### **18 AUGUST 2016**

# ANNUAL UPDATE MINERAL RESOURCE AND ORE RESERVES AS AT 30 JUNE 2016

Metals X is pleased to provide its annual Mineral Resource and Ore Reserve Estimates across its diverse group of metals and projects as at 30 June 2016.

# **Highlights**

### **Gold Division**

- The aggregated total mineral resource estimate for the Gold Division is 15.4 million ounces (222.9 million tonnes at 2.15 g/t gold) an increase of 19% year-on-year after the addition of the newly acquired Mt Henry, Fortnum and Georges Reward Projects. This excludes 381,000oz in gold co-product at the Rover 1 prospect.
- The aggregated total ore reserve for the group is 2.89 million ounces (38.06 million tonnes at 2.36 g/t Au) after annual depletion from mining of 190,804 oz from mining (173,956 oz recovered).

### **Tin Division**

- The aggregated total mineral resource estimate (MLX's 50% share only) is 137,520 tonnes of tin metal (17.85 million tonnes at 0.77% Sn). The total mineral resource estimates of copper as a co-product is 31,965 tonnes of copper (16.61 million tonnes at 0.25% Cu).
- The aggregated total ore reserve estimate (MLX's 50% share only) is 84,751 tonnes of tin metal (13.66 million tonnes at 0.62% Sn). The total mineral resource estimates of copper as a co-product is 31,965 tonnes of copper (13.51 million tonnes at 0.24% Cu).

### **Copper Division**

- The total mineral resource estimate for the Nifty mine is 538,000 tonnes of copper (31.1million tonnes at 1.73% Cu) and the total mineral resource estimate for the Maroochydore Prospect is 486,300 tonnes of copper (48.6million tonnes at 1.00% Cu).
- The total ore reserve for the Nifty mine is 96,940 tonnes of copper (5.24 million tonnes at 1.85% Cu).

### **Nickel Division**

- The mineral resource and ore reserve estimates for the Wingellina Project was re-estimated with revised block model parameters.
- The total mineral resource estimate is 215.8 million tonnes at 0.91% nickel, 0.07% Cobalt and 44.3% Fe<sub>2</sub>0<sub>3.</sub> The total ore reserve is 168.4 million tonnes at 0.93% Nickel, 0.07% Cobalt and 45.6% Fe<sub>2</sub>0<sub>3</sub>.



Metals X Limited is a diversified group exploring and developing minerals and metals in Australia. It is Australia's largest tin producer, a top 10 gold producer and holds a pipeline of assets from exploration to development including the world class Wingellina NIckel Project.

### **CORPORATE DIRECTORY**

ASX Code: **MLX**OTCQX Code: **MTXEF** 

Level 3, 18-32 Parliament Place West Perth WA 6005 Australia

PO Box 1959 West Perth WA 6872 Australia

t: +61 8 9220 5700 f: +61 8 9220 5757

reception@metalsx.com.au www.metalsx.com.au

### **ENQUIRIES**

Peter Cook
CEO & Executive Director

Warren Hallam
Executive Director

### **Rod Corps**

Manager - Investor Relations

### **Rover Project**

- The mineral resource estimates for the Rover 1 project, Explorer 108 and smaller Explorer 142 deposit remain unchanged for the year.
- The Rover 1 total mineral resource estimate is 6.81 million tonnes at 1.73g/t Au. 1.2% Cu, 0.14% Bi, 0.06% Co and 2.07g/t Ag.
- The Explorer 108 total mineral resource is 11.87 million tonnes at 2.0% Pb, 3.24% Zn, 0.36% Cu and 11.1g/t Ag.
- The Explorer 142 mineral resource estimate totals 175,600 tonnes at 5.21% Cu and 0.21 g/t Au.

The following sections contain tables in various detail of estimates for each division.

Enquiries

Peter Cook Warren Hallam Rod Corps

Exec. Director & CEO Executive Director Manager - Investor Relations

### **COMPETENT PERSONS STATEMENTS**

The information in this report that relates to Mineral Resources compiled by Metals X technical employees under the supervision of Mr. Jake Russell B.Sc. (Hons), who is a member of the Australian Institute of Geoscientists. Mr Russell is a full-time employee of the company, and has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which he is undertaking 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". Mr Russell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Russell is eligible to participate in short and long term incentive plans and holds performance rights in the Company as has been previously dislosed.

The information in this report that relate to Ore Reserves has been compiled by Metals X technical employees under the supervision of Mr Michael Poepjes BEng (Mining Engineering), MSc (Min. Econ) M.AusIMM. Mr Poepjes is a full-time employee of the company. Mr Poepjes has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities which he is undertaking 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". Mr Poepjes consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Poepjes is eligible to participate in short and long term incentive plans and holds performance rights in the Company as has been previously disclosed.

# Metals X Limited - Gold Division Mineral Resource and Ore Reserves

### **GOLD DIVISION**

(as at 30 June 2016)

### **CONTENTS**

- 1. GOLD DIVISION EXECUTIVE SUMMARY
- 2. HIGGINSVILLE GOLD OPERATIONS
- 2.1. MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY
- 2.2. ORE RESERVE ESTIMATE BY OREBODY & CATEGORY
- 2.3. ANNUAL MINERAL RESOURCE INVENTORY CHANGES
- 2.4. ANNUAL ORE RESERVE INVENTORY
- 3. SOUTH KALGOORLIE GOLD OPERATIONS
- 3.1. MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY
- 3.2. ORE RESERVE ESTIMATE BY OREBODY AND CATEGORY
- 3.3. ANNUAL MINERAL RESOURCE INVENTORY CHANGES
- 3.4. ANNUAL ORE RESERVE INVENTORY CHANGES
- 4. CENTRAL MURCHISON GOLD PROJECT
- 4.1. MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY
- 4.2. ORE RESERVE ESTIMATE BY OREBODY & CATEGORY
- 4.3. ANNUAL MINERAL RESOURCE INVENTORY CHANGES
- 4.4. ANNUAL ORE RESERVE INVENTORY CHANGES
- 5. FORTNUM GOLD PROJECT
- 5.1. MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY
- 5.2. ORE RESERVE ESTIMATE BY OREBODY & CATEGORY
- 5.3. ANNUAL MINERAL RESOURCE INVENTORY CHANGES
- 5.4. ANNUAL ORE RESERVE INVENTORY CHANGES

# 1. GOLD DIVISION - EXECUTIVE SUMMARY

	METALS X Li Gold Division - Consol Mineral Resource 30/06/2	idated Summary e Statement	
	k Tonnes	Grade	k Ounces Au
MEASURED			
GOLD	2,972	3.32	317
INDICATED			
GOLD	130,135	2.20	9,216
INFERRED			
GOLD	89,797	2.04	5,881
TOTAL			
GOLD	222,904	2.15	15,414

	METALS X L Gold Division - Conso Mineral Reserve 30/06/2	lidated Summary e Statement	l
	k Tonnes	Grade	k Ounces Au
PROVEN			
GOLD	1,145	3.02	111
PROBABLE			
GOLD	36,918	2.34	2,782
TOTAL			
GOLD	38,063	2.36	2,893

# 2. HIGGINSVILLE GOLD OPERATIONS

# 2.1 MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY

								GOLD PROJEC rce Statemen					
Ore Body	CoG	,	Measured			Indicated			Inferred			Total	
			Gold			Gold			Gold			Gold	
		Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Trident													
Poseidon	2.00	_	_	_	97,972	8.83	27,812	463,098	3.98	59,295	561,070	4.83	87,107
Eastern Zone	2.00	-	-	-	158,994	4.87	24,898	8,827	5.84	1,658	167,821	4.92	26,556
Athena 10 Athena 30	2.00	1,029 2,284	26.93 23.66	891 1,737	19,290 26,650	13.63 5.94	8,456 5,088	-	-	-	20,318 28,933	14.31 7.34	9,346 6,825
Athena 40	2.00	97,870	3.39	10,680	39,885	7.53	9,652	13,603	7.82	3,418	151,358	4.88	23,750
Athena 50	2.00	8,054	16.01	4,146	24,027	6.08	4,693	11,070	6.61	2,353	43,150	8.07	11,192
Western Zone	1.00	208,702	3.00	20,119	-	-		28,480	2.79	2,555	237,182	2.97	22,673
EOS & E-Veins Apollo	2.00	19,111 211,355	4.89 2.79	3,005 18,969	211,541 47,410	4.65 3.24	31,635 4,937	5,908 29,354	3.68 4.85	698 4,582	236,560 288,119	4.65 3.08	35,339 28,488
Artemis	3.50	19,199	20.85	12,871	22,458	17.70	12,782	1,180	26.88	1,020	42,836	19.37	26,672
Helios	2.00	252,501	4.84	39,324	27,522	8.35	7,385	28,461	5.34	4,888	308,484	5.20	51,597
Ares Pluto	1.00 3.50	-	-	-	6,648	5.29	1,131	65,526 51,685	2.59 4.69	5,454 7,802	72,175 51,685	2.84 4.69	6,585 7,802
HG Stockpiles	-	22,748	4.23	3,095	-	-	-	-	-		22,748	4.23	3,095
MG/LG Stockpiles	-	945	0.80	24	-	-	-	-	-	-	945	0.80	24
Chalice													
	2.00	122.000	2.20	12.602	21.000	2.40	2 202				164000	2.05	16.075
Atlas Grampians	2.00	133,000 34,000	3.20 3.70	13,683 4,045	31,000 53,000	2.40 4.10	2,392 6,986	-	-	-	164,000 87,000	3.05 3.94	16,075 11,031
Olympus	2.00	86,000	5.40	14,931	236,000	3.50	26,556	-	-	-	322,000	4.01	41,487
Olympus FW	3.00	13,000	4.50	1,881	70,000	4.50	10,127	102,000	4.50	14,757	185,000	4.50	26,765
Ultramafic Halo	3.00	-	-		-	-	-	10,000	3.20	1,029	10,000	3.20	1,029
Kronos	2.00	-	-	-	111,000	3.10	11,063	74,000	3.80	9,041	185,000	3.38	20,104
Broken Stocks	-	-	-	-	-	-	-	-	-	-	-	-	-
Corona - Fairplay													
Corona	3.00	_	-	_	19,564	19.53	12,284	43,076	4.23	5,858	62,640	9.01	18,143
Fairplay Main	0.70	12,307	2.14	847	854,377	1.99	54,663	72,574	1.93	4,503	939,258	1.99	60,013
Fairplay North	0.70	-	-	-	544,729	1.64	28,722	758,664	1.86	45,368	1,303,393	1.77	74,090
Fairplay East	0.70	-	-	-	368,440	1.37	16,228	74,667	1.93	4,633	443,107	1.46	20,862
Halo	1.00	-	-	-	_	-	-						
Vine													
650 550 link	1.00	-	-	-	-	-	-	215,855	1.76	12,207	215,855	1.76	12,207
450 System	1.00	-	-	-	-	-	-	29,753	1.54	1,470	29,753	1.54	1,470
550 System 650 System	1.00	-	-	-	93,619 96,362	2.76 1.52	8,313 4,707	60,005 162,807	3.03 2.15	5,848 11,243	153,624 259,169	2.87 1.91	14,162 15,949
·					,		.,	,		,			,
Lake Cowan													
Atriedies	0.70			-	294,514	1.66	15,721	118,213	1.70	6,474	412,727	1.67	22,195
Josephine	0.70	25,424	1.58	1,291	170,904	1.52	8,352	41,527 95,588	1.49	1,989	237,855 713,898	1.52	11,633
Louis Napoleon	0.70	8,255 77,727	1.89 2.66	501 6,647	610,055 157,872	1.47	28,734 9,172	61,531	1.33	4,100 3,323	297,130	1.45 2.00	33,334 19,143
Rose	0.70	-	-	-	-	-	-	217,135	1.18	8,261	217,135	1.18	8,261
Two Boys													
Two Boys Main	0.70	_	-	_	405,285	1.65	21 500	299,195	1.48	14 227	704 490	1.58	25 726
Swagman	0.70	-	-	-	405,285	1.56	21,500	158,235	1.48	14,237 7.122	704,480 622,109	1.58	35,736 30,388
Two Boys East (Pod A)	0.70	-	-	-	239,001	1.43	10,988	234,445	2.27	17,110	473,446	1.85	28,098
Mount Henry													
·													
Mount Henry North Scotia	1.00	-	-	-	5,700,256 357,522		368,601 35,748	2,692,567 137,914	1.80	155,930 8,646	8,392,823 495,436	1.94 2.79	524,531 44,395
Selene	1.00	-	-	-	8,591,909		444,740	2,358,008		99,313	10,949,917	1.55	544,053
Paleochannels													
Aphrodite	0.70	-	-	-	-	-	-	74,956	2.23	5,374	74,956	2.23	5,374
Graveyard Mitchell 3	1.00	-	-	-	330,000	1.80	19,098	2,636 <b>24,000</b>	1.44	1,080	2,636 <b>354,000</b>	1.44	122 20,178
Mitchell 4	1.00	-	-	-	214,000	2.80	19,265	11,000	3.80	1,344	225,000	2.85	20,609
Pluto Wills	1.00 0.80	-	-	-	534,757 123,820	1.89 2.70	32,494 10,748	13,991 72,370	1.23	553 3,955	548,748 196,190	1.87	33,048 14,704
	0.80				123,820	2.70	10,748	72,370	1.70	3,933	190,190	2.33	14,704
Greater Eundynie													
Hidden Secret	0.70	-	-	-	-	-	-	257,258	2.30	19,023	257,258	2.30	19,023
Mousehollow	1.00	-	-	-	-	-	-	425,600	1.60	21,893	425,600	1.60	21,893
Other													
Musket	0.70	-	-	-	371,733	2.32	27,727	565,658	1.77	32,190	937,391	1.99	59,917
Pioneer	1.00	-	-	=	84,150	1.65	4,464	110,150	1.63	5,772	194,300	1.64	10,237
Stockpiles													
Trident ROM Stocks	-	39,546	1.08	1,370	-	-	-	-	-	-	39,546	1.08	1,370
GIC	-	5,495	39.08	6,904	-	-	-	-	-	-	5,495	39.08	6,904
Satellite Stockpiles Lake Cowan	-	180,841 48,709	1.00 1.63	5,805 2,548	-	-	-	-	-	-	180,841 48,709	1.00	<b>5,805</b> 2,548
											,		
													_
Totals		1,508,100	3.62	175,313	21,810,140	2.00	1,401,131	10,282,569	1.90	627,493	33,600,809	2.04	2,203,938

