ASX RELEASE

23 October 2017

ANNUAL MINERAL RESOURCE AND ORE RESERVE STATEMENT

Independence Group NL (ASX code: IGO) is pleased to provide this annual report of IGO's Mineral Resources and Ore Reserves estimates as at 30 June 2017.

Highlights

- At 30 June 2017, IGO's total Mineral Resources from all operations and projects, contained combined estimated metal contents of 325kt Ni, 455kt Cu, 9kt Co, 963kt Zn, and 2.8Moz Au. These estimates are inclusive of Ore Reserves.
- IGO's total Ore Reserves contained combined estimated metal contents of 280kt Ni, 315kt Cu, 9kt Co, 568kt Zn and 1.4Moz Au.
- Since 30 June 2016, the contained gold estimated in the Ore Reserves at Tropicana Gold Mine have increased by 1.15Moz[1], due to the completion of the framework resource definition program, and progression of the Long Island Study, which incorporates strip mining and in-pit dumping of waste to reduce mining costs.
- The Mineral Resources and Ore Reserves at Jaguar Operation have increased by 2.8Mt and 1.0Mt respectively, due to the reporting of a first Mineral Resource for the Triumph deposit and extension of mineralisation at the Bentley mine.
- The Nova Operation Interim Mineral Resource reported in July 2017, which incorporated close spaced grade control drilling of nearly all the Nova deposit, resulted in an improved resource confidence with most of the Nova deposit now classified as Measured Mineral Resource, and a resource tonnage reduction of approximately 2.9Mt. Grade control drilling of the Bollinger deposit is expected to be completed in FY18.

Commenting on the update IGO's, Managing Director and CEO, Peter Bradford, said:

"We have made good progress with our brownfields exploration programs at both Jaguar and Tropicana in FY17 delivering an increase in Mineral Resources and Ore Reserves at Jaguar as well as an increase in Ore Reserves at Tropicana as a result of the ongoing Long Island Project which is expect to be finalised in the December 2017 quarter.

We also made good progress at Nova, where we have leveraged off the geometry of the Nova-Bollinger orebodies to progress grade control drilling of the whole resource model early in the mine life, delivering greater confidence in the Mineral Resource and de-risking our geological understanding. While this

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[1] Reported on a 100% basis

has lowered the resource tonnage and is expected to lower the reserve tonnage, we expect that future extensional drilling around the Nova and Bollinger orebodies will partly or fully offset this loss of tonnes.

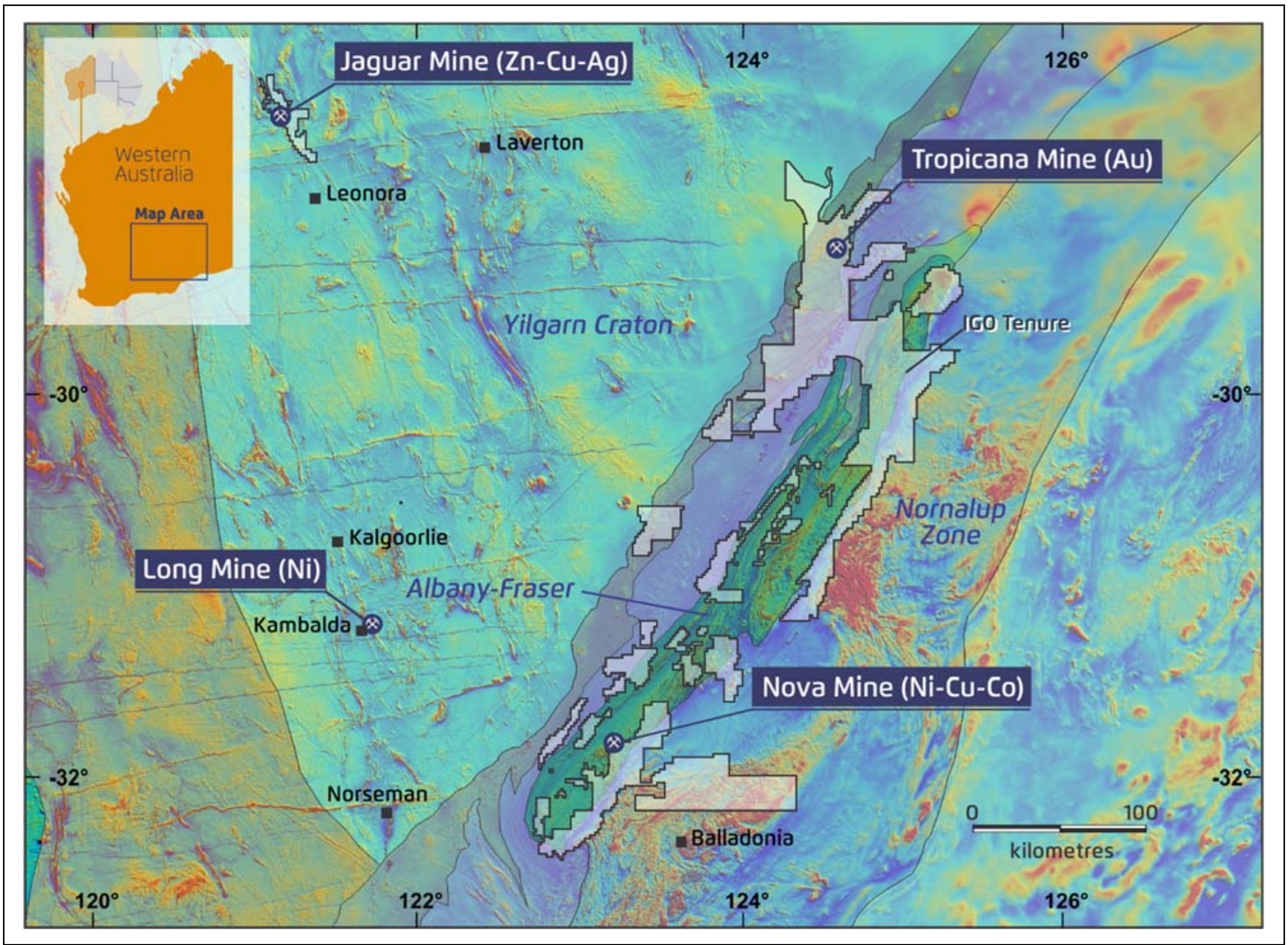
In FY18, we have numerous exploration programs planned across our extensive and highly prospective brownfields and greenfields portfolio. It is these programs which will continue to deliver future resource and reserve growth for IGO in the future."

An overview of each of the assets in the Company's portfolio is provided within this release.

IGO's Total Mineral Resources and Ore Reserves (FY16/FY17)

Figure 1 is a location map of IGO's operations in Western Australia. Table 1 and Table 2 are listings of IGO's total Mineral Resources and Ore Reserves for all operations and projects, as estimated at 30 June 2016 and 30 June 2017, on a 100% IGO basis.

Figure 1: Location of IGO WA Operations plotted on Regional Aeromagnetic Map



In all tabulations in this report, the Mineral Resource estimates are reported inclusive of Ore Reserve estimates and the tonnage, grades and *in situ* metal estimates are rounded to levels of precision considered appropriate at the time of reporting. Due to rounding, some of the total and average values may appear to be inaccurate. Details of key assumptions for each estimate, such as cut-off grades and modifying factors, are detailed in the respective JORC Code Table 1 checklists, which are appended to this release.

Table 1: IGO Total Mineral Resources Estimates – 30 June 2016 and 30 June 2017 – 100% IGO basis

FY Year	Project or Operation	Tonnes (Mt)	Grades						In situ Metal					
			Ni (%)	Cu (%)	Co (%)	Zn (%)	Ag (g/t)	Au (g/t)	Ni (kt)	Cu (kt)	Co (kt)	Zn (kt)	Ag (Moz)	Au (koz)
2016	Nova	14.3	2.3	0.9	0.08	-	-	-	325	134	11	-	-	-
	Long	1.3	4.7	-	-	-	-	-	60	-	-	-	-	-
	Tropicana 30%	37.4	-	-	-	-	-	1.9	-	-	-	-	-	2,200
	Jaguar	3.7	-	1.4	-	7.0	111	0.6	-	51	-	256	13	100
	Stockman	14.0	-	2.1	-	4.3	38	1.0	-	294	-	598	17	400
	Total 2016	70.6	(Total average grades are not additive)						(Total *in situ* metals not reported in 2016)					
2017	Nova	11.4	2.4	1.0	0.1	-	-	-	271	113	9	-	-	-
	Long	1.2	4.6	-	-	-	-	-	54	-	-	-	-	-
	Tropicana 30%	42.4	-	-	-	-	-	1.7	-	-	-	-	-	2,322
	Jaguar	6.5	-	0.9	-	5.6	85	0.4	-	55	-	364	18	90
	Stockman	14.0	-	2.1	-	4.3	38	1.0	-	287	-	599	17	437
	Total 2017	75.5	(Total average grades are not additive)						325	455	9	963	35	2,849

Notes:

1. Tropicana Gold Mine tonnages and in situ gold estimates are reported a 30% IGO share.
2. All other estimates are reported as 100% IGO share.
3. Cobalt was not reported for Nova in IGO's summary for 2016 but is included in the 2017 report.
4. There have been material increases in tonnage and grade at Tropicana and Jaguar and decreases at Nova – refer to the notes below the respective summary tables further below for explanations.
5. Stockman is subject to a divestment process, which is expected to be completed in FY18.

Table 2: IGO Total Ore Reserves – 30 June 2016 and 30 June 2017 – 100% IGO basis

FY Year	Project or Operation	Tonnes (Mt)	Grades						*In situ* Metal					
			Ni (%)	Cu (%)	Co (%)	Zn (%)	Ag (g/t)	Ni (%)	Ni (kt)	Cu (kt)	Co (kt)	Zn (kt)	Ag (Moz)	Au (koz)
2016	Nova	13.6	2.0	0.8	0.07	-	-	-	275	112	9	-	-	-
	Long	0.4	3.9	-	-	-	-	-	14	-	-	-	-	-
	Tropicana	12.3	-	-	-	-	-	1.83	-	-	-	-	-	723
	Jaguar	1.4	-	1.1	-	9.5	145	0.8	-	16	-	137	6.7	0.0
1069	Stockman	9.0	-	2.1	-	4.5	39	1.1	-	189	-	408	11.3	300
	Total 2016	36.7	(Total average grades are not additive)						(Total *in situ* metals not reported in 2016)					
2017	Nova	13.3	2.06	0.83	0.07	-	-	-	274	110	9	-	-	-
	Long	0.2	3.64	-	-	-	-	-	6	-	-	-	-	-
	Tropicana	17.1	-	-	-	-	-	1.94	-	-	-	-	-	1,069
	Jaguar	2.4	-	0.66	-	6.71	100	0.47	-	16	-	161	8	36
	Stockman	9.0	-	2.10	-	4.53	39	1.08	-	189	-	408	11	311
	Total 2017	41.9	(Total average grades are not additive)						280	315	9	568	19	1,416

Notes:

1. The notes below Table 1 also apply to this listing.
2. Gold metal for Jaguar was reported as 0.0 Moz in 2016 due to the 0.1 Moz rounding approach applied at the time of reporting. The reporting precision for gold metal has been changed to thousands of ounces (koz) for the 30 June 2017 reports.
3. There have been material changes in all operations – refer to the notes below the respective summary tables further below for explanations.

Mineral Resources and Ore Reserves by Operation or Project

In the following subsections of this report, the estimates for IGO's operations and projects are described in detail with the following criteria consistently applied:

- All Mineral Resources are reported inclusive of Ore Reserves.
- Some total and average values in estimate tabulations may appear to be inaccurate as a function of rounding to appropriate levels of reporting precision.
- The 30 June 2016 estimates are consistent with IGO's 2016 annual update reported to the ASX on 14 October 2016.
- For 2017, the following tonnage, grade and metal reporting criteria have been adopted:
  - Measured and Indicated Resources and Proved and Probable Reserves have been (usually) rounded to the nearest 0.1Mt, with grades reported to two decimal places. However, in some instances higher precision has been used to avoid reporting zero tonnages in the few cases where the estimated tonnages are less than 0.1Mt.
  - Inferred Resources have been rounded to the nearest 0.1Mt with grades reported to one decimal place for nickel and copper and two decimal places for cobalt, due to the generally low concentration of cobalt at Nova. Silver grades are reported with integer precision. Again, higher precision is used when estimated tonnages are less than 0.1Mt.
  - *In situ* metal estimates are reported with integer precision as these values are computed from tonnage and grade estimates and as such, have the combined uncertainty of the two input values.

Nova Operation Mineral Resources and Ore Reserves

The Mineral Resources and Ore Reserves for IGO's 100%-owned Nova Operation are estimated from the extensive surface and underground diamond grade control drilling and underground mining of two magmatic Ni-Cu-Co deposits (Nova and Bollinger), which are located approximately 160km, east of the town of Norseman in Western Australia (Figure 1). During the period 30 June 2016 to 30 June 2017 (FY17), Nova has transitioned from a development project to a 1.5Mtpa mining and processing operation with first ore processed in October 2016, and the Operation in commercial production from 1 July 2017.

Nova Operation's ore is sourced from the underground mine through backfill stoping methods and mine development headings. Through FY17 close-spaced underground diamond grade control drilling has been completed to facilitate mine planning and scheduling, and to increase the confidence in the Mineral Resource estimate.

The total 'mine-claim' ore hauled to the Nova Operation run-of-mine pad for FY17 was 0.3Mt grading 1.33% Ni, 0.55% Cu and 0.04% Co, which has been used to deplete the 30 June 2016 Ore Reserve estimate.

Comparison of the FY16 and FY17 Mineral Resources and Ore Reserves

Table 3 is a listing of the Nova Operation Mineral Resource estimates at the end of FY16 and FY17. Full details pertaining to both estimates are included in the Appendix A JORC Code Table 1 checklist summary for the Nova Operation estimates.

Table 3: Mineral Resources – 30 June 2016 and 30 June 2017 – Nova Operation

Deposit	JORC Code Class	30 June 2016							30 June 2017						
		Tonnes (Mt)	Grades			In situ Metal			Tonnes (Mt)	Grades			In situ Metal		
			Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)		Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)
Nova	Measured	-	-	-	-	-	-	-	5.2	2.63	1.10	0.08	137	57	4
	Indicated	9.1	2.5	1.0	0.08	230	94	7.3	2.4	2.47	1.02	0.08	59	24	2
	Inferred	1.0	1.4	0.6	0.05	14	6	0.5	0.7	1.5	0.8	0.05	10	5	0.4
	Nova Total	10.1	2.4	1.0	0.08	244	100	7.7	8.2	2.5	1.0	0.08	206	87	7
Bollinger	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indicated	2.4	2.7	1.1	0.11	64	26	2.6	2.1	2.54	1.02	0.10	53	21	2
	Inferred	1.8	1.0	0.4	0.04	17	8	0.7	1.1	1.1	0.5	0.05	12	5	0.5
	Bollinger Total	4.2	2.0	0.8	0.08	82	34	3.3	3.2	2.1	0.8	0.08	65	26	3
Stockpiles	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	Measured	-	-	-	-	-	-	-	5.2	2.63	1.10	0.08	137	57	4
	Indicated	11.5	2.5	1.0	0.09	292	117	9.9	4.5	2.50	1.02	0.09	112	45	4
	Inferred	2.8	1.1	0.5	0.04	32	13	1.2	1.7	1.3	0.6	0.05	22	10	1
	Nova-Bollinger Total	14.3	2.3	0.9	0.08	325	134	11.0	11.4	2.4	1.0	0.08	271	113	9

Table 4: Ore Reserves – 30 June 2016 and 30 June 2017 – Nova Operation

Deposit	JORC Code Class	30 June 2016							30 June 2017						
		Tonnes (Mt)	Grades			In situ Metal			Tonnes	Grades			In situ Metal		
			Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)	(Mt)	Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)
Nova	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	10.9	2.0	0.8	0.06	216	89	7	10.6	2.02	0.81	0.06	214	86	6
	Nova Total	10.9	2.0	0.8	0.06	216	89	7	10.6	2.02	0.81	0.06	214	86	6
Bollinger	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	2.7	2.2	0.9	0.09	59	24	2	2.7	2.20	0.90	0.09	59	24	2
	Bollinger Total	2.7	2.2	0.9	0.09	59	24	2	2.7	2.20	0.90	0.09	59	24	2
Stockpiles	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	13.6	2.0	0.8	0.07	275	112	9	13.3	2.06	0.83	0.07	274	110	9
	Nova-Bollinger Total	13.6	2.0	0.8	0.07	275	112	9	13.3	2.06	0.83	0.07	274	110	9

There has been approximately a 2.9Mt reduction in the estimated Mineral Resource total tonnage at Nova Operation, due to the incorporation of new geoscientific information gathered from the underground grade control drilling, and mapping of mine development headings. The nickel and copper grades reported in FY17 have increased marginally compared to the FY16 grades. The total Mineral Resource estimate model mining depletion to 30 June 2017 was approximately 0.4Mt, representing 3% of the tonnage reduction.

A detailed discussion relating to the reduction in the Nova-Bollinger Mineral Resource tonnage can be found in IGO's ASX release of 26 July 2017. In summary, the tonnage reduction between the end of FY16 and FY17 estimates is predominantly a function of a more constrained geological interpretation of the various mineralisation styles, with this constrained geometry not apparent in the original wider spaced drilling. While this additional information was gathered from the Nova deposit, the learnings were applied to Bollinger deposit to provide the best estimate with the available data. The benefit of the close-spaced grade control drilling has been to increase the estimation confidence, with 5.2Mt of the Nova area estimate now in the Measured Resource JORC Code class.

Nova Operation Ore Reserves for 30 June 2017 is the mine-claim-depleted 30 June 2016 estimate, with no changes in assumptions or modifying factors from the estimate reported at the end of FY16. Importantly, the 30 June 2017 Ore Reserve is not based on the 30 June 2017 Mineral Resource estimate. An updated Ore Reserve will be completed once close-spaced grade control drilling of the Bollinger deposit is completed later in FY18.

Nova-Bollinger Grade Control

As at 30 September 2017 (and since commencement in May 2015) IGO has completed 281,000m of diamond core grade control drilling of the Nova-Bollinger deposits on a nominal 12.5m×12.5m mineralisation pierce-point spacing. Nearly all the planned Nova deposit grade control drilling is completed and the grade control drilling of Bollinger is well advanced. The focus of underground drilling will shift from the current conversion of Indicated Resources to Measured Resources at the Nova and Bollinger areas, to conversion of Inferred Resources to Indicated Resources (or Measured) in the Nova-Bollinger feeder zone, and the Bollinger C5 hangingwall structure Mineral Resource extension drilling from the margins of the known estimates will then commence in Q3 FY18.

Tropicana Gold Mine Mineral Resources and Ore Reserves (IGO 30%)

Tropicana Gold Mine (TGM) is a joint venture operation between IGO – 30% and AngloGold Ashanti Australia – 70% (AngloGold). TGM is located approximately 330km east-northeast of Kalgoorlie on the western margin of the Albany Fraser zone (refer to Figure 1 on page 2). IGO targeted the Tropicana region in 2001 with AngloGold, who farmed into the project in 2002, discovering the Tropicana, Havana and Boston Shaker gold deposits in 2005, 2006 and 2010 respectively. TGM commenced gold production in 2013 and by 2015 had produced over one million ounces of gold.

In FY17, 7.9Mt of ore (>0.6g/t Au) was mined from TGM's open pits at an average grade of 2.05g/t Au. A further 1.0Mt of marginal grade ore (0.4g/t Au to 0.6g/t Au) grading 0.58g/t Au was stockpiled. In FY17 Tropicana plant processed 7.3Mt of ore grading 1.83g/t Au to recover 430,000 ounces of gold.

Comparison of the FY16 and FY17 Mineral Resources and Ore Reserves

Table 5 and Table 6 are listings of the end of year FY16 and FY17 Mineral Resource and Ore Reserve estimates for TGM respectively. Full details pertaining to both estimates are included in the Appendix B JORC Code Table 1 checklist summary for the TGM estimates.

Table 5: Mineral Resources – 30 June 2016 and 30 June 2017 – TGM 100% basis

Area	JORC Code Class	30 June 2016			30 June 2017		
		Tonnes (Mt)	Au (g/t)	Au (koz)	Tonnes (Mt)	Au (g/t)	Au (koz)
Open pit	Measured	10.9	1.91	670	6.1	1.94	380
	Indicated	78.3	1.71	4,320	79.1	1.61	4,080
	Inferred	4.4	2.23	320	22.3	1.32	940
	Open Pit Total	93.7	1.76	5,300	107.5	1.56	5,400
Underground	Measured	-	-	-	-	-	-
	Indicated	5.4	3.36	590	6.8	3.38	730
	Inferred	12.1	3.13	1,220	11.9	3.15	1,200
	Underground Total	17.6	3.20	1,810	18.6	3.23	1,940
Stockpiles	Measured	13.6	0.85	370	15.2	0.82	400
Total	Measured	24.5	1.32	1,040	21.3	1.14	780
	Indicated	83.8	1.82	4,900	85.8	1.74	4,810
	Inferred	16.6	2.89	1,540	34.2	1.95	2,150
	Tropicana Gold Mine Total	124.8	1.86	7,480	141.3	1.70	7,740

Table 6: Ore Reserves – 30 June 2016 and 30 June 2017 – TGM 100% basis

Deposit or Area	JORC Code Class	30 June 2016			30 June 2017		
		Tonnes (Mt)	Au (g/t)	Au (koz)	Tonnes (Mt)	Au (g/t)	Au (koz)
Open pit	Proved	7.6	2.33	570	4.4	2.31	330
	Probable	24.2	2.01	1,560	43.0	2.13	2,950
	Open Pit Total	31.8	2.07	2,120	47.4	2.15	3,280
Underground	Proved	-	-	-	-	-	-
	Probable	-	-	-	-	-	-
	Underground total	-	-	-	-	-	-
Stockpiles	Proved	9.2	0.98	290	9.5	0.93	290
Total	Proved	16.8	1.58	850	14.0	1.37	620
	Probable	24.2	2.00	1,560	43.0	2.13	2,950
	Tropicana Gold Mine Total	41.0	1.83	2,410	57.0	1.94	3,560

The TGM Mineral Resource estimate was updated in December 2016 to incorporate new drilling information and cost assumptions. This update resulted in a significant increase in the Mineral Resource tonnage from 124.8Mt grading 1.86g/t Au to 141.3Mt grading 1.70g/t Au.

The drivers behind the increase in the TGM Mineral Resource tonnage are:

- Completion of an extensive resource drilling program to provide a framework for the understanding of the TGM mineralised system as part of the Long Island Study.
- Changes in the mine plan based on strip mining and in-pit dumping of waste as part of the Long Island Study.

The December 2016 Ore Reserve update increased the tonnage and grades significantly from the FY16 end to FY17 end, from 41Mt grading 1.83g/t Au to 57Mt grading 1.94g/t Au for similar reasons to the increase in the updated Mineral Resource. Specifically, the Mineral Resource growth and the adoption of a lower cost strip mining strategy with in-pit dumping of waste, has resulted in an increased Ore Reserve as larger and deeper open pits are now viable. Refer to IGO ASX release on 15 Dec 2016 for more details[2].

Jaguar Operation Mineral Resources and Ore Reserves

Jaguar Operation is located 300km north of Kalgoorlie in Western Australia and 60km north of Leonora (refer to Figure 1 on page 2). Ore is currently sourced from the Bentley underground mine and processed through the Jaguar concentrator to produce high-grade zinc and copper concentrates that have significant silver and gold credits.

Comparison of the FY16 and FY17 Mineral Resources and Ore Reserves

Table 7 is a listing of the Jaguar Operations Mineral Resource estimates as at 30 June 2016 and 2017, and Table 8 is a similar listing for the Jaguar Ore Reserve estimates. Full details pertaining to both estimates are included in the Appendix C JORC Code Table 1 checklist summary for Jaguar Operation. Note that the *in situ* metal estimates were not reported in 2016 but have been included in this 2017 report. The total ore mined from Jaguar Operation in FY17 was 0.4Mt grading 8.16%Zn, 1.28% Cu, 137g/t Ag and 0.58g/t Au, which has been depleted from the estimates.

Table 7: Mineral Resources – 30 June 2016 and 30 June 2017 – Jaguar Operation

Deposit	JORC Code Class	30 June 2016									30 June 2017								
		Tonnes (Mt)	Grades				*In situ* Metal				Tonnes (Mt)	Grades				*In situ* Metal			
			Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)		Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)
Bentley	Measured	0.402	11.5	1.8	177	0.9	-	-	-	-	0.3	12.88	1.52	204	1.05	43	5	2	11
	Indicated	1.418	11.0	1.0	161	1.0	-	-	-	-	1.7	7.00	0.76	109	0.74	118	13	6	40
	Inferred	0.282	5.3	0.7	107	1.0	-	-	-	-	0.8	3.9	0.5	58	0.8	29	3	1	19
	Bentley Total	2.107	10.3	1.2	157	1.0	-	-	-	-	2.8	6.9	0.8	106	0.8	190	21	9	70
Triumph	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-	-	-	-	1.7	5.99	0.49	81	0.26	102	8	4	16
	Inferred	-	-	-	-	-	-	-	-	-	0.5	6.9	0.4	94	0.3	35	2	2	4
	Triumph Total	-	-	-	-	-	-	-	-	-	2.2	6.2	0.5	84	0.3	137	10	6	20
Teutonic	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indicated	0.946	3.6	1.7	65	-	-	-	-	-	0.9	3.60	1.70	65	-	32	15	2	-
	Inferred	0.608	0.7	1.4	25	-	-	-	-	-	0.6	0.7	1.4	25	-	4	8	1	-
	Teutonic Total	1.554	2.5	1.6	49	-	-	-	-	-	1.5	2.5	1.6	49	-	36	23	3	-
Stocks	Measured	0.005	8.9	2.0	131	0.8	-	-	-	-	0.007	7.3	0.9	97	0.46	1.0	0.06	0.02	0.10
Total	Measured	0.407	11.5	1.8	176	0.9	-	-	-	-	0.3	12.77	1.51	202	1.04	43	5	2	11
	Indicated	2.364	8.0	1.3	123	0.6	-	-	-	-	4.3	5.89	0.85	89	0.39	254	37	12	56
	Inferred	0.890	2.2	1.2	51	0.3	-	-	-	-	1.9	3.7	0.7	57	0.4	64	14	3	23
	Jaguar Total	3.661	7.0	1.4	111	0.6	-	-	-	-	6.5	5.6	0.9	85	0.4	364	55	18	90

[2] IGO ASX Release 15/12/2016 "Tropicana Gold Mine – Value Enhancement Update".

Table 8: Ore Reserves – 30 June 2016 and 30 June 2017 – Jaguar Operation

Deposit	JORC Code Class	30 June 2016									30 June 2017								
		Tonnes (Mt)	Grades				In situ Metal				Tonnes (Mt)	Grades				In situ Metal			
			Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)		Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)
Bentley	Proved	0.277	9.7	1.8	157	0.8	-	-	-	-	0.3	9.39	1.31	159	0.79	24	3	1	7
	Probable	1.157	9.5	1.0	142	0.7	-	-	-	-	0.9	6.56	0.83	103	0.64	61	8	3	19
Bentley Total		1.434	9.5	1.1	145	0.8	-	-	-	-	1.2	7.18	0.94	115	0.67	85	11	4	26
Triumph	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	-	-	-	-	-	-	-	-	-	1.2	6.24	0.39	85	0.27	75	5	3	10
Triumph Total		-	-	-	-	-	-	-	-	-	1.2	6.24	0.39	85	0.27	75	5	3	10
Stocks	Proved	0.004	9.3	1.7	138	0.7	-	-	-	-	0.007	7.33	0.93	97	0.46	0.50	0.06	0.02	0.10
Total	Proved	0.281	9.7	1.8	157	0.8	-	-	-	-	0.3	9.34	1.30	158	0.78	25	3	1	7
	Probable	1.157	9.5	1.0	142	0.7	-	-	-	-	2.1	6.38	0.58	93	0.43	136	13	6	30
Jaguar Total		1.438	9.5	1.1	145	0.8	-	-	-	-	2.4	6.71	0.66	100	0.47	161	16	8	36

Over FY17, both the Mineral Resources and Ore Reserves have increased with additional tonnages defined at Bentley, and first estimates reported for the Triumph deposit. The Bentley tonnage increases, above the 0.4Mt mined for the year, result from completion of resource extensional drilling and the conversion of Inferred Resources to Indicated Resources on the Arnage and Flying Spur lenses. Full details of the Triumph estimates are included in IGO's ASX release on 26 July 2016[3].

