separate material types across the breadth of the project area. Therefore, a single value applied to each material type is considered acceptable.</li> </ul>



Criteria	Commentary
Classification	<ul> <li>The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The resource was classified as Indicated, and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity.</li> <li>The Indicated Mineral Resource was defined within areas of close spaced diamond and RC drilling of less than 20 m by 20 m, and where the continuity and predictability of the lode positions was good.</li> <li>The Inferred Mineral Resource was assigned to areas of the deposit where drill hole spacing was greater than 20 m by 20 m and where small, isolated pods of mineralisation occur outside the main mineralised trends.</li> <li>The resource classification is based on the quality of information for the drill types (recent RC and DD), geological domaining, as well as the drill spacing and geostatistical measures to provide confidence in the tonnage and grade estimates</li> <li>The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains.</li> <li>Validation of the block model shows good correlation of the input data to the estimated grades.</li> <li>Open hole percussion holes (RAB) were excluded from the estimation and data spacing when determining relative confidence for classification.</li> <li>The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit.</li> </ul>
Audits or reviews	• The current estimation domaining, MRE parameters, classification and reporting have all been internally peer reviewed by qualified professionals at Cube Consulting.
Discussion of relative accuracy/ confidence	<ul> <li>The Hibernian 2021 MRE is made up predominantly of moderately thick to narrow, very continuous mineralised gold zones hosted within sheared alteration zones containing high grade quartz veining.</li> <li>The close density of drilling supports the classification of 93% of the Mineral Resource to be classified as Indicated (by contained metal).</li> <li>The deposit geometry and continuity has been adequately interpreted to reflect the applied level for Indicated and Inferred Mineral Resources. The data quality is good, and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses.</li> <li>The current modelled MRE is a reasonable representation of the global contained metal but not a local estimation.</li> <li>Confidence in the 2021 MRE is such that it will provide adequate accuracy for global resource evaluation for selective open pit mining.</li> <li>Previously recorded gold production for the Hibernian area during the period 1912 to 1953 includes 7,242 tonnes of rock crushed for the recovery of 218.9kg of gold at an average grade of 30.2 g/t Au (Gascoyne, 2013).</li> <li>The historical mining figures indicate the presence of very high-grade quartz vein hosted mineralisation also logged and sampled by more recent drilling. The historical UG stoped out areas have null grade values in the database, therefore, the reconciled depleted grade and ounces from the MRE will be under-estimated compared with actual mined figures and actual grade comparisons are not able to be completed with accuracy. The mined volumes have been depleted by 3DM voids supplied by Gascoyne, representing the UG shaft locations, ore and access drives, and stoped out areas.</li> </ul>