# 2.2 ORE RESERVE ESTIMATE BY OREBODY & CATEGORY

					METALS X VILLE GOLD PRO eserve Stateme 30/06/2016				
Ore Body		Proven			Probable			Total	
Ole Body									
	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces
Trident									
Poseidon	-	-	-	-	-	-	-	-	_
Eastern Zone	-	-	-	-	-	-	-	-	-
Athena 10 Athena 30	-	-	-	33,996	4.60	5,028	33,996	4.60	5,028
Athena 40	-	-	-	-	-	-	-	-	-
Athena 50	-	-	-	-	-	-	-	-	-
Western Zone	-	-	-	-	-	-	-	-	-
EOS & E-Veins Apollo	-	-	-	-	-	-	-	-	-
Artemis	29,990	10.63	10,250	4,241	5.44	742	34,231	9.99	10,992
Helios	200,944	3.93	25,359	30,749	5.37	5,310	231,693	4.12	30,670
Ares Pluto	-	-	-		-	-	-	-	-
HG Stockpiles	-	-	-	-	-	-	-	-	
MG/LG Stockpiles	-	-	-	-	-	-	-	-	-
Chalice									
A+1									
Atlas Grampians									
Olympus	-	-	-	-	-	-	-	-	-
Olympus FW	-	-	-	-	-	-	-	-	-
Ultramafic Halo	-		-	-	-	-	-	-	-
Kronos	-	-	-	-	-	-	-	-	-
Broken Stocks	-	-	-	-	-	-	-	-	-
Corona - Fairplay									
Corona	-	-	-			-	-	-	
Fairplay Main	175,299	2.39	13,479	55,129	2.14	3,793	230,428	2.33	17,272
Fairplay North	-	-	-			-	-	-	-
Fairplay East Halo	-		-			-	-	-	
			_			_	-	_	
Vine									
650 550 link	-	-	-	-	-	-	-	-	-
450 System	-	-	-	-	-	-	-	-	-
550 System 650 System		-	-		-	-	-	-	
650 System	-	-	-	-	-	-	-	-	
Lake Cowan									
Atriedies	-	-	-	-	-	-	-	-	-
Josephine	-	-	-	-	-	-	-	-	-
Louis	-	-	-		-	-	-	-	- 7.040
Napoleon Rose	68,756	2.54	5,604	29,766	2.45	2,344	98,523	2.51	7,949
Two Boys									
Two Boys Main	-	-	-	41,135	2.08	2,751	41,135	2.08	2,751
Swagman	-	-	-	-	-	-	-	-	-
Two Boys East (Pod A)	-	-	-	-	-	-	-	-	-
Mount Henry									
Mount Honny	-	-	-	2,009,190	1.66	106,973	2,009,190	1.66	106,973
Mount Henry North Scotia		-	-	2,009,190	1.66	100,973	2,009,190	1.66	100,9/3
Selene	-	-	-	3,297,297	1.52	160,943	3,297,297	1.52	160,943
Paleochannels									
Aphrodite	-	-	-	-	-	-	-	-	-
Graveyard Mitchell 3	-		-	807,223	1.54	40,056	807,223	1.54	40,056
Mitchell 4	-	-	-	-	-	-	-	-	-
Pluto	-	-	-	273,568	1.52	13,345	273,568	1.52	13,345
Wills	-	-	-	70,181	3.06	6,911	70,181	3.06	6,911
Greater Eundynie									
Hidden Secret	-	-	-	-	-	-	-	-	-
Mousehollow	-	-	-	-	-	-	-	-	-
Other									
Musket	-	-	-	90,728	3.40	9,929	90,728	3.40	9,929
Pioneer	-	-	-	76,124	1.41	3,451	76,124	1.41	3,451
Stockpiles									
Trident ROM Stocks	39,546	1.08	1,370	-	-	-	39,546	1.08	1,370
GIC Satellite Stockpiles	5,495	39.08	6,904	180,841	1.00	5,805	5,495 180,841	39.08 1.00	6,904 5,805
Lake Cowan	48,709	1.63	2,548	-	-	-	48,709	1.63	2,548
Totals	568,739	3.58	65,514	7,000,169	1.63	367,381	7,568,908	1.78	432,895
	300,733	5.50	33,314	. ,555,105	05	30.,301	. ,555,500	1.70	.52,033

# 2.3 ANNUAL MINERAL RESOURCE INVENTORY CHANGES

	2015 J	UNE RESC	OURCE	2016 J	UNE RESC	URCE		DIFFERENCE		CREE	DITED MI	NED
		Cald			Cald			Cald			(During F	eriod)
		Gold			Gold			Gold			Gold	
Trident	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
rrident												
Poseidon	554,501	4.82	85,922	561,070	4.83	87,107	6,570	5.61	1,185	622,644	3.95	79,094
Eastern Zone Athena 10	183,718	5.22	30,818	167,821 20,318	4.92 14.31	26,556 9,346	- 15,897 - 7,814		4,262 3,987	-	-	-
Athena 30	28,132 30,797	14.74 7.42	13,333 7,347	28,933	7.34	6,825	- 7,814 - 1,863		3,987 522	-		
Athena 40	123,959	6.23	24,811	151,358	4.88	23,750	27,399		1,061	-	-	-
Athena 50	45,748	7.94	11,672	43,150	8.07	11,192	- 2,597		480	-	-	-
Western Zone	261,137	3.07	25,809	237,182	2.97	22,673	- 23,956		3,135	-	-	-
EOS & E-Veins Apollo	239,208 357,756	4.64 3.28	35,653 37,711	236,560 288,119	4.65 3.08	35,339 28,488	- 2,648 - 69,637		314 9,223	-	-	-
Artemis	78,215	18.14	45,604	42,836	19.37	26,488	- 35,379		18,932	-	-	
Helios	548,865	5.17	91,216	308,484	5.20	51,597	- 240,381		39,619	-	-	-
Ares	83,012	2.57	6,859	72,175	2.84	6,585	- 10,838		274	-	-	-
Pluto	75,303	7.22	17,480	51,685	4.69	7,802	- 23,617		9,678	-	-	-
HG Stockpiles MG/LG Stockpiles	10,690 6,665	4.17 1.18	1,434 253	22,748 945	4.23 0.80	3,095 24	12,058 - 5,720	4.28	1,661 229	-	-	-
Chalice												
Atlas	164,000	3.05	16,075	164,000	3.05	16,075	-	-	-	-	-	-
Grampians	87,000	3.94	11,031	87,000	3.94	11,031	-	-	-	-	-	-
Olympus FW	322,000	4.01	41,487	322,000	4.01	41,487	-	-	-	-	-	-
Olympus FW Ultramafic	185,000 10,000	4.50 3.20	26,765 1,029	185,000 10,000	4.50 3.20	26,765 1,029	-	-	-	-	-	-
Halo	-	-	- 1,029	-	-	1,029	-	-	-	-	-	
Kronos	185,000	3.38	20,104	185,000	3.38	20,104	-	-	-	-	-	-
Broken Stocks	-	-	-	-	-	-	-	-	-	-	-	-
Corona - Fairplay												
Corona	72,399	12.32	28,669	62,640	9.01	18,143	- 9,759		10,526	_		
Fairplay Main	2,832,883	1.92	174,658	939,258	1.99	60,013	- 1,893,625		114,645	11,618	1.90	710
Fairplay North	-	-	-	1,303,393	1.77	74,090	1,303,393	1.77	74,090	-	-	-
Fairplay East	-	-	-	443,107	1.46	20,862	443,107	1.46	20,862	-	-	-
Halo	197,864	1.54	9,804	-	-	-	- 197,864		9,804	-	-	-
Vine												
						40.00						
650 550 link 450 System	215,855 29,753	1.76 1.54	12,207 1,470	215,855 29,753	1.76 1.54	12,207 1,470	-	-	-	-	-	-
550 System	153,624	2.87	14,162	153,624	2.87	14,162	-	-	-	-	-	-
650 System	259,169	1.91	15,949	259,169	1.91	15,949	-	-	-	-	-	
Lake Cowan												
Atriedies Josephine	428,644 316,616	1.60 1.64	22,115 16,721	412,727 237,855	1.67 1.52	22,195 11,633	- 15,917 - 78,761	- 0.16	80 5,088	62,749	1.50	3,016
Louis	894,946	1.57	45,255	713,898	1.45	33,334	- 181,048		11,921	322,736	1.84	19,117
Napoleon	442,731	1.85	26,284	297,130	2.00	19,143	- 145,601		7,141	209,843	1.49	10,077
Rose	217,135	1.18	8,261	217,135	1.18	8,261		-			-	
Two Boys												
Two Boys Main Swagman	1,130,492	1.78	64,586	704,480 622,109	1.58 1.52	35,736 30,388	- 426,012 622,109	1.52	28,849 30,388	-	-	-
Two Boys East (Pod A)	-	-	-	473,446	1.85	28,098	473,446	1.85	28,098	-	-	-
Mount Henry												
Mount Henry North Scotia	-	-	-	8,392,823 495,436	1.94 2.79	524,531 44 395	8,392,823 495,436	1.94 2.79	524,531 44 395	-	-	-
Selene	-	-	-	495,436 10,949,917	1.55	44,395 544,053	495,436 10,949,917	1.55	44,395 544,053	-	-	-
				,		,	,		. ,525			
Paleochannels												
Aphrodite	-	-	-	74,956	2.23	5,374	74,956	2.23	5,374	-	-	-
Graveyard Mitchell 3	354,000	1.77	- 20 178	2,636 354,000	1.44	122 20 178	2,636	1.44	122	-	-	-
Mitchell 4	225,000	2.85	20,178 20,609	225,000	2.85	20,178 20,609	-	-	-	-	-	-
Pluto	548,748	1.87	33,048	548,748	1.87	33,048	-	-	-	-	-	-
Wills	196,190	2.33	14,704	196,190	2.33	14,704	-	-	-	-	-	-
Greater Eundynie												
Hidden Secret	-	-	-	257,258	2.30	19,023	257,258	2.30	19,023	-	-	-
Mousehollow	425,600	1.60	21,893	425,600	1.60	21,893	-	-	-	-	-	-
Othor												
Other												
Musket	691,645	2.31	51,398	937,391	1.99	59,917	245,746	1.08	8,519	-	-	-
Pioneer	194,300	1.64	10,237	194,300	1.64	10,237	-	-	-	-	-	-
Stockpiles												
Trident ROM Stocks	57,259	1.32	2,434	39,546	1.08	1,370	- 17,713		1,064	-	-	
GIC	5,106	26.58	4,364	5,495	39.08	6,904	389	203.13	2,540	-	-	-
Satellite Stockpiles	180,841	1.00	5,805	180,841	1.00	5,805	-	-	-	-	-	-
Lake Cowan	98,246	1.78	5,633	48,709	1.63	2,548	- 49,537		3,085	-	-	-
Total	13,749,753	2.68	1,182,856	33,600,809	2.04	2,203,938	19,851,056	1.60	1,021,081	1,229,591	2.83	112,015

# 2.4 ANNUAL ORE RESERVE INVENTORY

					RESERVE	RECONCILIAT	ION					
	2015	JUNE RES	FRVF	2016	JUNE RESI	FRVF		DIFFERENCI	F	CRE	DITED MII	NED
	2013		LIVE	2010		LIVE			_	CIL	(During F	
		Gold			Gold			Gold			Gold	
Trident	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
maent												
Poseidon Eastern Zone	99,007 131,794	4.90 3.60	15,597 15,254	-	-	-	- 99,007 - 131,794	·	- 15,597 - 15,254	622,644	3.95	79,094
Athena 10	131,794	-	13,234	33,996	4.60	5,028	33,996	4.60	5,028		-	-
Athena 30	-	-	-	-	-	-	-	-	-	-	-	-
Athena 40 Athena 50	134,621	5.03	21,774	-	-	-	- 134,621		21,774	-	-	-
Western Zone	48,660	2.57	4,014	-	-	-	- 48,660		4,014	-	-	-
EOS & E-Veins	90,742	3.50	10,211	-	-	-	- 90,742		10,211	-	-	-
Apollo Artemis	55,996 134,382	3.40 7.91	6,122 34,181	34,231	9.99	10,992	- 55,996 - 100,151		- 6,122 - 23,189	-	-	-
Helios	535,099	4.09	70,373	231,693	4.12	30,670	- 303,406		39,703	-	-	-
Ares Pluto	24,326	2.70	2,112	-	-	-	- 24,326		- 2,112	-	-	-
HG Stockpiles	-		-	-	-	-	-	-	-	-	-	-
MG/LG Stockpiles	-	-	-	-	-	-	-	-	-	-	-	-
Chalice												
Atlas Grampians	-	-	-	-	-	-	-	-	-	-	-	-
Olympus	-	-	-	-	-	-	-	-	-	-	-	-
Olympus FW	-	-	-	-	-	-	-	-	-	-	-	-
Ultramafic Halo	-	-	-	-	-	-	-	-	-	-	-	-
Kronos		-	-		-	-	-	-		-	-	-
Broken Stocks	-	-	-	-	-	-	-	-	-	-	-	-
Corona - Fairplay												
Corona Fairplay Main	65,976 270,826	10.83 2.45	22,963 21,368	230,428	2.33	- 17,272	- 65,976 - 40,398		- 22,963 - 4,096	11,618	1.90	710
Fairplay Main Fairplay North	2/0,820	- 2.45	- 21,308	230,428	-	- 17,272	- 40,398		- 4,096	- 11,018	-	
Fairplay East	-	-	-	-	-	-	-	-	-		-	
Halo	-	-	-	-	-	-	-	-	-	-	-	-
Vine												
650 550 livit		-						_			_	
650 550 link 450 System	-	-	-	-	-	-	-	-	-	-	-	-
550 System	-	-	-	-	-	-	-	-	-	-	-	
650 System	-	-	-	-	-	-	-	-	-	-	-	-
Lake Cowan												
Atriedies	64,271	2.20	4,546		-	_	- 64,271		4,546		-	
Josephine	28,353	2.57	2,343	-			- 28,353			62,749	1.50	3,016
Louis	141,516	2.07	9,404	-			- 141,516		9,404	322,736	1.84	19,117
Napoleon Rose	-	-	-	98,523	2.51	7,949	98,523	2.51	7,949	209,843	1.49	10,077
nose												
Two Boys												
Two Boys Main	-	-	-	41,135	2.08	2,751	41,135	2.08	2,751	-	-	-
Swagman	-	-	-	-	-	-	-	-	-	-	-	-
Two Boys East (Pod A)	-	-	-	-	-	-	-	-	-	-	-	-
Mount Henry												
				2 000 100	1.55	106 073	2 000 100	1.55	106.073			
Mount Henry North Scotia	-	-	-	2,009,190	1.66	106,973	2,009,190	1.66	106,973		-	
Selene	-	-	-	3,297,297	1.52	160,943	3,297,297	1.52	160,943	-	-	-
Paleochannels												
. arcocriamicis												
Aphrodite	-	-	-	-	-	-	-	-	-	-	-	-
Graveyard Mitchell 3	807,223	1.54	40,056	807,223	1.54	40,056	-	-	-	-	-	-
Mitchell 4		-	-		-	-	-	-	-	-	-	-
Pluto Wills	273,568	1.52 3.06	13,345	273,568 70,181	1.52 3.06	13,345 6,911		-	-		-	
** 1113	70,181	5.00	6,911	70,181	5.00	0,911	-	-				
Greater Eundynie												
Hidden Secret		-	_		-	_	-	-	_	_	-	
Mousehollow	-	-	-	-	-	-	-	-	-	-	-	-
Other												
Other												
Musket	176,786	2.86	16,282	90,728	3.40	9,929	- 86,058		- 6,352	-	-	-
Pioneer	76,124	1.41	3,451	76,124	1.41	3,451	-	-	-	-	-	-
Stockpiles												
					1.00							
Trident ROM Stocks GIC	57,259 5,106	1.32 26.58	2,434 4,364	39,546 5,495	1.08 39.08	1,370 6,904	- 17,713 389	203.13	- 1,064 2,540	-	-	
Satellite Stockpiles	180,841	1.00	5,805	180,841	1.00	5,805	-	-	-	-	-	-
Lake Cowan	98,246	1.78	5,633	48,709	1.63	2,548	- 49,537		3,085	-	-	-
Total	3,570,903	2.95	338,543	7,568,908	1.78	432,895	3,998,004	0.73	94,353	1,229,591	2.83	112,015