Long Operation Mineral Resources and Ore Reserves

IGO's 100%-owned Long Operation is located 60km south of Kalgoorlie in Western Australia (refer to Figure 1 on page 2). Long Operation has been in continuous production since 1979, except for a short hiatus in 2002 when ownership transferred from Western Mining Corporation Resources Ltd (WMC), to BHP Billiton Nickel West Pty Ltd (BHP Billiton). Long Operation produces nickel ore that is sold on a tonnes and grade basis to BHP Billiton's Kambalda nickel concentrator, which is only a few kilometres from the Long mine.

Long Operation has a very successful exploration history, starting with WMC finding many extensions to the initial deposit discoveries. Since 2002, IGO discovered the McLeay deposit in 2005 and the Moran deposit in 2008. Combined with the Long and Victor South Ore Reserves, these discoveries have supported the past 15 years of IGO's production of 3.4Mt of ore containing ≈133,000t of nickel metal.

The operation will transition into care and maintenance during FY18 while exploration continues to test several identified priority targets that represent step-change opportunities within IGO's tenements.

Comparison of the FY16 and FY17 Mineral Resources and Ore Reserves

Table 9 and Table 10 are listings of the end of year FY16 and FY17 Mineral Resource and Ore Reserve estimates for Long Operation respectively. Full details pertaining to both estimates are included in the Appendix D JORC Code Table 1 checklist summary for the Long Operation estimates. The FY17 mine

[3] IGO ASX Release 26/07/2017 – "Jaguar Value Enhancement Programs Demonstrate Options to Extent Mine Life and Improve Project Scale"

production from Long Operation was 0.2Mt tonnes of ore grading 4.11% Ni for a contained nickel metal content of 8,433t.

Table 9: Mineral Resources – 30 June 2016 and 30 June 2017 – Long Operation

Deposit	JORC Code Class	30 June 2016			30 June 2017		
		Tonnes (Mt)	Ni (%)	Ni (kt)	Tonnes (Mt)	Ni (%)	Ni (kt)
Long	Measured	0.062	5.3	3.3	0.1	5.39	3
	Indicated	0.287	5.1	14.6	0.3	5.11	14
	Inferred	0.355	4.7	16.7	0.4	4.7	17
	Long total	0.704	4.9	34.6	0.7	4.9	33
Victor South	Measured	-	-	-	-	-	-
	Indicated	0.147	2.1	3.1	0.2	2.11	3
	Inferred	0.033	1.5	0.5	0.03	1.5	1
	Victor South total	0.180	2.0	3.6	0.2	2.0	4
McLeay	Measured	0.061	6.4	3.9	0.1	6.35	4
	Indicated	0.071	4.9	3.5	0.1	4.92	3
	Inferred	0.021	6.7	1.4	0.02	6.7	1
	McLeay total	0.153	5.8	8.8	0.2	5.7	9
Moran	Measured	0.126	7.2	9.1	0.1	7.99	5
	Indicated	0.044	3.9	1.7	0.04	3.38	1
	Inferred	0.052	3.7	1.9	0.1	3.7	2
	Moran total	0.222	5.7	12.7	0.2	5.3	8
Stockpiles	Measured	-	-	-	-	-	-
Total	Measured	0.249	6.5	16.3	0.2	6.59	12
	Indicated	0.549	4.2	22.9	0.5	4.11	22
	Inferred	0.461	4.5	20.5	0.5	4.4	20
	Long Operation total	1.259	4.7	59.7	1.2	4.6	54

Table 10: Ore Reserves – 30 June 2016 and 30 June 2017 – Long Operation

Deposit	JORC Code Class	30 June 2016			30 June 2017		
		Tonnes (Mt)	Ni (%)	Ni (kt)	Tonnes (Mt)	Ni (%)	Ni (kt)
Long	Proved	0.023	3.5	0.8	0.01	4.09	0.6
	Probable	0.045	3.1	1.4	0.02	3.26	0.8
	Long total	0.068	3.2	2.2	0.04	3.55	1.4
Victor South	Proved	0.004	5.0	0.2	0.003	4.83	0.2
	Probable	0.006	1.7	0.1	0.01	1.71	0.1
	Victor South total	0.010	3.0	0.3	0.01	2.67	0.3
McLeay	Proved	0.018	3.9	0.7	0.01	3.53	0.4
	Probable	0.019	3.2	0.6	0.02	3.22	0.7
	McLeay total	0.037	3.5	1.3	0.03	3.34	1.0
Moran	Proved	0.224	4.2	9.4	0.06	4.20	2.5
	Probable	0.012	3.3	0.4	0.03	3.22	0.9
	Moran total	0.236	4.2	9.8	0.09	3.89	3.4
Stockpiles	Proved	-	-	-	-	-	-

Table 10: Ore Reserves – 30 June 2016 and 30 June 2017 – Long Operation

Deposit	JORC Code Class	30 June 2016			30 June 2017		
		Tonnes (Mt)	Ni (%)	Ni (kt)	Tonnes (Mt)	Ni (%)	Ni (kt)
Total	Proved	0.269	4.1	11.1	0.1	4.11	3.7
	Probable	0.082	3.1	2.5	0.1	3.10	2.5
	Long Operation total	0.351	3.9	13.6	0.2	3.64	6.2

The annual changes in the Long Operation estimates represent only the mining depletion of the FY16 Mineral Resource and Ore Reserve models and there have been no material changes to the underlying assumptions and modifying factors applied to the Mineral Resource and Ore Reserve models.

A full review of the of the estimates will be carried out following the planned transition into care and maintenance in 2018.

Stockman Project Mineral Resources and Ore Reserves

IGO's 100% owned Stockman Project is in the East Gippsland region of eastern Victoria, and is 460km by road from Melbourne and approximately 19km east-south-east of Benambra. The Stockman Project was acquired as part of IGO's acquisition of Jabiru Metals Ltd in 2011.

The Stockman Project includes two copper-zinc-lead-silver-gold VHMS deposits, named Wilga and Currawong, and several exploration prospects and targets. The larger Currawong deposit is intact, whilst a core of copper-rich ore from the Wilga deposit was mined and processed onsite between 1992 and 1996.

Feasibility level studies have been completed on the Stockman Project with design studies based on a 1.0Mtpa differential flotation concentrator to produce approximately150ktpa of copper and zinc concentrates over a Project life of approximately ten years.

The Environment Effects Statement (EES) for the Stockman Project, which is the overarching permitting instrument for the project under the Victorian Environmental Effects Act 1978, received a positive assessment from the Victorian Government, and Project approval from the Federal Government, subject to conditions, in November 2014. These approvals allowed the Stockman Project to proceed to the licensing phase.

In June 2017, IGO announced an agreement to divest the Stockman Project to CopperChem Limited for $A47.2 million – refer to IGO's ASX announcement dated 14 June 2017 for full details[4].

Comparison of the FY16 and FY17 Mineral Resources and Ore Reserves

Table 11 is a listing of the Stockman Project Mineral Resource estimates by deposit as at 30 June 2016 and 2017 and Table 12 is a similar listing for the Ore Reserve estimate. Full details pertaining to both estimates are included in the Appendix E Stockman JORC Code Table 1 checklist summary. Note that in situ metal estimates were not reported in 2016 but have been included in this 2017 report.

[4] IGO ASX Release 14/06/2017 – "Agreement to Divest Stockman Project"

Table 11: Mineral Resources – 30 June 2016 and 30 June 2017 – Stockman Project

Deposit	JORC Code Class	30 June 2016									30 June 2017								
		Tonnes (Mt)	Grades				*In situ* Metal				Tonnes (Mt)	Grades				*In situ* Metal			
			Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)		Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)
Currawong	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indicated	9.5	4.2	2.0	42	1.2	-	-	-	-	9.5	4.20	2.00	42	1.20	399	190	13	367
	Inferred	0.8	2.2	1.4	23	0.5	-	-	-	-	0.8	2.2	1.4	23	0.5	18	11	1	13
Currawong Total		10.3	4.0	2.0	41	1.1	-	-	-	-	10.3	4.0	2.0	41	1.1	417	201	13	379
Wilga	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indicated	3.0	4.8	2.0	31	0.5	-	-	-	-	3.0	4.80	2.00	31	0.50	144	60	3	48
	Inferred	0.7	5.5	3.7	34	0.4	-	-	-	-	0.7	5.5	3.7	34	0.4	39	26	1	9
Wilga Total		3.7	4.9	2.3	32	0.5	-	-	-	-	3.7	4.9	2.3	32	0.5	183	86	4	57
Stocks	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Indicated	12.5	4.3	2.0	39	1.0	-	-	-	-	12.5	4.34	2.00	39	1.03	543	250	16	415
	Inferred	1.5	3.7	2.5	28	0.5	-	-	-	-	1.5	3.7	2.5	28	0.5	56	37	1	22
Stockman Total		14.0	4.3	2.1	38	1.0	-	-	-	-	14.0	4.3	2.1	38	1.0	599	287	17	437

Table 12: Ore Reserves – 30 June 2016 and 30 June 2017 – Stockman Project

Deposit	JORC Code Class	30 June 2016									30 June 2017								
		Tonnes (Mt)	Grades				*In situ* Metal				Tonnes (Mt)	Grades				*In situ* Metal			
			Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)		Zn (%)	Cu (%)	Ag (g/t)	Au (g/t)	Zn (kt)	Cu (kt)	Ag (Moz)	Au (koz)
Currawong	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	7.4	4.3	2.1	40	1.2	-	-	-	-	7.4	4.30	2.10	40	1.20	318	155	10	285
Currawong Total		7.4	4.3	2.1	40	1.2	-	-	-	-	7.4	4.30	2.10	40	1.20	318	155	10	285
Wilga	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	1.6	5.6	2.1	31	0.5	-	-	-	-	1.6	5.60	2.10	31	0.50	90	34	2	26
Wilga Total		1.6	5.6	2.1	31	0.5	-	-	-	-	1.6	5.60	2.10	31	0.50	90	34	2	26
Stocks	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	Proved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Probable	9.0	4.5	2.1	39	1.1	-	-	-	-	9.0	4.53	2.10	39	1.08	408	189	11	311
Stockman Total		9.0	4.5	1.1	39	1.1	-	-	-	-	9.0	4.53	2.10	39	1.08	408	189	11	311

The precision of reporting of the Ore Reserve grades has been increased for the 2017 report as part of a standardisation of reporting process.

JORC Code (2012) Competent Persons Statements

Information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on the information compiled by the Competent Persons named in Table 13, which also includes details of their respective professional organisation memberships and their relationships to IGO. All Competent Persons named in Table 13 have provided IGO with written confirmation that they have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 JORC Code).

Each Competent Person listed in Table 13 has provided IGO with a written consent to the inclusion of information for which he/or she is taking responsibility in the form and context in which it appears, and that the respective parts of this report fairly and accurately reflect the supporting documentation prepared by each Competent Person, relating to the activity or responsibility listed in Table 13. Each Competent person has also confirmed that there are no material issues that could be perceived by investors as a material conflict of interest for public reporting.

Table 13: Competent Person – Professional Membership, IGO Relationships and Activity Responsibility

Competent Person	Organisation Membership	IGO Relationship	Activity Responsibility
Mr Paul Hetherington	AusIMM – Member	IGO full-time employee	Data for Nova Operation Mineral Resource estimates
Mr Mark Drabble	AIG – Member	Optiro Pty Ltd full-time employee	Nova Operation Mineral Resource estimates
Mr Rob Dennis	AusIMM – Fellow	IGO full-time employee	Nova Ore Reserve estimates
Mr Mark Kent	AusIMM – Member	AngloGold full-time employee	Tropicana Mineral Resource estimates
Mr Jason Vos	AusIMM – Member	AngloGold full-time employee	Tropicana Ore Reserve estimates
Ms Somealy Sheppard	AIG – Member	IGO full-time employee	Long Operation Mineral Resource estimates
Mr Mark Bradley	AusIMM – Member	IGO full-time employee	Long Operation Ore Reserve estimates
Mr William Stewart	AIG – Member	IGO full-time employee	Jaguar Operation Mineral Resource estimates
Mr Brent Kail	AusIMM – Member	Mining Plus Pty Ltd full-time employee	Jaguar – Bentley Ore Reserve estimates
Mr Daniel Donald	AusIMM – Member	Entech Pty Ltd full-time employee	Jaguar – Triumph Ore Reserve estimates
Mr Matt Dusci	AIG – Member	IGO full-time employee	Stockman Mineral Resource estimates and Annual Report Exploration Results
Mr Geoff Davidson	AusIMM – Member	Mine & Cost Engineering full-time employee	Stockman Ore Reserve estimates
Mr Mark Murphy	AIG – RPGeo	IGO full-time employee	Annual report Mineral Resource and Ore Reserve Statements

IGO's Mineral Resource and Ore Reserve Governance Procedures

IGO's Mineral Resource and Ore Reserve Governance includes systems and procedures that ensure:

- All persons responsible for preparing and reporting estimates and results qualify as Competent Persons as defined by the JORC Code (2012 Edition), and the Competent Persons have provided written sign-off on publicly reported estimates or results.
- Competent Persons have used IGO's annual corporate guidance for metal prices and foreign exchange rates when determining economic viability and cut-off grades.
- Estimates are prepared using accepted industry methods and the estimation forecasting precision is monitored against production in operating mines.
- Competent Persons prepare and provide IGO with the supporting documentation for each estimate, and before being reported to the Board, estimates are either reviewed by IGO senior technical staff or by a suitably qualified external reviewer.

- Any material changes or updates to estimates are reviewed and approved by IGO's Board before being promptly announced to the market.

For further information contact:

Peter Bradford Managing Director Independence Group NL Telephone: 08 9238 8300	Joanne McDonald Company Secretary Independence Group NL Telephone: 08 9238 8300

FORWARD LOOKING STATEMENTS

This announcement contains forward-looking statements regarding future events, conditions and circumstances including but not limited to statements regarding plans, strategies and objectives of management, anticipated construction timelines and expected costs and levels of production. Often, but not always, forward-looking statements can be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue" and "guidance", or other similar words.

These forward-looking statements are not a guarantee of future performance and involve unknown risks and uncertainties, many of which are beyond IGO's control, which may cause actual results and developments to differ materially from those expressed or implied. These risks include but are not limited to economic conditions, stock market fluctuations, commodity demand and price movements, access to infrastructure, timing of approvals, regulatory risks, operational risks, reliance on key personnel, reserve and resource estimations, native title and title risks, foreign currency fluctuations, exploration risk and mining development, construction and commissioning risk.

Forward-looking statements in this announcement apply only at the date of issue. Subject to any continuing obligations under applicable law or regulations, IGO does not undertake to publicly update or revise any of the forward-looking statements in this announcement or to advise of any change in events, conditions or circumstances on which any such statement is based. Readers are cautioned not to place undue reliance on any forward-looking statements contained in this announcement.

APPENDIX A – JORC CODE TABLE 1– NOVA OPERATION

Section 1: Sampling Techniques and Data – Nova Operation

Criteria	Commentary
Sampling techniques **Note:** Due to the similarity of the deposit setting, procedures and estimation these tables present the combined Nova-Bollinger tabulation. **Explanations to the Bollinger area are in bold font, and** Nova (or both where appropriate) is in normal font.	- The Nova area has been sampled using and diamond drill holes (DD) on a nominal 12.5m×12.5m grid spacing with a small number of Reverse Circulation (RC) holes. - A total of 15 RC, 163 Surface DD and 599 Underground DD holes were drilled for 2,910m, 63,099m and 84,105m respectively. - The holes drilled from surface are generally oriented towards grid west but the plunge angles vary to optimally intersect the mineralised zones. - The underground infill drilling took place from the hangingwall and footwall mine infrastructure. - **The Bollinger deposit is sampled using diamond core drill holes (DD) on a nominal 25m × 25m to 50m×50m grid spacing.** - **A total of 72 Surface DD holes and 53 Underground DD holes were drilled for 35,935m and 6,753m respectively.** - **Holes drilled from surface are generally angled towards grid west plunging from -60˚ and -90˚ or from underground development drilling positions at various angles to optimally intersect the mineralised zones.** - DD core drilling has been used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes. - Representivity has been ensured by monitoring core recovery to minimise sample loss. - Sampling was carried out under IGO protocols and QAQC procedures consistent with good industry practices. - **Bollinger is defined by diamond drilling only, and with the same measures employed as at Nova for controls and sample representivity.**
Drilling techniques	- DD accounts for 96% of the drilling in the Mineral Resource area and comprises BQTK (40.7mm diameter), NQ2 (50.7mm diameter) or HQ (63.5mm diameter) sized core. - Surface drill hole pre-collar lengths range from 6m to 150m and hole lengths range from 50m to 1,084m. - Where possible, the core was oriented using Camtech or Reflex Act III orientation tools. RC percussion drilling used a 140mm diameter face-sampling hammer drilling with RC representing 4% of the total drilling database. RC hole lengths range from 90m to 280m. - **DD accounts for all the current drilling at Bollinger and comprises BQTK, NQ2 or HQ sized core.** - **Surface pre-collar depths lengths range from 20m to 84m and hole depths range from 53m to 667m.** - **The core was oriented using Camtech or Reflex Act III orientation tools.**
Drill sample recovery	- DD recoveries are quantified as the ratio of measured core recovered lengths to drill advance lengths for each core-barrel run. - RC recoveries are logged qualitatively from poor to good. - Overall DD recoveries are on average ≥ 99% for both Nova and Bollinger and there are no core loss issues or significant sample recovery problems. - RC samples were visually checked for recovery, moisture and contamination. - For orientation marking purposes, the DD core from Nova and Bollinger was reconstructed into continuous runs on an angle iron cradle. - Down hole depths are checked against the depth recorded on the core blocks and rod counts are routinely carried out by the drillers to ensure the marked core block depths were accurate. - There is no relationship between sample recovery as there is minimal sample loss. The bulk of the Nova DD resource definition drilling has very high core recoveries. - The Bollinger mineralisation is defined by diamond core drilling, which has also had very high core recoveries. - A sample bias due to preferential loss or gain of material is unlikely given the high core recovery.
Logging	- Geotechnical logging at Nova and Bollinger was carried out on all diamond drill holes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle (oriented core only), texture, shape, roughness and fill material is stored in the structure table of the database. - The information collected is appropriate to support any downstream studies. - Qualitative logging of DD core and RC samples at Nova and Bollinger included lithology, mineralogy, mineralisation, structure (DDH only), weathering, colour and other features of the samples. - All DD core ore has been photographed in both dry and wet condition. - Quantitative logging has been completed for geotechnical purposes.

Section 1: Sampling Techniques and Data – Nova Operation

Criteria	Commentary
	- The total lengths of all drill holes have been logged except for rock-roller DD pre-collars that have lengths not logged for the intervals from surface to 20m to 60m.
Sub-sampling techniques and sample preparation	- DD core from Nova and Bollinger was subsampled over lengths ranging from 0.3m to 1.3m using an automatic diamond-blade core saw as either whole core (BQTK infill), half-core (BQTK, NQ2 for resource definition) or quarter core (HQ for metallurgical drilling). - All subsamples were collected from the same side of the core. - The sample preparation of DD core from Nova and Bollinger involved oven drying (4 to 6 hrs at 95°C), coarse crushing in a jaw-crusher to 100% passing 10 mm, then pulverisation of the entire crushed sample in Essa LM5 grinding mills to a particle size distribution of 85% passing 75 microns. - The sample preparation for RC samples was similar, but excluded the coarse crush stage. - QC procedures involve insertion of certified reference materials, blanks, collection of duplicates at the coarse crush stage, pulverisation stage, assay stage, and barren quartz washes of equipment every 20 samples. - The insertion frequency of quality samples averaged 1:15 to 1:20 in total for both deposits, with a higher insertion ratio used in mineralised zones. - For RC samples, duplicates were collected from 1m routine sample intervals using a riffle splitter. - The primary tool use to monitor drill core representivity was monitoring and ensuring near 100% core recovery. - While no specific heterogeneity testing has been completed on the mineralisation. The sample sizes are appropriate to correctly represent the sulphide mineralisation at Nova and Bollinger based on the style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements. - The results of duplicate sampling are consistent with satisfactory sampling precision.
Quality of assay data and laboratory tests	- No geophysical tools were used to determine any element concentrations. - The laboratory completed sample preparation checks for particle size distribution compliance as part of routine internal quality procedures to ensure the target particle size distribution of 85% passing 75 microns is achieved in the pulverisation stage. - Field duplicates are inserted routinely at a rate of 1:20 samples and replicate results demonstrate good repeatability of results within the mineralised zones. - Laboratory quality control processes include the use of internal lab standards, certified reference materials (CRMs), blanks, and duplicates. - Umpire laboratory checks are routinely carried out on 5% of the total number of samples. The results returned to date have good precision as quantified by the HARD statistics. - CRMs used to monitor accuracy have expected values ranging from low to high grade, and the CRMs were inserted randomly into the routine sample stream to the laboratory. - The results of the CRMs confirm that the laboratory sample assay values have good accuracy and the results of blank assays indicate that any potential sample cross contamination has been minimised.
Verification of sampling and assaying	- Optiro's consultants have inspected and verified significant intersections in DD on multiple occasions as part of the on-site collaborative Mineral Resource estimation process. - The current mine development has intersected the mineralisation and the mine exposures are consistent with the observations from drilling intersections. - Two PQ and one HQ metallurgical holes have been drilled at Nova since March 2013 and the logging of these holes is consistent with the geological and mineralisation domain interpretations from the Mineral Resource definition drilling. - One hole at Nova has been twinned. The twin hole results confirmed the prior hole geology. The twin was used as a metallurgical hole. No twin holes have been drilled at Bollinger. - Primary data for both areas has been directly entered into an Acquire database via data entry templates on Toughbook laptop computers. - The logging has been validated by onsite geology staff and loaded into a SQL database server by the IGO Database Administrator. - Data is backed up regularly in off-site secure servers. - No adjustments or calibrations were made to any assay data used in either estimate, other than conversion of half detection limit text values to numeric values prior to grade estimation work.
Location of data points	- The hole collar locations of surface holes were surveyed by Whelan's Surveyors of Kalgoorlie using RTK GPS equipment, which was connected to the state survey mark (SSM) network. - Survey elevation values are recorded in a modified AHD elevation where a constant of +2,000m was added to the AHD RL for the mine coordinate grid. The expected survey accuracy is ± 30mm in three dimensions.

Section 1: Sampling Techniques and Data – Nova Operation

Criteria	Commentary
	- Down hole drill path surveys have been completed using single shot camera readings collected during drilling at 18m, then every 30m down hole. - Gyro Australia carried out gyroscopic surveys using a Keeper high speed gyroscopic survey tool with readings every 5m after hole completion. Stated accuracy is ±0.25° in azimuth and ±0.05° in inclination. - Down hole survey QC involved field calibration using a test stand. - Underground holes collar locations were surveyed using Leica TS15P total station units by IGO's mine surveyors. - The underground drill hole paths were surveyed using reflex single shot surveys with readings taken every 30m down hole. - The final down hole survey for underground holes was by Deviflex (non-magnetic strain gauge) electronic multi-shot and Minnovare Azimuth Aligner tools that survey hole trace paths on 1m intervals relative to the collar azimuth and dip. The stated accuracy is ±0.2° in azimuth and ±0.1° in inclination. Only gyro and Deviflex data has been used for Mineral Resource work. - The grid system for Nova-Bollinger is MGA Zone 51 projections and a modified AHD94 datum (local RL has 2,000m added to value). Local easting and northing coordinates are in MGA. - The topographic surface for Nova-Bollinger is a 2012 Lidar survey with 50cm contours, which is acceptable for mine planning and Mineral Resource estimation purposes.
Data spacing and distribution	- The nominal drill hole mineralisation pierce point spacing at Nova is 12.5 mN×12.5mE. - The nominal drill hole spacing at Bollinger is 25mN×25mE in the centre of the deposit, and is up to 50mN×50mE on the deposit margins. - The drilling and mine development into the mineralised domains for Nova-Bollinger has demonstrated sufficient continuity in both geological and grade to support the definition of Mineral Resources and Reserves, and the classifications applied under the JORC Code. - For grade estimation purposes samples have been composited to a target of a one metre length for both deposits, with an optimised compositing approach used to ensure that no residual samples are created.
Orientation of data in relation to geological structure	- Both Nova and Bollinger have been drilled from surface and underground locations on a variety of orientations designed to target the mineralised zones at the nominal spacing whilst maintaining reasonable intersection angles. - Structural logging based on oriented core indicates that the main sulphide controls are largely perpendicular to the average drill orientation. - Due to the constraints of infrastructure location a small number of holes are oblique to the C5 mineralisation at the northern margin of the deposit. - No orientation based sampling bias is expected from the Mineral Resource drilling at Nova-Bollinger.
Sample security	- The chain-of-sample custody is managed by IGO. - Samples for Nova-Bollinger are stored on site and collected by McMahon Burnett Transport and delivered to their depot in Perth, then to the assay laboratory. - Whilst in storage, samples are kept in a locked yard. Tracking sheets are used to track the progress of batches of samples. - A sample reconciliation advice is sent by the laboratories to IGO on receipt of the samples. - The risk of deliberate or accidental loss or contamination of samples is considered very low.
Audits or reviews	- A review of the sampling techniques and data was carried out by Optiro as part of prior resource estimates and onsite in September 2016. - An independent audit of the database was carried out in April 2017 by Optiro. - Optiro considers that the database is of sufficient quality for Mineral Resource estimation studies.

Section 2: Reporting of Exploration Results – Nova Operation

Criteria	Explanation
Mineral tenement and land tenure status	- Nova and Bollinger are located wholly within WA Mining Lease M28/376. This tenement is 100% owned by Independence Nova Pty Ltd. - The IGO tenements are within the Ngadju Native Title Claim (WC99/002). - There are no third-party rights or encumbrances on the Nova Nickel Project. - Native title royalties of 0.5% on the nickel and copper production will apply as outlined in the Ngadju Mining Agreement. - The WA State royalties are paid in accordance with the Mining Act 1978 (WA). - IGO have provided written assurance that the tenement is in good standing and no known impediments exist. The tenement is held by Independence Nova Pty Ltd and expires on 14/08/2035.
Exploration done by other parties	- Exploration was undertaken at the Fraser Range area by Sirius Resources NL over a three-year period which resulted in the discovery of the Nova prospect in July 2012, with Bollinger discovered shortly after. - No previous systematic exploration was carried out in this area prior to the 2012 discovery.
Geology	- The global geological setting is a high grade metamorphic terrane in the Albany Fraser mobile belt of Western Australia. - The Ni-Cu-Co deposits are hosted by Proterozoic age gabbroic intrusions that have intruded a metasedimentary package within a synformal structure. - The sulphide mineralisation is interpreted to be related to the intrusive event. - The deposits are analogous to many mafic hosted nickel-copper deposits worldwide such as the Raglan, Voisey's Bay in Canada, and Norilsk in Russia. - The Bollinger deposit is spatially related to the Nova deposit and is interpreted to represent one of several intrusive events that transgress sedimentary layers to the immediate east of Nova.
Drill hole Information	- As this is an advanced stage report related to a Mineral Resource estimate, it is impractical to list drill information for all drill holes used in the estimate. - Representative intercepts have been reported in previous IGO Public Reports.
Data aggregation methods	- No drill hole related exploration results are included in this Public report. - Samples were aggregated into 1m long composites for Mineral Resource estimation work
Relationship between mineralisation widths and intercept lengths	- The Nova deposit is moderately east dipping in the west, flattening to shallow dipping in the east. - The Bollinger deposit is predominantly flat lying. - Due to the style of mineralisation under consideration there is no expectation of sampling bias due to the relationship between drill hole interception angle with the mineralisation and the length.
Diagrams	- Representative sections and plans are included in IGO's prior releases of exploration results relating to Nova Bollinger.
Balanced reporting	- The MRE is based on all available data and as such provides the best-balanced view of the Nova-Bollinger deposits.
Other substantive exploration data	- Information relating to other exploration data, such as density, metallurgical assumptions are detailed in Section 3 further below
Further work	- The grade control drill out from underground diamond drill platforms will continue at least until the end of 2017 to infill and test for extensions of Nova South and Bollinger. - Further work on targets such as Conductor 5 and the Feeder zone between Nova and Bollinger is budgeted for FY2018.