# 3. SOUTH KALGOORLIE GOLD OPERATIONS

# 3.1 MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY

							Aineral Resou	JE GOLD PROJ rce Statement					
Ore Body		ı	Measured			Indicated	30/06	/2016	Inferred			Total	
	COG	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces
Location 50													
HBJ Pernatty	2.00 0.50	422,405	4.26	57,853	4,504,597 <b>672,000</b>	3.41 2.69	493,857 <b>58,118</b>	2,815,401 2,113,000	3.38 2.30	305,948 <b>156,249</b>	7,742,403 2,785,000	3.45 2.39	857,658 <b>214,36</b> 8
Celebration	0.90	-	-	-	356,000	3.14	35,939	144,000	2.30	10,648	500,000	2.90	46,588
Lanarkshire Group Mutooroo	0.70	6,358	3.81	779	1,731,905 46,683	1.31 2.68	73,075 4,022	1,042,363 183,449	1.80	38,109 10,616	2,774,268 236,490	1.25 2.03	111,184 15,418
Pleaides Nidaros	0.70 0.70	4,791 6,630	2.47 1.57	380 335	1,697 26,674	5.13 2.05	280 1,758	18,251 19,596	2.02	1,185 1,373	24,739 52,900	2.32 2.04	1,846 3,466
TNT (Pernatty North) Peaceful Chief	0.50 0.70	-	-	-	<b>343,000</b> 68,196	1.71 1.61	18,857 3,530	216,000 279,609	1.80 2.06	<b>12,500</b> 18,519	<b>559,000</b> 347,805	1.74 1.97	31,358 22,049
Location 48													
Mt Goddard + North	0.90	-	-	-	496,724	1.37	21,879	159,614	1.33	6,825	656,338	1.36	28,704
Dawns Hope Daybreak - Dusk	0.50	-	-	-	<b>944,000</b> 50,467	2.20 1.26	<b>66,771</b> 2,043	<b>737,000</b> 100,553	1.80 1.37	<b>42,651</b> 4,432	1,681,000 151,020	2.02 1.33	109,422 6,475
Inclined Shaft / Lancashire Lass BD1	0.70	-	-	-	651,564 35,322	2.03 2.77	42,614 3,151	662,130 94,709	1.70 2.87	36,142 8,725	1,313,694 130,031	1.86 2.84	78,755 11,87€
White Hope / Hansel Mundy Resolution / Belterre	0.70 0.70	-	-	-	38,478	1.62	2,009	1,340,143 446,462	1.69 1.89	72,981 27,150	1,378,621 446,462	1.69 1.89	74,990 27,150
SBS / Loc 59													
Shirl	0.70	-	-	-	-	-	_	46,755	5.23	7,854	46,755	5.23	7,854
Barbara Surprise	0.50 0.50	-	-	-	111,000	2.80 2.34	9,992 75,383	117,000 860,000	2.50 2.33	9,404 64,424	228,000 1,862,000	2.65 2.34	19,397 139,807
28 Pit Tuscany	0.70	-	-	-	166,491 103,000	2.90	15,508 <b>6,954</b>	350,015 18,000	2.27	25,524 <b>926</b>	516,506 121,000	2.47	41,032 <b>7,88</b> 0
Bakers Flat / Tarranto	0.70	3,653	2.08	244	334,751	1.86	20,009	2,104,900	1.59	107,267	2,443,304	1.62	127,519
Tripod Noble 6	0.50 0.70	-	-	-	212,617	2.25	15,401	116,000 294,524	1.60 2.00	<b>5,967</b> 18,936	<b>116,000</b> 507,141	1.60 2.11	<b>5,967</b> 34,337
Mount Martin / Loc 45													
Mount Martin	0.50	-	-	-	5,132,000	1.83	301,945	3,360,000	1.73	186,886	8,492,000	1.79	488,831
Swift Adelaide	0.50 0.50	-	-	-	177,000 2,000	1.50 8.82	8,536 567	36,000 15,000	1.30 3.60	1,505 1,736	213,000 17,000	1.47 4.21	10,041 2,303
Mount Marion													
Mount Marion	1.00	252,000	4.90	39,700	1,501,000	3.60	173,730	2,433,000	2.90	226,846	4,186,000	3.27	440,275
Marion West	1.00	-	-	-	1,090,000	3.66	128,262	356,000	4.00	45,783	1,446,000	3.74	174,045
Loc 41													
Trojan	0.70	-	-	-	1,679,908	1.72	93,117	1,114,431	1.44	51,696	2,794,339	1.61	144,814
Penfolds													
Erebus	0.70	59,143	1.95	3,708	52,785	1.86	3,157	14,339	1.56	719	126,267	1.87	7,584
Penfolds Freddo	1.00	-	-	-	313,203	1.91	19,233	18,617	1.93	1,155	331,820	1.91	20,388
Jezebel													
Greater Jezebel Area	0.70	-	-	-	558,593	2.14	38,379	-	-	-	558,593	2.14	38,379
Scrubby Tank	0.50	20,000	1.80	1,157	194,000	1.60	9,980	351,000	1.30	14,670	565,000	1.42	25,807
Coolgardie													
Gunga West Rose Hill	0.60	-	-	-	1,069,000 982,503	1.75 2.11	60,200 <b>66,651</b>	263,000 1,149,494	1.51 2.14	12,800 <b>79,088</b>	1,332,000 2,131,997	1.70 2.13	73,000 145,739
Kundana					,		,	.,,					,.
	0.70				80,458	2.55	6.506	00.240	2.00	6.670	470.007	2.20	42.27
Mungari	0.70		-	-	80,458	2.55	6,596	99,349	2.09	6,678	179,807	2.30	13,274
Golden Ridge													
Golden Ridge	1.00	-	-	-	474,564	1.83	27,921	50,867	1.71	2,797	525,431	1.82	30,718
Cannon													
Cannon George's Reward	0.70	49,541 57,782	2.80 3.11	4,460 5,778	213,554 75,864	4.39 3.47	30,141 8,464	25,301 32,573	3.02 2.19	2,457 2,293	288,396 166,219	4.00 3.09	37,058 16,535
Satellite Stockpiles							,			,			
28 Pit SKO_Fresh_HG	-	2,287	3.11	229							2,287	3.11	229
Barbara - Surprise Heap Leach		-	-	-	134,858	0.42	- 1,821	73,690	0.47	1,105	73,690 134,858	0.47	1,105
Tuscany TNT	-	2,543	1.74	142	7,970	0.76	- 195	-	-	-	2,543 7,970	1.74	142
HBJ MW	-		-	-	63,788	0.49	1,005	-			63,788	0.49	1,009
Frogs Leg LG Golden Ridge LG	-	-	-	-	65,461	0.82	1,728		-		65,461	0.82	1,728
Golden Ridge MW Bellevue	-	10,000	0.70	- 225	-	-	-	221,512	0.57	4,059 -	221,512 10,000	0.57 0.70	4,059 225
Pernatty LG OXIDE Pernatty LG1 FRESH***	-	123,492	0.41	1,608	60,000	0.60	- 1,157	-	-	-	126,065 <b>60,000</b>	0.41	1,608 1,157
Pernatty LG2 Inclined Shaft	-	3,000	0.41	40 -	-	-	-	-	-	-	3,000	0.41	- 40
Daisy Lanarkshire	-	9,500	0.70	- 215	-	-	-	-	-	-	9,500	0.70	215
Samphire Erebus	-	-	-	-	-	-	-	-	-	-	-	-	-
Nidaros Cannon	-	3,939	1.50	- 190	-	-	-	-	-	-	3,939	1.50	- 190
George's Reward	-	6,914	2.46	547 238		-	-				6,914	2.46	547
Lloyd Gerorge Mutooroo	-	15,117 20,302	0.49	238 294		-	-		-	-	15,117 20,302	0.49 0.45	238 294
Jubilee ROM Stocks													
НВЈ		4,138	2.73	363		-	-		-	-	4,138	2.73	363
Erebus Golden Ridge	-	1,841 59,207	1.23 1.15	73 2,189	-	-	-	-	-	-	1,841 59,207	1.23 1.15	73 2,189
Lloyd George Cannon	-	7,832	0.49	122		-	-			-	7,832	0.49	122
Louis SHG Louis HG	-	-	-	-	-	-	-	-	-	-		-	-
Louis LG Josephine HG	-		-	-		-	-			-			
Josephine LG	-		-	-	-	-	-	-	-		-		
Chiefs Lode LG Peaceful Gift LG	-	-	-	-	-	-	-	-	-	-	-	-	-
HBJ Green Pernatty Oxide	-	-	-			-	-		-	-		-	-
GIC HBJ (Mill Stocks)	-	2,809 2,363	33.85 2.40	3,057 182	-	-	-	-	-	-	2,809 2,363	33.85 2.40	3,057 182
Lloyd George (Mill Stocks) Cannon (Mill Stocks)		338 4,256	0.43 2.55	5 349		-	-			-	338 4,256	0.43 2.55	349
						2.35							

# 3.2 ORE RESERVE ESTIMATE BY OREBODY AND CATEGORY

Contine No.	Oro Rody		Proven		Ore R	30/06/2016	ient		Total	
	Ore Body		Proven			Probable			Total	
186   186		Tonnes		Ounces	Tonnes		Ounces	Tonnes		Ounces
Secretary	Location 50									
Calcate Color					532,208					100,315
Management 1	Celebration		-		-	-	-	- "	-	-
Teacher	Mutooroo			-	428,850		12,873	428,850		12,873
Proceeding	Nidaros	-		-	-	-	-	===	-	-
M. Good Land Transfer   1										-
Cambridge	Location 48									
Controlled Dash  Contro										_
Company	Davbreak - Dusk	-	-	-	-	-	-	-	-	-
The conductory   Belleviny	BD1		-				-		-	-
Signification										-
Tanchards	SBS / Loc 59									
Sargeries			-						-	-
Tuccarry Tarrantes	Surprise	-	-		-	-	-	-	-	-
Tripoid	Tuscany			-	-	-	-	-	-	-
Mount Martin / Lee 45  Mount Martin	Tripod	-		-	-	-	-	-	-	10,275
Mount Martin		-	-	-	89,898	2.24	6,470	89,898	2.24	6,470
South										
Adeleaded	Swift	-	-	-	-	-	-	-	-	-
Mount Muses	Adelaide	-	-	-	-	-	-	-	-	-
Marion   M	Mount Marion									
Trojan										-
Periodic										
Periodic	Trojan	-	-	-	-	-	-	-	-	-
Finding										
Perfolds		-	-	-	-	-	-	-	-	_
Genetic Jusciple Area	Penfolds		-		-			-	-	-
Sorubly Trank	Jezebel									
Sorubly Trank	Greater Jezebel Area	-	-	_	-	-	_	-	-	-
South   Sout			-		-	-				-
Rose Hill C	Coolgardie									
Mungari		-	-	-						17,087
Mungari										
Golden Ridge  Go		_	_	_	_	_	_		_	_
Golden Ridge										
Cannon Ca		_	_	_	_	_	_	_	-	_
Cannon										
Seriellite Stockylles		44.019	2.80	3,959	141,605	4.10	18,664	185.624	3.79	22,624
28 PIT SKO_Fresh_HG									2.86	11,931
Barbara - Surprise Heap Leach	Satellite Stockpiles									
Shirt MW										-
TNT	Shirl MW	-	-	-	-	-	-	-	-	-
Frog Leg LG Golden Ridge LG Go	TNT								-	-
Golden Ridge MW Bellevue Belle	Frogs Leg LG			1.728	-	-			-	1,728
Pernatty LG OXIDE	Golden Ridge MW						-	-	-	-
Pernatty LG2	Pernatty LG OXIDE	-		-			-	-	-	- 1,157
Daisy	Pernatty LG2	-	-	-		-	-	-	-	-
Samphire	Daisy	-	-	-	_	-	_			-
Nidaros	Samphire	-	-	-	-	-	-	-	-	-
George's Reward 6,914 2.46 547 6,914 2.46 Lloyd Gerorge 15,117 0.49 238 15,117 0.49 Mutooroo 20,302 0.45 294 20,302 0.45	Nidaros			-	-		-	-	-	190
Mutoroo   20,302   0.45   294   -   -   20,302   0.45	George's Reward	6,914	2.46	547	-	-	-	6,914	2.46	547 238
HBJ										294
Erebus	Jubilee ROM Stocks									
Golden Ridge					-	-	-			363
Cannon	Golden Ridge	59,207	1.15	2,189	-	-	-	59,207	1.15	73 2,189
Lauis HG Louis HG Louis LG	Cannon	-	-	-				-	-	122
Josephine HG	Louis HG									-
Chiefs Lode LG	Josephine HG									-
HBJ Green	Chiefs Lode LG	-	-	-	-	-	-	-	-	-
GIC 2,809 33.85 3,057 2,809 33.85 3 HBJ (Mill Stocks) 2,363 2,40 182 2,363 2,40 Lloyd George (Mill Stocks) 338 0.43 5 338 0.43 Cannon (Mill Stocks) 4,256 2.55 349 4,256 2.55	HBJ Green				-	-	-			-
Lloyd George (Mill Stocks) 338 0.43 5 338 0.43 Cannon (Mill Stocks) 4,256 2.55 349 4,256 2.55	GIC		33.85		-	-	-			3,057
Cannon (Mill Stocks) 4,256 2.55 3.49 4,256 2.55	Lloyd George (Mill Stocks)	338	0.43	5				338	0.43	182
Unreported	Cannon (Mill Stocks)	4,256	2.55	349	-	-	-	4,256	2.55	349
	Unreported									

# 3.3 ANNUAL MINERAL RESOURCE INVENTORY CHANGES

	2015 J	UNE RESC	URCE	2016 J	JNE RESC	DURCE	С	DIFFERENCI	E	CRE	DITED MIN	NED
	Tonnes	Gold	0	Tonnes	Gold Grade	0	Tonnes	Gold Grade	0	Tonnes	Gold Grade	Ounces
L	Tonnes	Grade	Ounces	Ionnes	Grade	Ounces	Ionnes	Grade	Ounces	Ionnes	Grade	Ounces
Location 50	6,771,708	3.05	663,174	7,742,403	3.45	857.658	070 605	6.23	104 404	255,332	2.49	20.44
Pernatty	2,785,000	2.39	214,368	2,785,000	2.39	214,368	970,695	-	194,484 -	-	-	20,44
Celebration Lanarkshire Group	500,000 3,192,000	2.90 1.14	46,588 117,318	500,000 2,774,268	2.90 1.25	46,588 111,184	- - 417,732		6,134	-	-	
Mutooroo Pleaides	248,247 29,447	1.95 2.59	15,562 2,449	236,490 24,739	2.03	15,418 1,846	- 11,757 - 4,708		- 144 - 603	23,991 20,386	2.02 1.72	1,56 1,12
Nidaros TNT (Pernatty North)	72,246 559,000	2.09 1.74	4,844 31,358	52,900 559,000	2.04 1.74	3,466 31,358	- 19,346		1,378	20,243	1.60	1,03
Peaceful Chief Location 48	164,754	2.12	11,233	347,805	1.97	22,049	183,051	1.84	10,815	36,712	1.52	1,79
Mt Goddard + North	656,338	1.36	28,704	656,338	1.36	28,704	-	-	-	-	-	-
Dawns Hope Daybreak - Dusk	1,681,000 194,065	2.02 1.40	109,422 8,750	1,681,000 151,020	2.02 1.33	109,422 6,475	- - 43,045		2,275	- 32,164	1.28	1,32
Inclined Shaft / Lancashire Lass BD1	913,403	2.24	65,869	1,313,694 130,031	1.86 2.84	78,755 11,876	400,291 130,031	1.00 2.84	12,886 11,876	-	-	-
White Hope / Hansel Mundy Resolution / Belterre	1,178,709	2.25	85,267 -	1,378,621 446,462	1.69 1.89	74,990 27,150	199,912 446,462	1.89	10,277 27,150	-	-	-
SBS / Loc 59												
Shirl Barbara	46,755 228,000	5.23 2.65	7,854 19,397	46,755 228,000	5.23 2.65	7,854 19,397	-	-	-	-	-	-
Surprise 28 Pit	1,862,000 623,000	2.34 2.31	139,807 46,313	1,862,000 516,506	2.34 2.47	139,807 41,032	- 106,494		- - 5,281	- :	-	
Tuscany Bakers Flat / Tarranto	121,000 481,680	2.03	7,880 37,121	121,000 2,443,304	2.03	7,880 127,519	1,961,624	1.43	90,399	-	-	-
Tripod Noble 6	116,000 109,250	1.60	5,967 13,042	116,000 507,141	1.60	5,967 34,337	397,891	1.66	21,296	-	-	-
Mount Martin / Loc 45												
Mount Martin	8,492,000	1.79	488,831	8,492,000	1.79	488,831	-	-	-	-	-	-
Swift Adelaide	213,000 17,000	1.47 4.21	10,041 2,303	213,000 17,000	1.47 4.21	10,041 2,303	-	-	-	-	-	-
Mount Marion												
Mount Marion Marion West	4,186,000 1,446,000	3.27 3.74	440,275 174,045	4,186,000 1,446,000	3.27 3.74	440,275 174,045	-	-	-	-	-	-
Loc 41												
Trojan	2,794,339	1.61	144,814	2,794,339	1.61	144,814	-	-	-	-	-	
Penfolds												
Erebus	213,377	2.19	15,017	126,267	1.87	7,584	- 87,110		7,433	35,749	1.62	1,86
Penfolds Freddo	- 331,820	1.91	- 20,388	- 331,820	1.91	- 20,388	-	-	-	-	-	-
Jezebel												
Greater Jezebel Area	558,593	2.14	38,379	558,593	2.14	38,379	-	-	-	-	-	-
Scrubby Tank Coolgardie	565,000	1.42	25,807	565,000	1.42	25,807		-	-		-	-
Gunga West	-	-	-	1,332,000	1.70	73,000	1,332,000	1.70	73,000	_	-	-
Rose Hill Kundana	2,131,997	2.13	145,739	2,131,997	2.13	145,739	-	-	-	-	-	-
Mungari	_	-	_	179,807	2.30	13,274	179,807	2.30	13,274		-	
Golden Ridge				,		,	,		,			
Golden Ridge	525.431	1.82	30,718	525.431	1.82	30,718	_	-	_	_	-	
Cannon	,		,	,								
Cannon George's Reward	343,931 242,353	4.04 2.98	44,633 23,194	288,396 166,219	4.00 3.09	37,058 16,535	- 55,535 - 76,134		- 7,576 - 6,659	157,127 61,530	2.36	11,94 5,39
Satellite Stockpiles												
28 Pit SKO_Fresh_HG Barbara - Surprise Heap Leach	2,287 73.690	3.11 0.47	229 1,105	2,287 73,690	3.11 0.47	229 1,105	-	-	-	-	-	-
Shirl MW Tuscany	134,858 2,543	0.42	1,821 142	134,858 2,543	0.42	1,821	-	-	-	-	-	-
TNT	7,970	0.76	195	7,970	0.76	195	-	-	-	-	-	
HBJ MW Frogs Leg LG	63,788	0.49	1,005	63,788	0.49	1,005	- :	-	-		-	
Golden Ridge LG Golden Ridge MW	219,190 221,512	0.84 0.57	5,920 4,059	65,461 221,512	0.82 0.57	1,728 4,059	- 153,729 -		- 4,192 -	-	-	-
Bellevue Pernatty LG OXIDE	10,000 127,696	0.70 0.41	225 1,663	10,000 126,065	0.70 0.41	225 1,608	- - 1,631		- 55	-	-	-
Pernatty LG1 FRESH*** Pernatty LG2	60,000 3,000	0.60	1,157 40	60,000 3,000	0.60	1,157 40	-	-	-	-	-	-
Inclined Shaft Daisy	18,182 2,962	0.84	491 190	-	-	-	- 18,182 - 2,962		- 491 - 190	-		
Lanarkshire	9,500	0.70	215	9,500	0.70	215		-	-	-	-	-
Samphire Erebus	10,500	0.79	266	-	-	-	- 10,500		266	-	-	-
Nidaros Cannon	10,051	1.62	523	- 3,939	1.50	- 190	- 10,051 3,939	1.50	523 190	-	-	- :
George's Reward Joyd Gerorge	-	-	-	6,914 15,117	2.46 0.49	547 238	6,914 15,117	2.46 0.49	547 238	-	-	
Mutooroo Jubilee ROM Stocks	-	-	-	20,302	0.45	294	20,302	0.45	294	-	-	-
HBJ	-	-	_	4,138	2.73	363	4,138	2.73	363		-	-
rebus Golden Ridge	-		-	1,841 59,207	1.23	73 2,189	1,841 59,207	1.23	73 2,189	-	-	-
Joyd George	-		-	7,832	0.49	122	7,832	0.49	122	-	-	
Cannon Louis SHG	5,942	2.80	535	-	-	-	- 5,942		535	-	-	
Louis HG Louis LG	11,328 14,024	2.16 1.21	786 546	-	-	-	- 11,328 - 14,024		786 546	-	-	-
losephine HG losephine LG	3,591	1.73	200	-	-	-	- 3,591		200	-	-	-
Chiefs Lode LG Peaceful Gift LG	6,808 3,831	0.94	205 125	-	-	-	- 6,808 - 3,831		205	-	-	-
HBJ Green	30,756 1,264	0.68	672			-	- 30,756		672		-	-
		0.41	17		33.85	3,057	- 1,264 - 3,277	- 23.44	2,469	-		
Pernatty Oxide GIC	6,086	3.01	588	2,809								
	6,086 - - -	3.01 - -	- - -	2,809 2,363 338 4,256	2.40 0.43 2.55	182 5 349	2,363 338 4,256	2.40 0.43 2.55	182 5 349	-	-	-

# 3.4 ANNUAL ORE RESERVE INVENTORY CHANGES

				RESER	VE RECO	NCILIATION						
	2015	JUNE RESE	RVE	2016	JUNE RES	ERVE		IFFERENC	Œ	CRE	DITED MI	NED
		Gold			Gold			Gold			Gold	
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Location 50												
HBJ Pernatty	931,241	3.28	98,175 -	667,939	4.67	100,315	- 263,302	- 0.25	2,140	255,332	2.49	20,44
Celebration Lanarkshire Group		-	-	- 428,850	0.93	- 12,873	- 428,850	0.93	12,873	-	-	-
Mutooroo Pleaides	26,150 12,600.00	2.39 2.53	2,008 1,025	-	-	-	- 26,150 - 12,600	-	- 2,008 - 1,025	23,991 20,386	2.02 1.72	1,56
Nidaros TNT (Pernatty North)	16,500.00	2.28	1,210	-	-	-	- 16,500	-	- 1,210	20,243	1.60	1,039
Peaceful Chief	27,800	1.77	1,582	-	-	-	- 27,800	-	- 1,582	36,712	1.52	1,79
Location 48												
Mt Goddard + North	-	-	-	-	-	-	-	-	-	-	-	-
Dawns Hope Daybreak - Dusk	45,650.00	1.65	2,426	-	-	-	- 45,650	-	- 2,426	32,164	1.28	1,328
Inclined Shaft / Lancashire Lass BD1	-	-	-	-	-	-	-	-	-	-	-	-
White Hope / Hansel Mundy Resolution / Belterre	-	-	-	-	-	-	-	-	-	-	-	-
SBS / Loc 59												
Shirl	-	-	-	-	-	-	-	-	-	-	-	-
Barbara Surprise	-	-	-	-	-	-	-	-	-	-	-	-
28 Pit Tuscany		-	-	-	-	-	-	-	-	-	-	-
Bakers Flat / Tarranto Tripod		-	-	187,831	1.70	10,275	187,831	1.70	10,275	-	-	-
Noble 6	-	-	-	89,898	2.24	6,470	89,898	2.24	6,470	-	-	-
Mount Martin / Loc 45												
Mount Martin	-	-	-	-	-	-	-	-	-	-	-	-
Swift Adelaide	-	-	-	-	-	-	-	-	-	-	-	-
Mount Marion												
Mount Marion		-	_	_		_	_	-	_	_	_	_
Marion West	-	-	-	-	-	-	-	-	-	-	-	-
Loc 41												
Trojan	-	-	-	-	-	-	-	-	-	-	-	-
Penfolds												
Erebus	106,490.00	2.35	8,035	-	-	-	- 106,490	-	- 8,035	35,749	1.62	1,863
Penfolds Freddo		-	-	-		-	-	-	-	-	-	-
Jezebel												
Greater Jezebel Area		-	_	_	-	_	_	-	_	_	-	-
Scrubby Tank	-	-	-	-	-	-	-	-	-	-	-	-
Coolgardie												
Gunga West Rose Hill	-	-	-	349,419	1.52	17,087	349,419	1.52	17,087	-	-	-
									_			
Kundana												
Mungari	-		-	-			-	-	-		_	
Golden Ridge												
Golden Ridge	-	-	-	-	-	-	-	-	-	-	-	-
Cannon												
Cannon George's Reward	229,237 195,356	3.88 2.65	28,592 16,644	185,624 129,543	3.79 2.86	22,624 11,931	- 43,613 - 65,813	-	- 5,968 - 4,713	157,127 61,530	2.36 2.73	11,947 5,398
Satellite Stockpiles												
28 Pit SKO_Fresh_HG		-	_	_	-	_	_	-	-	_	-	_
Barbara - Surprise Heap Leach Shirl MW	-		-	-	-	-	-	-	-	-	-	-
Tuscany	-	-	-	-	-	-	-	-	-	-	-	-
HBJ MW	63,788	0.49	1,005	-	-	-	- 63,788	-	- 1,005		-	-
Frogs Leg LG Golden Ridge LG Golden Ridge MW	219,190	0.84	5,920	65,461	0.82	1,728	- - 153,729	-	- 4,192	-	-	-
Golden Ridge MW Bellevue			- 1 662	-	-	-	127.606	-	- 1 663	-	-	-
Pernatty LG OXIDE Pernatty LG1 FRESH***	127,696 60,000	0.41	1,663 1,157	60,000	0.60	- 1,157	- 127,696 -	-	- 1,663 -	-	-	-
Pernatty LG2 Inclined Shaft	- 18,182	0.84	- 491	-	-	-	- - 18,182	-	- - 491	-	-	-
Daisy Lanarkshire	2,962 -	2.00	190 -	-	-	-	- 2,962 -	-	- 190 -	-	-	-
Samphire Erebus		-	-	-	-	-	-	-	-	-	-	-
Nidaros Cannon	10,051	1.62	523	- 3,939	1.50	- 190	- 10,051 3,939	1.50	- 523 190	-	-	-
George's Reward Lloyd Gerorge	-	-	-	6,914 15,117	2.46	547 238	6,914 15,117	2.46	547 238	-	-	-
Mutooroo	-	-	-	20,302	0.45	294	20,302	0.45	294	-	-	-
Jubilee ROM Stocks												
HBJ Erebus	-			4,138 1,841	2.73 1.23	363 73	4,138 1,841	2.73 1.23	363 73	-	-	-
Golden Ridge	-	-	-	59,207	1.15	2,189	59,207	1.15	2,189	-	-	-
Lloyd George Cannon	-	-	-	7,832 -	0.49	122	7,832	0.49	122	-	-	-
Louis SHG Louis HG	5,942 11,328	2.80 2.16	535 786	-	-	-	- 5,942 - 11,328	-	- 535 - 786	-	-	-
Louis LG Josephine HG	14,024 3,591	1.21 1.73	546 200	-	-	-	- 14,024 - 3,591	-	- 546 - 200	-	-	-
Josephine LG Chiefs Lode LG	6,808	0.94	- 205	-	-	-	- - 6,808	-	- 205	-	-	-
Peaceful Gift LG HBJ Green	3,831 30,756	1.02	125 672	-	-	-	- 3,831 - 30,756	-	- 125 - 672	-	-	-
Pernatty Oxide GIC	1,264 6,086	0.41	17 588	2.809	33.85	3,057	- 1,264 - 3,277	- 23.44	- 17 2,469	-	-	=
HBJ (Mill Stocks)	-	-	-	2,363	2.40	3,057 182 5	- 3,2// 2,363 338	2.40	182	-	-	-
Lloyd George (Mill Stocks) Cannon (Mill Stocks)	-	-	-	338 4,256	0.43 2.55	5 349	4,256	0.43 2.55	5 349	-	-	-
	1,162,231	1.88	70,322	2,293,621	2.60	192,068	1,131,390	3.35	121,746	643,233		