Section 3: Estimation and Reporting of Mineral Resources – Nova Operation

Criteria	Commentary
Database integrity	- All data entry is via direct entry into data electronic templates with lookup tables and fixed formatting are used for logging, spatial and sampling data at Nova-Bollinger. - All data transfer and assay loading is electronic. - Sample numbers are unique and pre-numbered bags are used. - IGO's data management procedures make transcription and keying errors unlikely, and digital merging by unique sample number keys reduces the risk of data corruption. - IGO's geological staff validate the data under the direction of the Acquire Database Administrator using IGO protocols. - The data for Nova-Bollinger is stored in a single database.
Site visits	- Mark Drabble (Principal Consultant - Optiro), who is acting as Competent Person for the estimate, has carried out multiple site visits to the Nova operation during 2016 and 2017. - The Competent Person has inspected the deposit area, the core logging and sampling facility, density measurement area, Minalyser analysis station and underground exposures in ore drives and stopes. - The Competent Person's opinion is that IGO's protocols and procedures are consistent with good industry standard and acceptable to support Mineral Resource estimation work.
Geological interpretation	- The confidence in the geological interpretation of Nova and Bollinger is considered high in areas of close spaced drilling, and is supported by an additional 652 underground and 14 drill holes from surface totalling 90,858m and 6,111m (respectively) drilled, since the last estimate reported in 2013. - Mining of three levels of ore development has added substantially to the geological understanding of the deposit. - The geological confidence of the Inferred Mineral Resource is based on extension of the current mineralisation domains to the margins of the deposit, and the connecting 'feeder zone' between Nova and Bollinger that will be infill drilled in 2017. - Core samples taken for petrography and litho-geochemical analysis have been used to identify and define the rock type subdivisions applied in the interpretation process. - The assumptions made are that zones of similar sulphide have a spatial association that allows them to be interpreted as continuous or semi-continuous (dependent on setting). - There are also assumptions that the breccia zones can have variable continuity due to the internal nature of the domains, with this variability is accounted for in the estimation methodology. - The Nova-Bollinger deposit has a generally tabular geometry, with geological characteristics that define the mineralised domains. - The infill drilling has confirmed the outer bounds of the 2013 geological interpretations, but local complexity has been now identified and incorporated into the 2017 Mineral Resource estimate. - One outcome of the interpretation changes has been a reduction in the total metal tonnage, due to: o Complex pinch and swell, geological character reducing the volume of breccia domains o Reduction in the continuity of high grade mineralisation within the breccia domains o Extension of breccia zones into lower grade areas o Removal of the low-grade halo domain interpreted at a 0.4% NiEq cut-off grade, but which contained mineralisation above 0.6% NiEq in the 2013 MRE. - The current interpretation is geologically controlled, and supported by the new drilling and underground development, and is robust. - Geological controls and relationships were used to define grade estimation domains with hard boundary constraints applied on an estimation domain basis. - The Nova and Bollinger breccia zones have mixed grade sample populations due to spatial mixing of massive sulphides and mineralised clasts within these domains. - MgO-Ni grade relationships are interpreted to be influences on local grade estimates and the estimation domaining has addressed these controls in the resource estimation process. - The infill drilling of Nova has confirmed the interpreted geological complexity, such as the pinch and swell nature of the mineralised domains, and the local effects of the intrusive gabbro units. - The spatial continuity of high and low MgO geological units has assisted in refining contact relationships.
Dimensions	- The Nova mineralisation commences from 40m below surface and extends to 470m below surface. - The Nova area extents are ≈650m (northeast to southwest) and ≈300m (northwest to southeast). - The Bollinger Mineral Resource area abuts the Nova zone and starts at ≈360m below surface (highest point) and extends to ≈425m below surface. - Bollinger has areal extents of ≈300m (north) and 400m to 125m (east). - The two resource areas are split for model reporting purposes along the 518,600mE MGA easting.

Section 3: Estimation and Reporting of Mineral Resources – Nova Operation

Criteria	Commentary
	- The Nova and Bollinger deposits are joined by an interpreted narrow east-west trending feeder zone that has a length of ≈180 m, thickness of 10m to 20m and north-south width of up to 80m.
Estimation and modelling techniques	- Concentrations of Ni%, Cu%, Co%, Fe%, Mg%, S% and in situ bulk density (t/m3) were estimated into the Nova and Bollinger digital block models using the Ordinary Block Kriging (OK) routines implemented in GEOVIA Surpac (6.7.3). - The estimation drill hole sample data was coded for estimation domain using the three-dimensional wireframe interpretations prepared in LeapFrog Geo 4.0.1 software. - The drill hole sample data from each domain was then composited a target of a one metre downhole length using an optimal best fit-method, to ensure no short residuals were created. - Where necessary in some domains, the influence of extreme sample distribution outliers was controlled by capping grades to maximum value. The top-cut thresholds were determined using a combination of top-cut analysis tools (grade histograms, log probability plots and CVs). Very few top-cuts were applied. - The Breccia domains at Nova and Bollinger have spatially and statistically mixed sample populations, which cannot be separated by wireframing at the current data spacing. As such a categorical indicator approach using a single threshold within the domains was applied to provide a statistical best-fit sub-domaining of the mixed populations using a ±5% Ni indicator threshold for Nova data, and ±4.4% Ni indicator threshold for Bollinger. - A dynamic anisotropy sample search approach was applied during estimation to optimise the grade connectivity in the often-undulating domain geometry. - For all domains, directional anisotropy axis semivariograms were interpreted using traditional experimental semivariograms or back-transformed normal-scores model interpretations. Semivariogram nugget effects were found to be moderate to high (Nova <50%, Bollinger <30% of the data variance). The maximum range of grade continuity varied and was found to be deposit/domain dependant. Typically, maximum continuity ranges varied from 20m to 170m in the major direction dependent on mineralisation style. - Where small or poorly sampled domains had too few data to interpret continuity models, the variography parameters were inferred from the results of larger well sampled domains. - Estimation sample searches passes were set to the ranges of the nickel variogram for each domain in the first sample pass and increased by factors for subsequent estimation passes. The maximum distance to nearest sample for any estimated block was 100 metres. Approximately 7% of the Inferred Mineral Resource is extrapolated greater than 25 metres beyond the data. - This estimate is an update of the prior Mineral Resource Estimates (MREs) for Nova and Bollinger. - Nova has been updated using data from 612 infill underground holes (for 85,395m of diamond drilling), in addition to the 215 surface holes for 85,829m drilled by Sirius up to 2014, along with mapping data from ore drive development on three levels. - This information has been applied to update the geology and mineralisation models and the interpretation outcomes of the 2017 Bollinger update using the predominantly unchanged dataset of surface drilling from the 2013 MRE. - Ore production is at an initial stage as the mine ramps-up to full production so the reconciliation information is largely based on results of processing ore from development headings that have a high planned dilution component. Refer to the item on accuracy further below for reconciliation factors. - The main by-product of the nickel and cobalt co-products is cobalt. Cobalt value is dependent on any off-take agreement and may realise a credit but the value of cobalt is not currently included in the NiEq basis. - The accessory grades estimated in the update are Fe%, Mg% and S%. No specific acid-mine drainage variable has been estimated but sulphur can be used as a proxy where needed. - A single digital block model for Nova-Bollinger was prepared in Surpac using a 4 mE×6mN×4mElv parent block size with sub-blocks permitted down to dimensions of 1 mE×1.5 mN×0.5mRL. - All block grade estimates were completed at the parent cell scale using estimation search parameters calibrated in the 2013 estimation work. - Block discretisation was set to 5×5×2 nodes per block for all domains. - The dimensions of the sample search ellipse per domain was set based on the nickel variography parameters, due to the moderate to strong correlations between nickel with the other variables estimated. - Two estimation search passes were applied to each domain in Nova. The first estimation pass had ranges set to the nickel semi-variogram maximum with a requirement to find minimum of 8 and maximum of 20 samples for a block to be estimated. Sample selection was unlimited per hole. In the estimation second pass, the search ranges were doubled, and the minimum sample requirement was reduced to four. - For the Bollinger estimates, a third pass search was required using a 3× the maximum ranges of the respective domain semi-variogram models. Sample search constraints were set to a minimum of 4, and a maximum of 30 for a block grade to be estimated. A limit of a maximum of 5 samples per hole was also applied. - In the most of domains, most blocks were estimated in the first estimation pass (particularly for the main domains). However, some more sparsely-sampled domains were predominantly estimated on the second or third pass. Blocks not estimated in the final search passes were assigned the estimated domain mean

Section 3: Estimation and Reporting of Mineral Resources – Nova Operation

Criteria	Commentary
	grade for each respective variable and the assigned a lower confidence category in the JORC Code classifications. - No assumptions regarding selective mining units were made in this estimate. - A neural networking analysis was used to investigate relationships between the variables at Nova in the 2013 estimate. The findings of this study were then incorporated into the domain interpretation process. - Strong positive correlations occur between nickel, sulphur, iron and cobalt, with copper sometimes not as strongly correlated. The correlation between nickel and copper is variable with domain and mineralisation style. All variables have been estimated within the nickel domains. - The geological interpretation modelled the sulphide mineralisation into geological domains at Nova-Bollinger. The deposit framework incorporates gabbroic intrusives, high and low magnesium intrusive units, deformation partitioning, folding, sulphide remobilisation, brecciation and replacement. - These form a complex deposit where geological relationships are used to define mineralisation domain geometries and extents. Grade envelopes are not applied, apart from reference to the natural ≥0.4% Ni cut-off that appears to define the extents of the global mineralised system. - The boundaries of mineralised domains were set to hard boundaries to select sample populations for variography and estimation. - The statistical analyses of the drill hole sample populations in each domain at Nova and Bollinger generally have low coefficients of variation with no extreme values that could potentially cause local grade biases during estimation. However, a few number of estimation domains do have outlier values, which were capped to the 98th percentile value of each respective domain. - Validation of the block model volumes was carried out using a comparison of the domain wireframes volumes to the block model volumes. Grade/density validation included comparing the respective domain global mean grades of block model grades to the estimation drill hole composites, and moving window mean grade comparisons using swath plots within northing, easting and elevation slices. - Visual validation was completed on screen to review that the input data grade trends were consistent with the output block estimate trends. - The final mine depleted estimates were reported out of two different software systems and checked by both IGO and Optiro for accuracy. - Refer further below to the item on estimation accuracy for model to mill reconciliation results.
Moisture	- The tonnages are estimated on a dry basis.
Cut-off parameters	- A nominal grade cut-off of ≥0.4% Ni is interpreted to be the statistically 'natural' grade boundary between disseminated and trace sulphides for the Nova- Bollinger mineralised system. - This cut-off grade was used in 2013 to define the mineralised envelope within which the higher-grade sub domains were interpreted. - However, unlike the previous 2013 interpretation, the 2017 interpretation does not include an alteration envelope as the isolated intersections in previous the interpretation is now largely included into other spatially consistent domains. - The Mineral Resource is reported using ≥0.6% NiEq (nickel equivalent) block cut-off as an approximate proxy for break-even development net-smelter-return (NSR) and for comparing the 2017 estimate to the 2013 estimate. - Where stated, the NiEq% calculation is based on the following formula: ((Cu% × 0.89) × (6,420/16,420)) + (Ni% × 0.88), where the long-term nickel price is forecast to be $US16,420/t and the long-term copper price is $US6,420/t.
Mining factors or assumptions	- Mining of the Nova-Bollinger deposit is and will be, by underground mining methods including mechanised mining, open stoping and/or paste backfill stoping.
Metallurgical factors or assumptions	- The ore processing method at Nova-Bollinger is well-established and the recoveries from the two stages of concentrate generation (copper-cobalt and nickel cobalt) have been used to define the nickel-equivalent formula. - Metallurgical recovery values are sourced from the 2015 optimisation study where the steady-state metallurgical recoveries to concentrates are forecast to be 88% for nickel and 89% for copper (refer to page 14 of IGO ASX release 14/12/2015 for details).
Environmental factors or assumptions	- IGO has assured the Competent Person that all necessary environmental approvals have been received. - Sulphide tails are being pumped to a specific waste storage facility and non-sulphide tails are used in paste backfill. - Rock wastes are stored in a conventual waste dump.

Section 3: Estimation and Reporting of Mineral Resources – Nova Operation

Criteria	Commentary
Bulk density	- *In situ* bulk density measurements were carried out on 43,209 core samples using the Archimedes principle method of dry weight versus weight in water. - The use of wax to seal the core was trialled but was shown to make less than 1% difference. Density standards were used for QAQC using an aluminium billet and pieces of core with known values. - Pycnometer density readings (from sample pulps) were carried out for 21,632 samples by assay laboratories to accelerate a backlog of density samples. - A comparison of 263 samples from holes that that had both methods carried out showed an acceptable correlation coefficient of 0.94 but also that the pycnometer results are reporting slightly lower than the measured results, which is expected given pycnometer readings do not provide an *in situ* bulk density. The density difference between methods is not considered to be material to the estimate. - The density ranges for the mineralised units are: Massive sulphides 2.0 g/cm^3 to 4.7g/cm^3 (average: 3.9g/cm^3), net textured sulphides 3.0 to 4.4 g/cm^3 (average: 3.6g/cm^3) and disseminated sulphides 2.5g/cm^3 to 4.6g/cm^3 (average: 3.5g/cm^3). - The host geology comprises high grade metamorphic rocks that have undergone granulite facies metamorphism. The rocks have been extensively recrystallised and are very hard and competent. - Vugs or large fracture zones are generally annealed with quartz or carbonate in breccia zones. Porosity in the mineralised zone is low. As such, voids have been accounted for in all but the pycnometer density measurements. - The bulk density values were estimated using OK using the nickel search parameters and the density samples taken within the geological domains. - A linear regression formula of {Density = 0.182×% Ni+3.12} derived from the measured samples was applied to 1,814 samples that did not have density measurements completed at the data cut-off date for commencement of Mineral Resource estimation work.
Classification	- The Nova Measured Mineral Resources are classified based on the high confidence in the geological and grade continuity, along with 12.5m×12.5m spaced drill hole density and information from three levels of ore mining in development. - Estimation parameters, including kriging efficiency have also been utilised during the classification process, along with the assessment of geological continuity. - The Indicated Mineral Resource at Nova is classified based on high confidence geological modelling using the knowledge gained from the close spaced infill drilling to update the mineralisation domains in areas of 25m×25m spaced drilling. - The grade continuity is modelled by conditional indicator selection to proxy the nature of the massive sulphide breccia domains, which contain the bulk of the metal at Nova. Grade continuity is also assessed by measures such as a kriging efficiency of >0.5. - The Inferred Mineral Resource category was applied to extensions of domains to the margins of the deposit, and to the connecting 'feeder zone' that joins the Nova and Bollinger areas (drill spacing in this area is often greater than 50m×50m. - The Indicated Mineral Resource classification at Bollinger is based on good confidence in the geological and grade continuity, along with 25m×25m spaced drill hole density in the centre and bulk of the deposit. - The Inferred Mineral Resource classification at Bollinger is applied to extensions of mineralised zones to the margins of the deposit, where drill spacing is greater than 50m×50m, the upper extents of domains such as Conductor 5, and the margins of the gabbro units where limited disseminated mineralisation is noted. - The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in situ mineralisation. Geological control at Nova-Bollinger consists of a primary mineralisation event modified by metamorphism and structural events. - The definition of mineralised zones is based on an elevated level of geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling and mine development exposure, which supported the initial interpretation. - The validation of the block model has confirmed satisfactory correlation of the input data to the estimated grades and reproduction of data trends in the block model. - The Mineral Resource estimate appropriately reflects the view of the Competent Persons.
Audits or reviews	- This is an update of the prior estimates for both the Nova and Bollinger areas. The Nova resource was extensively reviewed as part of the infill drilling and modelling, with a collaborative approach to interpreting the geology. - The prior Bollinger model was reviewed internally IGO and Optiro after the Nova April 2017 MRE and some significant improvements were made to the geological domains to produce the June 2017 Bollinger MRE update.

Section 3: Estimation and Reporting of Mineral Resources – Nova Operation

Criteria	Commentary
Relative Accuracy/Confidence	- The Mineral Resource at Nova has been estimated using standard industry practices for the style of mineralisation under consideration. - The geological and grade continuity of the domains is such that the Indicated Mineral Resource has a local level of accuracy which is suitable for achieving annual targets, while Measured Mineral Resource estimates are considered commensurate with meeting quarterly production targets. Inferred Mineral Resource are indicative of areas and tonnage that warrant further drill testing but are not suitable for Ore Reserve estimation. - There has been no quantitative geostatistical risk assessment such that a rigorous confidence interval could be generated but the nature of the nickel/copper mineralisation is such that, at the grade control drill spacing, there is minimal risk to the schedule on a quarterly basis. - Production data has provided a satisfactory assessment of the actual accuracy compared to the estimate for development ore. - The Measured and Indicated Resources are considered suitable for Ore Reserve conversion studies and should provide reliable (± 15%) estimates for quarterly and annual production planning respectively. - The Inferred Mineral Resource estimates identify areas that required further drilling and assessment before such areas can be considered for mine planning. - Total ore processed to 30 Jun 2017 has been ≈450kt grading 1.15% Ni, 0.52% Cu and 0.04% Co. - Mine-claimed ore from the model update is ≈440kt grading 1.09% Ni, 0.47% Cu, 0.04% Co, with ≈6kt on ROM stockpiles on 30 Jun 2017. - Reconciliation factors (mill ÷ mine-claimed) are therefore 102% for tonnage, 106% for nickel grade, 111% for copper grade and 105% for cobalt grade. - As most of the ore processed to date is development ore with high planned dilution, the reconciliation factors indicate that the updated Mineral Resource estimate may be a conservative predictor, however as the mine is still in ramp-up the results should be considered satisfactory with further review required over coming months.

Section 4: Estimation and Reporting of Ore Reserves – Nova Operation

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	- The estimate used for the Ore Reserve study is not the estimate described in the preceding sections of this JORC Table 1. The Mineral Resource estimate it the estimate in place prior to the update described above. - The Ore Reserve reported is the prior estimate (as reported at 30 June 2016) depleted for the mine-claim for the FY17 year. - An Ore Reserve update will be completed once close-spaced grade control drilling of the Bollinger deposit is completed later in FY18. - This Mineral Resource estimate reporting at the end of FY17 was inclusive of this Ore Reserve estimate. - The Ore Reserve for the end of FY17 is the FY16 year-end estimate depleted for mine-claimed ore for FY17.
Site visits	- The Ore Reserve estimate for Nova-Bollinger is being reported by IGO Chief Operations Officer who makes regular visits to the mine and has a detailed understanding of the operations.
Study status	- The level of study for the Ore Reserve estimate is commensurate with industry expectations of a (final) Feasibility Study as described in the JORC Code, with the study work confirming that the mine plan is technically feasible, and with all material Modifying Factors considered in the study. - All major capital to establish the mine has now been expended to build the process plant, infrastructure and the operation is now running at near full capacity as a going concern at the end of project ramp-up.
Cut-off parameters	- The Ore Reserve reporting cut-offs have been determined using a 'Net-Smelter-Return' NSR basis where the reporting NSR is defined as the net value $A value per tonne of ore after consideration or all costs (mining, process, G&A, product delivery), sustaining capital, concentrate metal payabilites and treatment charges, and royalties. - All designed stopes and development have been assessed individually to verify that they are above the NSR cut-off and can be economically mined.
Mining factors or assumptions	- The mining method assumed for the Ore Reserve is long-hole sub-level open stoping, which is considered appropriate for the for the style of mineralisation under consideration.

Section 4: Estimation and Reporting of Ore Reserves – Nova Operation

Criteria	Commentary
	- Geotechnical parameters are based on recommendations made in the Nova-Bollinger Feasibility Study prepared in 2014. No material geotechnical issues have been encountered in mining to date. - IGO is completing a diamond core drill out of Nova-Bollinger on a nominal mineralisation pierce point spacing on 12.5m×12.5m. This drilling Nova area is largely completed with drilling focusing on Bollinger with a target completion date of December 2017. - Stope designs include planned dilution within the stope shape and a factor of 7% unplanned dilution resulting from over-break, ravelling of stope walls, and excessive dilution due to ore-waste mixing. - The ore recovery factor is assumed to be 95%, with the 5% ore loss due to issues such as under-break, bridging or freezing, or material losses due to stopes being inaccessible for a variety of possible reasons. - Stope sizes are generally 25m long and 25m high, with widths controlled by the Mineral Resource geometry at the NSR cut-off grade targeted for design. - A minimum mining width (thickness) of 4m has been applied to all designs. - Inferred Mineral Resources within stope designs are treated as waste (zero grade) and become part of the planned dilution. - The infrastructure required for the selected mining methods is now in place for much of the Nova-Bollinger deposit. This includes process plant, tails storage, paste plant, offices, camp, borefield, airstrip, access road, power station, mine ventilation, escape ways, refuge chambers and so on. - Sustaining capital costs include allowances for extension of the decline are included in operational budgets.
Metallurgical factors or assumptions	- The metallurgical process for Nova-Bollinger ores is already established and is a process flow of crushing, grinding to nominally sub 105 microns, the differential froth-floatation of a nickel concentrate grading 13.5% Ni and 0.4% Co, and a copper concentrate grading 29% Cu. - The throughput rate assumed is 1.5Mt/a. - Metallurgical recovery values ae based on the Nova 2015 optimisation study where the steady-state metallurgical recoveries to concentrates were forecast to be 88% for nickel and 89% for copper and 85% for cobalt. - No deleterious elements are materially present in the ore albeit, concentrate penalties apply on the nickel concentrate when the Mg:Fe ratio is outside certain limits. This ratio is managed in the mine planning through blending of high magnesium ores as required. - No specific minerals are required for the saleable concentrates, which are primarily composed of pyrrhotite (gangue), with pentlandite the payable mineral in the nickel concentrate, and chalcopyrite the payable mineral in the copper concentrate. Cobalt is strongly correlated with pentlandite.
Environmental	- The Nova-Bollinger deposit was discovered in July 2012 and studies were initiated shortly afterwards to establish baseline environmental conditions. - The Nova project self-referred to the Environmental Protection Authority (EPA) and in August 2014 received confirmation that the operation could be adequately managed under WA Mining Act provisions. - Following the granting of mining tenure, Mining Proposals for Stage 1 and Stage 2 of the Nova Operation were submitted to the then DMP, approved at the end of 2014, enabling construction to begin in January 2015. - All necessary operational licences were secured including clearing permits and groundwater extraction. - A tailings storage facility has been constructed to contain the sulphide bearing wastes from the processing operation and non-sulphide tailings are pumped to the paste-fill plant and then into completed stopes. - Potentially acid-generating mine development rock (containing >0.7% S) is either used as rock-fill in some completed stopes or encapsulated in non-acid generating rock in the mine waste dump. - Now in operation, Nova operation maintains a compliance register and an environmental management system to ensure it fulfils its regulatory obligations under the Nova EP licence. - A mine closure plan is in place to address full rehabilitation of the site once mining activities are completed.
Infrastructure	- All major infrastructure required for the mining, processing and sale of concentrates in now in place and operation including mine portal and decline, ventilation systems and paste plant, water bore field, tailing storage facility, process plant and power plant, sealed road to the main access highway, accommodation camp for IGO and contractors and all-weather air strip with 100-seat jet capacity. The owner and contractor staffing is fully complete, with personnel sourced on a fly-in-out basis from Perth. - No other significant infrastructure is anticipated other than a minor bore field expansion.
Costs	- All major capital costs associated with the Nova operation infrastructure are already spent. Sustaining capital cost for the decline development and stope accesses are based on operational experience to date. - Operating costs for the Ore Reserve are based on budget estimates from a mining reputable contractor and experienced independent consulting firms. - No allowances have been made for deleterious elements as Nova's concentrates are clean and generally free of deleterious metals at concentrations that would invoke penalty clauses. - Product prices assumed or the Ore Reserve are discussed further below. - Foreign exchange rates were forecast data from a 2015 study with $A:$US rate 0.90.

Section 4: Estimation and Reporting of Ore Reserves – Nova Operation

Criteria	Commentary
	- Concentrate transport costs have been estimated by a logistics consultant with shipping cost from Esperance estimated by an experienced shipping Broker. - Treatment and refining charges, applicable to offshore shipments are based on the confidential terms of sales contracts. - Allowances have been made for WA state royalties, with a 2.5% royalty applicable to the sale price of nickel and cobalt in the nickel concentrate, and a 5% royalty applicable to the value of copper in copper concentrate, with the latter applied to copper after the deduction of concentrate sales costs. - IGO also pays a royalty to the Ngadju people on the value of both concentrates net of all costs including WA State royalties.
Revenue factors	- Head grades and concentrate produced is determined by the Ore Reserve mine plan. - NSR values per mined block were calculated by IGO from the cost and revenue inputs. - Treatment, refining and transport assumptions are discussed under costs (above) - The assumptions made for commodity prices are based on LME metal prices for between June 2012 and July 2013, which averaged: o $US7.44/lb for nickel o $US3.47/lb for copper o $US12.0/lb for cobalt
Market assessment	- Wood Mackenzie prepared a market analysis for the sale of Nova concentrates in June 2014, which is the source of the metal price forecasts above. - An assessment was also prepared by Vector Solution Pty Ltd into the value of Nova concentrates to BHP Nickel West. - Nova Operation has made first shipment to customers in FY17 with no material issues relating to the acceptability of concentrates other than high chlorine levels, and issue that has now been mitigated by extra fresh water washing of concentrates before filtering.
Economic	- The inputs into the economic analysis for the Ore Reserve update have already been described above under previous subsections. - The economic evaluation has been carried out on a nominal basis (no adjustment for inflation) on the basis that saleable product values will be correlated with inflation. - The confidence in majority of the economic inputs is high given the input sources at the time of the Ore Reserve study. - The confidence in metal prices and exchange rates is consistent with routine industry practices with the data derived from reputable forecasters. - The discount rate used for NPV calculations was 8% per annum and the NPV is strongly positive at the assumed payable metal prices.
Social	- The Nova deposit was discovered in July 2012 and development of the site commenced in January 2015 following regulatory approval in December 2014. - IGO's operations are also managed under a Mining Agreement with the Ngadju people, who the traditional owners and custodians of the land occupied by Nova. - WA Mining lease M28/376 covers all the Nova mining, process and support infrastructure. - IGO has all the necessary agreement in place with key stakeholders and has both statuary and social licence to continue operation of Nova for the life of mine.
Other	- There are no material naturally occurring risks associated with the Nova operation. - There are no material legal agreements or marketing arrangements not already discussed in prior sub sections. - All necessary government and statutory approvals are in place. - There are no unresolved third-party matters hindering the extraction of the Ore Reserve. - Additional water bores are required to ensure water security and exploration for an additional bore field in in progress.
Classification	- The Ore Reserve has been classified as Probable Ore Reserve JORC Code classes based on the underlying Mineral Resource classification in the Mineral Resource model, with Indicated Mineral Resources converted to Probable Ore Reserves. - Inferred Mineral Resources within stope or mine development heading have been treated at planned dilution (waste) with zero payable metal grades. - The classifications applied to the estimate are consistent with the opinion of the Competent Person reporting the Ore Reserve. - No Proved Ore Reserves have been classified as there are no Measured Resources.

Section 4: Estimation and Reporting of Ore Reserves – Nova Operation

Criteria	Commentary
Audits or reviews	- The estimate has been reviewed internally by Nova's senior mine engineering staff and IGO's Perth office technical staff. - No independent external reviews have been completed.
Discussion of relative accuracy/ confidence	- No statistical or geostatistical studies, such as conditional simulations, have been completed to quantify the uncertainty and confidence limits of the estimates. - The main driver of accuracy and is the spacing drilling, which is captured in the Mineral Resource JORC Code classifications underpinning the Ore Reserve estimates. - Confidence in Ore Reserve inputs is generally high give the mine is operation and costs, prices, recoveries and so on are well understood. - The Ore Reserve estimates are considerate to have sufficient local accuracy to support mine planning and production schedules with Proved Ore Reserves considered a reliable basis for quarterly production targeting and Probable Ore Reserves reliable for annual production targets. - Confidence in the mine design and schedule are high as mining rates and modifying factors are based on actual site performance. Mine design is consistent with what has been effective previously. - The limited mine to mill reconciliation data to date indicates the forecast precision of the estimates is acceptable.