# 4. CENTRAL MURCHISON GOLD PROJECT

# 4.1 MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY

							TRAL MURCH	X LIMITED SON GOLD PRource Statemen					
Ore Body		1	Measured			ndicated	30/0	6/2016	Inferred			Total	
		_	Gold		_	Gold			Gold	_		Gold	
Big Bell	cog	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
1600N / Shocker	0.70g/t		-	_	3,440,988	1.67	184,892	1,236,672	1.61	63,824	4,677,660	1.65	248,716
1600N / Shocker Underground 700 / 1100	1.50g/t 0.70g/t	-	-	-	64,238 780,032	1.71	3,528 37,422	1,189,207 419,344	2.79	106,672 15,783	1,253,445 1,199,376	2.73	110,200 53,205
Big Bell Big Bell South	2.0g/t 0.70g/t	-	-	-	8,804,762 2,555,078	3.87	1,095,518 140,472	4,985,926 1,190,986	3.20	512,964 78,497	13,790,688 3,746,064	3.63 1.82	1,608,481 218,969
Big Bell South Underground Fender	1.50g/t 0.70g/t	-	-	-	241,426 1,006,144	2.25	17,465 <b>78,407</b>	1,446,244 25,285	2.42	112,525 1,631	1,687,670 1,031,429	2.40	129,989 <b>80,037</b>
Fender Underground Indicator	1.50g/t 0.70g/t	-		-	271,348	2.82	24,602 10,968	178,320	2.92	16,724	449,668 245,841	2.86	41,325 12,156
	0.70g/t	-	_	-	201,861	1.69	10,968	43,980	0.84	1,188	245,841	1.54	12,156
Cuddingwarra	1.20~/*				260.097	2.21	10.350	E 154	1.65	272	265 241	2.20	10.633
Black Swan Black Swan South	1.20g/t 1.20g/t	-	-	-	260,087 315,029	2.31 3.77	19,350 38,184	5,154 1,856,848	1.65 3.82	273 228,050	265,241 2,171,877	2.30 3.81	19,623 266,234
Chieftain City of Chester	0.70g/t 0.70g/t	-	-	-	181,475 415,508	1.40	8,168 26,451	81,289	1.76	4,600	181,475 496,797	1.40	8,168 31,050
City of Chester Northwest Coventry North	0.70g/t 0.70g/t	-	-	-	196,954	1.65	10,448	13,370 204,396	1.18	507 8,806	210,324 204,396	1.62 1.34	10,955 8,806
Emily Well Golden Gate Group	0.70g/t 0.70g/t	-	-	-	- 712,801	1.51	- 34,605	346,840 31,359	1.41	15,723 1,149	346,840 744,160	1.41 1.49	15,723 35,754
Jim's Find Never Can Tell	0.70g/t 0.70g/t	-	-	-	262,808 22,772	1.69 2.70	14,280 1,977	37,459 50,290	1.52 2.24	1,831 3,622	300,267 73,062	1.67 2.38	16,110 5,599
Rheingold Group South Cuddingwarra	0.70g/t 0.70g/t	-	-	-	<b>260,937</b> 196,085	3.33 1.53	<b>27,936</b> 9,673	1,184,970 393,460	1.86 1.47	<b>70,862</b> 18,582	<b>1,445,907</b> 589,545	2.13 1.49	<b>98,798</b> 28,256
Day Dawn													
3210	0.70g/t	_	_	_	196,704	1.63	10,308	9,242	2.78	826	205,946	1.68	11,134
Brega Well Crème d' Or Group	0.70g/t 0.70g/t	-	-	-	82,973	1.61	4,295	512,865 60,248	1.53	25,228 1,821	512,865 143,221	1.53	25,228 6,116
Emperor Golden Crown	0.70g/t 2.50g/t	-	-	-	551,000	9.55	169,179	48,847 91,000	2.78	4,366 15,799	48,847 642,000	2.78	4,366 184.978
Great Fingall Open Pit Great Fingall Deeps	0.80g/t 2.50g/t	-	-	-	1,361,600 787,702	1.76 8.84	77,047 223,842	84,800	2.06	5,616	1,446,400 787,702	1.78	82,663 223.842
Great Fingall Deeps Great Fingall Remnants Kinsella	2.50g/t 2.50g/t 0.70g/t	69,926	1.66	- - 3,732	517,196 161,253	10.34 1.31	171,929 6,792	- - 82,454	1.31	- - 3,473	517,196 313,633	10.34 1.39	171,929 13,996
Kalahari	0.70g/t		-	3,/32				806,182	1.16	30,066	806,182	1.16	30,066
Mount Fingall Racecourse	0.70g/t 0.70g/t	-	-	-	89,327 78,851	1.84 2.03	5,284 5,146	188,280	1.23	7,446 -	277,607 78,851	1.43 2.03	12,730 5,146
Rubicon South Fingall	0.70g/t 0.70g/t	- 65,825	1.81	- 3,825	142,665 82,622	2.21 1.92	10,137 5,090	129,909	2.28	- 9,535	142,665 278,356	2.21 2.06	10,137 18,449
Try Again Group Trenton	0.70g/t 0.70g/t	-	-	-	709,968	1.81	41,315	157,336 97,043	2.08 1.32	10,522 4,118	867,304 97,043	1.86 1.32	51,837 4,118
Yellow Taxi Group	0.70g/t	-	-	-	404,653	1.88	24,459	112,886	1.82	6,605	517,539	1.87	31,064
Tuckabianna													
Comet Group Lunar	2.00g/t 1.00g/t	-	-	-	1,575,001	4.30	217,940	771,429 37,945	3.20 1.15	79,333 1,397	2,346,430 37,945	3.94 1.15	297,273 1,397
Solar Venus / Mercury	1.00g/t 1.00g/t	-	-	-	274,740	1.66	14,663	26,700 161,590	1.32	1,137 8,260	26,700 436,330	1.32	1,137 22,923
	1.00g/t				274,740	1.00	14,003	101,390	1.59	3,200	430,330	1.03	22,923
Meekatharra North													
Five Mile Well Maid Marion	0.50g/t 0.50g/t	-	-	-	415,000 749,200	2.36 1.42	31,488 34,204	165,000 19,600	1.61	8,541 895	580,000 768,800	2.15 1.42	40,029 35,099
Nannine													
Aladdin		-	-	-		-		-		-			
Caledonian Nannine Reef		-	-	-	-	-	-	-	-	-	-	-	-
Paddy's Flat													
Fenian - Marmont	0.50g/t		-	-	_	-	_	2,223,000	1.06	75,759	2,223,000	1.06	75,759
Magazine Mickey Doolan	0.50g/t 0.70g/t	-	-	-	2,135,000 4.850.547	1.54 1.22	105,409 189,808	1,779,000 5,808,305	1.56 1.06	<b>89,151</b> 197,058	3,914,000 10,658,852	1.55	194,560 386,866
Marmont - Golden Bar Paddy's North	0.70g/t 0.50g/t	-	-	-	1,078,678	1.14	39,667 238,676	876,204 278,000	0.91	25,514 10,953	1,954,882 6,386,000	1.04	65,182 <b>249,628</b>
Prohibition Vivian-Consol-Mudlode-Fatts	0.50g/t 0.50g/t 2.00g/t	-	-	-	3,938,400 1,314,460	2.72	344,769 223,475	1,457,000 1,131,180	2.33	109,300 204,919	5,395,400 2,445,640	2.62	454,069 428,394
	2.00g/t			_	1,314,400	3.29	223,473	1,131,180	3.03	204,919	2,443,040	5.45	420,334
Reedy's	0.70.71		2.24	70	220.220	2.24	15.647	07.000		4.750	340 343	2.00	20.405
Callisto Culculli	0.70g/t 0.70g/t	1,112	2.21	79	220,220 190,325	2.21 1.40	15,647 8,567	97,980 414,967	1.51 1.36	4,758 18,144	319,312 605,292	2.00 1.37	20,485 26,711
Jack Ryan Midway	0.70g/t 0.70g/t	-	-	-	1,183,359	2.03	77,233 -	36,639 250,220	0.96 1.52	1,135 12,228	1,219,998 250,220	2.00 1.52	78,368 12,228
Rand RL9	0.70g/t 0.50g/t	-	-	-	1,172,997 <b>80,000</b>	1.75 1.74	65,946 <b>4,475</b>	3,181,530 <b>82,000</b>	2.36 1.42	241,039 <b>3,744</b>	4,354,527 162,000	2.19 1.58	306,985 <b>8,219</b>
South Emu/Triton (OP) South Emu/Triton (UG)	0.70g/t 2.00g/t	-	-	-	374,476	3.84	46,250	47,839 1,075,017	3.28	5,052 131,560	47,839 1,449,493	3.28 3.82	5,052 177,811
Turn of the Tide West Lode	0.70g/t 0.70g/t	-	-	-	136,123 8,367	1.62 1.24	7,071 334	269,655 37,126	1.36 1.25	11,788 1,492	405,778 45,493	1.45 1.25	18,858 1,826
Yaloginda													
Batavia Bluebird Group (OP)	0.70g/t 0.70g/t	15,589	2.62	1,313	118,929 966,415	2.52	9,636 62,248	41,605 89,837	2.28 1.46	3,050 4,209	176,123 1,056,252	2.47 1.96	13,999 66,456
Bluebird Group (UG) Euro	1.50g/t 0.50g/t	_	-	_	1,909,692	2.29	140,306	1,030,951 2,037,000	2.44	80,724 85,138	2,940,643 2,037,000	2.34	221,030 <b>85,138</b>
Gibraltar GNH	0.50g/t 0.50g/t 0.50g/t	-			331,000	1.59	16,900	1,326,000	1.43	61,100	1,657,000	1.46	85,138 - 78,000
Jess	0.50g/t	-	-	-	77,000	1.70	4,209	217,000	1.50	10,465	294,000	1.55	14,674
Rhens Lukes Junction	0.50g/t 0.70g/t	-	-	-				4,589,940 394,147	1.27	187,620 19,008	<b>4,589,940</b> 394,147	1.27	187,620 19,008
Surprise Surprise West	0.50g/t 0.70g/t	-	-	-	1,791,000	1.39	80,039 1,229	280,000	1.11	9,992	2,071,000 19,801	1.35	90,031
Surprise Supergene Whangamata	0.70g/t 0.70g/t	5,024	1.27	205	88,650 200,502	0.94 1.14	2,679 7,349	5,940 168,638	1.08 1.49	206 8,055	94,590 374,164	0.95 1.30	2,885 15,608
Stockpiles													
Big Bell Stockpiles	0.00g/t	-	-	-	132,751	0.79	3,369	-	-	-	132,751	0.79	3,369
Big Bell Tails Cuddingwarra Stockpiles	0.00g/t 0.00g/t	-	-	-	3,394,000 80,149	0.70 0.89	76,384 2,303	-	-	-	3,394,000 80,149	0.70	76,384 2,303
Day Dawn Stockpiles Fingall Sands	0.00g/t 0.00g/t	-	-	-	132,938 <b>317,902</b>	0.91	3,881 8,074	-	-	-	132,938 <b>317,902</b>	0.91	3,881 8,074
Bluebird ROM	0.00g/t	26,507	1.48	1,259		-	-	-	-	_	26,507	1.48	1,259
Fine Ore Stocks	0.00g/t	69,200	0.98	2,176 2,116	-		-	-	-	-	69,200 18	0.98	2,176 2,116
Paddy's Flat Mines ROM	0.00g/t 0.00g/t	26,699	1.34	1,150		-		-		-	26,699	3,644 1.34	1,150
Reedy Mines ROM Yaloginda Mines ROM	0.00g/t 0.00g/t	4,885 7,505	1.66 0.95	261 229	-	-	-	-	-	-	4,885 7,505	1.66 0.95	261 229
		i											

# 4.2 ORE RESERVE ESTIMATE BY OREBODY & CATEGORY

					serve Stat 0/06/2016				
Ore Body		Proven			Probable			Total	
	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces	Tonnes	Gold Grade	Ounces
Big Bell									
1600N / Shocker 1600N / Shocker Underground	-	-	-	709,732 -	2.09	47,629 -	709,732 -	2.09	47,629 -
700 / 1100 Big Bell	-	-	-	8,010,097	2.65	682,456	8,010,097	2.65	682,456
Big Bell South Big Bell South Underground	-	-	-	982,367	1.97	62,359 -	982,367	1.97	62,359
Fender Fender Underground	-	-	-	123,988	2.36	9,395	123,988	2.36	9,395
Indicator Cuddingwarra	-		-	-	_	_		_	
Black Swan	-	-	_	_	-	_	_	-	_
Black Swan South Chieftain	-	-	-		-	-	-	-	-
City of Chester City of Chester Northwest	-		-	-	-	-	-	-	-
Coventry North Emily Well	-	-	-	-	-	-	-	-	-
Golden Gate Group Jim's Find	-	-	-	-	-	-	-	-	-
Never Can Tell Rheingold Group	-	-	-	-	-	-	-	-	-
South Cuddingwarra	-	-	-	57,436	2.25	4,153	57,436	2.25	4,153
Day Dawn									
3210 Brega Well	-	-	-	-	-	-	-	-	-
Crème d' Or Group Emperor	-	-	-		-	-	-	-	
Golden Crown Great Fingall Open Pit	-	-	-	556,634 749,910	6.73 1.74	120,441 42,026	556,634 749,910	6.73 1.74	120,441 42,026
Great Fingall Deeps Great Fingall Remnants Kinsella	-	-	-	434,601 - 85,377	7.77 - 1.50	108,568 - 4,117	434,601 - 85,377	7.77 - 1.50	108,568 - 4,117
Kinsella Kalahari Mount Fingall	-	-	-	- 85,3//	-	4,117	85,377	-	4,117
Racecourse Rubicon	-	-	-	-	-	-	=	-	-
South Fingall	-	-	-	55,695	1.74	3,124	55,695	1.74	3,124
Try Again Group Trenton Yellow Taxi Group	=	-	-	150,514	- - 2.69	- - 12,995	150,514	2.69	- - 12,995
Tuckabianna			_	130,314	2.09	12,993	130,314	2.09	12,993
Comet Group				1,501,406	3.43	165,547	1,501,406	3.43	165,547
Lunar Solar	-	-	-		-		-	-	
Venus / Mercury	-	-	-	-	-	-	-	-	-
Meekatharra North									
Five Mile Well Maid Marion	-	-	-	310,165	2.38	23,720	310,165 -	2.38	23,720
Nannine									
Aladdin		-	_		_	-		-	
Caledonian Nannine Reef	-	-	-		-	-	-	-	-
Paddy's Flat									
Fenian - Marmont	-	-	-	-	-	-	-	-	-
Magazine Mickey Doolan	-	-	-	363,575	1.97	23,028	363,575	1.97	23,028
Marmont - Golden Bar  Paddy's North  Prohibition	-	-	-	1,693,371	3.33	- - 181,357	1,693,371	3.33	- - 181,357
Vivian-Consol-Mudlode-Fatts	-	-	-	1,581,171	3.91	198,744	1,581,171	3.91	198,744
Reedy's									
Callisto Culculli	-	-	-	138,892 219,430	2.48	11,074 14,674	138,892 219,430	2.48 2.08	11,074 14,674
Jack Ryan Midway	-	-	-	397,313	2.63	33,595	397,313	2.63	33,595
Rand RL9	-	-	-	-	-	-	-	-	-
South Emu/Triton (OP) South Emu/Triton (UG)	-		-	- 293,489	- 4.25	- 40,107	- 293,489	4.25	- 40,107
Turn of the Tide West Lode	-	-	-	172,727 -	1.98	11,018	172,727 -	1.98	11,018
Yaloginda		_					_		
Batavia Bluebird Group (OP)	5,744	2.53	467	23,402 233,050	3.41 2.28	2,566 17,053	29,146 233,050	3.24 2.28	3,033 17,053
Bluebird Group (UG) Euro	-	-	-	-	-	-	-	-	
Gibraltar GNH	-	-	-	76.464	- 1 72	-	76.464	1 72	- 4 229
Jess Rhens	-	-	-	76,464	1.72	4,228	76,464	1.72	4,228
Lukes Junction Surprise Surprise West	-	-	-	110,065 14,401	3.88 1.65	13,719 764	110,065 14,401	3.88 1.65	13,719 764
Surprise West Surprise Supergene Whangamata	- - 541	2.00	35	56,232 4,256	1.00	1,808 311	56,232 4,797	1.00	1,808 345
Stockpiles	341	2.00	33	7,230	2.21	311	7,/3/	2.24	545
Big Bell Stockpiles	_	-	_	116,381.00	0.83	3,106	116,381	0.83	3,10€
Big Bell Tails Cuddingwarra Stockpiles	-	-	-	3,394,000 51,317	0.70 0.75	76,384 1,230	3,394,000 51,317	0.70	76,384 1,230
Day Dawn Stockpiles Fingall Sands	-	-			-	-		-	-
Bluebird ROM	26,507	1.48	1,259	_	-	_	26,507	1.48	1,259
Fine Ore Stocks GIC	69,200 18	0.98	2,176 2,116	-	-		69,200 18	0.98	2,176
	26,699	1.34	1,150	-	-	-	26,699	1.34	1,150
Paddy's Flat Mines ROM	4,885	1.66	261	- 1	-	-	4,885	1.66	261
	4,885 7,505	1.66 0.95	261 229	-	-	-	4,885 7,505	1.66 0.95	261 229