APPENDIX B – JORC CODE TABLE 1 – TROPICANA GOLD MINE

Section 1: Sampling Techniques and Data – Tropicana Gold Mine

Criteria	Commentary
Sampling techniques	- AngloGold Ashanti Australia (AngloGold) has used drilling and subsampling of the cuttings or cores as the data basis for the Mineral Resource estimates of the Tropicana deposits. Details are given in the following subsection. - Drill hole spacings range from 25m×25m grids to 100m×100m grids, with most of the drilling of the Open Pit Mineral Resources on a 50m×50m spacing with 25m×25m testing the starter pits of the Tropicana and Havana initial pits, and the southern end of the Boston Shaker deposit - A 100m×100m area of Havana was drilled out on a 10m×10m grid to validate the resource model and optimise the grade control sample spacing. - The Underground Mineral Resource down-plunge extensions of Havana Deeps is tested using a 100m×100m grid. Deep +800m deep step-out holes have been drilled on nominal ≈200m×100m to test the high-grade mineralisation of Havana Deeps. - All holes are drilled plunging towards the west to intersect the east dipping mineralised zones
Drilling techniques	- Reverse circulation (RC) percussion drilling using face-sampling bits (5¼ inch or 133mm diameter) has been used to collect samples from the shallower (up-dip) part of the deposits with a nominal maximum RC depth of 150m. - Diamond core drilling has been used for deeper holes, with diamond tails drilled from RC pre-collars. To control the deviation of deep DD holes drilled since 2011, many of these holes were drilled from short ≈ 60m RC pre-collars or using 63.5mm (HQ) diameter core from surface. - Diamond core drilling for Mineral Resource definition is predominantly 47.6mm (NQ) diameter core, with a lesser number of holes drilled for collection of metallurgical and/or geotechnical data using 63.5mm (HQ2, HQ3) ore 85mm (PQ) core diameters. - In fresh rock, cores are oriented wherever possible for collection of structural data. Prior to 2009, core orientations are made using the EzyMark tool with the Reflex Ace Tool replacing the system in later drilling programmes.
Drill sample recovery	- RC recovery: o Prior to 2008 semi-quantitative assessment was made regarding RC sample recovery with recovery visually estimated as 25%, 50%, 75% or 100% of the expected mass volume of a 1m drilling interval. o Since 2008, AngloGold has implemented quantitative measure on every 25th interval where the masses of the sample splits are recorded and compared to the theoretical mass of the sampling interval for the rock type being drilled. o AngloGold found that overall recovery in the regolith was >80% and total recovery in fresh rock. - DD Recovery: o DD recovery has been measured as percentage of the total length of core recovered compared to the drill interval. o Core recovery is consistently high in fresh rock with minor losses occurring in heavily fractured ground or for DD drilling in the regolith. - The main methods to maximise recovery have been recovery monitoring as described above and diamond core drilling below ≈150m depth. - No relationships have been noted between sample recovery and grade and sample biases that may have occurred due to the preferential loss or gain of fine or course material are considered unlikely.
Logging	- RC cuttings and DD cores have been logged geologically and geotechnically with reference to AngloGold's logging standard library, to levels of detail that support Mineral Resource estimation, Ore Reserve estimation and metallurgical studies - Qualitative logging includes codes for lithology, regolith, and mineralisation for both RC and DD, with sample quality data recorded for RC such as moisture, recovery, and sub-sampling methods. - DD cores are photographed, qualitatively structurally logged with reference to orientation measurements where available. - Geotechnical quantitative logging includes QSI, RQD, matrix and fracture characterisation. - The total lengths of all drill holes have been logged.

Section 1: Sampling Techniques and Data – Tropicana Gold Mine

Criteria	Commentary
Sub-sampling techniques and sample preparation	- RC – Primary splitting o Prior to 2007 RC samples were collected from the cyclone stream using a tiered riffle splitter. From 2007 a static cone splitter was introduced and replaced riffles splitters on all rigs. o The RC sampling interval is generally 1m but from 2016, 2m intervals were introduced for RC pre-collars. o The splitters collected a ≈12% split from the primary lot with two 12% splits collected – the first for laboratory submission and second as a reference or replicate. Most samples were collected dry with <2% of samples recorded as being split in moist or wet state. o The main protocol to ensure the RC samples were representative of the material being collected was monitoring of sample recovery and collection and assay of replicate samples. - DD – Primary sample o DD cores are collected of intervals determined by geological boundaries but generally targeting a 1m length o All NQ cores have been half-core sampled with the core cut longitudinally with a wet diamond blade. o A few of the DD whole cores have been sampled from HQ3 cores drilled to twin RC holes in the regolith or for geotechnical or metallurgical testing. o In 2005, some 1,150m of cores drilled in the oxide zone were chisel split rather than wet cut but this poorer sub-sampling represents <0.01% of the core drilled. - Laboratory preparation o Sample preparation has taken place at three laboratories since commencement of Mineral Resource definition drilling including SGS Perth (pre- 2006), Genalysis Perth (2006 to April 2016) and Tropicana site laboratory (2015 Boston Shaker samples and post-April 2016 samples) o RC samples were over dried then pulped in a mixer mill to a PSD of 90% passing 75 microns before subsampling for fire assay. o SGS prepared DD half-core samples by jaw-crushing then pulverisation of the whole crushed lot to a particle size distribution (PSD) of 90% passing 75 microns. A 50g subsample of the pulp was then collected for fire assay. o Genalysis prepared the samples in a Boyd crusher rotary splitter combo with nominally 2.5kg half-core lots crushed to <3mm then rotary split to ≈ 1 kg before pulverisation and sub-sampling for fire assay. o Samples less with mass <800g submitted to Tropicana laboratory are pulped in a LM2 mill to a PSD of 75 microns before sub-sampling for fire assay. Samples with larger masses are crushed in a Boyd crusher to a PSD of 90% passing 2mm then subsampled using a linear sample divider. o From May 2016, a jaw crusher has been used to crush half-core samples to a PSD of 100% passing 6mm. - Quality controls for representativity o SGS inserted blanks and standards at a 1:20 frequency in every batch with a duplicate pulp collected for assay every 20th sample. Further repeats were also completed at a 1:20 frequency in a random manner. o Sieve checks were completed on 5% of samples to monitor PSD compliance. o Genalysis inserted blanks and standards in every batch and a duplicate pulp was collected for assay on every 25th sample and 6% of each batch was randomly selected for replicate analysis. Sieve checks were completed on 5% of samples to monitor PSD compliance. o Tropicana laboratory used barren basalt and quartz to clean equipment between routine samples - Sample size versus grain size o No specific heterogeneity tests have been carried out but the sample sizes collected are consistent with industry standards for the style of mineralisation under consideration. o A 2008 sampling variability study found that 72% of the gold in the samples tested was in size fraction <300 microns, and that repeated sampling of the same lot have very low variance between replicates.
Quality of assay data and laboratory tests	- No geophysical tools were used to determine any element concentrations material to the Mineral Resource estimate. - All Mineral Resource prepared pulps have undergone 50g fire assay which is considered a total assay for gold

Section 1: Sampling Techniques and Data – Tropicana Gold Mine

Criteria	Commentary
	- As discussed above all laboratories have used industry standard quality control procedures with standards used to monitor accuracy, replicate assay to monitor precision, blanks to monitor potential cross contamination and sieve tests to monitor PSD compliance. - AngloGold has also used other 'umpire' laboratories to monitor accuracy including Genalysis Perth (prior to November 2006), SGS (from November 2006 to August 2007) and ALS Perth (since August 2007), with these check assaying campaigns coinciding with each Mineral Resource update. - AngloGold has reviewed the quality sample results on a batch by batch and monthly basis and has found that the overall performance of the laboratories used for Mineral Resource estimation samples is satisfactory.
Verification of sampling and assaying	- Significant intersections of mineralisation are routinely verified by AngloGold senior geological staff and have also been inspected by several independent auditors as describe further below. - Twin holes have been drilled to compare results from RC and DD drilling with the DD results confirming that there is no material down-hole smearing of grades in the nearby RC drilling and sampling. - All logging and sample number data is captured digitally in the field using Field Marshall Software (upgrade to Micromine Geobank in 2016). Data is downloaded daily to the Tropicana exploration server and checked for accuracy, completeness and structure by the field personnel. - Assay data is merged electronically from the laboratories into a central Datashed database, with information verified spatially in Vulcan software. AngloGold maintains standard work procedures for all data management steps. - An assay importing protocol has been set up to ensure quality samples are checked and accepted before data can be loaded into the assay database - All electronic data is routine backed up to AngloGold's server in Perth and provided to IGO via FTP transfer. - There have been no adjustments or scaling of assay data other than setting below detection limit values to half detection for Mineral Resource estimation work.
Location of data points	- All completed drill hole collar locations of surface holes have been using RTK GPS equipment, which was connected to the state survey mark (SSM) network. - The grid system is GDA94 Zone 51 using AHD elevation datum. - Prior to 2007, drill hole path surveys have been completed on all holes using Eastman single shot camera tools, with down-hole gyro tools used for all drilling post 2007. - A digital terrain model was prepared by Whelan's Surveyors from aerial photography flown in 2007, which has been supplemented with collar data surveyed using RTK GPS. This model is considered to have centimetre-scale accuracy.
Data spacing and distribution	- The drill hole spacing nominally ranges from 25mN×25mE to 100mN×100mE (local grid) over most of the Mineral Resource area with a small area of 10mN×10mE used for grade control calibration work. - Most of the Open Pit Mineral Resources has been tested on a 50mN×50mE grid with closer spaced 25mN×25mE patterns in the upper parts of the deposit within initial open pit designs. - The Havana Deeps area has been drilled on a 100mN×100mE pattern. - Down-hole sample intervals are typically 1m with 2m compositing applied for Mineral Resource estimation work. - The Competent Person considers that these data spacings are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures applied, and the JORC Code classification applied.
Orientation of data in relation to geological structure	- Most drill hole are oriented to intersect the shallowly east dipping mineralisation at a high angle and as such, a grade bias introduced by the orientation of data in relation to geological structure is highly unlikely.
Sample security	- The chain-of-sample custody is managed by AngloGold. - Samples were collected in pre-numbered calico bags, which are then accumulated into polyweave bags for transport from the collection site. The accumulated samples are then loaded into wooden crates and road hauled to the respective laboratories (Perth or Tropicana). - Sample dispatches are prepared by the field personnel using a database system linked to the drill hole data. - Sample dispatch sheet are verified against samples received at the laboratory and any missing issued such as missing samples and so on are resolved before sample preparation commences.

Section 1: Sampling Techniques and Data – Tropicana Gold Mine

Criteria	Commentary
	- The Competent Person considers that the likelihood of deliberate or accidental loss, mix-up or contamination of samples is considered very low.
Audits or reviews	- Field quality control data and assurance procedures are review on a daily, monthly and quarterly basis by AngloGold field personnel and senior geological staff. - The field quality control and assurance of the sampling was audited by consultant QG in 2007 and 2009. The conclusion of the audit was that the data was suitable for Mineral Resource estimation work.

Section 2: Reporting of Exploration Results – Tropicana Gold Mine

Criteria	Explanation
Mineral tenement and land tenure status	- The Tropical Gold Mine Mineral Resources are located wholly within WA mining lease M39/1096, which commenced on 11 Mar 2015 and has a term of 21 years (expiry 10 Mar 2036). - Tropicana Gold Mine in a joint venture between AngloGold (70%) and IGO (30%) with AngloGold as manager. - Gold production is subject to WA State royalties of 2.5% of the value of gold value. - There are no material issues relating to native title or heritage, historical sites, wilderness or national parks, or environmental settings - The tenure is secure at the time of reporting and there are no known impediments to exploitation of the Mineral Resource and Ore Reserve and on-going exploration of the mining lease.
Exploration done by other parties	- AngloGold entered in to a JV with IGO in early 2002 with the main target of interest being a WMC gold soil anomaly of 31ppb, which was reporting in an WA government open file report. Prior to the JV, the WMC soil sampling program was the only known exploration activity and the only dataset available were WA government regional magnetic and gravity data.
Geology	- The Tropicana Gold Mine is on the western margin of a 700km long magnetic feature that is interpreted to the collision suture zone between the Archean age Yilgarn Craton to the west and the Proterozoic age Albany-Fraser Origan to the east of this feature. The gold deposits are hosted by a package of Archean age high metamorphic grade gneissic rocks. - Four distinct structural domains have been identified – Boston Shaker, Tropicana, Havana and Havana South, which represent the same mineral deposit offset by NE striking faults that post-date the mineralisation. - The gold mineralisation is hosted by a shallowly SW dipping sequence of quartz-feldspar gneisses, amphibolites, granulites, meta-sedimentary cherts. - The gold mineralisation is concentrated in a ‘favourable horizon’ of quartz-feldspar gneisses, with a footwall of garnet gneiss, amphibolite or granulite. - Mineralisation is characterised by pyrite disseminations, bands and crackle veins within altered quartz-feldspar gneiss. Higher grades are associated with close-spaced veins and sericite alteration - Mineralisation presents as stacked higher grade lenses within a low-grade alteration envelope. Geological studies suggest the mineralisation is related to shear planes that post-date the development of the main gneissic fabric and metamorphic thermal maximum.
Drill hole Information	- A summary of the many hole used to prepare the Mineral Resource estimate is not practical for this public report. The Mineral Resource estimate give the best-balanced view of all the drill hole information.
Data aggregation methods	- No drill hole related exploration results are included in this report. - No metal equivalent values are considered in the Mineral Resource estimate.
Relationship between mineralisation widths and intercept lengths	- No drill hole related exploration results are included in this report. - All Mineral Resource drilling interests the mineralisation at a high angle and as such approximate true thicknesses in most cases.

Section 2: Reporting of Exploration Results – Tropicana Gold Mine

Criteria	Explanation
Diagrams	- IGO has included representative diagrams have been included in prior ASX public reports.
Balanced reporting	- The Mineral Resource is based on all available data and as such provides the best-balanced view of the Tropicana gold deposits.
Other substantive exploration data	- Information relating to other exploration data, such as density, metallurgical assumptions are detailed in Section 3 further below
Further work	- Exploration drilling is continuing the within tenement but no major Mineral Resource update is planned at the time of reporting.

Section 3: Estimation and Reporting of Mineral Resources – Tropicana Gold Mine

Criteria	Commentary
Database integrity	- AngloGold captures field data and drill hole logging directly in to handheld devices or laptop computers using Field Marshall and Geobank software. - The drill hole data is managed in DataShed software, which is an industry recognised system for management of geoscientific drill hole information. Logging, assays and survey information is loaded directly into Datashed using data import routines, with loading procedures incorporating quality control checking. - Data is validated following loading through visual inspection of results on-screen both spatially and using database queries and cross section plots. Typical checks carried out against original records to ensure data accuracy include items such as overlapping records, duplicate records, missing intervals, end of hole checks and so on.
Site visits	- The Competent Person makes regular site visits to Tropicana to review the data collection procedures and discuss the geology and mineralisation of the deposit prior to any Mineral Resource update.
Geological interpretation	- To control the Mineral Resource estimation process, three dimensional digital solids were prepared in LeapFrog software for the mineralised zones, dykes, shears and garnet (mostly hangingwall) gneiss. - Mineralised solids were prepared using a nominal 0.3g/t Au drill hole cut-off grade to encompass the gold mineralisation targeted for Mineral Resource estimation. The dykes, shears and garnet gneiss solids were prepared from geological logging codes. Regolith units were prepared as digital surfaces below topography based on the geological logging. - The resulting models encompass the mineralisation, the post-mineralisation barren dykes, the shears controlling higher grade mineralisation and the main waste rock units that are the footwall and hangingwall to the mineralisation.
Dimensions	- The Open Pit Mineral Resource is reported within an open pit Lerchs-Grossman-Analysis (LGA) pit optimisation 'shell' based on a gold price of $A1,817/tr.oz. ($US1,400 /tr.oz), and life-of-mine pit designs. - This reporting shell has dimensions of approximately 4.7km along strike, up to 1km wide and up to 450m deep, spanning all the major deposits. - The Underground Mineral Resource extends from the base of the Open Pit Resource below the Havana Open Pit with plan extents in long dimension down dip to the SE by up to 900 m and up to ≈200m wide. A smaller lode extends from the Havana South pit with down dip extents of ≈200m and up to 200m wide. Other parts of the Underground Mineral Resource are below the other pits.

Section 3: Estimation and Reporting of Mineral Resources – Tropicana Gold Mine

Criteria	Commentary
Estimation and modelling techniques	- The Open Pit Mineral Resource: o Has been estimated from the drill hole data available to 8 Aug 2016, which included 3,381 drill holes for a total of 648,208m of drilling of which, 981 holes were DD for 351,289m and 2,256 holes were RC for 259,831m. A further 144 holes of RC with DD holes totalled 37,087m of drilling. o The December 2016 update included 387 new holes (255 RC and 7 DD) for an additional 99,120m of drilling compared to the prior estimate. o The drill hole data was composited to 2m lengths within geological estimation domains using Vulcan software. o No grade top-cut or caps were applied to the composites, but high-grade estimation limits were applied to limit the spatial spread of high grades. o The composite data was declustered in each estimation domain using cell declustering commensurate with the drill spacing (25mE×25mN or 50mE×50mN and planned kriging panel height (10m for Havana and Tropicana, 7.5m for Boston Shaker) o Gold continuity was interpreted for each estimation domain and grades for large panels were estimated using ordinary block kriging in Isatis software, with estimation panel dimension 15mE×30mN×10mElv used for Havana and Tropicana, and panels of 15mE×30mN×7.5mElv for Boston Shaker. o Sample searches were oriented down dip with a 160mX×160mY×30mZ search used for mineralised domains and 120mX×120mY×30mZ search in waste domains. A minimum of 8 (or 4 for Boston Shaker) and maximum of 32 samples were required for a panel grade to be estimated. A second pass search was then applied to address blocks not estimated or >1% negative kriging weights with the maximum number of samples reduced to 12. o Selective Mining Unit (SMU) grades were then estimated for each panel using the Local Uniform Conditioning method, where the SMU grade distribution within each panel is estimated through a change of support then the SMUs are localised using kriging so the distribution within the panel reflects the local grade trends in nearby data. The information effect of 12mE×12mN grade control information was accommodated in the change of support from panels to SMUs o The SMU dimensions were set to prepare 36 SMUs per panel with SMU dimensions of 5mE×7.5mN×3.33mElv for Havana and Tropicana and 5mE×7.5mN×2.5mElv for Boston Shaker. The elevation heights nominally match the mining flitch heights applied at each area. o The estimate model was validated by comparing (input) data declustered means for each domain to the respective (output) block estimated grades both globally within each domain and locally using moving window 'swath-plot'. On screen visual inspections were also completed in plan and section to ensure that the grade trends observed in the data were acceptably reproduced in the estimates without over extrapolation in areas of sparse drilling. o Comparison of the Open Pit estimate forecasts to mine production indicates acceptable forecasting performance for monthly, quarterly and annual recompilation periods. - The Underground Mineral Resource: o Is estimated in a separate model from the Open Pit with the model oriented to follow the 30° east dip of mineralisation. o The estimate has been prepared using Ordinary Block Kriging in Isatis software into block dimensions 10mX×10mY×2mZ in the rotated coordinates. o Drill hole data were composited to 2m prior to estimation with no-top cuts applied o The model was validated in an equivalent manner to the Open Pit estimates. o There has been no mining of the Underground Resource to compare to the estimate - There are no assumptions relating to deleterious elements of non-grade variables of economic significance. Gold and density are the only relevant variables.
Moisture	- The tonnages are estimated on a dry basis.
Cut-off parameters	- Open Pit o The Open Pit estimate is reported within a pit optimisation shell with an assumed gold prices of $US1,400/tr.oz ($A1,817/tr.oz) and cost assuming back-filling of pits ('Long Island Study'). o On the basis described above, and assuming lower processing costs and higher metallurgical oxide ore, the cut-off are ≥0.3g/t Au for oxide Mineral Resources and ≥0.4g/t Au for transitional and fresh Mineral Resources. - Underground

Section 3: Estimation and Reporting of Mineral Resources – Tropicana Gold Mine

Criteria	Commentary
	o The Underground estimate cut-off grade is based on assumptions of a pre-feasibility study completed in 2013 which used a gold price of $US1,400/tr.oz ($A1,817/tr.oz) and underground mining and process cost assumptions for fresh Mineral Resource. o The cut-off grade for reporting the Underground Mineral Resource on this basis is ≥2.0g/t Au.
Mining factors or assumptions	- The mining factors and assumption for the Open Pit Mineral Resource is the current mining method of conventional truck and shovel mining with blasting of 10 m benches in Tropicana and Havana and blasting of 7.5 m benches in Boston Shaker. - Open Pit ore is mined in thee 1/3 blast height flitches, with ore predefined by 12mE×12mN RC grade control drilling and 1m downhole sampling. - The assumed Open Pit mining selectivity are the SMU dimensions assumed for the LUC estimates. - The assumption for the Underground Mineral Resource is long-hole open stoping between 20m levels. - No Mineral Resource margin (extremal) dilution has been modelled in either estimate. - Eventual prospects of economic extraction for the Open Pit resource have been assessed through pit optimisation studies and reporting the Mineral Resource within pit designs and an optimisation shell. - Eventual prospects of economic extraction for the Underground Resource have been demonstrated in the 2013 study, albeit the project development is not currently economical attractive at current metal prices and costs.
Metallurgical factors or assumptions	- The ore processing method at Tropicana is well-established with conventional, crushing, grinding then carbon-in-leach extraction of gold followed by electrowinning to produce gold bars. - An average metallurgical recovery as described in Section 4 further below, has been assumed for both the Open Pit and Underground Mineral Resources based on metallurgical testing completed as part of the Feasibility Study for the Havana Open Pit.
Environmental factors or assumptions	- Tropicana Gold mine operates under an environmental management plan that meets or exceeds all statutory and legislative requirements. - Mined waste rock is disposed in waste dumps which are progressively rehabilitated as mining progresses with any potentially acid generating waste encapsulated in non-acid generating material. - A tailing storage facility is used to contain and capture process residues. - The mine produces rehabilitation plans for ongoing rehabilitation and mine closure plans, and the costs are included in the financial model.
Bulk density	- AngloGold routinely collects *in situ* bulk density measurements on ≈10cm long core segments using the Archimedes principle method of dry weight versus weight in water. There are ≈138,000 density measurements in the estimation database with 131,000 measurements from fresh rock and the remainder in the regolith or cover. - Measurements are collected over 1m to 5m intervals targeting intervals that are deemed representative of key lithologies in fresh rock. Density has been collected on core within the regolith from 'core-from-surface' drill holes, with the measurement method accounting for voids. - Depending on rock type density ranges of 1.89 t/m^3 to 2.18 t/m^3 in the saprolite and ranges from 2.56t/m^3 to 2.96 t/m^3 in the transitional and fresh rock domains. - Density is estimated by ordinary block kriging in the Mineral Resource estimates apart from a few minor domains with sparse data (such as the regolith), where density is assigned as a mean of the data.
Classification	- The basis of classification of the Tropicana estimates into different JORC Code confidence categories is drill hole spacing as follows: o Measured Mineral Resources: average 25mE×25mN collar spacing o Indicated Mineral Resources: average 50mE×50mN collar spacing o Inferred Mineral Resources: average 100mE×100mN collar spacing (or less) when evidence of geological or grade continuity is sufficient to support grade estimation - AngloGold considers that the Measured Resource support mine planning with a 90% confidence interval of ±15% on tonnage or grade on a quarterly production basis, with Indicated Resources have the same confidence but applicable on an annual production basis. - The Competent Person considers this classification takes in to account all relevant factors such as data reliability, confidence in the continuity of geology and grades, and the quality, quantity and distribution of the data.

Section 3: Estimation and Reporting of Mineral Resources – Tropicana Gold Mine

Criteria	Commentary
	- The classification reflects the view of the Competent Person reporting the estimate with the same methodology applied to both the Open Pit and Underground estimates.
Audits or reviews	- The Open Pit estimate methodology was audited by consultant QG in 2007, 2009 and 2011. - Consultants Golder Associates audited the 2015 estimate in 2015 with recommendations that have been adopted in the current estimate. - AngloGold also conducts internal peer reviews on the completion of estimate updates.
Relative Accuracy/Confidence	- AngloGold has carried out some non-conditional simulation studies to confirm the relationship between drill spacing and 90% confidence interval assumptions and found the study results in agreement with the drill spacing classification criteria described above. - The trail grade 10mE×10mN control pattern drilled within an 100m×100m areas during the project Feasibility Study has also confirmed the precision assumptions and confidence the Mineral Resource estimate in that area - Mine reconciliation for the life-of-mine to date is satisfactory.

Section 4: Estimation and Reporting of Ore Reserves – Tropicana Gold Mine

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	- The estimate used for the Ore Reserve study is the Open Pit estimate described in the preceding sections of this JORC table 1. - The Tropicana Open Pit Mineral Resource is reported inclusive of the Ore Reserve. - No Ore Reserve has been estimated from the Underground Mineral Resource estimate.
Site visits	- The Competent Person for the Ore Reserve Mining Manger at Tropicana Gold Mine and as such has intimate knowledge of the operation and is in daily contact when on site with personnel providing key inputs to the estimate.
Study status	- The level of study for the Ore Reserve estimate is commensurate with industry expectations of a Pre-Feasibility Study as described in the JORC Code, with all material Modifying Factors considered in the Ore Reserve estimate. - Current mining and processing operations confirming that the mine plans are technically feasible and economically viable.
Cut-off parameters	- The Ore Reserve reporting cut-offs are determined based on the net return of gold produced at the processing plant for each ore type. - The specific cut-offs for reporting the Ore Reserve are ≥0.6g/t Au for oxide and ≥0.7g/t AU for transitional and fresh rock.
Mining factors or assumptions	- The mining method for the Ore Reserve is open pit mining with conventional excavators and trucks with blasting on 10m benches in Tropicana and Havana and 7.5m in Boston Shaker. Ore is mined in three 1/3 bench height flitches. - Inter-ramp pit slope angles are assumed range from 35° on the footwall and 67° on the hangingwall in both oxide and fresh rock, with some variation for different rock. - The Ore Reserve is reported within operation designs that have been prepared using the Mineral Resource model described above, geotechnical inputs and financial assumptions discussed below. - Grade control RC drilling is completed on a 12mE×12mN pattern prior to ore mining. - No mining dilution has been applied as the LUC model incorporates internal dilution. - Mining recovery of ore is assumed to be 100% - Mine designs assume a minimum working face of 50m to 80m at the base of pits. - Inferred Mineral Resources are excluded from the Ore Reserve with the total in-pit Inferred Resource being <0.3% of the Ore reserve and as such, is not material to the mine viability. - No new infrastructure is required to support the operating mine methods.
Metallurgical factors or assumptions	- The metallurgical process for Tropicana ores is already established and is a process flow of crushing (grinding rolls), grinding, and the recovery of gold through carbon-in-leach and electrowinning to produce gold bars.

Section 4: Estimation and Reporting of Ore Reserves – Tropicana Gold Mine

Criteria	Commentary
	- Gold recovery factors are based on extensive metallurgical testing and range from 92.5% recovery in mineralised transported material down to 89.9% recovery in fresh rock. - No deleterious elements are present in the ore. - In the project Feasibility Study Pilot scale test work was carried out on large diameter (PQ) core collected in a spatially representative manner from the deposit. To date metallurgical recoveries have been consistent with the forecasts from these studies. - As a gold mine, the gold doré bars produced are not subject to any specification requirements.
Environmental	- Tropicana Gold mine operates under an environmental management plan that meets or exceeds all statutory and legislative requirements. - Miner rock wastes are disposed in waste dumps which are progressively rehabilitated as mining progresses with any potentially acid generating waste encapsulated in non-acid generating material. - A tailing storage facility is used to contain and capture process residues. - The mine produces rehabilitation plans for ongoing rehabilitation and mine closure plans, and the costs are included in the financial model.
Infrastructure	- All major infrastructure required for the mining and processing is in place. - The owner and contractor staffing is fully complete, with personnel sourced on a fly-in-out basis from Perth or Kalgoorlie. - No other significant infrastructure is anticipated and sustaining capital cost for infrastructure are included in the financial model.
Costs	- The capital cost of removing waste overburden are included in the evaluation of the applicable pit designs. - Mining operating costs are provided by the mining contractor and other costs are sourced from in the mine operating budget. - As discussed there are no deleterious elements and as such related costs are not relevant - The source of $A:$US exchange rates is AngloGold/IGO corporate guidance. - Transportation charges for gold doré bars is relatively minor and are charged on a contract basis with the refinery. - Treatment and refining charges are included in the refining contract and there are no specification ore penalties associated with treatment and refining. - WA State royalties are levied at 2.5% of the value of gold produced.
Revenue factors	- The assumption for gold prices for the Ore Reserve is $US1,100/oz based on corporate guidance and assessment of historical prices - The $A:$US exchange rate is 0.73, also based on corporate guidance and assessment of historical exchange rates.
Market assessment	- No specific market assessment has been completed for this Ore Reserve update.
Economic	- The inputs into the economic analysis for the Ore Reserve update have already been described above under previous subsections. - The economic evaluation has been carried out on a real basis (adjusted for inflation) with rates provided by AngloGold corporate. - The confidence in majority of the economic inputs is high as Tropicana is an operating mine and as such, costs (operating and capital) are well understood. - The confidence in metal prices and exchange rates is consistent with routine industry practices with the data derived from reputable forecasters. - The discount rate used for NPV calculations is derived from the weighted average cost of capital in Australia. - Sensitivity studies have been completed on inputs such a mining and processing costs, gold price and discount rate. NPV has the greatest sensitivity to gold price with an estimated 30,000 ounces lost from the Ore Reserve for a 10% reduction in gold price.
Social	- Tropicana Gold Mine has all necessary agreements in place with key stakeholders and matters leading to social licence to operate.
Other	- There are no material naturally occurring risks associated with the Tropicana operation. - There are no material legal agreements or marketing arrangements not already discussed in prior sub sections. - All necessary government and statutory approvals are in place. - There are no unresolved third-party matters hindering the extraction of the Ore Reserve.

Section 4: Estimation and Reporting of Ore Reserves – Tropicana Gold Mine

Criteria	Commentary
Classification	- The Ore Reserve has been classified into Proved and Probable Ore Reserve JORC Code classes based on the underlying MRE classification in the MRE model, with Measured Mineral Resources converted to Proved Ore Reserves, and Indicated Mineral Resources converted to Probable Ore Reserves. - The classifications applied to the estimate are consistent with the opinion of the Competent Person reporting the Ore Reserve. - There is no portion of Probable Ore Reserves derived from Measured Mineral Resources
Audits or reviews	- A Mineral Resource and Ore Reserve audit was completed in 2015 and no material recommendations came from the audit - The current Ore Reserve estimate has been reviewed internally by AngloGold personnel
Discussion of relative accuracy/ confidence	- AngloGold has carried out simulation to quantify the confidence in the Ore Reserve – refer to the commentary at the end of Section 3 above. - The main driver of accuracy and confidence is the spacing of the pre-production drilling, which is captured in the Mineral Resource JORC Code classifications underpinning the Ore Reserve estimates. - Confidence in Ore Reserve inputs is generally high given the mine is operation and costs, prices, recoveries and so on are well understood. - The Ore Reserve estimates are considerate to have sufficient local accuracy to support mine planning and production schedules with Proved Ore Reserves considered a reliable basis for quarterly production targeting and Probable Ore Reserves reliable for annual production targets. - Confidence in the mine design and schedule are high as mining rates and modifying factors are based on actual site performance. Mine designs are consistent with what has been effective previously. - The mine to mill reconciliation data to date indicates the forecast precision of the estimates is good with the Ore Reserve estimate slightly conservative.

APPENDIX C – JORC CODE TABLE 1 – JAGUAR OPERATION

Section 1: Sampling Techniques and Data – Jaguar Operation

Criteria	Commentary
Sampling techniques	- The sampling techniques used for the definition of the Mineral Resources at Jaguar Operations is principally diamond core (DD) drilling. Refer to the subsections below for details relating to this drilling and sampling.
Drilling techniques	- The Mineral Resources of the Bentley, Triumph and Teutonic Bore deposits have been defined using DD drilling. A few reverse circulation percussion (RC) pre-collar holes are found in some deposit databases. Deposit specific details are given below. - Bentley: o Drilling from surface is a mixture of 63.5mm (HQ) and 47.6mm (NQ) core diameters, typically with holes first drill with RC pre-collars. o Some 36.5mm (BQ) diameter core was trialled in some 2013 holes and this diameter drilling is used for grade control, which is also incorporated in the Mineral Resource estimates. o Underground drilling is predominantly 50.6mm (NQ2) diameter or 63mm (HQ2) diameter, including the recent Bentayga drilling. o Core was oriented where possible using electronic (ACT) tools or using the spear method in older drill holes. - Triumph: o Drilling is from surface to collect cores with a 63mm(HQ2) diameter or 61.1mm (HQ3 – triple tube) diameter. Some NQ2 diameter drilling was used for wedge holes but this comprises only a small part of the total database. o HQ3 core was drilled through weathered and soft saprolite zones to ensure high core recovery and HQ2 was drilled elsewhere. - Teutonic Bore: o Drilling dates to the late 1970s with 36.5mm (BQ) and 47.6mm (NQ) diameter cores in the database, which were drilled from the ends of percussion pre-collar holes. o In the 2000s program, newer diamond core holes were drilled to add to the database including some HQ3 drill holes and a few 5.25” diameter RC holes. o Some of the later Teutonic Bore core has been oriented using the spear method in early drill holes and electronic method (ACT tool) in more recent drilling.
Drill sample recovery	- Core recovery in all drill programs was quantified as percentage of the core length recovered compared to the drill hole advance length. - Core recovery is reported to be high from all drilling with minimal losses except in highly fractured ground. - The main methods to maximise recovery have been recovery monitoring and use of large core diameters where broken ground conditions were expected. - Average core recovery for Triumph was >99% and >98% for fresh rock in Bentley. The recovery averages for Teutonic bore are not stated but are expected to be high in fresh rock. - Drill hole interval accuracy was monitored through reconstruction of the core into a continuous length and verification against the core blocks. - Rod counting was also used to verify the lengths drilled. - No relationships occur between sample recovery and grades. - Sample biases due to the preferential loss or gain of fine or coarse material are unlikely in fresh rock.
Logging	- RC cuttings and DD cores have been logged geologically and geotechnically with reference to standard logging schemes, to levels of detail that support Mineral Resource estimation, Ore Reserve estimation and metallurgical studies. - Qualitative logging for both RC and DD includes codes for lithology, oxidation (if any), veining and mineralisation. - Recent DD cores are photographed, qualitatively and structurally logged with reference to orientation measurements where available. - Geotechnical quantitative logging of recent holes includes RQD and other fracture information. - The total lengths of all drill holes in all deposits have been logged, with greater detail captured through zones of mineralisation and the footwall and hangingwall rocks found within 30m of main lodes.

Section 1: Sampling Techniques and Data – Jaguar Operation

Criteria	Commentary
Sub-sampling techniques and sample preparation	- Only geological information was included from percussion drilling and no percussion sample grade information was used for Mineral Resource estimation purposes. As such, the description of subsampling and preparation of RC and percussion samples is not material. - DD primary sampling: o A geologist marked out DD core for sampling intervals based on geological units, with intervals ranging from ≈0.1m to ≈1.3m (deposit dependent), with a target sample interval of 1m. o The sample intervals were then cut in half (and sometimes quartered) longitudinally with a wet diamond blade, with the laboratory dispatch half or quarter collected from the same side or quadrant of the core. Some of the early Teutonic bore may have been chisel split. The BQ cores were submitted to the laboratory as whole core. o For the few intervals of extremely broken core, the core was sampled by hand-picking representative fragments from the broken core interval to prepare a sub-sample having approximately half the sample interval mass. o Half-core and quarter core sub-samples were collected in pre-numbered calico bags for laboratory dispatch. - Laboratory DD cut-core preparation: o Core samples were oven dried then crushed in a jaw-crusher with recent core crushed to a particle size distribution (PSD) <6 mm or <10mm. The jaw-crush lot was then fine crushed to a PSD <2mm in a Boyd crusher-rotary splitter unit. o A sub-sample from the rotary splitter was the pulverised to a PSD of 90% passing 75 or 85 microns (mixer mill or puck mill) and a sub-sample collected from the pulp into a paper packet for assay. o The sample preparation laboratory has been consistently Genalysis (now Intertek) laboratory in Perth. - Quality controls to ensure sample representativity included: o Coarse blanks and certified standards were inserted into routine sample stream to monitor cross contamination and accuracy. o Ensuring the laboratory used compressed air and barren rock washes to clean crushing and grinding equipment between each routine sample preparation. o Replicate samples were collected to monitor the repeat precision at various stages of comminution, including duplicate ¼ cores, which have now replaced ½ core replicates from earlier drilling programs. o Sieve tests were completed at the pulverisation stage to confirm PDS compliance. o Monitoring of quality results confirmed the sample preparation was acceptable in terms of accuracy, precision and minimisation of sample cross contamination. o Umpire laboratory checks were completed on 10% of all samples collected for each Mineral Resource, where returned pulps are submitted to assay to a second laboratory. - No specific heterogeneity tests have been carried out but the Competent Person considers that the sub-sample protocols applied, and masses collected, are consistent with industry standards for the styles of mineralisation under consideration.
Quality of assay data and laboratory tests	- No geophysical tools were used to determine any element concentrations estimated in the Mineral Resource. - Triumph and Bentley assay processes are as follows: o Genalysis (now Intertek) in Perth digested the pulps described above in a four-acid mixture and heated the lot to dryness. The four-acid digestion is considered a total extraction all variables of interest. o The digestion salts were then re-dissolved and the prepared solution was then analysed by AAS (early holes) or ICP-OES or ICP-MS analysis of an elemental suite (Cu, Pb, Zn, Ag, Fe ± As, Sb and S depending on year of assay). o Gold has been assayed mostly using 50g fire-assay digestion then AAS assay of the dissolved bead solution. A 25g charge has been used for very high sulphur samples since 2013, due to boil-over digestion issues for 50g charges of high sulphur samples. - Teutonic Bore assay processes are as follows: o Early results the 1970s and 1980s are expected to be consistent with the assaying practices at the time of data collection – likely single or multi-acid digestion with AAS readings. o More recent sampling from this deposit was done at Genalysis and followed essentially the same process as described above for Bentley and Triumph.

Section 1: Sampling Techniques and Data – Jaguar Operation

Criteria	Commentary
	- Quality control samples were included by the laboratory in the form of standards, blanks and replicates. Results of the quality samples were found to be acceptable albeit the variability between ½ and ¼ core replicates was high due to the high heterogeneity between what are compared specimens rather than replicates samples from the same (crushed or pulverised) lot. - For the early Teutonic Bore dataset, 10% of samples were assayed in duplicate and if these assays varied by more than ±5% the entire batch was re-assayed - The Competent Person considers that acceptable levels of precision and accuracy had been established and cross-contamination has been minimised for all deposit datasets.
Verification of sampling and assaying	- Massive-sulphide drill intersections are visually conspicuous in the core and as such, assay results have been readily cross-verified by IGO's geologists through re-inspection of the core or core photographs. - No twin-holes have been drilled at Bentley or Triumph, but a few twin-wedges were drilled at Teutonic Bore in 2009. - Historic Teutonic Bore data was captured on paper logs but has been verified and entered into IGO's centralised database. - Recent drill hole sample number and logging information has been captured at source using laptop computers with standardised database templates to ensure consistent data entry. - Data records (logs, sample dispatched, core photographs) are downloaded daily to the IGO's main acQuire database system, which is an industry recognised tool for management and storage of geoscientific data. - The databases are backed up off site daily. - Assay data is merged electronically from the laboratories into a central database, with information verified spatially in Surpac software. - IGO maintains standard work procedures for all data management steps. - An assay importing protocol has been set up to ensure quality samples are checked and accepted before data can be loaded into the main database. - There have been no adjustments or scaling of assay data other than setting below detection limit values to half detection for Mineral Resource estimation work.
Location of data points	- Drill hole collars: o Older drill holes have been located by surveyors using the most precise survey equipment available at the time of each survey. o Older Teutonic Bore holes are considered to have ±3m accuracy in easting and northing. o The collar locations of recent underground holes have been surveyed by IGO's Mine Survey teams using total station survey equipment to accuracy better than 1cm in three dimensions. o Recent surface holes collars have been located to high precision using DGPS equipment. o Recent hole directions are aligned using industry standard azimuth aligner tools. - Drill hole paths: o Older drill hole paths were surveyed using down hole cameras (single and multi-shot) with readings taken at ≈15m or ≈30m down hole intervals. o Recent hole paths have been surveyed using electronic tools that have high azimuth and dip precision with readings taken every ≈4m downhole. o Many surface holes have path surveys from single or multi-shot cameras with readings typically taken at ≈20m to ≈30m down hole intervals. o The underground holes in the Teutonic Bore dataset only have a collar azimuth and dip direction. - Mine workings and topography: o The grid system for Bentley and Triumph is a local grid tied to MGA Zone51, GDA94 datum with 311,465.6mE and 6,796,594.3mN subtracted from MGA coordinates and 4,000m added to GDA elevation, followed by a +23.52-clockwise grid rotation. o The Teutonic Bore estimate is based on local grid tied to MGA Zone 51, GDA94 datum. o The pit volume for Teutonic Bore is based on a wireframe prepared from available plans and sections, and from a photogrammetry DTM surface prepared by a survey contractor in 2008. o Underground mine voids for Teutonic Bore are considered to have ±3m precision, which was estimated from drill testing of voids in 2000s drilling programs. o All other mines surveys have high precision and are prepared by IGO's mine surveyors using total station equipment.

Section 1: Sampling Techniques and Data – Jaguar Operation

Criteria	Commentary
Data spacing and distribution	- At Bentley, DD fan drilling from surface tests mineralisation on a nominal 50m×50m grid spacing in the plane of the lodes, while underground DD fan drilling nominally tests mineralisation on a 20m×20m grid. - At Triumph the drill hole pierce point spacing in Stag lens in nominally on a 40m×40m grid, and 40m×80m for the other lenses. - At Teutonic Bore the pierce point spacing in massive mineralisation is on a nominal 20m×20m grid and a 40m×40m grid in the stringer domain. - Down-hole sample intervals are targeted to be 1m down hole but vary in length as a function of geological contact spacings. Samples are composited to 1m for Mineral Resource estimation work. - The Competent Person considers that these data spacings are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures used, and the JORC Code classifications applied to each deposit.
Orientation of data in relation to geological structure	- Most drill holes drilled from surface used for Mineral Resource estimation work are oriented to intersect the mineralisation at a high angle and as such, a grade bias introduced by the orientation of data in relation to geological structure is unlikely. - Some underground holes, like those testing the Bentayga zone, intersect mineralisation at shallow angles and as such, there is a moderate risk of sampling bias due collection of samples along rather than across mineralisation. However, no orientation related sampling bias has been confirmed. - The stringer zone at Teutonic Bore is tested by holes that intersect the domain at shallow angle. There is some risk of orientation bias in the dataset albeit for stringer mineralisation the risk is probably low.
Sample security	- No information is available on the 1970s-1980s sample security for Teutonic Bore. - For all other samples the sample security has been managed by IGO or Jabiru Metals Limited (JML) who managed the 2000s Teutonic Bore sampling. - Cut-core (or RC) samples have been collected in pre-numbered calico bags, and stored securely on the mine-sites before being delivered by road transport to laboratory for sample preparation and assay. - Sample dispatches have been prepared by IGO's field personnel and tracked for delivery to the laboratory and progress through the laboratory. - Samples are sealed for transport and transport is direct. - Sample dispatch sheets have been verified against samples received at the laboratory and any issues such as missing samples and so on are resolved before sample preparation commences. - The Competent Person considers that the likelihood of deliberate or accidental loss, mix-up or contamination of samples is very low.
Audits or reviews	- IGO's geological staff have confirmed all significant intercepts in assay results against geological log expectations. - An independent audit of IGO's sampling was completed in 2015 on Bentley surface drilling and sampling with some procedural improvements recommended. - The Teutonic Bore historic dataset was audited and validated in 2006 by JML geological staff.

Section 2: Reporting of Exploration Results – Jaguar Operation

Criteria	Explanation
Mineral tenement and land tenure status	- The tenements hosting the Bentley, Triumph and Teutonic Bore deposits are all 100% owned by Independence Group Jaguar Limited, which is am IGO 100%-owned subsidiary. The key relevant WA Mining Leases are as follows: o Bentley deposit is within M37/1290, which has an expiry date of 2 Feb 2031. o Triumph deposit is within M37/1301, which has an expiry date of 7 Mar 2037. o Teutonic Bore deposit is within M37/44, which has an expiry date of 17 Dec 2026. - All tenements are in good standing with rents paid and expenditure commitments met. - Any ore mined from the tenements listed is subject to WA State royalties as prescribed in the WA Mining Act.

Section 2: Reporting of Exploration Results – Jaguar Operation

Criteria	Explanation
	- There are no other material issues relating to agreements, third parties, joint ventures, partnerships, other royalties, native title interests, historic sites, wilderness or national parks, or environmental settings.
Exploration done by other parties	- In 1972 the GSWA mapped the area and identified volcanic rocks in the region. - In 1974, CEC sampled surface gossans in the area and found Zn-Cu-Pb anomalism. - In 1976, Seltrust/CEC discovered the Teutonic Bore deposit through follow up drilling of the gossan. - From 1975 to 1978 Esso and Aquitaine explore the region find some stringer type mineralisation in the Jaguar region. - In 1984 Chevron drilled an EM target and missed the Jaguar deposit by 50m. - In 1991 MIMEX defined a 700m long anomaly in the Bentley area with follow up drilling intersection stringer mineralisation 170m below surface but a deeper planned hole cancelled. - In 1994 Pancontinental Mining rediscovered the anomaly and intersected 6m grading 2.4% Zn. - In 2001 Inmet-Pilbara identified a 1.8 km long conductor and intersected 7.7m of Jaguar mineralisation in the second test hole at 485.5m. - In 2003 Inmet drilled an EM conductor at Bentley but stoped in a graphic shale zone in the hangingwall shale. - In 2008 Bentley is discovered when a hole by JML intersected 10.5 m of high grade at 370 m depth. - In 2008, IGO acquired JML and since then has been the sole explorer in the Bentley-Triumph area. - During, 2010 to 2014 many in-mine discoveries have been made using systematic drilling and down hole geophysical targeting. - Extension lenses discovered included the Bubble lens at Jaguar and the Comet, Azure and Flying Spur lenses at Bentley. - IGO purchased the tenement hosting the Triumph Deposit in 2011 and intersected 8.4m of high grade mineralisation after re-entering and deepening a hole drilled by a prior explorer.
Geology	- Jaguar Operation is centred on a cluster of Volcanic Hosted Massive Sulphides (VHMS) deposits that are located within the Gindalbie Terrane, which is part of the late Archaean Eastern Goldfields Superterrane of the Yilgarn Craton of Western Australia. - The area is dominated rocks of volcanic, intrusive, volcano-sedimentary origin and lesser sedimentary rocks. - The local sequences have undergone tilting to sub-vertical positions and regional metamorphism to a lower greenschist facies. - The principal deposits forming the known VHMS cluster are Bentley, Jaguar, Teutonic Bore and the recently defined Triumph deposit. - The Jaguar Operation deposits are interpreted to have formed by sub-seafloor replacement, principally of shales and volcanoclastic sediments, with mineralisation located in a similar stratigraphic position near a transition from calc-alkaline to tholeiitic volcanism. - The Teutonic Bore deposit originally cropped out as a gossan and is characterised by a massive sulphide lens (pyrite-sphalerite-chalcopyrite) with an extensive footwall feed zone of stringer sulphides. The mineralisation dips steeply west and plunges shallowly to the north. - The Bentley VHMS mineralisation occurs at the contact of a thick basal rhyolitic sequence with an overlying andesite. The rhyolitic sequence is overlain by a sequence of carbonaceous mudstones and siltstones. The sequence is steeply dipping. - The Bentley massive sulphide mineralisation is banded and consists of pyrite, sphalerite, chalcopyrite, galena and minor pyrrhotite. The upper contact of the massive sulphide is typically sharp. The footwall to the massive sulphide zone consists typically of stringer and disseminated sulphide mineralisation comprising pyrite, chalcopyrite and minor sphalerite. - A dolerite sill has intruded the Bentley region, cutting the mineralisation into five main lenses (Arnage, Mulsanne, Brooklands, Comet and Flying Spur). - The geology of the Triumph deposit is of similar style to Bentley albeit a smaller deposit. Triumph comprises four massive sulphide lenses each with a corresponding basal stringer sulphide zone and upper disseminated sulphide domain. - The largest lens at Triumph is named Stag Lens, which is the current basis of the Triumph Mineral Resource estimate.
Drill hole Information	- A summary of the many holes used to prepare the Mineral Resource estimates for Bentley, Triumph and Teutonic Bore is not practical for this public report. - The Mineral Resource estimates give the best-balanced view of all the drill hole information.
Data aggregation methods	- No drill hole related exploration results are included in this report.

Section 2: Reporting of Exploration Results – Jaguar Operation

Criteria	Explanation
	- No metal equivalent values are considered in the Mineral Resource estimate other than NSR values which are based partially on commercially confident information in concentrate sales contracts.
Relationship between mineralisation widths and intercept lengths	- No drill hole related exploration results are included in this report. - Generally Mineral Resource definition drilling intersects the mineralisation at a high angle and as such approximate or allow estimation of true thicknesses.
Diagrams	- Examples sections and/or long sections and/or perspective view diagrams are included in the main body of this report.
Balanced reporting	- The Mineral Resources are based on all available data and as such provides the best-balanced view of the Jaguar Operation deposits.
Other substantive exploration data	- Information relating to other exploration data, such as density and metallurgical assumptions are detailed in Section 3 and Section 4 further below.
Further work	- Follow up drilling is planned on extensional targets at both Bentley and Triumph.

Section 3: Estimation and Reporting of Mineral Resources – Jaguar Operation

Criteria	Commentary
Database integrity	- IGO's geologists capture field data and drill hole logging directly at source into handheld devices or laptop computers using standard logging templates. - Logging data is transferred daily to IGO's central acQuire database system which is an industry recognised software for management of geoscientific data. - All data is validated on site by IGO's geologists with quality samples checked and accepted before data is merged into the central database from laboratory digital assay reports. - Drill logs are printed from the database for further verification and the merged geology and assay results are then cross check spatially in mining software, with further checks against core photography or retained cores if required. - The historic data for the Teutonic Bore estimate was validated by JML geologists in 2006 and entered in the central database at that time. - The Competent Person considers that there is minimal risk of transcription of keying errors between initial collection and the final data used for Mineral Resource estimation work, and the database is of suitable quality for Mineral Resource estimation purposes.
Site visits	- The Competent Person is the Geology Manager at Jaguar Operations and has an intimate understanding of the respective deposit geologies and the data used for Mineral Resource estimation work.
Geological interpretation	- The data used for geological interpretation is from DD drilling and includes logging and assay results, which are augmented by underground exposure mapping to confirm the interpreted geological units and zones of mineralisation. - Lithological controls are used to interpret the footwall and hangingwall contacts of the Mineral Resource mineralisation and the cross cutting dykes. - The interpreted geological controls described above are used to control the grade estimation process. - For Teutonic Bore the confidence in the geological interpretation is high in the massive sulphide zone and moderate for the footwall stringer zone. - For Triumph, interpretation confidence is moderate to high, with the mineralisation and geological setting being well understood.

Section 3: Estimation and Reporting of Mineral Resources – Jaguar Operation

Criteria	Commentary
	- For Bentley, interpretation the confidence is moderate to high, with the mineralisation and geological setting being well understood. - No alternative interpretations have been prepared or considered necessary.
Dimensions	- Bentley has four mineralised lenses of known dimensions as follows: o Arnage Lens has a ≈400m strike length, a down plunge length (to the south) of ≈900m and maximum thickness of ≈30m. The top of Arnage is ≈160m below natural surface and the known vertical extent is ≈1000m below surface. o Mulsanne Lens has a ≈220m strike length, a vertical extent of ≈160m and maximum thickness of ≈3m. o Brooklands Lens has a ≈100m strike length, a vertical extent of ≈160m and average thickness of ≈5m. o Flying Spur Lens has a ≈370m strike length, a vertical extent of ≈300m and average thickness of ≈2m and occurs adjacent to the Arnage lens at 1000m below surface. o The dimensions of the Bentayga Lens are yet to be confirmed. - Triumph has four mineralised lenses of known dimension as follows: o Stag lens is the largest of the massive sulphide lenses and has a strike length of 350m (north-south) with a shallow, southerly down plunge extent of 400m, and a maximum thickness of 40m. Stag lens commences at 170m below the surface and extends 400m vertically. o Rocket Lens has a strike length and down plunge extent of 230 m and a maximum thickness of 6 m. Rocket commences at 355 m below surface and has a vertical extent of 250m. o Spitfire Lens has a strike length of 90m, shallow down plunge extent of 100m and a maximum thickness of 6m. Spitfire lens starts at 730m below surface and has a vertical extent of 90 m. o Tiger Lens is located just above the Rocket lens and has dimensions of 90m in the vertical, 30m in strike length and a maximum width of 5m. Tiger lens starts 300m below surface. - Teutonic Bore has two zones of mineralisation with dimensions as follows: o The (pre-mining) extends of the massive sulphide lens has a strike length of ≈250m, with average thickness of ≈17m and down dip extents of ≈190m. The remnant massive sulphide Mineral Resource, below the stoped-out zone, starts ≈240m below surface. o The stringer mineralisation is in the footwall to the massive sulphide lens, with strike extents of ≈245m, thickness up to 50m and down dip extents of 200m.
Estimation and modelling techniques	- Bentley estimate: o Exploratory statistics and continuity analyses were completed using Snowden Supervisor (8.0) software. o Ordinary Block Kriging (OK) implemented in Surpac mining software (6.3.2), was used to estimate block model grades (Zn, Cu, Ag, Au, Fe, Pb, As, Sb, S) and density. o All estimates were made from drill hole data composited to a uniform 1.0 m composite length. o For OK estimates, the search neighbourhood parameters were set based on the results of continuity modelling (variography). Sample search distances for were set to 230m for the first estimation pass and up to 380m for the third estimation pass. o A kriging neighbourhood analysis (KNA) was prepared to select the optimum parent block size for grade estimation, which was set to dimensions of 15mN×5mE×15mRL. Sub-blocks were permitted to give finer boundary resolution in the model. o The grade and density estimates were constrained to within each respective massive sulphide or stringer sulphide domains using 3D domain digital model, with estimation boundaries treated as 'hard' boundaries so that only the composites within each respective domain were used to estimate grades in the corresponding blocks of each domain. o No assumptions have been made regarding the recovery of by-products with all grades estimated independently. o Deleterious elements such as As and Sb are estimated using OK interpolation. o No modelling of selective mining units has taken place. o Top-cuts were applied to the estimation composites on a domain basis to reduce the local influence of extreme values, with top-cuts determined from a review of the composite sample data statistics, histograms and log-probability plots. o The block model estimates were validated by on-screen inspection of the input composites and output block estimates drilling data using plan and cross section views.

Section 3: Estimation and Reporting of Mineral Resources – Jaguar Operation

Criteria	Commentary
	o The inputs and output were then compared in terms of global mean grades and on moving window "swath" plots to confirm the grade trends in the input data had been correctly reproduced in the block estimates. o No reconciliation factors were applied to the estimate. - Triumph estimate: o Statistics and variography were completed using Snowden Supervisor (8.0) software. Ordinary Block Kriging (OK) and inverse distance squared (ID2) estimation methods implemented in Surpac (6.6.2) were used to estimate block grades (Zn, Cu, Ag, Au, Fe, Pb, As, Sb, S) and density estimation. o OK estimates were prepared for the Stag Lens massive, stringer and disseminated sulphide lenses as closer spaced data provided sufficient information for interpretation of reliable continuity models, which are used for the sample weighing in OK estimates. o All other mineralisation was estimated using the ID2 estimation method with the ID2 assigned a lower JORC Code classification confidence compared to the Stag Lens OK estimates. o All estimates were made from drill hole data composited to a uniform 1.0 m composite length. o For OK estimates, the search neighbourhood parameters were set based on the results of continuity modelling. o A kriging neighbourhood analysis (KNA) was prepared to select the optimum parent block size for grade estimation, which set to dimensions 20mN×2mE×40mRL with sub-blocks permitted down to dimensions of 5mN×0.5mE×5mRL to provide acceptable domain boundary resolution. o Each variable has been estimated independently but for highly correlated variables, such as iron-sulphur-density and lead-antimony, the same continuity model and sample search criteria were applied to preserve the between variable correlations in the final block estimates. o The grade and density estimates was constrained to within each massive sulphide and stringer sulphide domains using 3D domain digital models, with estimation boundaries treated as 'hard' boundaries so that only the composites within each respective domain were used to estimate block grades in the corresponding blocks of each domain. o The maximum grade extrapolation distance for the Stag Lens is 40m with all other lenses having a maximum grade extrapolation distance of 70m. o Sample search distances for were set to 150m for the first estimation pass, and up to 250m for the third estimation pass. o The first estimation pass required at least 8 to a maximum of 36 composites in the first search neighbourhood before I block could be estimated. Second and third pass searches had the minimum number of samples reduced to 4, while the maximum number of samples was maintained at 36. These constraints applied to both OK and ID2 estimates. o The drill hole intercept spacing of the Stag lens is nominally 40m×40m. Drill spacing increases to 40 m×80m outside the immediate Stag lens area. o No deleterious elements or other non-grade variables have been estimated. o No modelling of selective mining units has been considered. o Top-cuts were applied to the estimation composites on a domain basis to reduce the local influence of extreme values, with top-cuts determined from a review of the composite sample data statistics, histograms and log-probability plots. o The block model was validated by on-screen inspection of the input composites and output block estimates drilling data using plan and cross section views. o The inputs and outputs were then compared in terms of global mean grades and on moving window "swath" plots to confirm the grade trends in the input data had been correctly reproduced in the block estimates. o There has been no mining at Triumph so mining reconciliation is not relevant. - Teutonic Bore estimates: o Statistics were completed using GeoAccess software and continuity analyses were prepared in Surpac (6.1). o Ordinary Block Kriging (OK) implemented in Surpac 6.1 software, was used to estimate block grades (Zn, Cu, Ag, and Pb) and density into domains constrained by wireframes of the mineralisation domains, which were further sub-domained by surfaces modelled for the top of fresh, and transitional mineralisation. o Samples were composited to 1.0m for estimation work. o Block model parent cell sizes were set to 5m cubes with sub-blocks down to 1.25m cubes for boundary resolution. o A hard-boundary estimation approach was used for the massive and stringer domains. o Additional sub-domains were set to orient the estimation sample search ellipsoid relative to domain local directional trends. o Sample search distances were set to ≈150m along the major axis, ≈140m in the semi-major direction and 40m in the minor (across strike direction). The minor search was reduced to 18m in the massive domain.