# 4.3 ANNUAL MINERAL RESOURCE INVENTORY CHANGES

	2015 JU	JNE RESO	URCE	2016 JU	JNE RESO	JRCE	D	IFFERENC	E	CRE	DITED MI	1ED
		Gold			Gold			Gold			Gold	
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Big Bell												
1600N / Shocker 1600N / Shocker Underground	4,677,660	1.65 2.73	248,716 110,200	4,677,660	1.65 2.73	248,716 110,200	-	-	-	-	-	-
700 / 1100	1,253,445 1,199,376	1.38	53,205	1,253,445 1,199,376	1.38	53,205	-	-	-	-	-	
Big Bell Big Bell South	28,727,450 4,546,933	2.78 1.63	2,567,849 238,513	13,790,688 3,746,064	3.63 1.82	1,608,481 218,969	- 14,936,762 - 800,869	2.00 0.76	- 959,368 - 19,544	-	-	-
Big Bell South Underground	1,518,762	2.39	116,942	1,687,670	2.40	129,989	168,908	2.40	13,048	-	-	-
Fender Fender Underground	1,031,429 449,668	2.41 2.86	80,037 41,325	1,031,429 449,668	2.41 2.86	80,037 41,325	-	-	-	-		-
Indicator	245,841	1.54	12,156	245,841	1.54	12,156	-	-	-	-	-	-
Cuddingwarra				-	-	-						
Black Swan	265,241	2.30	19,623	265,241	2.30	19,623	-	-	-	-	-	-
Black Swan South Chieftain	2,171,877 181,475	3.81 1.40	266,234 8,168	2,171,877 181,475	3.81 1.40	266,234 8,168	-	-	-	-	-	-
City of Chester	496,797	1.94	31,050	496,797	1.94	31,050	-	-	-	-	-	-
City of Chester Northwest Coventry North	210,324 204,396	1.62 1.34	10,955 8,806	210,324 204,396	1.62 1.34	10,955 8,806	-	-	-	-	-	-
Emily Well Golden Gate Group	346,840 744,160	1.41 1.49	15,723 35,754	346,840 744,160	1.41 1.49	15,723 35,754		-	-	-	-	
Jim's Find	300,267	1.67	16,110	300,267	1.67	16,110	-	-	-	-	-	-
Never Can Tell Rheingold Group	73,062 1,445,907	2.38	5,599 98,798	73,062 1,445,907	2.38	5,599 98,798	-	-	-	-	-	-
South Cuddingwarra	548,722	2.21	39,156	589,545	1.49	28,256	40,823	- 8.31	- 10,901	-	-	-
Day Dawn				-	-	-						
3210	205,946	1.68	11,134	205,946	1.68	11,134	-	-	-		-	
Brega Well	512,865	1.53	25,228	512,865 143,221	1.53	25,228	-	-	-	-	-	-
Crème d' Or Group Emperor	143,221 48,847	1.33 2.78	6,116 4,366	48,847	1.33 2.78	6,116 4,366	-	-	-	-	-	-
Golden Crown Great Fingall Open Pit	642,000 1,446,400	8.96 1.78	184,978 82,663	642,000 1,446,400	8.96 1.78	184,978 82,663	-	-	-		-	
Great Fingall Deeps	787,702	8.84	223,842	787,702	8.84	223,842	-	-	-	-	-	
Great Fingall Remnants Kinsella	517,196 1,185,787	10.34 1.16	171,929 44,326	517,196 313,633	10.34 1.39	171,929 13,996	- - 872,154	1.08	- 30,330	-	-	-
Kalahari Mount Fingall	- 277 607	1.43	12,730	806,182	1.16 1.43	30,066 12,730	806,182	1.16	30,066	-	-	-
Racecourse	277,607 78,851	2.03	5,146	277,607 78,851	2.03	5,146	-	-	-	-	-	-
Rubicon South Fingall	142,665 278,356	2.21	10,137 18,449	142,665 278,356	2.21	10,137 18,449	-	-	-	-	-	
Try Again Group	867,304	1.86	51,837	867,304	1.86	51,837	-	-	-	-	-	-
Trenton Yellow Taxi Group	97,043 517,539	1.32 1.87	4,118 31,064	97,043 517,539	1.32 1.87	4,118 31,064	-	-	-	-	-	-
Tuckabianna												
Comet Group			_	2,346,430	3.94	297,273	2,346,430	3.94	297,273		_	
Lunar	-	-	-	37,945	1.15	1,397	37,945	1.15	1,397	-	-	-
Solar Venus / Mercury	-	-	-	26,700 436,330	1.32 1.63	1,137 22,923	26,700 436,330	1.32	1,137 22,923	-	-	
Meekatharra North							-	-	-	-	-	-
							-	-	-	-	-	-
Five Mile Well Maid Marion	580,000 768,800	2.15 1.42	40,029 35,099	580,000 768,800	2.15 1.42	40,029 35,099	-	-	-	-	-	
Nannine				-	-	-						
Aladdin				-	-	-						
Caledonian	-	-	-	-	-	-	-	-	-	-	-	-
Nannine Reef	-	-	-	-	-	-	-	-	-	-	-	-
Paddy's Flat												
Fenian - Marmont	2,223,000	1.06	75,759	2,223,000	1.06	75,759	-	-	-	-	-	-
Magazine Mickey Doolan	3,914,000 18,923,000	1.55 0.99	194,560 601,360	3,914,000 10,658,852	1.55	194,560 386,866	- - 8,264,148	0.81	- 214,494	-	-	-
Marmont - Golden Bar	-	-	-	1,954,882	1.04	65,182	1,954,882	1.04	65,182	-	-	-
Paddy's North Prohibition	6,386,000 5,406,000	1.22 2.62	249,628 454,800	6,386,000 5,395,400	1.22 2.62	249,628 454,069	- 10,600	2.14	- 730	-	-	
Vivian-Consol-Mudlode-Fatts	2,459,397	5.45	431,180	2,445,640	5.45	428,394	- 13,757	6.30	- 2,787	71,133	1.99	4,551
Reedy's												
Callisto Culculli	321,878	2.00	20,659	319,312 605,292	2.00 1.37	20,485 26,711	- 2,566 605,292	2.12 1.37	- 175 26,711	-	-	-
Jack Ryan	1,185,314	2.04	77,746	1,219,998	2.00	78,368	34,684	0.56	621	7,646	1.37	337
Midway Rand	4,349,606	2.18	304,509	250,220 4,354,527	1.52 2.19	12,228 306,985	250,220 4,921	1.52 15.65	12,228 2,476	-	-	-
RL9	162,000	1.58	8,219	162,000	1.58	8,219	-	-	-	-	-	-
South Emu/Triton (OP) South Emu/Triton (UG)	585,000	5.01	94,217	47,839 1,449,493	3.28 3.82	5,052 177,811	- 537,161 1,449,493	5.16 3.82	- 89,165 177,811	-	-	-
Turn of the Tide West Lode	1,458,000	1.63	76,595	405,778 45,493	1.45 1.25	18,858 1,826	- 1,052,222 45,493	1.71 1.25	- 57,737 1,826	-	-	-
				,		.,	,		.,			
Yaloginda												
Batavia Bluebird Group (OP)	282,977 7,285,783	2.45 1.78	22,314 418,064	176,123	2.47	13,999	- 282,977 - 7,109,660	2.45 1.77	- 22,314 - 404,065	268,064 11,600	1.19 0.60	10,241 223
Bluebird Group (UG)				1,056,252	1.96	66,456	1,056,252	1.96	66,456	11,600	0.60	223
Euro Gibraltar	2,037,000	1.30	85,138 -	2,940,643 2,037,000	2.34 1.30	221,030 85,138	903,643 2,037,000	4.68 1.30	135,892 85,138	-	-	
GNH Jess	294,000	1.55	- 14,674	- 1,657,000	1.46	- 78,000	1,363,000	1.45	63,326	-	-	-
Rhens	4,589,940	1.27	187,620	294,000	1.55	14,674	- 4,295,940	1.25	- 172,946	-	-	-
Lukes Junction Surprise	-	-	-	4,589,940 394,147	1.27 1.50	187,620 19,008	4,589,940 394,147	1.27 1.50	187,620 19,008	-	-	-
Surprise West Surprise Supergene	31,000	2.25	2,244	2,071,000 19,801	1.35 1.93	90,031 1,229	2,040,000 19,801	1.34 1.93	87,787 1,229		-	
Whangamata	637,073	1.39	28,448	94,590	0.95	2,885	- 542,483	1.47	- 25,562	570,325	0.86	15,853
Stockpiles				374,164	1.30	15,608						
Big Bell Stockpiles	132,751	0.79	3,369	-	-	-	- 132,751	0.79	- 3,369		-	
Big Bell Tails Cuddingwarra Stockpiles	3,394,000 80,149	0.70	76,384 2,303	132,751 3,394,000	0.79 0.70	3,369 76,384	- 3,261,249 3,313,851	0.70	- 73,015 74,081	-	-	
Day Dawn Stockpiles	432,774	0.59	8,266	80,149	0.89	76,384 2,303	- 352,625	0.53	- 5,963	34,501	0.88	973
Fingall Sands	317,902	0.79	8,074	132,938 317,902	0.91 0.79	3,881 8,074	- 184,964	0.71	- 4,194	-	-	-
Bluebird ROM	-	-	-	-	-	-	- 26 50=	- 1.40	1 252	-	-	-
Fine Ore Stocks GIC	-	-	-	26,507 69,200	1.48 0.98	1,259 2,176	26,507 69,200	1.48 0.98	1,259 2,176	-	-	-
Paddy's Flat Mines ROM Reedy Mines ROM		-	-	18 26,699	3,644 1.34	2,116 1,150	18 26,699	3,644 1.34	2,116 1,150		-	-
Yaloginda Mines ROM	-	-	-	4,885	1.66	261	4,885	1.66	261	-	-	-
Total	126,626,305	2.07	8,434,242	108,718,729	2.21	7,741,468	- 17,907,576	1.20	- 692,775	974,869	1.03	32,401

# 4.4 ANNUAL ORE RESERVE INVENTORY CHANGES

				RESERVE	RECONCI	LIATION						
	2015	IUNE RESE	RVE	2016 J	UNE RESE	RVE	D	IFFERENC	E	CRE	DITED MII	NED
		Gold			Gold			Gold			Gold	
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Big Bell												
1600N / Shocker 1600N / Shocker Underground	709,732	2.09	47,629	709,732	2.09	47,629	-	-	-	-	-	-
700 / 1100 Big Bell	8,010,097	2.65	- 682,456	- 8,010,097	2.65	- 682,456	-	-		-	-	-
Big Bell South	982,367	1.97	62,359	982,367	1.97	62,359	-	-	-	-	-	-
Big Bell South Underground Fender	123,988	2.36	9,395	123,988	2.36	9,395	-	-	-	-	-	-
Fender Underground Indicator	-	-	-	-	-	-	-	-	-	-	-	-
Cuddingwarra			-			_			-		_	
Black Swan	-	-	-	-	-	-	-	-	-	-	-	-
Black Swan South Chieftain	-	-	-		-	-	-	-	-	-	-	-
City of Chester	-	-	-	-	-	-	-	-	-	-	-	-
City of Chester Northwest Coventry North	-	-	-	-	-	-	-	-	-	-	-	-
Emily Well Golden Gate Group	-	-	-	-	-	-	-	-	-	-	-	
Jim's Find Never Can Tell	-	-	-	-	-	-	-	-	-	-	-	-
Rheingold Group	-	-	-	-	-	-	-	-		-	-	-
South Cuddingwarra	57,436	2.25	4,153	57,436	2.25	4,153	-	-	-	-	-	-
Day Dawn												
3210	-	-	-	-	-	-	-	-	-	-	-	-
Brega Well Crème d' Or Group	-	-	-	-	-	-	-	-	-	-	-	-
Emperor Golden Crown	-	-	-	- 556,634	6.73	- 120,441	- 556,634	6.73	- 120,441	-	-	-
Great Fingall Open Pit	556,634	6.73	120,441	749,910	1.74	42,026	193,276	-	78,416	-	-	-
Great Fingall Deeps Great Fingall Remnants	749,910 434,601	1.74 7.77	42,026 108,568	434,601	7.77	108,568	- 315,309 - 434,601	- 6.56	66,542 - 108,568	-	-	-
Kinsella Kalahari	-	-	-	85,377 -	1.50	4,117	85,377	1.50	4,117	-	-	-
Mount Fingall	-	-	-	-	-	-	-	-	-	-	-	-
Racecourse Rubicon	-	-	-	-	-	-	-	-	-	-	-	-
South Fingall Try Again Group	55,695	1.74	3,124	55,695 -	1.74	3,124	-	-	-	-	-	-
Trenton		-	-	-	-	-	-	-	-	-	-	-
Yellow Taxi Group	150,514	2.69	12,995	150,514	2.69	12,995	-	-	-	-	-	-
Tuckabianna												
Comet Group	-	-	-	1,501,406	3.43	165,547	1,501,406	3.43	165,547	-	-	-
Lunar Solar	-	-	-	-	-	-	-	-		-	-	-
Venus / Mercury	-	-	-	-	-	-	-	-	-	-	-	-
Meekatharra North												
Five Mile Well	310,165	2.38	23,720	310,165	2.38	23,720	-	-	-	-	-	-
Maid Marion	-	-	-	-	-	-	-	-	-	-	-	-
Nannine												
Aladdin	-	-	-	-	-	-	-	-	-	-	-	-
Caledonian Nannine Reef		-	-	-	-	-	-	-	-	-	-	
Paddy's Flat												
Fenian - Marmont Magazine		-	-	-	-	-	-	-	-		-	
Mickey Doolan Marmont - Golden Bar	-	-	-	363,575	1.97	23,028	363,575	1.97	23,028	-	-	-
Paddy's North	-	-	-	-	-	-	-	-		-	-	-
Prohibition Vivian-Consol-Mudlode-Fatts	1,696,434 1,625,650	3.33 3.93	181,548 205,372	1,693,371 1,581,171	3.33 3.91	181,357 198,744	- 3,063 - 44,479		- 191 - 6,629	71,133	- 2	- 4,551
	.,,			.,,		,	.,,,		-,	,	_	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Reedy's												
Callisto Culculli	98,643	2.46	7,805	138,892 219,430	2.48	11,074 14,674	40,249 219,430	2.53	3,270 14,674	-	-	-
Jack Ryan	352,242	2.47	27,972	397,313	2.63	33,595	45,071	3.88	5,623	7,646	1	337
Midway Rand	- 82,150	1.45	3,823	-	-	-	- 82,150	-	- 3,823	-	-	-
RL9 South Emu/Triton (OP)	-	-	-	-	-	-	-	-	-	-	-	-
South Emu/Triton (UG) Turn of the Tide West Lode	293,489	4.25	40,107	293,489 172,727 -	4.25 1.98	40,107 11,018	- 172,727 -	- - 1.98	11,018	-	-	= =
Yaloginda												
Batavia Bluebird Group (OP)	132,432 197,898	2.43 2.08	10,363 13,240	29,146	3.24	- 3,033	- 132,432 - 168,752	-	10,363	268,064 11,600	1	10,241 223
Bluebird Group (UG)	197,898	-	13,240	233,050	2.28	17,053	233,050	2.28	17,053	11,600	1	223
Euro Gibraltar		-	-	-	-	-	-	-	-	-	-	
GNH	-	-	-	-	-	-	-	-	-	-	-	-
Jess Rhens	-	-	-	- 76,464	1.72	4,228	- 76,464	1.72	4,228	-	-	-
Lukes Junction Surprise	-	-	-	-	-	-	-	-	-	-	-	-
Surprise West	-	-	-	110,065	3.88	13,719	110,065	3.88	13,719	-	-	
Surprise Supergene Whangamata	165,263	1.64	- 8,701	14,401 56,232	1.65	764 1,808	14,401 - 109,031	1.65	764 - 6,893	570,325	- 1	15,853
	,		.,	,		,	,		.,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Stockpiles												
Big Bell Stockpiles Big Bell Tails	116,381 3,394,000	0.83 0.70	3,106 76,384	- 116,381	0.83	- 3,106	- 116,381 - 3,277,619	-	- 3,106 - 73,278	- :	-	- :
Cuddingwarra Stockpiles	51,317	0.75	1,230	3,394,000	0.70	76,384	3,342,683	0.70	75,154	-	-	-
Day Dawn Stockpiles Fingall Sands	119,000	1.00	3,826	51,317	0.75	1,230	- 67,683	-	2,596	34,501	- 1	973
				_		_						
Bluebird ROM Fine Ore Stocks	-	-	-	26,507	1.48	1,259	26,507	1.48	1,259	-	-	-
GIC	-	-	-	69,200	0.98	2,176	69,200	0.98	2,176	-	-	-
Paddy's Flat Mines ROM Reedy Mines ROM	-	-	-	18 26,699	3,644 1.34	2,116 1,150	18 26,699	3,644 1.34	2,116 1,150	-	-	-
Yaloginda Mines ROM	-	-	-	4,885	1.66	261	4,885	1.66	261	-	-	-
Total	20,466,038	2.58	1,700,342	22,796,254	2.63	1,928,414	2,330,217	3.04	228,072	974,869	1.03	32,401

# 5. FORTNUM GOLD PROJECT

# 5.1 MINERAL RESOURCE ESTIMATE BY OREBODY & CATEGORY

							METALS X LIN	PROJECT					
						Mi	neral Resource 30/06/20						
Ore Body			Measured			Indicated			Inferred			Total	
,	-		Gold			Gold			Gold			Gold	
	CoG (g/t Au)	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Fortnum													
Callies	0.50	-	-	-	2,326,456	1.43	106,960	1,527,233	1.10	54,012	3,853,689	1.30	160,97
Eldorado	0.70	-	-		53,575	1.65	2,834	32,600	1.65	1,733	86,175	1.65	4,56
Labouchere	1.00	-	-	-	278,000	1.70	15,194	534,000	1.80	30,903	812,000	1.77	46,09
Nathans	1.00	-	-	-	823,642	1.94	51,373	240,368	1.91	14,760	1,064,010	1.93	66,13
Regent	0.60	-	-	-	-	-	-	328,290	1.35	14,299	328,290	1.35	14,29
Starlight Group	2.00	-	-	-	2,004,402	3.80	245,017	1,317,682	3.86	163,545	3,322,084	3.83	408,56
Toms and Sams	0.70	9,032	2.22	644	682,358	1.71	37,470	134,399	1.87	8,063	825,789	1.74	46,17
Yarlarweelor	0.70	-	-	-	3,261,917	1.85	193,805	761,838	1.82	44,505	4,023,755	1.84	238,31
Horseshoe													
Horseshoe Group	0.70	-	-	-	1,533,626	2.15	106,010	757,193	2.38	57,939	2,290,819	2.23	163,95
Peak Hill													
Enigma	0.80	-	-	-	1,505,942	1.17	56,819	316,056	0.97	9,870	1,821,998	1.14	66,68
Durack	0.80	-	-	-	2,308,688	1.20	89,165	580,304	1.23	23,015	2,888,992	1.21	112,18
Five Ways - Main Pit	0.80	-	-	-	3,756,449	1.65	199,276	560,837	1.74	31,341	4,317,285	1.66	230,61
Harmony	0.80	-	-	-	1,594,021	1.65	84,632	296,629	2.12	20,251	1,890,650	1.73	104,88
Jubilee	1.00	-	-	-	99,995	1.94	6,238	505,616	2.49	40,500	605,610	2.40	46,73
Stockpiles													
Eldorado	0.00	-	_	_	154,080	0.67	3,301		-		154,080	0.67	3,30
ROM Finger 1	0.00	-	-	_	1,915	0.78	48	-	_	_	1,915	0.78	4
ROM Finger 2	0.00	-	-	-	5,112	1.78	293	-	-	-	5,112	1.78	29
ROM Finger 3	0.00	-	-	-	18,693	0.95	571	-	-	-	18,693	0.95	57
ROM Finger 4	0.00	-	-	-	3,059	1.71	168	-	-	-	3,059	1.71	16
ROM Finger 5	0.00	-	-	-	5,989	0.87	168	-	-	-	5,989	0.87	16
Scats	0.00	-	-	-	16,240	1.60	835	-	-	-	16,240	1.60	83
Skyway	0.00	-	-	-	56,640	0.76	1,382	-	-	-	56,640	0.76	1,38
Starlight	0.00	-	-	-	86,400	1.19	3,314	-	-	-	86,400	1.19	3,31
Trevs	0.00	-	-	-	163,680	0.73	3,833	-	-	-	163,680	0.73	3,83
Yarlarweelor	0.00	-	-	-	283,872	0.50	4,595	-	-	-	283,872	0.50	4,59
Horseshoe-Cassidy	0.00	-	-	-	177,600	1.16	6,636	-	-	-	177,600	1.16	6,63
Harmony	0.00	-	-	-	200,541	1.53	9,880	-	-	-	200,541	1.53	9,88
Jubilee	0.00	-	-	-	25,915	0.67	557	-	-	-	25,915	0.67	55
Labouchere	0.00	-	-	-	62,474	0.96	1,934	-	-	-	62,474	0.96	1,93
Nathans / Wilthorpe	0.00	-	-	-	-	-	-	16,208	0.54	282	16,208	0.54	28
Peak Hill Tom's And Sam's	0.00	-	-	-	79,480 206,216	0.88	2,260 3,431	-	-	-	79,480	0.88	2,26 3,43
Totals	1	9,032	2.22	644	21,776,976	1.77	1,237,999	7,909,252	2.03	515,019	29,695,260	1.84	1,753,66

# 5.2 ORE RESERVE ESTIMATE BY OREBODY & CATEGORY

		-		MET	ALS X LIMI	TED			
				FORTNU	M GOLD F	ROJECT			
				Ore Re	serve Stat	ement			
				3	0/06/2016	5			
Ore Body		Proven			Probable			Total	
		Gold			Gold			Gold	
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Fortnum									
C 111									
Callies	-	-	-	-	-	-	-	-	-
Eldorado	-	-	-	-	-	-	-	-	-
Labouchere	-	-	-	310,454	2.00	19,988	310,454	2.00	19,988
Nathans	-	-	-	563,200	1.78	32,160	563,200	1.78	32,160
Regent	-	-	-	-	-	-	-	-	-
Starlight Group	-	-	-	562,315	4.14	74,758	562,315	4.14	74,758
Toms and Sams	-	-	-	198,583	1.66	10,588	198,583	1.66	10,588
Yarlarweelor	-	-	-	2,239,938	1.87	134,726	2,239,938	1.87	134,726
Horseshoe									
Horseshoe Group	-	-	-	414,957	2.28	30,412	414,957	2.28	30,412
Peak Hill									
Enigma	-	-	-	-	-	-	-	-	-
Durack	-	-	-	-	-	-	-	-	-
Five Ways - Main Pit	-	-	-	-	-	-	-	-	-
Harmony	-	-	-	-	-	-	-	-	-
Jubilee	-	-	-	-	-	=	-	-	-
Stockpiles									
Eldorado	_	_		106,600	0.71	2,444	106,600	0.71	2,444
ROM Finger 1	-	-	-	1,915	0.78	48	1,915	0.78	48
ROM Finger 2	-	-	-	5,112	1.78	293	5,112	1.78	293
ROM Finger 3	-	-		18,693	0.95	571	18,693	0.95	571
ROM Finger 4	-	-	-	3,059	1.71	168	3,059	1.71	168
ROM Finger 5	-	-	-	5,989	0.87	168	5,989	0.87	168
Scats	-	-	-	16,240	1.60	835	16,240	1.60	835
Skyway	-	-	-	56,640	0.76	1,382	56,640	0.76	1,382
Starlight –	-	-	-	86,400	1.19	3,314	86,400	1.19	3,314
Trevs	-	-	-	163,680	0.73	3,833	163,680	0.73	3,833
Yarlarweelor	-	-	-	161,600	0.64	3,348	161,600	0.64	3,348
Horseshoe-Cassidy	-	-	-	177,600	1.16	6,636	177,600	1.16	6,636
Harmony	-	-	-	200,541	1.53	9,871	200,541	1.53	9,871
Jubilee	-	-	-	-	-	-	-	-	-
Labouchere	-	-	-	62,474	0.96	1,934	62,474	0.96	1,934
Nathans / Wilthorpe	-	-	-	-	-	-	-	-	-
Peak Hill	-	-	-	35,600	1.14	1,302	35,600	1.14	1,302
Tom's And Sam's	-	-	-	-	-	-	-	-	-
Totals	_	-	<u>-</u>	5 201 500	1.05	220 770	5 301 500	1.05	220 770
Totals	-	-	-	5,391,588	1.95	338,779	5,391,588	1.95	338,779

# 5.3 ANNUAL MINERAL RESOURCE INVENTORY CHANGES

				INESO	ONCE NEC	ONCILIATION						
	2015	JUNE RESO	OURCE	2016 II	JNE RESO	URCE	DI	FFERENC	F	CRE	DITED MII	NFD
	2013	JOINE MES	JONEL	201030	JIVE INESO	ONCL	Di	TENEINC	_	CITE	DITED WIII	VLD
		Gold		Gold		Gold			Gold			
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
ortnum												
c. III				2.052.600	1 20	160.072	2.052.600	1.20	160.072			
Callies Eldorado	-	-	-	3,853,689	1.30	160,972	3,853,689	1.30	160,972 4,567	-	-	
abouchere	-	-		86,175	1.65	4,567	86,175	1.65		-	-	
aboucnere Nathans	-	-	-	812,000	1.77	46,098	812,000	1.77	46,098		-	
	-	-	-	1,064,010		66,133 14,299	1,064,010		66,133 14,299	-	-	
Regent	-	-	-	328,290	1.35		328,290	1.35			-	
Starlight Group Toms and Sams	-	-	-	3,322,084 825,789	3.83 1.74	408,562 46,176	3,322,084 825,789	3.83 1.74	408,562 46,176	-	-	
oms and Sams /arlarweelor	-	-	-	4,023,755	1.74	238,310	4,023,755	1.74	238,310	-	-	
anai weelui	-	-	-	4,023,733	1.04	230,310	+,023,733	1.04	230,310	-	-	
Horseshoe												
Horseshoe Group	-	-	-	2,290,819	2.23	163,950	2,290,819	2.23	163,950	-	-	
Peak Hill												
Enigma	-	-	=	1,821,998	1.14	66,689	1,821,998	1.14	66,689	-	-	
Durack	-	-	-	2,888,992	1.21	112,181	2,888,992	1.21	112,181	-	-	
Five Ways - Main Pit	-	-	-	4,317,285	1.66	230,617	4,317,285	1.66	230,617	-	-	
Harmony	-	-	-	1,890,650	1.73	104,883	1,890,650	1.73	104,883	-	-	
lubilee	-	-	-	605,610	2.40	46,739	605,610	2.40	46,739	-	-	
Stockpiles												
Eldorado	-	-	-	154,080	0.67	3,301	154,080	0.67	3,301	-	-	
ROM Finger 1	-	-	-	1,915	0.78	48	1,915	0.78	48	-	-	
ROM Finger 2	-	-	-	5,112	1.78	293	5.112	1.78	293	-	-	
ROM Finger 3	-	-	-	18,693	0.95	571	18,693	0.95	571	-	-	
ROM Finger 4	-	-	-	3,059	1.71	168	3,059	1.71	168	-	-	
ROM Finger 5	-	-	-	5,989	0.87	168	5,989	0.87	168	-	-	
icats	-	-	-	16,240	1.60	835	16,240	1.60	835	-	-	
Skyway	-	-	-	56,640	0.76	1,382	56,640	0.76	1,382	-	-	
Starlight	-	-	-	86,400	1.19	3,314	86,400	1.19	3,314	-	-	
revs	-	-	-	163,680	0.73	3,833	163,680	0.73	3,833	-	-	
'arlarweelor	-	-	-	283,872	0.50	4,595	283,872	0.50	4,595	-	-	
lorseshoe-Cassidy	-	-	-	177,600	1.16	6,636	177,600	1.16	6,636	-	-	
larmony	-	-	-	200,541	1.53	9,880	200,541	1.53	9,880	-	-	
ubilee	-	-	-	25,915	0.67	557	25,915	0.67	557	-	-	
abouchere	-	-	-	62,474	0.96	1,934	62,474	0.96	1,934	-	-	
Nathans / Wilthorpe	-	-	-	16,208	0.54	282	16,208	0.54	282	-	-	
Peak Hill	-	-	-	79,480	0.88	2,260	79,480	0.88	2,260	-	-	
om's And Sam's	-	-	-	206,216	0.52	3,431	206,216	0.52	3,431	-	-	

# 5.4 ANNUAL ORE RESERVE INVENTORY CHANGES

				RESE	RVE REC	ONCILIATION						
	2015	JUNE RES	EDVE	2016	UNE RESI	EDVE		IFFERENC	С	CDI	DITED MI	NED
	2013	JUNE KES	ENVE	20163	UNE KESI	ENVE		IFFEREINC	E	CNI	DITED MI	NED
		Gold		Gold				Gold		Gold		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
Fortnum												
Callies	_	_		_		_		-	_		-	
Eldorado	_	-	_	_	_	-		-	_	_	-	
Labouchere	_	-		310.454	2.00	19,988	310.454	2.00	19.988	_	-	
Nathans	_	-		563,200	1.78	32,160	563,200	1.78	32,160		-	
Regent	_	_	_	505,200	-	J2,100 -	505,200	-	32,100	_	_	_
Regent Starlight Group	-	-	-	562,315	4.14	74.758	562,315	4.14	74,758		-	
Toms and Sams	-	-		198.583	1.66	10,588	198.583	1.66	10.588		-	-
Yarlarweelor				,			,		.,			
rariarweelor	-	-	-	2,239,938	1.87	134,726	2,239,938	1.87	134,726	-	-	-
Horseshoe												
Horseshoe Group	-	-	-	414,957	2.28	30,412	414,957	2.28	30,412	-	-	-
Peak Hill												
Enigma	_	_		_	_	_		_	-		_	
Durack	_	-	_	_	-	_	_	-	_	_	-	_
Five Ways - Main Pit	_	-	-	-	-	_	_	-	_	_	-	-
Harmony	_	_		_		_	_	_	_	_	_	
Jubilee	-	-	-	-	-	-	=	-	-	-	-	-
Stockpiles												
Eldorado	-	-	_	106.600	0.71	2,444	106,600	0.71	2.444	_	-	-
ROM Finger 1	-	-	-	1,915	0.78	48	1,915	0.78	48	-	-	-
ROM Finger 2	-	-	-	5,112	1.78	293	5,112	1.78	293	-	-	-
ROM Finger 3	-	-	-	18,693	0.95	571	18,693	0.95	571	-	-	-
ROM Finger 4	-	-	-	3,059	1.71	168	3,059	1.71	168	-	-	-
ROM Finger 5	-	-	-	5,989	0.87	168	5,989	0.87	168	-	-	-
Scats	-	-	-	16,240	1.60	835	16,240	1.60	835	-	-	-
Skyway	-	-	-	56,640	0.76	1,382	56,640	0.76	1,382	-	-	-
Starlight	_	-	-	86,400	1.19	3,314	86,400	1.19	3,314	-	-	-
Trevs	_	-	-	163,680	0.73	3,833	163,680	0.73	3,833	-	-	-
Yarlarweelor	-	-	-	161,600	0.64	3,348	161,600	0.64	3,348	-	-	-
Horseshoe-Cassidy	_	-	_	177,600	1.16	6,636	177,600	1.16	6,636	_	-	-
Harmony	_	-	_	200,541	1.53	9,871	200,541	1.53	9,871	_	-	-
Jubilee	-	-	-	-	-	-		-	-	-	-	-
Labouchere	_	-	_	62,474	0.96	1,934	62,474	0.96	1,934	_	-	-
Nathans / Wilthorpe	_	-	_		-	- 1,554	-	-	- 1,551	-	-	-
Peak Hill	-	-	_	35,600	1.14	1,302	35,600	1.14	1,302	_	-	-
Tom's And Sam's	-	-	-	-	-	-	-		-	-	-	-
Total	-	í - I	-	5,391,588	1.95	338,779	5,391,588	1.95	338,779	-	í - I	-

# JORC 2012 TABLE 1 – GOLD DIVISION SECTION 1 SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	Diamond Drilling     The bulk of the data used in resource calculations at Trident has been gathered from diamond core. Four types of diamond core sample have been historically collected. The predominant sample method is half-core NQ2 diamond with half-core LTK60 diamond, Whole core LTK48 diamond and whole core BQ also used. This core is logged and sampled to geologically relevant intervals.
	In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	The bulk of the data used in resource calculations at Chalice has been gathered from diamond core. The predominant drilling and sample type is half core NQ2 diamond.  Occasionally whole core has been sampled to streamline the core handling process.  Historically half and whole core LTK60 and half core HQ diamond have been used. This core is logged and sampled to geologically relevant intervals.  • Face Sampling
Drilling techniques  Drill sample recovery	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the</li> </ul>	Each development face / round is chip sampled at both Trident and Chalice. One or two channels are taken per face perpendicular to the mineralisation. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.) with an effort made to ensure each 3kg sample is representative of the interval being extracted. Samples are taken in a range from 0.1 m up to 1.2 m in waste / mullock. All
Drin sample recovery	samples.  • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Sludge Drilling     Sludge drilling at Chalice and Trident is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm or 89mm hole diameter. Samples are taken twice per drill steel (1.9m steel, 0.8m sample). Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination.
		RC Drilling     For Fairplay, Vine, Lake Cowan, Two Boys, Mousehollow, Pioneer and Eundynie the bulk of the data used in the resource estimate is sourced from RC drilling. Minor RC drilling is also utilised at Trident, Musket, Chalice and the Palaeochannels (Wills, Pluto, Mitchell 3 and 4).  Drill cuttings are extracted from the RC return via cyclone. The underflow from each 1 m interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Samples too wet to be split through the riffle splitter are taken as grabs and are recorded as such.