Section 3: Estimation and Reporting of Mineral Resources – Jaguar Operation

Criteria	Commentary
	o Top-cuts were applied to composites prior to grade estimation, with cut estimated from log-probability plot inflexion points. o The estimate was depleted for the mined volumes in the pit and underground workings. o No assumptions were made regarding recovery of by-products. o No assumptions were made regarding selective mining units or correlations between variables, with continuity models (variograms) prepared independently for each estimation variable. o The block model was validated by on-screen inspection of the input composites and output block estimates drilling data using plan and cross section views. o The inputs and outputs were then compared in terms of global mean grades and on moving window “swath” plots to confirm the grade trends in the input data had been correctly reproduced in the block estimates.
Moisture	- The Mineral Resource tonnages are estimated on a dry basis.
Cut-off parameters	- Bentley NSR cut-offs of: o $A100/t for massive domains based on full mining and processing costs. o $A45/t for stringer domains based on incremental mining and processing costs. - Triumph NSR cut-offs of: o $A100/t for massive domains based on full mining and processing costs. o $A45/t for stringer domains based on incremental mining and processing costs. - Teutonic cut-offs of: o Geological cut-off for the massive domains (whole domain to Mineral Resource) o ≥0.7% Cu block cut-off grade for the stringer domain.
Mining factors or assumptions	- The current mining method at Bentley is a modified Avoca method between 20m spaced levels, with long-hole open stoping in other areas. - For Triumph a core and shell mining approach has been considered – refer to Section 4 for details. - The stringer mineralisation at Teutonic Bore is potentially amenable to open pit mining, while the massive sulphide mineralisation may be more amenable to underground mining methods described above.
Metallurgical factors or assumptions	- The Jaguar processing plant is a conventional crush, grind and differential flotation plant that has been treating the VHMS ores from the nearby deposits for 10 years. - The metallurgical characters of the Triumph and Bentley ore are similar and a Triumph is expected to have similar metallurgical recoveries to Bentley. Refer to Section 4 for more details. - Ore from Teutonic Bore was processed through a conventional concentrator plant in the 1980s and is expected to have similar metallurgical character to the other deposits in the region.
Environmental factors or assumptions	- IGO’s Jaguar Operation operates under and environmental management plat, which meets or exceeds legislative requirements. - Rock waste is trucked to surface waste dumps or used as stope backfill. - Environmental rehabilitation plans are in place and progressively executed, with costs included in operating budgets and forward plans. - Disposal of concentrator residues in in a conventional tailing storage facility. - There is no reason to expect that new operations such as Triumph, would not be approved under the existing environmental management process.
Bulk density	- *In situ* bulk density measurements from more recent drilling have been made on geologically representative sections of core with density determined using the Archimedes Principle (water-displacement) method to determine core volumes and weighing of the oven-dried core interval to determine the core masses. - Density measurements are validated though a graphical comparison of major metal components (Cu, Pb, Zn and Fe) to measured values with a regression predictor (with ±10% outliers removed from the data) used to estimate the density of samples that have no direct measurements. - Density is estimated into the Mineral Resource models using ordinary kriging or inverse distance squared interpolation.

Section 3: Estimation and Reporting of Mineral Resources – Jaguar Operation

Criteria	Commentary
	- Density has been used a weighting factor in the estimation of the grade accumulation variables (density×grade) in the Bentley and Triumph estimates. - Density was not used as a weighting factor in the Teutonic Bore estimates.
Classification	- Bentley and Triumph JORC Code classifications are based on data spacing, kriging efficiency (KE) and regression slope (RE) metrics with: o Measured Mineral Resources having: ▪ Data spacing nominally 20m×20m in the plane of the lode or less, ▪ KE≥0.6 and RS ≥0.75, and ▪ High confidence in geological continuity due to nearby information from development headings. o Indicated Mineral Resources having ▪ Data spacing nominally 40m×40m in the plane of the lode or less, ▪ KE≥0.3 and RS ≥0.5, and ▪ Moderate to high confidence in geological continuity in the drill hole interpretations. o Inferred Mineral Resources having: ▪ Data spacing exceeds 40m×40m in the plane of the lode, ▪ KE<0.3 and RS <0.5, and ▪ Moderate to low confidence in geological continuity in the drill hole interpretations. - Teutonic Bore JORC Code classification criteria are as follows: o All the massive sulphide domain is assigned to Indicated Mineral Resources due to the production history confidence and higher geological continuity of this domain o The stringer domain is assigned Indicated Mineral Resources where the data spacing is nominally 20m×20m in plane of the lode and Inferred Mineral Resources where the data spacing is nominally 40m×40m in the plane of the lodes. - The Competent Person considers the classifications described above consider all relative factors such as reliability and quality of the input data, the confidence in estimation, the geological and grade continuity, and the spatial distribution of the data. - The classifications applied reflect the view of the Competent Person.
Audits or reviews	- No audits have been completed on the most recent Bentley estimates but consultants Optiro consultants assisted in the estimation process and provided mentoring guidance in the preparation of the estimate. - Optiro consultants reviewed the Triumph estimate in 2017 and no material issues were identified in the review. - The Teutonic Bore estimate was reviewed by consultants Runge in 2009 and no material issues were identified in the review.
Relative Accuracy/Confidence	- No geostatistical methods such as conditional simulation have been prepared to quantify the accuracy or precision of the estimates. - The Competent Person considers that the Measured and Indicated Mineral Resource estimates have local precision that is suitable for planning quarterly and annual targets respectively, and as such, are suitable for Ore Reserve conversion. - Inferred Mineral Resource estimates have global estimation precision and are not suitable for Ore Reserve conversion. - The estimates for Bentley have been compared to the production a monthly, quarterly and annual basis, and results to date have been satisfactory and found to be marginally conservative. - No reconciliation data is available for Triumph or Teutonic Bore.

Section 4: Estimation and Reporting of Ore Reserves – Jaguar Operation

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	- The estimates used as the basis for the Bentley and Triumph Ore Reserves estimates are the deposit respective Mineral Resource estimates described in the preceding sections of this JORC Table 1. - These estimates have been depleted for mining to 30 June 2017 and the Mineral Resource estimates are inclusive of Ore Reserves.
Site visits	- The Competent Person taking responsibility for the Bentley Ore Reserves estimate has visited site in March 2017, and is a mining engineering consultant working for Mining Plus Pty Ltd in Perth WA. - The Competent Person taking responsibility for the Triumph Ore Reserves estimate is a mining engineering consultant working for Entech Pty Ltd in Perth WA. This Competent Person has not visited site but has relied on information and reports from other independent consultants, and other Entech staff who have visited the Jaguar site.
Study status	- The Bentley Ore Reserve estimate has been prepared based on a study that is commensurate with industry expectations of a Feasibility Study as described in the JORC Code, with all material Modifying Factors considered in the Ore Reserve estimate. Prior and current mining has demonstrated that the Ore Reserve mine plan is technically achievable and economically viable. - The Triumph Ore Reserve estimate has been prepared based on the operational practices in WA (and nearby Bentley mine), and the level of is commensurate with industry expectations of a Pre- Feasibility Study or better as described in the JORC Code, with all material Modifying Factors considered in the Ore Reserve estimate. The study modelling has demonstrated that the Ore Reserve mine plan is technically achievable and economically viable.
Cut-off parameters	- Bentley Ore Reserve: o Reporting cut-offs are based on net-smelter-return (NSR) estimates, which are $A/t break-even values derived from input costs, metal prices, metallurgical recoveries and metal payabilities. o For the Bentley Ore Reserve, the NSR values vary by year of production as calculated as follows: ▪ Years 0-1, NSR =(46.0×%Cu) + (20.9×%Zn) + (0.283×Ag g/t) + (15.7× Au g/t) ▪ Years 1-2, NSR =(44.5×%Cu) + (18.0×%Zn) + (0.304×Ag g/t) + (16.1× Au g/t) ▪ Years 2-4, NSR =(47.0×%Cu) + (17.4×%Zn) + (0.305×Ag g/t) + (16.1× Au g/t) o All stopes and development designs are evaluated against NSR cut-offs with Ore Reserve reporting cut-off assumptions of: ▪ Long-hole stoping (full cost) ≥$A167/t. ▪ Long-hole stoping (marginal cost) ≥$A72/t. ▪ Development ≥$A39/t. o Full cost stoping covering the cost of access development and incremental stoping assumes the access costs are covered by the other stoping or the main body of the current stope. o Development-heading NSRs cut-offs reflect the costs to pay for ore haulage to surface, haulage to the concentrator and processing costs. - Triumph Ore Reserve: o Reporting cut-offs are based on NSR estimates, as described above. The methodology is essentially the same as used for the Bentley Ore Reserve. o All stopes and development designs are evaluated against NSR cut-offs with Ore Reserve reporting cut-off assumptions of: ▪ Long-hole stoping (full cost) ≥$A110/t. ▪ Long-hole stoping (marginal cost) ≥$A79/t. ▪ Development ≥$A45/t.
Mining factors or assumptions	- Bentley mining factors and assumptions: o Three-dimensional mine designs were prepared in mining software using the Mineral Resource block model, cost and geotechnical inputs and mine design assumptions. o The designs are consistent with current and past mining practices for the deposit. o Mining dilution factors include 10% to 20% dilution in long-hole stopes depending on stope size. o Ore recovery factors are 95% for stoping and 100% for development ore. o A minimum mining width of 2m was assumed for stoping. o Sustaining capital costs have been included in the mine cost modelling.

Section 4: Estimation and Reporting of Ore Reserves – Jaguar Operation

Criteria	Commentary
	o Where Inferred Mineral Resources are included in the stope designs, the Inferred Resource blocks had the payable metal grades set to zero. o The current project mining major infrastructure (plant, existing declines and accesses and so on) are sufficient to extract the Ore Reserve. - Triumph assumptions: o Three-dimensional mine designs were prepared using the Mineral Resource model, cost and geotechnical inputs and mine design assumptions. o The planned mining method is a 'core-and-shell' method where the core is first extracted using long-hole stoping, then the shell of supporting rib and crown pillars is extracted in a mass blast. Following the mass-blast, waste is introduced into the void to support the void and minimise open spans while ore is extracted from the lower sub-level. o Additional numerical modelling is required to confirm the mining approach and geotechnical stability at a final feasibility level. o Mining dilution factors include 10% for core mining, and for the shell mining, ribs 20% and crown pillars 25%, with the factors derived from empirical estimates for a similar mining method. o Ore recovery factors include 90% for cores, 80% for the ribs and crowns, and 100% for development. o A minimum mining width of 2.5m is assumed for stoping. o Where Inferred Mineral Resources are included in the designs, the material has had the payable metal grades set to zero. o Ore mined will be hauled to the Jaguar plant for processing.
Metallurgical factors or assumptions	- The Jaguar processing plant is a conventional crush, grind and differential flotation plant that has been treating the VHMS ores from the nearby deposits for 10 years. The ore processing is well understood and has demonstrated consistence performance over time. - The metallurgical characters of the Triumph and Bentley ore are similar and Triumph is expected to have similar metallurgical recoveries to Bentley based on test work to date - For the Bentley Ore Reserve the following payable metal metallurgical recoveries are assumed: o Head grade recovered to copper concentrate: ▪ 85% of head copper ▪ 45% of head silver ▪ 32% of head gold o Head grade recovered to zinc concentrate: ▪ 86% of head zinc ▪ 16% of head silver - For the Triumph Ore Reserve the following payable metal metallurgical recoveries are assumed: o Head grade recovered to copper concentrate: ▪ 35% of head copper ▪ 37% of head silver ▪ 20.7% of head gold o Head grade recovered to zinc concentrate: ▪ 89% of head zinc ▪ 18% of head silver ▪ 15% of head gold o Potential deleterious elements have been taken into consideration the NSR calculations.
Environmental	- IGO's Jaguar Operation operates under an environmental management plan, which meets or exceeds current statutory and legislative requirements. - Rock waste is trucked to surface waste dumps or used as stope backfill. - Environmental rehabilitation plans are in place and progressively executed, with costs included in the Operation's budget and forward plans.
Infrastructure	- Bentley: o All major infrastructure required for the mining and processing of the Bentley Ore Reserve is in place. o Sustaining capital costs are included in the Ore Reserve cost model. o The owner and contractor staffing is complete, with personnel sourced on a fly-in-out basis from Perth and from Kalgoorlie.

Section 4: Estimation and Reporting of Ore Reserves – Jaguar Operation

Criteria	Commentary
	- Triumph: o All major infrastructure required for the mining and processing of the Triumph Ore Reserve is in place. o Mine specific infrastructure such as earthworks, mine services, ventilation fans, escape ways, high voltage power reticulations, service water and air, has been included in the Ore Reserve financial model.
Costs	- Bentley: o Sustaining capital costs for the mine decline and accesses have been included in the Ore Reserve financial model. o An allowance for in-mine exploration has been included on a $A/t basis. o Operating costs included concentrate transport costs are based on recent actual operating costs. - Triumph: o Operating costs are based on recent contractor mining rates for a similar site using the proposed mining methods, and costs have been benchmarked with respect to Bentley's current operations. o Capital cost for decline development and accesses were included in the financial model along with capital costs for surface and underground infrastructure.
Revenue factors	- Bentley: o Head grade assumptions are derived from the Ore Reserve schedule and transportation and treatment charges are based on current operational data. o The following metal prices are assumed for forward production period with values in $US/t for Cu and Zn, and $US/tr.oz. for Ag and Au: ▪ Year 0-1: 5,660 (Cu), 2,700 (Zn), 17.63 (Ag) and 1,238 (Au) ▪ Year 1-2: 5,470 (Cu), 2,370 (Zn), 19.00 (Ag) and 1,270 (Au) ▪ Year 2-4: 5,760 (Cu), 2,310 (Zn), 19.00 (Ag) and 1,260 (Au) ▪ Year 4-8: 5,990 (Cu), 2,240 (Zn), 19.00 (Ag) and 1,220 (Au) o $A:$US exchange rates for the four periods listed above are assumed to be 0.750,0.750,0.762 and 0.780 respectively. o Prices and exchange rates were provided by IGO and are based on Consensus Economics 50th percentile forecasts and exchange rates are based on Bloomberg forecasts. o Concentrate metal payabilities, and costs for any deleterious elements are included in the NSR calculations. o Price and cost assumptions are on a nominal basis (not adjusted for inflation). - Triumph: o Head grade assumptions are derived from the Ore Reserve schedule and transportation and treatment charges are based on current operational data assumptions for Bentley concentrates. o The following time-based metal prices (provided by IGO) are assumed in $US/t for Cu and Zn and $US/tr.oz. for Ag and Au: ▪ Cu: 5,500 to 6,474 ▪ Zn: 2,485 to 2,773 ▪ Ag: 17.6 to 19.5 ▪ Au: 1,227 to 1,300 o $A:$US exchange rates provided by IGO ranged from 0.73 to 0.76, increasing with time.
Market assessment	- No specific market assessment has been completed for the Ore Reserve reports. - The Competent Persons consider that the high quality of the concentrate produced from Jaguar Operations will be readily marketable.
Economic	- Bentley: o The discount rate applied in the economic assessment is 10% per annum. o The Competent Person considers that confidence in the inputs is commensurate with industry expectations for Proved and Probable Ore reserves for the style of mineralisation under consideration. o Price and cost assumptions are on a nominal basis (not adjusted for inflation). o Sensitivity analyses on costs, foreign exchange and metal price indicated the NPV was most sensitive to foreign exchange rates. - Triumph:

Section 4: Estimation and Reporting of Ore Reserves – Jaguar Operation

Criteria	Commentary
	o The Ore Reserve processing schedule demonstrates a positive cash-flow. o The Competent Person considers that confidence in the inputs is commensurate with industry expectations for Proved and Probable Ore reserves for the style of mineralisation under consideration. o Price and cost assumptions are on a nominal basis (not adjusted for inflation). o Sensitivity analyses on costs, foreign exchange and metal prices indicated the NPV was most sensitive to foreign exchange rates and metal prices. o IGO provided the inputs for costs and revenue.
Social	- Jaguar Operation has all necessary agreements in place with key stakeholders and matters leading to social licence to operate. - For Triumph, mining operations can commence on the approval of a mining proposal to the WA authorities, which has been submitted. The Competent Person understands from IGO that there are no know impediments to receiving all necessary approvals to develop a mine at Triumph.
Other	- There are no material naturally occurring risks to continued mining or future planned mining. - All necessary government and statutory approvals are in place. - There are no unresolved third-party matters hindering the extraction of the Ore Reserve. - Triumph can proceed on approval of the already submitted mining proposal to WA authorities.
Classification	- The Ore Reserves have been classified into Proved and Probable Ore Reserve JORC Code classes based on the underlying Mineral Resource classifications, with Measured Mineral Resources converted to Proved Ore Reserves, and Indicated Mineral Resources converted to Probable Ore Reserves. - Small portions of Inferred Mineral Resources have been included in some stopes where the stope has been demonstrated to be viable based on the included Measured or Indicated Resources only. - The classifications applied to the estimates are consistent with the opinion of the Competent Persons reporting the Ore Reserve. - There is no portion of the Probable Ore Reserves derived from Measured Mineral Resources.
Audits or reviews	- Both Ore Reserve estimates have been internally reviewed by the consultants preparing the estimates, and have been reviewed by IGO's senior technical mining engineering staff. - There have been no independent and/or external reviews.
Discussion of relative accuracy/ confidence	- No statistical or geostatistical studies, such as conditional simulations, have been completed to quantify the uncertainty and confidence limits of the estimates. - The main driver of accuracy and confidence is the spacing of the pre-production drilling, which is captured in the Mineral Resource JORC Code classifications underpinning the Ore Reserve estimates. - Confidence in the Ore Reserve inputs is generally moderate to high given the Bentley mine is in operation, and costs, prices, recoveries and so on are well understood. - The Ore Reserve estimates are considerate to have sufficient local accuracy to support mine planning and production schedules with Proved Ore Reserves considered a reliable basis for quarterly production targeting, and Probable Ore Reserves reliable for annual production targets. - Confidence in the mine design and schedule are generally high as mining rates and modifying factors are based on actual site performance. - Mine designs for Bentley are consistent with what has been effective previously. - The mine to mill reconciliation data to date for Bentley indicates the forecast precision of the estimates is good. - No reconciliation data is available for Triumph (being a first estimate).

APPENDIX D – JORC CODE TABLE 1 – LONG OPERATION

Section 1: Sampling Techniques and Data – Long Operation

Criteria	Commentary
Sampling techniques	- The Mineral Resources at Long Operation have been defined using conventional diamond core drilling (DD), and limited reverse circulation percussion (RC) drilling from surface, with all the pre-IGO data collection by Western Mining Corporation (WMC). Since IGO's acquisition of the operation, all sampling has been by surface RC and Surface and underground DD with drilling completed mostly from underground sites since 2003. - Refer to the subsections below for more details on drilling techniques. - Exploration work has been assisted by downhole electromagnetic (EM) surveys, which can identify conductors that are potentially massive and matrix sulphide accumulations. - Seismic surveys (3D) have been also been used to help identify structures and geological units that may host nickel sulphide mineralisation.
Drilling techniques	- Drilling from WMC years of Mineral Resource definition utilised mainly ≈133mm diameter RC pre-collars drilled from surface with 47.6mm core diameter (NQ) tails. Underground diamond drilling consisted of core diameters including 30.5mm (AQ – Kempe), 35.6mm(LTK48), and 50.6mm (NQ2). - More recent DD drilling is mainly from underground sites and includes four core diameters including 40.7mm(BQTK), 43.9mm (LTK-60), 50.6mm (NQ2), and 63.5mm (HQ), with the largest diameter core used to improve core recovery in (expected) friable or broken ground conditions. - Core has not been oriented for Mineral Resource estimation work but some hole have been oriented to assist capture of geotechnical data.
Drill sample recovery	- RC recovery was recorded in a qualitative manner with recovery generally recorded as acceptable. - DD recovery has been measured as the percentage of the total length of core recovered compared to the drill advance interval. - Core recovery is consistently high in fresh rock, on average >95%, with some core losses occurring in heavily fractured ground. - The main methods to maximise recovery have been recovery monitoring and use of large core diameters if broken ground conditions were expected. - Drill hole interval accuracy was monitored through reconstruction of the core into a continuous length and verification against the core blocks. - Rod counting was also used to verify the lengths drilled. - No relationships occur between sample recovery and grade. - Sample biases due to the preferential loss or gain of fine or coarse material are unlikely.
Logging	- RC cuttings and DD cores have been logged geologically and geotechnically with reference to standard logging schemes, to levels of detail that support Mineral Resource estimation, Ore Reserve estimation and metallurgical studies. - Qualitative logging for both RC and DD includes codes for lithology, oxidation (if any), veining and mineralisation. - Recent DD cores are photographed, qualitatively structurally logged with reference to orientation measurements where available. - Geotechnical quantitative logging of recent holes includes RQD and other fracture information. - The total lengths of all drill holes have been logged.
Sub-sampling techniques and sample preparation	- Only geological information was included from RC drilling and no RC sample grade information was used for Mineral Resource estimation purposes. As such, the description of subsampling and preparation of RC samples is not material. - DD primary sampling: o A geologist marked out DD core for sampling intervals based on geological units, with intervals ranging from 0.1m to 1.1m, with a target interval of 1m. o The sample intervals were then cut in half longitudinally with a wet diamond blade, with the laboratory dispatch half collected from the same side of the core. o For the few intervals of extremely broken core, the core was sampled by hand-picking representative fragments from the broken core interval to prepare a sub sample having approximately half the sample interval mass. o Sample were collected in pre-numbered calico bags for laboratory dispatch.

Section 1: Sampling Techniques and Data – Long Operation

Criteria	Commentary
	- Laboratory DD cut-core preparation: o Core samples were oven dried then crushed in a jaw-crusher with recent core crushed to a particle size distribution (PSD) <6mm. The jaw-crush lot was then fine crushed to a PSD <2mm in a Boyd crusher-rotary splitter unit. o The ≈ 750g subsample from the rotary splitter was the pulverised to a PSD of 90% passing 75 microns and a 400g subsample collected from the pulp into a paper packet. - Quality controls to ensure sample representativity included: o Blanks and standards were inserted at 1:10 and 1:20 frequency respectively. o Replicate samples were collected as ¼ core as field duplicates. o Sieve tests were completed at the pulverisation stage to confirm PDS compliance. o Monitoring of quality results confirmed the sample preparation was acceptable. - No specific heterogeneity tests have been carried out but the Competent Person considers that the sub sample protocols applied and masses collected are consistent with industry standards for the style of mineralisation under consideration.
Quality of assay data and laboratory tests	- No geophysical tools were used to determine any element concentrations estimated in the Mineral Resource. - Samples were assayed by ALS Laboratories in Kalgoorlie and Perth where ≈100g subsamples of the pulp subsamples described above were digested in a four-acid mixture and heated to dryness. - The digestion salts were then re-dissolved and a solution prepared for ICP-OES analysis of elemental suite (Ni, Cu, As, S, Co, Cr, Fe, Mg and Zn). - The four-acid digestion is considered a total extraction for all but chromium in (acid resistant) chromite. - Quality control samples were included by the laboratory in the form of standards, blanks and replicates. Results of the quality samples were found to be acceptable albeit the variability between ½ and ¼ core replicates was high due to the high heterogeneity between what are compared specimens rather than replicates samples from the same (crushed or pulverised) lot. - The Competent Person considers that acceptable levels of precision and accuracy had been established and cross-contamination has been minimised.
Verification of sampling and assaying	- Sulphide drill intersections are visually conspicuous in the core and as such, assay results have been readily cross-verified by IGO's geologists through re-inspection of the core or core photographs. - No twin-holes have been drilled. - Recent drill hole sample number and logging information has been captured at source using laptop computers with standardised database templates to ensure consistent data entry. - Data (logs, sample dispatched, core photographs) is downloaded daily to the IGO's main acQuire database, which is an industry recognised tool management and storage of geoscientific data. - The system is backed up off site daily. - Assay data is merged electronically from the laboratories into IGO's main acQuire database, with information verified spatially in Surpac software. IGO maintains standard work procedures for all data management steps. - An assay importing protocol has been set up to ensure quality samples are checked and accepted before data can be loaded into the main database. - There have been no adjustments or scaling of assay data other than setting below detection limit values to half detection for Mineral Resource estimation.
Location of data points	- Drill hole collars: o Older drill holes have been located by surveyors using the most precise survey equipment available at the time of survey. o The collar locations of recent underground holes have located by the IGO Mine Survey staff using total station survey equipment to accuracy better than 1cm in three dimensions. o Hole directions are aligned using surveyed back site/ fore sight string lines and industry standard Downhole Surveys 'Azimuth Aligner'. - Drill hole paths: o Older drill hole paths were surveyed using down hole cameras (single and multi-shot) with readings taken at 15m or 30m down hole intervals. o Recent hole paths have been surveyed using electronic tools (Reflex Ez-Track) that have a azimuth precision of ±0.35° and dip precision of ±0.25°.

Section 1: Sampling Techniques and Data – Long Operation

Criteria	Commentary
	- The grid system for drilling and the Mineral Resource estimate is a local grid (KNO) that is a non-linear projection of MGA94 Zone 51 using an GDA94 elevation datum using the following two point reference locations: o Point 1: ▪ 374,308.6293 MGA east = 374,330.281 KNO east ▪ 6,549,570.006 MGA north = 549,509.534 KNO north ▪ 0.00 AHD = 2.89 KNO RL o Point 2: ▪ 375,848.772 MGA east = 375,850.233 KNO east ▪ 6,547,182.835 MGA north = 547,109.502 KNO north ▪ 0.00 AHD = 2.89 KNO RL - All deposits considered for Mineral Resource estimation are 300m or more below surface so the quality of the topographic control is not a material consideration.
Data spacing and distribution	- The data spacing for the Long, Victor South, and McLeay deposits is nominally a 20mY along strike spacing and a10mX pierce point spacing across the mineralisation trend. Some areas of greater geological complexity are tested on a 5mX×5mY spacing. - The data spacing for Moran is nominally a 20mY along strike spacing and 10mX pierce point spacing across the mineralisation trend. Some areas of greater geological complexity are tested on a 10mX×10mY spacing. - Down-hole sample intervals range from 0.1m to 1.1m with 1m compositing applied for Mineral Resource estimation work. - The Competent Person considers that these data spacings are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures used, and the JORC Code classification applied.
Orientation of data in relation to geological structure	- Nearly all drill holes used for Mineral Resource estimation are oriented to intersect the mineralisation at a high angle and as such, a grade bias possibly introduced by the orientation of data in relation to geological structure is unlikely. - Grade control holes that have been drilled along dip in pre-production, have only been used to determine the geometry of mineralisation with grade data from these holes not included in the Mineral Resource grade interpolations.
Sample security	- The sample custody is managed by IGO. - Cut-core (or RC) samples were collected in pre-numbered calico bags, and stored securely on the mine-sites before being delivered to ALS laboratory in Kalgoorlie or Perth for sample preparation and assay. - Sample dispatches are prepared by IGO's field personnel and ALS has a sample tracing system that permits tracking of sample progress. - Sample dispatch sheets are verified against samples received at the laboratory and any missing issues such as missing samples and so on are resolved before sample preparation commences. - The second half (or ¼-core) samples are stored IGO's secure sample facility in Kambalda. - The Competent Person considers that the likelihood of deliberate or accidental loss, mix-up or contamination of samples is considered very low.
Audits or reviews	- The database is audited annually by IGO's senior geologist to ensure the data meets IGO's standards expected for Mineral Resource estimation work.

Section 2: Reporting of Exploration Results – Long Operation

Criteria	Explanation
Mineral tenement and land tenure status	- The Long Operation Mineral Resources are located within WA mining leases M15/1761, M15/1762, M15/1763, and M15/1515, with the later expiring on 12/12/2025 and three former expiring on 5/10/2025. - Some Mineral Resources are also located within Location 48, which is a non-crown (pre-WA Mining Act) lease. - M15/1515 is a joint venture (JV) tenement between IGO and St Ives Gold Mining Company (SIGM) who is a wholly owned by GoldFields Australia; where the JV agreement allows IGO to explore and mine nickel ore on the tenement and SIGM is paid a royalty on the ore mined calculated from the Ore Tolling and Concentrate Purchase Agreement (OTCPA) with WMC. The OTCPA states IGO ore would be treated at the WMC Concentrator in Kambalda whereby IGO would be paid based on the percentage of nickel recovered from the nickel grade of the ore. - WA state royalties apply to any ore mined and processed at rates stipulated in the WA Mines Act. - The tenements are all in good standing at the time of reporting with no known material issues related to third parties, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.
Exploration done by other parties	- The Kambalda district in WA has a long history of prospecting, mining and exploration extending back early gold discoveries and the establish of the Kambalda in 1897. - In the mid-1960s WMC geologists recognised the sulphide gossans from specimens collected from Kambalda district and follow up drilling by resulted in the discovery of the Lunnon Shoot nickel-sulphide deposit. This discovery signalled the onset of the nickel boom between 1966 and 1971 with the discovery of multiple deposits with over half recognised from their surface gossans or surface geochemistry. - Following a long hiatus, WMC focussed again in the Kambalda region in the early 1990s and was rewarded with discovery of more deposits (Mariners, Miitell and Coronet). From, 1971 to 2003, more deposits were discovered with most found through brownfield follow up of known mineralisation occurrences. - IGO acquired Long Operation from BHP Billiton Nickel West (formerly WMC) in 2002 and re-commissioned the moth-balled Long Mine. Since then IGO's exploration teams discovered the McLeay deposit in 2005 and the Moran deposit in 2008.
Geology	- The Kambalda nickel deposits are located 60-100km south of Kalgoorlie in Western Australia within the southern part of Archean age Norseman-Wiluna greenstone belt. - The regional stratigraphic succession is characterised by coeval komatiite/tholeiite and komatiite/felsic-volcanism. - Sulphidic flows and/or sulphide rich sediments are found as subtrates to some komatiite units, with the sulphide deposits presenting as ribbon-like shoots or as broad-shallow embayments in second order lava channels. - Most deposits are found in the lower Kambalda Dome sequence at the base of ultramafic (komatiite) lavas that are in contact with tholeiite basal units. Most deposits are distributed in an annular zone found around the core of granitoid stock that in intruded ≈2.6Ga ago. Later (barren) porphyry dykes from the stock cross cut the host rocks and mineralisation. - Since deposition/intrusion ≈2.7Ga ago, the rocks of the region have undergone four phases of deformation over a 300Ma period resulting in a NNW structural trend, folding and faulting. - The rocks have also been metamorphosed from greenschist to amphibolite grade. - The nickel-sulphide deposits are typically basal contact lodes up to 3km long and 50m to 300m wide but generally 5m to 50m thick with tonnages ranging from 0.5 Mt to 10Mt per deposit or deposit lenses. Deposits typically grade upward from massive sulphide to matrix textures then into disseminated/blebby mineralisation. - The Long, McLeay, Moran and Victor South nickel sulphide deposits are typical of those found in the Kambalda region. - The Long Operation has four main deposits found in two parallel lava channels. The Long and Moran deposits are in the Long Channel, and McLeay and Victor South in the Victor Channel. - The Victor South deposit is characterised by disseminated sulphides whereas the other three deposits are characterised by massive to semi-massive or matrix textures. The Victor Channel is also the host to the mined-out, Gibb, Gibb South and Victor deposits. - The major sulphides are pyrrhotite, pentlandite, pyrite and chalcopyrite.

Section 2: Reporting of Exploration Results – Long Operation

Criteria	Explanation
Drill hole Information	- A summary of the many holes used to prepare the Mineral Resource estimates for Long Operations is not practical for this public report. - The Mineral Resource estimates give the best-balanced view of all the drill hole information.
Data aggregation methods	- No drill hole related exploration results are included in this report. - No metal equivalent values are considered in the Mineral Resource estimate.
Relationship between mineralisation widths and intercept lengths	- No drill hole related exploration results are included in this report. - All Mineral Resource drilling intersect the mineralisation at a high angle and as such approximate true thicknesses in most cases.
Diagrams	- Representative diagrams of the drilling and geometry Long, McLeay, Moran and Victor South deposits are included in many of IGO's ASX releases during 2005 to 2010.
Balanced reporting	- The Mineral Resource is based on all available data and as such provides the best-balanced view of the Long Operation deposits.
Other substantive exploration data	- Information relating to other exploration data, such as density and metallurgical assumptions are detailed in Section 3 further below.
Further work	- Interpretation of seismic data has been completed and drill targets are being prepared for the next year of exploration.

Section 3: Estimation and Reporting of Mineral Resources – Long Operation

Criteria	Commentary
Database integrity	- IGO's geologist capture field data and drill hole logging directly in to handheld devices or laptop computers using standard logging templates. - Logging data is transferred daily to IGO's central acQuire database system which is an industry recognised software for management of geoscientific data. - All data is validated on site by IGO's geologists with quality samples checked and accepted before data is merged from laboratory digital assay reports in the central database. - Drill logs are printed from the database for further verification and the merged geology and assay results are then cross check spatially in Surpac mining software, with further checks against core photography or retained cores if required. - The Competent Person considers that there is minimal risk of transcription of keying errors between initial collection and the final data used for Mineral Resource estimation work.
Site visits	- The Competent Person makes regular site visits to Long Operations to review the data collection procedures and discuss the geology and mineralisation of the deposit prior to and during the Mineral Resource update.
Geological interpretation	- The data used for geological interpretation is from DD drilling and includes logging, assay results, which is augmented by underground exposure mapping to confirm the interpreted geological units and zones of mineralisation. - Lithological controls are used to interpret the footwall and hangingwall contracts of the Mineral Resource mineralisation and the cross cutting waste dykes. - Barren (post-mineralisation) porphyry dykes have variable thicknesses and orientation and are modelled as three dimensional digital solids that overprint the mineralisation solid in the Mineral Resource model. - In some areas, the Mineral Resource is offset on faults or porphyry dykes, with the assumption that grades are continuous across these post mineralisation structural breaks. - The interpreted geological controls described above are used to control the grade estimation process.

Section 3: Estimation and Reporting of Mineral Resources – Long Operation

Criteria	Commentary
	- No alternative interpretations have been prepared or considered necessary. - The geological interpretation is considered to have moderate to high confidence in all deposits as the up dip and up plunge continuity is generally established by prior mining and down dip and down plunge geometry established by DD drilling.
Dimensions	- Long: o The major extent of Long is (including mined out areas) ≈2.6km down plunge, ≈550m down dip with 25 ribbon-like lenses modelled that are typically ≈1m to 3m in true thickness. o The Mineral Resource starts at ≈300m below natural surface and extends to ≈1,000m below surface. - McLeay: o The major extent of McLeay is ≈750m down plunge, ≈140m down dip, with 7 lenses modelled that are typically 1m to 3m in true thickness. o The Mineral Resource starts at ≈650m below surface and extends ≈1,000m below surface. - Victor South: o The major extent of Victor South is ≈200m down plunge, ≈150m down dip with three ribbon-like lenses modelled that are typically ≈1m to 10m in true thickness. o The Mineral Resource starts ≈600m below surface and extends ≈850m below surface. - Moran: o The major extent of this deposit is ≈650m down plunge, ≈120m down dip with 3 ribbon-like lenses that are typically ≈1m to 5m in true thickness. o The Mineral Resource commences ≈900m below surface and extends ≈1,000m below surface.
Estimation and modelling techniques	- Digital three-dimensional solids are prepared in Surpac software to encompass the interpreted Mineral Resource mineralisation using either a nominal ≥1.0% Ni drill hole grade cut-off in the massive sulphide rich deposits, or a ≥0.6% Ni drill hole grade cut-off for the disseminated mineralisation in the Victor South deposit. - For all models the estimated variables were nickel, copper and density for both ore and waste blocks. - Long estimation method: o For narrow zones of mineralisation in the Long deposit, a two-dimensional (2D) estimation method was applied whereby drill hole grade intervals are accumulated into a (grade × horizontal thickness × density) accumulation variables for each drill hole intercept of mineralisation, and the accumulations, thicknesses and density are estimated using ordinary kriging into 2D panels project in the plane of the mineralisation. o Panel grades and density for the nominal 10mY×8mZ panels are then back calculated from the accumulation and thickness estimates. o No grade top-cutting or capping has been applied. o Minimum number of samples was 6 and maximum sample was 24. ThemMaximum search distance set for major axis was 200m and maximum vertical search distance was 1000m. - Victor South, McLeay and Moran estimation methods: o Estimates were using ordinary block kriging into three-dimensional block models with parent block grades estimated from 1m long drill hole composites within each estimation domain. o No grade top-cutting or capping has been applied. o Sample searches locally oriented to follow the local trends of the mineralisation in each estimation domain. o Estimation block sizes were set to parent dimensions of 10mY×4mY×4mZ, with sub blocks permitted down to dimensions of 5mY×0.5mY×0.5mZ for geological boundary resolution. o The parent block size is considered appropriated for the typical drill spacing of 20mE×10mE with some areas drilled out on a 5mE×5mN spacing. o Victor South - Minimum number of samples was 1 and maximum sample was 15. Maximum search distance was between 60m to 80m. o McLeay - Minimum number of samples was 1 and maximum sample was 19. Maximum search distance was 80m to 150m. o Moran - Minimum number of samples was 3 and maximum sample was 10. Maximum search distance was 150m.

Section 3: Estimation and Reporting of Mineral Resources – Long Operation

Criteria	Commentary
	- There are no assumptions in any of the deposit estimates relating to by-products, deleterious elements, selective mining units or correlations between estimation variables. - The model estimates are validated by comparing model inputs (composites) to model outputs (panel or block estimates) on a global and moving window (swath-plot) basis for each estimation domain. - The models and composites are also inspected on-screen to confirm that the trends in the input data are reproduced as expected in the block or panel estimates. - Historical comparisons of Mineral Resource forecasts and actual production data indicated the grade estimation process is generally robust and insensitive to new data or mining depletions. Overall reconciliations are positive with more metal recovered than predicted by the models.
Moisture	- The Mineral Resource tonnages are estimated on a dry basis.
Cut-off parameters	- Apart from Victor South, where the disseminated-style of mineralisation is reported using a ≥0.6% Ni block model cut-off grade, Mineral Resources are reported using a ≥1.0% Ni.
Mining factors or assumptions	- The assumed mining methods vary depending on deposit-lens geometry and thickness with cut-and-fill, long hole stoping and air-leg mining current mining practices. - Minimum mining widths range from 1.2m to 4m dependent on mining method. - Long hole stoping ranges between 5m and 15m levels dependent on local Mineral Resource geometry and thickness. - Internal mining dilution is accommodated in the Mineral Resource estimates with margin dilution accounted for in the Ore Reserve estimation process.
Metallurgical factors or assumptions	- IGO sells ore from Long Operation to BHP Billiton Nickel West's nearby concentrator, which has processed ores from Kambalda-style deposits for over 30 years. - While the expected metallurgical recovery is specified in sales contracts but the recovery behaviour of the deposits is well understood and not material to ore sales.
Environmental factors or assumptions	- IGO's Long Operation operates under and environmental management plat, which meets or exceeds legislative requirements. - Rock waste is trucked to surface waste dumps or used as stope backfill. - Environmental rehabilitation plans are in place and progressively executed, with costs included in the Operation's budget and forward plans. - Disposal of concentrator residues in a tailing storage facility on and adjacent BHPB tenement is managed BHP Billiton.
Bulk density	- *In situ* bulk density measurements from more recent drilling have been made on geologically representative sections of core from recent drilling with density determined using the Archimedes Principle (water-displacement) method to determine core volumes and weighing of the oven-dried core interval to determine the core masses. - Density is then calculated as mass/volume for each sample tested. - The rocks measured are fresh with no pore spaces that could soak up water and potentially bias the estimation method. - Where sufficient data is available density is estimated into the Mineral Resource estimates using the same methodology as used for grade variables described above. - For historic data where no measurement information is available, in situ density has been estimated using a linear regression function between density and nickel grade. This relationship is acceptable for Mineral Resource estimation purposes due to the strong positive correlation between the nickel sulphides and density. - The porphyry intrusions are assigned a density of 2.7t/m^3, which is the average of the available density results for this rock type in the density database.
Classification	- The basis of classification of the Long Operation estimates into different JORC Code confidence categories is based on drill hole spacing and/or proximity of mine development as follows as follows: o Measured Mineral Resources are allocated where the continuity of geology and mineralisation is confirmed by exposures of the Mineral Resource mineralisation between by drilling between two levels. o Indicated Mineral Resources are allocated where the continuity in grade and geology can be assumed from drilling with:

Section 3: Estimation and Reporting of Mineral Resources – Long Operation

Criteria	Commentary
	▪ Long, Victor South and McLeay – mineralisation drill tested on 20mN×10mE grid (or closer). ▪ Moran –mineralisation tested on a 40mN×10mE grid (or closer). o Inferred Mineral Resources are allocated where the continuity of grade and geology can be implied from the drilling information available on a 40mN×40mE grid. - The Competent Person considers this classification takes in to account all relevant factors such as data reliability, confidence in the continuity of geology and grades, and the quality, quantity and distribution of the data. - The classification reflects the view of the Competent Person reporting the estimates.
Audits or reviews	- No review has been carried out as the estimates are unchanged apart for mining depletion. - The estimates were originally prepared by IGO and reviewed by Cube consultants in 2015.
Relative Accuracy/Confidence	- No geostatistical methods such as conditional simulation have been prepared to quantify the accuracy or precision of the estimates. - The Competent Person considers that the Measured and Indicated Mineral Resource estimates have local precision that is suitable for planning quarterly and annual targets respectively, and as such, suitable for Ore Reserve conversion. - Inferred Mineral Resource estimates have global estimation precision and are not suitable for Ore Reserve conversion. - The estimates are compared to the production a monthly, quarterly and annual basis, and results to date have been satisfactory and found to be marginally conservative.

Section 4: Estimation and Reporting of Ore Reserves – Long Operation

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	- The Mineral Resourced estimates used for the Long Operation Ore Reserves are the Long, Victor South, McLeay and Moran estimates described in the preceding sections of this JORC Table 1. - These estimates have been depleted for mining to 30 June 2017 and the Mineral Resource estimates are inclusive of Ore Reserves.
Site visits	- The Competent Person for reporting the Ore Reserves is the alternate Mine Manager at Long Operation and as such, has intimate knowledge of the operation and when on site is in daily contact with personnel providing key inputs to the estimate.
Study status	- As Long Operation is currently operating mine and level of study for the Ore Reserve estimate is commensurate with industry expectations of a (final) Feasibility Study or better as described in the JORC Code, with all material Modifying Factors considered in the Ore Reserve estimate. - Current mining and processing operations confirming that the mine plans are technically feasible and economically viable.
Cut-off parameters	- Ore cut-off parameters are based on net-smelter-return (NSR) calculations where the NSR is notionally the profit (or loss) of each tonne mined net of all costs associated with mining and processing the ore. - Stopes are designed based on fully costed NSR value including mining costs, processing costs inclusive of the planned dilution and assumed ore loss factors. - Development heading NSRs cut-offs reflect the costs to pay for ore haulage to surface, haulage to the concentrator and processing costs.
Mining factors or assumptions	- Depending on the NSR net value and geometry of the Mineral Resources, the mining methods applied at Long Operation range from long-hole stoping (with fill), to jumbo-stoping or air-leg mining. - Three dimensional designs of development headings and stopes are prepared using the Mineral Resource block model and/or surfaces as a guide, along with consideration of the geotechnical conditions associated with each stope design. - Dilution (waste mined with ore) of 25% is assumed for long-hole stoping and 5% dilution is assumed other mining methods. Diluted grades are assumed to be of similar grade to the planned excavation.

Section 4: Estimation and Reporting of Ore Reserves – Long Operation

Criteria	Commentary
	- Ore recovery from design is assumed to be 90% for jumbo stoping and 95% for other mining methods. Additional ore losses are applied in some areas of poorer geotechnical conditions. - The minimum mining width varies by mining method but is typically 2m but can be narrower for air-leg mining. - Inferred Resources are only included in the Ore Reserve when a stope contains sufficient Proved and/or Probable Reserves to justify economic extraction exclusive of the contained Inferred Resources. - Inferred Resources may be mined from development headings but not included in the Ore Reserve. - The existing infrastructure at Long Operation supports extraction of the Ore Reserve with no capital spends outside the planned sustaining capital budget required.
Metallurgical factors or assumptions	- Ore from Long Operation's is sold to BHP Billiton under contract. - The expected metallurgical recoveries at the Kambalda concentrator are specified in the contract and well understood from processing Kambalda-style ores over the last 20+ years of operations. - Metallurgical recoveries are not reported by BHP Billiton as the sales agreement is based on ore tonnage and grade derived from weighbridge measurements and the concentrator head grade sampler.
Environmental	- IGO's Long Operation operates under environmental management plan, which meets or exceeds current statutory and legislative requirements. - Rock waste is trucked to surface waste dumps or used as stope backfill. - Environmental rehabilitation plans are in place and progressively executed, with costs included in the Operation's budget and forward plans. - BHP Billiton manages disposal of concentrator residues into a tailing storage facility.
Infrastructure	- All major infrastructure required for the mining and processing is in place. - The owner and contractor staffing is complete, with personnel sourced on a fly-in-out basis from Perth and from Kambalda township. - No significant infrastructure is anticipated and sustaining capital cost are included in the financial model.
Costs	- Costs of sustaining capital such as decline development, ore access and ventilation and so on are based on operational experience and budgets. - An allowance has been made for on-going exploration costs. - Operating cost are also based on operational experience and budgets. - A fixed charge is applied by BHP Billiton for ore processing, and budgets include the cost of transport to the concentrator. - No deleterious elements are expected in the ore and no allowance have been made accordingly for penalties and so on. - Allowances have been made for WA State royalties as specified in the WA Mines Act for payable metals and where necessary a royalty to JV partner St Ives.
Revenue factors	- Head grades are based on the mine plan, and the dilution and ore recovery assumptions discussed above. - Metal prices are advised on annual basis by IGO corporate, based on Consensus Economics data with nickel prices of $US10,875/t for nickel and $US5,660/t for copper. - Foreign exchange rates are also advised by IGO corporate, based on Bloomberg data, with a $A:$US exchange rate of 0.75.
Market assessment	- No specific market assessment has been completed for this Ore Reserve report.
Economic	- The inputs into the economic analysis for the Ore Reserve have already been described above under previous subsections. - The economic evaluation has been carried out on a nominal basis (not adjusted for inflation). - The confidence in majority of the economic inputs is high as most of the inputs are for operating mines and as such, costs (operating and capital) are well understood. - The confidence in metal prices and exchange rates is consistent with routine industry practices with the data derived from reputable forecasters. - The discount rate used for NPV calculations is derived from the weighted average cost of capital in Australia. - Sensitivity studies have been completed on inputs such a mining and processing costs, metal prices and discount rate. The NPV has highest sensitivity to metal price and exchange rate assumptions.

Section 4: Estimation and Reporting of Ore Reserves – Long Operation

Criteria	Commentary
Social	- Long Operation has all necessary agreements in place with key stakeholders and matters leading to social licence to operate.
Other	- Long Operation is a seismically active mine and this risk is managed through a Ground Control Management Plan, and allocation of appropriate technical resources to monitor ground conditions. - There are no material legal agreements or marketing arrangements not already discussed in prior sub sections. - All necessary government and statutory approvals are in place. - There are no unresolved third-party matters hindering the extraction of the Ore Reserve.
Classification	- The Ore Reserve has been classified into Proved and Probable Ore Reserve JORC Code classes based on the underlying Mineral Resource classifications, with Measured Mineral Resources converted to Proved Ore Reserves, and Indicated Mineral Resources converted to Probable Ore Reserves. - A small portion of Inferred Mineral Resources has been included in some stopes where the stope has been demonstrated to be viable based on the included Measured or Indicated Resources only. - The classifications applied to the estimate are consistent with the opinion of the Competent Person reporting the Ore Reserve. - There is no portion of the Probable Ore Reserves derived from Measured Mineral Resources
Audits or reviews	- Ore Reserve estimates have been internally reviewed by IGO's senior mining engineering staff at Long Operation. - There have been no independent and/or external reviews in the past 12 months.
Discussion of relative accuracy/ confidence	- No statistical or geostatistical studies, such as conditional simulations, have been completed to quantify the uncertainty and confidence limits of the estimates. - The main driver of accuracy and confidence is the spacing of the pre-production drilling, which is captured in the Mineral Resource JORC Code classifications underpinning the Ore Reserve estimates. - Confidence in the Ore Reserve inputs is generally high given the mine is operation and costs, prices, recoveries and so on are well understood. - The Ore Reserve estimates are considerate to have sufficient local accuracy to support mine planning and production schedules with Proved Ore Reserves considered a reliable basis for quarterly production targeting and Probable Ore Reserves reliable for annual production targets. - Confidence in the mine design and schedule are high as mining rates and modifying factors are based on actual site performance. Mine designs are consistent with what has been effective previously. - The mine to mill reconciliation data to date indicates the forecast precision of the estimates is good with the Ore Reserve estimate being slightly conservative.

APPENDIX E– JORC CODE TABLE 1 – STOCKMAN PROJECT

Section 1: Sampling Techniques and Data – Stockman Project

Criteria	Commentary
Sampling techniques	- The Mineral Resources at Stockman have been defined using conventional diamond core drilling (DD) both from surface and underground sites. - Some RC holes have been drilled by past explorers but the data from these holes has only be used for geological information, and assay information has not been used in the Mineral Resource estimate. - Refer to the sections below for details of the drilling and sampling techniques for DD core.
Drilling techniques	- The details for the drilling of two Stockman deposits (Currawong and Wilga) are: o Currawong: 218 holes for a total of 62,613m of drilling (including abandoned holes). o Wilga: 258 holes for 26,995m of drilling, including 23 holes for 2,528m drilled from underground sites. - The drill hole database dates to 1976 with: o Western Mining Corporation (WMC) drilling 107 holes between 1976 and 1984 to collect 47.6mm diameter (NQ) cores, and 36.4mm diameter (BQ) cores from deeper tails. o Macquarie Resources Ltd drilled 78 holes between 1986 and 1990 collecting 63.5mm (HQ) cores, and NQ cores from tails. Macquarie also drill 40 holes from underground sites collecting 35.6mm diameter (LTK46) cores. o Denehurst Ltd drilled 100 holes with a range of core diameters including LTK45, 50.6mm diameter (NQ2), BQ, 36.6mm diameter (BX) and BQ. o Austminex NL drilled 26 holes at Currawong in 2000 to 2001 sometimes using RC pre-collars. The core collected was triple tube 61.1mm diameter (HQ3) or 45.0mm diameter (NQ3) tails. o Jabiru Metals Ltd (JML) commenced drilling in 2008 using 85mm diameter (PQ) core for top-of-holes, then HQ tails. Wedge holes were all drilled using a NQ2 core diameter. o IGO completed a further drill program of 46 holes in 2011 to 2012 prior to updating the Mineral Resource, mainly NQ2 diameter for definition work and HQ for metallurgical sample collection and geotechnical logging and testing. - IGO cores were oriented using electronic tools (Reflex Ace).
Drill sample recovery	- Core recovery from DD drilling reported as being good to excellent for recent drilling in fresh rock. - Based on results or more recent drilling, the core recovery for older drilling is expected to be good in fresh rock. - Some core was lost where holes intersected underground workings. - An area within Wilga had poor recovery due to high (friable) chalcocite concentrates, and this small volume was classified as Inferred Mineral Resource due to the local poor recovery. - The principal measure to maximise recovery has been recovery monitoring and in some cases triple-tube drilling. - There is no relationship identified between recovery and grade. - Apart from the chalcocite zone discussed above, there is no reason to expect a sample bias during drilling due to the preferential loss or gain of fine or coarse materials.
Logging	- RC cuttings and DD cores have been logged geologically and geotechnically with reference to standard logging schemes, to levels of detail that support Mineral Resource estimation, Ore Reserve estimation and metallurgical studies. - Qualitative logging for both RC and DD includes codes for lithology, oxidation (if any), veining and mineralisation. - Recent DD cores have been photographed, qualitatively structurally logged with reference to core orientation measurements where available. - Geotechnical quantitative logging of recent holes includes RQD and other fracture information. - The total lengths of all drill holes have been logged.
Sub-sampling techniques and sample preparation	- Only geological information was included from RC drilling and no RC sample grade information was used for Mineral Resource estimation purposes. As such, the description of RC subsampling and preparation of RC samples is not material.

Section 1: Sampling Techniques and Data – Stockman Project

Criteria	Commentary
	- DD primary sampling: o A geologist marked out DD core for sampling intervals based on geological units, with intervals ranging from 0.1m to 1.5m, with a target interval of 1m. o The sample intervals were then cut in half (or sometimes quartered) longitudinally with a wet diamond blade, with the laboratory dispatch half (or quarter) collected from the same side of the core. o For the few intervals of extremely broken core, the core was sampled by hand-picking representative fragments from the broken core interval to prepare a sub sample having approximately half the sample interval mass. o Samples were collected in pre-numbered calico bags for laboratory dispatch. - Laboratory DD cut-core preparation: o Details of pre-IGO/JML sample preparation are not known but are expected to be consistent with industry practices in place at the time of the various drill programs. o For JML/IGO cores: ▪ Core samples were oven dried then crushed in a jaw-crusher with recent core crushed to a particle size distribution (PSD) <10mm. ▪ The jaw-crush lot was then pulverised to a PSD of 85% passing 75 microns. - Apart from 62 duplicates collected by Macquarie Resources, no field duplicates were collected in any of the pre-JML/IGO programs - JML/IGO Quality controls to ensure sample representativity included: o Blanks and standards were inserted in the sample stream with routine samples. o Replicate samples were collected as ¼ core as field duplicates and pulps replicates were also collected. o Sieve testing to ensure PSD compliance of the pulps. o Monitoring of quality results confirmed the sample preparation was acceptable. - No specific heterogeneity tests have been carried out but the Competent Person considers that the sub sample protocols applied and masses collected are consistent with industry standards for the style of mineralisation under consideration.
Quality of assay data and laboratory tests	- No geophysical tools were used to determine any elemental concentrations estimated in the Mineral Resource. - Pre-JML/IGO pulp sub-samples were all assayed by a three or four-acid digestion, with the redissolved digestion salts analysed by AAS or ICP methods for key elements. The four-acid digestion is likely a total digestion but the three-acid method may be incomplete for some elements. - JML/IGO pulp sub-samples (0.3g) were assayed by a four-acid digestion and analysis of the redissolved digestion salts by ICP-OES method for Cu-Pb-Zn-Fe-Ag-As. Gold was assayed by 50g fire assay. - JML/IGO quality results found minimal cross-contamination between samples (from blanks), acceptable accuracy (from standards and umpire assays), and acceptable precision (from replicate samples). - The Competent Person considers that acceptable levels of precision and accuracy had been established and cross-contamination has been minimised for the JORC Code classifications applied. - The quality of the pre-JML/IGO data has lower confidence due to the paucity of assay quality controls, with only 17 field standards, 62 replicate sample and 84 umpire laboratory checks available. - There is a paucity of gold data in the Wilga deposit and this has been a consideration for JORC Code classification of gold grade in this deposit.
Verification of sampling and assaying	- Massive-sulphide drill intersections are visually conspicuous in the core and as such, assay results have been readily cross-verified by geologists through re-inspection of the core or core photographs. - JML/IGO drilled 10 twin holes, 4 at Wilga and 6 at Currawong to verify older drilling. The assays from the twin hole confirmed the grades in the twin pairs with no apparent bias, albeit a high (expected) nugget effect variability was identified on a sample by sample comparison. - Recent drill hole sample number and logging information has been captured at source using laptop computers with standardised database templates to ensure consistent data entry. Older drilling was captured onto paper logs, which were subsequently entered into spreadsheets and loaded into IGO's centralised database. - Data (logs, sample dispatched, core photographs) were downloaded daily to the IGO's main acQuire database system, which is an industry recognised tool for management and storage of geoscientific data. - The system is backed up off site daily.

Section 1: Sampling Techniques and Data – Stockman Project

Criteria	Commentary
	- Assay data was merged electronically from the laboratories into a central database, with information verified spatially in Surpac software. - IGO maintains standard work procedures for all data management steps. - An assay importing protocol has been set up to ensure quality samples are checked and accepted before data can be loaded into the main database. - There have been no adjustments or scaling of assay data other than setting below detection limit values to half detection for Mineral Resource estimation work.
Location of data points	- Drill hole collars: o Older drill holes have been located by surveyors using the most precise survey equipment available at the time of survey. o The collar locations of recent underground holes have been located by a surveyor using total station survey equipment. o Recent holes drilled from surface have had the collars located using RTK GPS equipment. - Drill hole paths: o Older drill hole paths were surveyed using down hole cameras (single and multi-shot) with readings taken at ≈30m down hole intervals. o Recent hole paths have been surveyed using down hole cameras during drilling then at the end of hole, a multi-shot camera was used to record the hole path plunge and bearing every 6m. - The grid system for drilling and the Mineral Resource estimate is the Stockman Regional Grid (SRM) which was prepared as a two-point transformation from GDA94 Zone 56, AHD using the following control points: o Point 1: ▪ 581,179.03 MGA east = 43,855.34 SRG east ▪ 5,906,758.20 MGA north = 801,015.57 SRG north ▪ 1,005.56 AHD = 6,005.56 SRG RL o Point 2: ▪ 578,741.74 MGA east = 40,610.25 SRG east ▪ 5,904,489.20 MGA north = 800,269.47 SRG north ▪ 687.90 AHD = 5,687.90 SRG RL o This transformation results in a 30° counter clockwise rotation from GDA north. - The Stockman topography DTM was prepared by a contractor as part of a 2008 aeromagnetic survey. - A 3D model of the underground mine workings was prepared from 1996 mine plans.
Data spacing and distribution	- The sample spacing over the Wilga and Currawong deposits is nominally on a 25mE×25mY spacing, with a minimum hole spacing of ≈10m and maximum of ≈70m. - In the stringer domain lenses, the spacing ranges from a 25mE×25mY spacing to a 50mE×50mY spacing - Down-hole sample intervals range from 0.1m to 1.5m with 1m compositing applied for Mineral Resource estimation work. - The Competent Person considers that these data spacings are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures used, and the JORC Code classification applied.
Orientation of data in relation to geological structure	- Nearly all surface drill holes used for Mineral Resource estimation are oriented to intersect the mineralisation at a high angle and as such, a grade bias introduced by the orientation of data in relation to geological structure is unlikely. - Underground fan drilling at Wilga has some holes drilled parallel to mineralisation and as such, there is a risk of sampling bias due to orientation in these holes, but much of this local area is already mined out. - A few of the 2012 holes drilled at Wilga tested mineralisation at shallow angles as a function of drill access issues. However, the volume of Mineral Resource influenced by these holds is not considered material. - Two down-plunge (or dip) holes drilled at Currawong were not used for grade estimation purposes, only geology.

Section 1: Sampling Techniques and Data – Stockman Project

Criteria	Commentary
Sample security	- The sample security relating to pre- JML/IGO drilling is not known but expected to be consistent with industry practices in place at the times of the respective drill programs. - For JML/IGO drilling the core handling was managed by JML/IGO with samples stored a lock core yard, with cut-core transported by road freight contractors to the assay laboratory. - On laboratory receipt the samples were reconciled to JML/IGO dispatches and any issued resolved before assaying proceeded.
Audits or reviews	- IGO has reviewed the sampling and drilling on site in 2013 and found the processes and procedures in place were acceptable for Mineral Resource estimation work. - IGO also audited the main assay laboratory (Genalysis Adelaide) in 2010 and 2012.

Section 2: Reporting of Exploration Results – Stockman Project

Criteria	Explanation
Mineral tenement and land tenure status	- Pursuant to an Asset Sale Agreement dated 13 June 2017, ownership of the Stockman Project is due to pass to CopperChem Limited, a wholly owned subsidiary of Washington H Soul Pattinson and Company Limited, pending completion of various conditions precedent. - The Currawong and Wilga deposits are wholly within Victorian mining tenement MIN5523, which is held by Stockman Project Pty Ltd, with the latter being a wholly owned subsidiary of IGO. - MIN5523 expires 9 Nov 2022. - There are no native title claims registered over the lease but an agreement is in place with a prior claimant that makes provision for both the prior claimant and/or other indigenous groups to assert an interest in the future. However, no significant heritage sites have been identified. - The lease is located on rugged and heavily forested crown land administered by the Department of Sustainability and Environment. - There are no other material issues related to third parties, joint ventures, partnerships, overriding royalties, native title interests, wilderness, national park or environmental settings. Refer to Section 4 for more details. - The security of tenure at the time of reporting is secure with no known impediments to obtaining a licence to operate on the mining tenement.
Exploration done by other parties	- The Stockman area was identified as being prospective for base metals, by stream sediment sampling and mapping in the early 1970s by WMC. - The Wilga deposit was discovered in drilling by a WMC/BP Minerals JV in 1977, and the Currawong deposit was discovered by drilling 1979. - The project was then explored and drilled by several companies – refer to the section on drilling techniques in Section 1. - Denehurst commenced mining of the Wilga high grade copper zones in 1992, the switched to the high-grade zinc zone, before closing the mine in 1996. Mine closure was attributed to unfavourable exhanges rates, poor metallurgical recovery, and high smelter charges. Denehurst went into receivership in 1998. - Mine-claimed ore mined from Wilga is 0.96Mt grading 6.04% Cu and 8.68% Zn. - Further exploration drilling was competed by other companies following closure including Autminex, JML and finally IGO.

Section 2: Reporting of Exploration Results – Stockman Project

Criteria	Explanation
Geology	- The Stockman Wilga and Currawong polymetallic VHMS deposits (Zn-Cu-Pb-Ag-Au) occur in the Upper Silurian age Cowambat Rift in the Palaeozoic Lachlan Fold Belt of south-eastern Australia. - The Cowambat Rift has undergone strong regional deformation and the Stockman deposits are both located in a remnant fault bound tectonostratigraphic block known as the Limestone Creek Graben. - Both deposits (which are 3.5 km apart) are hosted by the Enano Group which locally overlies Ordovician to Silurian turbidite metasediments, with lesser basaltic and andesitic volcanic components. - The Enano Group is overlain by early Devonian age welded ignimbrites of the Snowy River Volcanics and limestones of the Buchans Group. - The Wilga deposit is a stratiform massive sulphide lens in the immediate footwall to a coherent dacite. The footwall of the lens is sheared then below the shear zone is the Thorkidann Volcanics, which are barren of mineralisation. Wilda's mineralisation boundaries are sharp, and the principal sulphides are chalcopyrite, sphalerite and galena within a massive sulphide style, and stringer sulphides which is characterised by chlorite and chalcopyrite. - The Currawong deposit comprises five stacked stratiform massive sulphide lenses and other minor discontinuous massive sulphide/stringer zones, found at the base of the Gibson's Folly Formation. The sulphide mineralogy is analogous to the Wilga mineralogy.
Drill hole Information	- A tabular summary of the many holes used to prepare the Mineral Resource estimates for Stockman is not practical for this public report. - The Mineral Resource estimates for each deposit give the best-balanced view of all the drill hole information.
Data aggregation methods	- No drill hole related exploration results are included in this report. - No metal equivalent values are considered in the Mineral Resource estimate.
Relationship between mineralisation widths and intercept lengths	- No drill hole related exploration results are included in this report. - Most of the Mineral Resource drilling intersect the mineralisation at a high angle and as such approximate true thicknesses in most cases.
Diagrams	- Representative diagrams for the Stockman deposit are included in IGO's and JML's historic ASX releases.
Balanced reporting	- The Mineral Resource is based on all available data and as such provides the best-balanced view of the Stockman Project deposits.
Other substantive exploration data	- Information relating to other exploration data, such as density and metallurgical assumptions are detailed in Section 3 further below.
Further work	- No further sampling work is planned as the project is in a divestment phase.

Section 3: Estimation and Reporting of Mineral Resources – Stockman Project

Criteria	Commentary
Database integrity	- IGO has captured all data relating to Stockman drilling into a centralised acQuire database system, which is an industry recognised data management tool for geoscientific drilling data. - JML geologists migrated all the pre-JML data into acQuire and validated the imported information where possible against original hard-copy records. - JML/IGO drilling data was captured directly into acQuire using data entry objects, which have lookup table and validation rule functionality. - Excel spreadsheets were used to capture down hole survey information, collar location and density measurements. - The data entry digital files were e-mailed to the JML's/IGO's database administrator for loading into the central database, and assay files from the laboratory were merged directly with the logging/sample number information in the same system.

Section 3: Estimation and Reporting of Mineral Resources – Stockman Project

Criteria	Commentary
	- The Competent Person considers that there is minimal risk of transcription or keying errors between initial collection and the final data used for Mineral Resource estimation work, and the database is of suitable quality for Mineral Resource estimation purposes.
Site visits	- The Competent Person has visited Stockman in 2015 to review the site layout and inspect the stored core.
Geological interpretation	- The data used for Stockman geological interpretation is from DD drilling and includes logging and assay results, which are augmented by underground exposure mapping to confirm the interpreted geological units and zones of mineralisation. - The Currawong massive sulphide domain was interpreted in three dimensions (wireframed) using the geological logging of massive or semi-massive sulphides as the limits. The Currawong stringer mineralisation was interpreted using nominal sample cut-offs of ≥0.5%Cu or ≥2% Zn. Within the massive sulphide volumes, high grade copper domains were interpreted using a ≥1.2% Cu sample cut-off. Additionally, 10 'subordinate' lenses were interpreted for logged massive sulphides outside the main high-grade lenses. All mineralisation is in fresh rock so no oxidation surfaces were considered. - At Wilga wireframes were interpreted in a comparable manner to Currawong with internal high-grade zones interpreted using sample cut-offs of ≥1.2%Cu and ≥3.0% Zn. A high chalcocite domain was also interpreted as a zone of poor core recovery and lower JORC Code confidence. - The wireframes described above were used to constrain the grade estimates. - The Competent Person considers confidence in the geological interpretation for Wilga is moderate to high in areas of closer spaced drilling and were underground mapping has confirmed the interpretations derived from drill hole data. - The confidence in the interpretation for Currawong is lower than for Wilga due to the higher structural complexity and lack of mining exposures to confirm interpretations. However, the confidence is considered good in areas of closer spaced drilling. - No alterative geological interpretations have been prepared or considered necessary.
Dimensions	- Currawong: o The main lens has a ≈300m long strike, is ≈240m wide down dip and up to 35m thick. o The Mineral Resource starts at ≈100m below natural surface and extends to ≈300m below surface. - Wilga: o The main lens has a ≈400m long strike, is ≈220m wide down dip and up to 35m thick. o The Mineral Resource starts at ≈50m below natural surface and extends to ≈150m below surface.
Estimation and modelling techniques	- Digital three-dimensional solids were prepared in Surpac (6.2) software to encompass the interpreted Mineral Resource estimation domains using the sample cut-off grades described above. - Sample were composited to a uniform 1m length within each estimation domain and below detection limit values were converted to half detection. - Residual composites having a length a less than 0.5m were excluded from the estimation dataset. - To limit the estimation influence of extreme high values, top-cuts or caps for each estimation variable (Cu%, Pb%, Zn%, Ag g/t, Au g/t, As ppm and density) were then applied to the composites of each estimation domain. Caps usually applied at the 98th to 99th percentile of each domain distribution. - A block model was prepared in Surpac software for each deposit with parent blocks dimensions of cubes of side length 10m, and for boundary resolution, sub-blocks permitted down to cubes of side length 1.25m. - The parent block dimension are approximately half the data spacing in the XY plane. - Grade were then interpolated into each estimation domain using the top-cut 1m composites and continuity models interpreted for each respective domain using the ordinary block kriging routines implemented in Surpac software. - As part of the estimation process sample search ellipses were oriented to match the geometry of each estimation domain. - The block model estimates were validated by on-screen inspection, comparison of input composite and output block grades for each domain on a declustered local (moving window swath plots), and global basis (declustered global means). All validation checks were found to be satisfactory. - Grade were estimated independently so there are no assumptions regarding correlations, albeit the data does enforce correlation in the block estimates, when correlations exist in the data. - There were no assumptions regarding by-products or co product other than independent estimation of payable metals.

Section 3: Estimation and Reporting of Mineral Resources – Stockman Project

Criteria	Commentary
	- There were no assumptions regarding selective mining units or estimation of non-grade units such as acid mine drainage variables. - The 2012 estimate had 10% higher tonnage than the previous estimate, which the extra tonnage estimated attributed to the additional drilling extending the mineralisation in both deposits.
Moisture	- The Mineral Resource tonnages are estimated on a dry tonnage basis.
Cut-off parameters	- No cut-offs were applied to the outer limit of the massive sulphide mineralisation in either deposit. - Block cut-off grades of ≥1.2% Cu and ≥3.0% Zn were used to report high-grade zones within the massive sulphides in both deposits. - Stringer mineralisation has been reported using ≥0.5% Cu for copper-rich zones or ≥2% Zn in zinc-rich zones.
Mining factors or assumptions	- The assumed mining methods for exploitation are underground mechanised mining with long-hole stoping. Refer to Section 4 for more details. - No external dilution has been considered or modelled but internal dilution is included in the estimates. - No assumptions have been applied regarding minimum mining widths for the Mineral Resource.
Metallurgical factors or assumptions	- Core composite samples collected from 2008 to 2011 drill programs have been tested metallurgically. - The results of this testing indicated that all styles of mineralisation can be treated using conventional crush, grind and flotation techniques and there are no material issues related to deleterious elements in the process or concentrates produced. - Refer to Section 4 regarding Ore Reserves for more details.
Environmental factors or assumptions	- An Environmental Effects Statement (EES) has been prepared for the project, which is a comprehensive and integrated assessment of the potential environmental, social and economic impacts of project implementation. - Waste rock will be returned to underground and process tailings not used in underground backfill will be sent to a tailing storage facility. - Refer to Section 4 regarding Ore Reserves for more details.
Bulk density	- *In situ* bulk density measurements from core drilling have been made on geologically representative sections of core from recent drilling with density determined using the Archimedes Principle (water-displacement) method to determine core volumes, and weighing of the oven-dried core interval to determine the core masses. - The rocks measured are generally fresh with no pore spaces that could soak up water and potentially bias the density estimation method. - Some density determinations have been via gas pycnometer methods, which do not account for void spacing if measured on a pulp. - For historic data where no density measurement information is available, the *in situ* density for samples was estimated using a multivariate polynomial regression function derived from the available density information. This repression equation is between density and copper + iron + zinc + lead + (the squares of each predictor). - Block model density values were interpolated into the block model for each domain using ordinary block kriging of the data described above. - A background density of 2.77t/m^3 was assigned to any block not estimated by kriging.
Classification	- The JORC Code classification of the Wilga and Currawong deposits is based on data spacing and geological confidence in the interpreted mineralised lenses. - The massive sulphide zones were classified as Indicated Mineral Resources. - For stringer domains, a data spacing of nominally ≤50m×50m in the plane of the lode was used to classify Indicated Mineral Resources, with wider data spacing within a lens being classified as Inferred Mineral Resources. - Gold grades in the Wilga deposits have a sparse spatial coverage and as such, the gold estimate at Wilga is qualified to meeting only Inferred Mineral Resource class, if gold is to be reported. - The Competent Person considers that the classifications applied have considered all relevant factors such as the relative confidence in tonnage/grade estimates, the reliability of the input data, the confidence in the continuity of geology and grades, and the quantity and spatial distribution of the data. - The classifications applied reflect the Competent Person's view of the deposits.

Section 3: Estimation and Reporting of Mineral Resources – Stockman Project

Criteria	Commentary
Audits or reviews	- IGO's senior technical staff have reviewed the results of the estimate. - An independent technical review of the data, and a prior estimate, was completed in 2011 by Cube consultants.
Relative Accuracy/Confidence	- No geostatistical methods such as conditional simulation have been prepared to quantify the accuracy or precision of the estimates. - The Competent Person considers that the Measured and Indicated Mineral Resource estimates have local precision that is suitable for planning quarterly and annual targets respectively, and as such, suitable for Ore Reserve conversion. - Inferred Mineral Resource estimates have global estimation precision but are not suitable for Ore Reserve conversion. - A comparison of the mine void model tonnage and grade to mine production found that the Mineral Resource estimated tonnage agreed within ±4% of the mine-claim tonnage. However, the model reported lower average payable metal grades for the mine void, than reported for the mine-claim records.

Section 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	- The Mineral Resource estimates used for the Stockman Ore Reserve estimates are the June 2012 Mineral Resource estimates prepared by IGO described in detail in the sections above. - The Mineral Resource Estimates have been reported inclusive of Ore Reserves
Site visits	- The Competent Person visited the Stockman site in August 2012 to review the diamond drill core, the existing tailing storage, the old plant site, the existing Wilga portal, and the proposed portal location for the Currawong underground mine.
Study status	- The Ore Reserve has been estimated from a study that is considered consistent with industry expectations of a detailed Feasibility Study. - Cost are derived from vendor estimates and are considered to have ±15% accuracy. - The study considered all material modifying factors and concluded that the proposed mine plan was technically feasible and economically viable.
Cut-off parameters	- Ore cut-off parameters are based on net-smelter-return (NSR) calculations where the NSR is notionally the profit (or loss) of each tonne mined net of all costs associated with mining and processing the ore, and charges associated with the saleable product. - Stopes are designed based on fully costed NSR value including mining costs, processing costs inclusive of the planned dilution and assumed ore loss factors. - Development heading NSRs cut-offs reflect the costs to pay for ore haulage to surface, haulage to the concentrator and processing costs. - NSR cut-offs for the metal pricing and assumptions at the time of the study were: o Full burden stoping costs $A97 to $A05/t. o Development (incremental) cost $A60/t.
Mining factors or assumptions	- Three dimensional designs of development headings and stopes have been prepared using the Mineral Resource block model and/or surfaces as a guide, along with consideration of the geotechnical conditions associated with each stope design. - The mining method assumed ins long-hole stoping with cemented paste backfill, which is appropriate for the nature and geometry of both deposits, and will achieve near total extraction of the stopes. - Paste fill testing (up to 365 days) has confirmed the requirements of a paste plant and cement mixing requirements to achieve acceptable paste strengths. Paste will be reticulated to stopes from surface, with trucking of paste required to Wilga from Currawong. - Dilution assumptions: o Mine designs included a nominal 0.5m of planned over-break on stope design wireframes to model planned dilution, and designs have also considered the local geotechnical ground conditions and geotechnical recommendations of the geotechnical consultant (Mining One Ltd)

Section 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
	o A further 2% dilution allowance was included for expected fall-off of paste from adjacent filled stopes. o Secondary stopes attracted an additional 2% dilution allowance due to having more than one paste-filled adjacent stope wall. o The total dilution has been estimated result in a 14% dilution of the Mineral Resource grades within the diluted stope designs. - A nominal 5% ore-loss (95% ore recovery) was applied to account for under-break, bridging or toe effects, or from excessive dilution during mining. - The minimum mining width assumption is 3m for stoping. - Inferred Resources are only included in the Ore Reserve when a stope contains sufficient Proved and/or Probable Reserves to justify economic extraction exclusive of the contained Inferred Resources. - Inferred Resources may be mined from development headings but not included in the Ore Reserve. - The required underground infrastructure includes declines, primary ventilation shafts, paste plant, dewatering facilities, services (electrical, compressed air, water), communications and workforce refuge chambers.
Metallurgical factors or assumptions	- The assumed Stockman metallurgical process flow sheet is conventional crush, grind and then differential flotation to produce saleable concentrates (copper-rich and zinc-rich). - Many drill core composite samples have undergone metallurgical testing with representative samples selected from of the different geometallurgical domains within both deposits. Testing included bulk-sample testing in 2014 and locked cycle tests for domain variability results. - Geometallurgical algorithms have been developed that indicated recoveries will vary over time in accordance with the mineralogy present at the time of processing. - The life-of-mine metallurgical recovery assumptions are as follows: o Copper concentrate: ▪ 81.5% of head copper. ▪ 40.7% of head silver. ▪ 20.4% of head gold. o Zinc concentrate: ▪ 76.4% of head zinc. ▪ 18.5% o head silver. - Metallurgical testing has demonstrated that the Stockman concentrates can be produced as saleable with acceptable chemistry and low levels of potentially deleterious elements such as As, Si, and Pb. - Deductions for some penalty elements in saleable concentrates (Zn and Pb in copper concentrate, and Fe in zinc concentrate) were included in the Ore Reserve financial model. - The estimated life-of-mine cost of penalty elements is <1% of the estimated project operating cost. - No mineralogical specifications are applicable for saleable concentrates that are prepared to meet marketable specifications in terms of payable metal and deleterious element concentrations.
Environmental	- An Environmental Effects Statement (EES), which is a comprehensive and integrated assessment of potential environmental, social and economic impacts of the proposed project, has been prepared for and approved by the State. - A Mine Plan is in preparation for approval by the State. This document will include the various environmental and related management plans that are pre-requisites to final project approvals. - Subject to agreement on the terms of a Post Closure Trust Fund with the State, currently in negotiation, it is anticipated that the State will lift a pre-existing moratorium over the historic TSF site thus enabling the grant of the Mining Infrastructure Licence required for the development of the proposed upgraded TSF. - Plant tailings that are not used for paste fill will be stored in an upgraded version of the existing tailing storage facility (TSF) that meet the guidelines of the Australian National Committee on Large Dams. A detailed geotechnical and hydrological validation of the design parameters of the proposed TSF is being prepared. - The TSF design will be subject to review by a panel of independent technical experts. - The requisite planning scheme amendments have been approved for the development of the proposed mining village and related infrastructure. - The project will require acquisition of vegetation offset areas for ground disturbed by construction and mining. Based on current plan layout design, these offsets areas have been identified and are have been secured in part, or are subject to option agreements with existing landholders. Finalisation of the total area and type of offsets is yet to be determined and additional offsets may be required. There are no known impediments to securing the required offset areas. - There are no known impediments to the outstanding parts of the approval process but approvals will be subject to the conditions placed on the project by the respective regulators.

Section 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
Infrastructure	- The current project area is served by an existing access road that will need to be upgraded for concentrate transport. - Telecommunications are available but will need to be upgraded to bring these services to site. - Power will be generated on site using natural gas sourced from Victorian natural gas infrastructure. - Water balance modelling indicates the project will have a near neutral water balance and minimum requirements of supplementary water. Contingent water sources have been identified. - The workforce can be source from the partly from the local area but is expected to be on a drive-in and drive out basis from regional centres, with the workforce housed in an on-site accommodation village. - Access to the planned infrastructure is subject to several Memoranda of Understandings (MOUs) with respective land holders. - The TFS is within an exploration exempt area and an application to have this exemption removed, and approval for re-activation and/or extension of the TFS is subject to the approval by state and federal regulators. A new mining tenement may need to be granted to cover the TSF, separate from the existing MIN5523 tenement already granted. However, there are no known impediments to granting of a new licence if required.
Costs	- Capital costs for the Ore Reserve study are based on 2014 quotations from potential vendors and from first principle estimates where vendor estimates were not available. - Operating costs were estimated from first principles using expert consultant and IGO experience from like operations. Labour costs were derived from an assessment of like operation in Victoria. - Exchange rates for the study were provided by IGO Corporate. - Concentrate transport charges (including port) were based on vendor quotations, with sea freight charges based on a market assessment by a logistics consultant. Concentrate export is assumed to be via Port Anthony. - Concentrate treatment and refining costs are based on forecasts from reputable market analysts. - Victorian state royalties apply to copper, zinc and silver. No royalty is payable on gold. - There are no third-party royalties applicable.
Revenue factors	- Head grades are based on the Ore Reserve mine plan, and the dilution and ore recovery assumptions discussed above. The head grade is planned monthly in the Ore Reserve schedule. - Transport and treatment charges, NSR assumptions and penalties and so on are already addressed in prior sections of this table. - Metal prices use for the study are as follows in \$US/t for copper and zinc, and \$US/oz for gold and silver as follows: o 6,591 for copper. o 2,979 for zinc. o 20.17 for silver. o 1,146 for gold. - The assumed \$A:\$US exchange rate for the Ore Reserve study was 0.84. - Commodity prices and exchange rates in the cash flow model considered forecasts, and the project is therefore leveraged to the forecast high future prices for zinc. - The cash-flow model was modelled in nominal terms (no adjustment for inflation.
Market assessment	- At the time of the Ore Reserve study preparation, analysts Wood Mackenzie forecast in September 2014 that the long-term incentive price for copper would be \$US7,700/t (in 2014 dollars), and that the forecast price for zinc for the period 2013 to 2035 would average \$US2,997/t.
Economic	- The Ore Reserve study cash flow model included all the inputs already described above including the detailed schedule of capital and operating costs, revenue from product sales, with cash flow modelled in nominal terms (no inflation adjustment). - A discount rate of 10% was applied to determine the project NPV and the model demonstrated a positive cash flow with pre-tax IRR of 25%. - Input costs as discussed above were considered to have a ±15% accuracy. - Sensitivity analyses carried out using a ±15% variation of key parameters (head grade, FX, metal prices, capital and operating), all returned positive pre-tax NPVs over the sensitivity range. - Sensitivity studies have been completed on inputs such a mining and processing costs, metal prices and discount rate. The NPV has highest sensitivity to metal price and exchange rate assumptions.
Social	- There are no current native title claims over the Stockman area albeit agreements in place do not preclude declaration of interests in the future. - A community engagement program has found a positive response from the local community and no material objections to the project have been received.

Section 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
	- A MOU has been executed between IGO and the East Gippsland Shire Council, which commits both parties to work collaboratively to progress opportunities that deliver social and economic benefits to the region. - IGO has no reason to expect it does not have a social licence to operate and develop Stockman into a mining operation.
Other	- Stockman is in a state forest that is prone to bushfires. This risk has been reviewed by an independent consultant who has recommended mitigation measures including establishment of fire protections zones and fire-resistant construction materials. - There are no material legal agreements or marketing arrangements not already discussed. - There are reasonable grounds to expect that all necessary Government approvals will be received with the timeframes anticipated in the Feasibility Study.
Classification	- The Ore Reserve has been classified as Probable Ore Reserve JORC Code classes based on the underlying Mineral Resource classifications, with Indicated Mineral Resources converted to Probable Ore Reserves. - A small portion of Inferred Mineral Resources has been included in some stopes where the stope has been demonstrated to be viable based on the included Measured or Indicated Resources only. - The classifications applied to the estimate are consistent with the opinion of the Competent Person reporting the Ore Reserve.
Audits or reviews	- Ore Reserve estimates have been internally reviewed by IGO's senior mining engineering staff.
Discussion of relative accuracy/ confidence	- No statistical or geostatistical studies, such as conditional simulations, have been completed to quantify the uncertainty and confidence limits of the estimates. - The main driver of accuracy and confidence is the spacing of the drilling, which is captured in the Mineral Resource JORC Code classifications underpinning the Ore Reserve estimates. - The Ore Reserve is classified as Probable based on the on the conversion of Indicated Mineral Resources. Probably Ore Reserves are considered to have sufficient local accuracy to permit time based mined scheduling. - The reconciliation of historic mining is within ±2% of the Ore Reserve estimate tonnage for mined out areas. - Gold estimates at Wilga cannot be considered part of the Ore Reserve due to the Inferred Mineral Resource nature of these gold estimates. - Confidence in the key modifying factors is high given the accuracy of cost estimates and proposed mining method in relation to the style of mineralisation under consideration. - Material negative changes in metal price and foreign exchange assumptions may affect the economic profitability and/or viability of the project.