Criteria	JORC Code Explanation	Con	nmentary
		•	RAB / Air Core Drilling
			Drill cuttings are extracted from the RAB and Aircore return via cyclone. 4m Composite samples are obtained by spear sampling from the individual 1m drill return piles; the residue material is retained on the ground near the hole. In the Palaeochannels 1m samples are riffle split for analysis.
			There is no RAB or Aircore drilling used in the estimation of Trident, Chalice, Corona, Fairplay, Vine, Lake Cowan and Two Boys.
			SKO
		•	SKO is a long-term producing operation with a long history of drilling and sampling to support exploration and resource development.
		•	Chips from the RC drilling face-sampling hammer are collected for assaying. Sample return lines are cleaned with compressed air each metre and the cyclone sample collector is cleaned following each rod. Samples are riffle split through a three-tier splitter with a split ~3kg sample (generally at 1m intervals) pulverised to produce a 30g charge analysed via fire assay.
		•	Diamond drill-core is geologically logged and then sampled according to geology (minimum sample length of 0.4 m to maximum sample length of 1.5 m) — where consistent geology is sampled, a 1m length is used for sampling the core. The core is sawn half-core with one half sent off for analysis.
		•	Samples have been collected from numerous other styles of drilling at SKO, including but not limited to RAB, aircore, blast-hole, sludge drilling and face samples.
		•	Historical data includes DD, RC, RAB and aircore holes drilled between 1984 and 2010. Not all the historical drilling programmes at SKO are documented and many historical holes are assigned a drill type of 'unknown'. Over 4,000 km of drilling has been completed on the tenure.
		•	Drilling by the most recent previous owners (Alacer Gold Corporation) has predominantly been RC, with minor DD and aircore drilling.
		•	RC drilling is used predominantly for defining and testing for near-surface mineralisation and utilises a face sampling hammer with the sample being collected on the inside of the drill-tube. RC drillholes utilise downhole single or multi shot cameras. Drillhole collars were surveyed by onsite mine surveyors.
		•	Diamond drilling is used for either testing / targeting deeper mineralised systems or to define the orientation of the host geology. Many of these holes had RC pre-collars generally to a depth of between $60-120$ m, followed by a diamond tail. The majority of these holes have been drilled at NQ2 size with minor HQ sized core. All diamond holes were surveyed during drilling with downhole cameras, and then at end of hole using a Gyro Inclinometer at 5 or 10 m intervals. Drillhole collars were surveyed by onsite mine surveyors.
		•	Sample Recovery
		•	Sample recovery is generally good, and there is no indication that sampling presents a material risk for the quality of the evaluation of any deposit at SKO.

Criteria	JORC Code Explanation	Com	mentary
			CMGP
		•	Diamond Drilling
			A significant portion of the data used in resource calculations at the CMGP has been gathered from diamond core. Multiple sizes have been used historically. This core is geologically logged and subsequently halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required.
		•	Face Sampling
			At each of the major past and current underground producers at the CMGP, each development face / round is horizontally chip sampled. The sampling intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). The majority of exposures within the orebody are sampled.
		•	Sludge Drilling
			Sludge drilling at the CMGP was / is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm [nominal] hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination. Sludge drilling is not used to inform resource models.
		•	RC Drilling
			Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal.
		•	RAB / Aircore Drilling
			Combined scoops from bucket dumps from cyclone for composite. Split samples taken from individual bucket dumps via scoop. RAB holes are not included in the resource estimate.
		•	Blast Hole Drilling
			Cuttings sampled via splitter tray per individual drill rod. Blast holes not included in the resource estimate.
			All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.

Criteria	JORC Code Explanation	Com	mentary
			FGP
			Historic reverse circulation drilling was used to collect samples at 1m intervals with sample quality, recovery and moisture recorded on logging sheets. Bulk samples were composited to 4-5m samples by PVC spear. These composites were dried, crushed and split to produce a 30g charge for aqua regia digest at the Fortnum site laboratory.
			For Metals X (MLX) RC Drilling drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal.
			In the case of grade control drilling, 1m intervals were split at the rig via a 3-tier splitter box below the cyclone and collected in calico bags with bulk samples collected into large plastic bags. These 1m splits were dried, pulverised and split to produce a 50g charge for fire assay at an offsite laboratory.
			Where composite intervals returned results >0.15g/t Au, the original bulk samples were split by 3-tier riffle splitter to approximately 3-4kg. The whole sample was dried, pulverised and split to produce a 50g charge for fire assay at an offsite laboratory.
		•	Historic diamond drilling sampled according to mineralisation and lithology resulting in samples of 10cm to 1.5m. Half core pulverised and split to produce a 50g charge for fire assay at an offsite laboratory.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	•	Metals X surface drill-holes are all orientated and have been logged in detail for geology, veining, alteration, mineralisation and orientated structure. Metals X underground drill-holes are logged in detail for geology, veining, alteration, mineralisation and structure. Core has been logged in enough detail to allow for the relevant mineral resource estimation techniques to be employed.
	The total length and percentage of the relevant intersections logged		Surface core is photographed both wet and dry and underground core is photographed wet. All photos are stored on the companies servers, with the photographs from each hole contained within separate folders.
		•	Development faces are mapped geologically.
		•	RC, RAB and Aircore chips are geologically logged.
		•	Sludge drilling is logged for lithology, mineralisation and vein percentage.
		•	Logging is quantitative in nature.
		•	All holes are logged completely, all faces are mapped completely.

Criteria	JORC Code Explanation	Commentary
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	HGO
sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	NQ2 and LTK60 diameter core is sawn half core using a diamond-blade saw, with one half of the core consistently taken for analysis. LTK48 and BQ are whole core sampled. Sludge samples are dried then riffle split.
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul> <li>The un-sampled half of diamond core is retained for check sampling if required.</li> <li>For the onsite Intertek facility the entire dried sample is jaw crushed (JC2500 or Boyd Crusher) to a nominal 85% passing 2mm with crushing equipment cleaned between samples. An analytical sub-sample of approximately 500-750 g is split out from the crushed</li> </ul>
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>sample using a riffle splitter, with the coarse residue being retained for any verification analysis. Sample preparation techniques are appropriate for the type of analytical process.</li> <li>Where fire assay has been used the entire half core sample (3-3.5 kg) is crushed and pulverised (single stage mix and grind using LM5 mills) to a target of 85-90% passing 75µm</li> </ul>
		<ul> <li>in size. A 200g sub-sample is then separated out for analysis.</li> <li>Core and underground face samples are taken to geologically relevant boundaries to ensure each sample is representative of a geological domain. Sludge samples are taken to nominal sample lengths.</li> </ul>
		<ul> <li>The sample size is considered appropriate for the grain size of the material being sampled.</li> <li>For RC, RAB and Aircore chips regular field duplicates are collected and analysed for significant variance to primary results.</li> </ul>
		RAB and Aircore sub-samples are collected through spear sampling.  SKO
		<ul> <li>NQ2 and HQ diameter core is sawn half core using a diamond-blade saw, with one half of the core consistently taken for analysis. Smaller sized core (LTK48 and BQ) are whole core sampled. The un-sampled half of diamond core is retained for check sampling if required.</li> </ul>
		SKO staff collect the sample in pre-numbered calico sample bags which are then submitted to the laboratory for analysis. Delivery of the sample is by a SKO staff member.
		<ul> <li>RC samples are collected at 1m intervals with the samples being riffle split through a three- tier splitter. The samples are collected by the RC drill crews in pre-numbered calico sample bags which are then collected by SKO staff for submission. Delivery of the sample to the laboratory is by a SKO staff member.</li> </ul>
		Upon delivery to the laboratory, the sample numbers are checked by the SKO staff member against the sample submission sheet. Sample numbers are recorded and tracked by the laboratory using electronic coding.
		Sample preparation techniques are considered appropriate for the style of mineralisation being tested for – this technique is industry standard across the Eastern Goldfields.

Criteria	JORC Code Explanation	Commentary
		СМБР
		Blast holes -Sampled via splitter tray per individual drill rods.
		RAB / AC chips - Combined scoops from bucket dumps from cyclone for composite. Split samples taken from individual bucket dumps via scoop.
		RC - Three tier riffle splitter (approximately 5kg sample). Samples generally dry.
		Face Chips - Nominally chipped horizontally across the face from left to right, sub-set via geological features as appropriate.
		Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate.     Grade control holes may be whole-cored to streamline the core handling process if required.
		Chips / core chips undergo total preparation.
		• Samples undergo fine pulverisation of the entire sample by an LM5 type mill to achieve a 75µ product prior to splitting.
		QA/QC is currently ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. A significant portion of the historical informing data has been processed by in-house laboratories.
		The sample size is considered appropriate for the grain size of the material being sampled.
		The un-sampled half of diamond core is retained for check sampling if required. For RC chips regular field duplicates are collected and analysed for significant variance to primary results.
		FGP
		Diamond core samples to be analysed were taken as half core. Sample mark-up was controlled by geological domaining represented by alteration, mineralisation and lithology.
		Reverse circulation samples were split from dry, 1m bulk sample via a 3-tier riffle splitter.     Field duplicates were inserted at a ratio of 1:20, analysis of primary vs duplicate samples indicate sampling is representative of the insitu material.
		Standard material was documented as being inserted at a ratio of 1:100 for both RC and diamond drilling.
		Detailed discussion of sampling techniques and Quality Control are documented in publicly available exploration technical reports compiled by prior owners (Homestake, Perilya, Gleneagle, RNI).

Criteria	JORC Code Explanation	Commentary
Criteria  Quality of assay data and laboratory tests	Possible September 1  The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.  Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>At the Intertek on-site facility, analysis is performed using a 500g PAL method. The accurately weighed sub-sample is further processed utilising a PAL1000B to grind the sample to a nominal 90% passing 75µm particle size, whilst simultaneously extracting any cyanide amenable gold liberated into a Leachwell liquor. The resulting liquor is then analysed for gold content by organic extraction with flame AAS finish, with an overall method detection limit of 0.01 ppm Au content in the original sample. This method is appropriate for the type and magnitude of mineralisation at Higginsville.</li> <li>Quality control procedures include the use of standards, blanks and duplicates. Standards and duplicates are used to test both the accuracy and precision of the analytical process, while blanks are employed to test for contamination during the sample preparation stage. The analyses have confirmed the analytical process employed at Higginsville is adequately precise and accurate for use as part of the mineral resource estimation.</li> <li>SKO</li> <li>Only nationally accredited laboratories are used for the analysis of the samples collected at SKO.</li> <li>The laboratory dry and if necessary (if the sample is &gt;3kg) riffle split the sample, which is then jaw crushed and pulverised (the entire 3kg sample) in a ring mill to a nominal 90% passing 75 microns. All recent RC and Diamond core samples are analysed via Fire Assay, which involves a 30g charge (sub-sampled after the pulverisation) of the analytical pulp being fused at 1050°C for 45 minutes with litharge. The resultant metal pill is digested in aqua regia and the gold content determined by atomic adsorption spectrometry – detection limit is 0.01 ppm Au.</li> <li>Quality Assurance and Quality Control (QA/QC) samples are routinely submitted by SKO staff and comprise standards, blanks, assay pills, field duplicates, lab duplicates and repeat analyses. The results for these QA/QC samples are routinely analysed by Senior Geologists with any</li></ul>
		with any discrepancies dealt with in conjunction with the laboratory prior to the analytical data being imported into the database.  There is limited information available on historic QA/QC procedures. SKO has generally

Criteria	JORC Code Explanation	Comme	entary
		C	MGP
		• R	ecent drilling was analysed by fire assay as outlined below;
		» »	spectrometry.
			analysed.
		>>	<b>*</b> 9
			o significant QA/QC issues have arisen in recent drilling results.
			istorical drilling has used a combination of Fire Assay, Aqua Regia and PAL analysis.
			nese assay methodologies are appropriate for the resources in question.
			GP
		S <sub>I</sub>	istoric assaying of RC and core was done by 50g charge fire assay with Atomic Absorption pectrometry finish at Analabs. The method is standard for gold analysis and is considered ppropriate in this case. No Laboratory Certificates are available for historic assay results re 2008 however, evaluation of the database identified the following;
		• S1	tandards are inserted at a ratio of 1:100,
		• As	ssay repeats inserted at a ratio of 1 in 20.
			A/QC analysis of this historic data indicates the levels of accuracy and precision are cceptable.
		Co Pe La us	ssay of recent (post 2012) sampling was done by 40g charge fire assay with Inductively oupled Plasma — Optical Emission Spectroscopy finish at Bureau Veritas (Ultratrace), erth. The method is standard for gold analysis and is considered appropriate in this case. aboratory Certificates are available for the assay results and the following QA/QC protocols sed include; Laboratory Checks inserted 1 in 20 samples, CRM inserted 1 in 30 samples nd Assay Repeats randomly selected 1 in 15 samples.
			A/QC analysis of this data indicates the levels of accuracy and precision are acceptable vith no significant bias observed.
Verification of sampling and	The verification of significant intersections by either independent or alternative company	• N	o independent or alternative verifications are available.
assaying	personnel.		irtual twinned holes have been drilled in several instances across all sites with no
	• The use of twinned holes.		ignificant issues highlighted. Drillhole data is also routinely confirmed by development ssay data in the operating environment.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.		
	Discuss any adjustment to assay data.		rimary data is collected utilising LogChief. The information is imported into a SQL database erver and verified.
	- Discuss any adjustinent to assay data.	• AI	Il data used in the calculation of resources and reserves are compiled in databases underground and open pit) which are overseen and validated by senior geologists.
			o adjustments have been made to any assay data.

Criteria	JORC Code Explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Collar coordinates for surface drill-holes were generally determined by GPS, with underground drill-holes generally determined by survey pick-up. Downhole survey measurements for most surface diamond holes were by Gyro-compass at 5m intervals. Holes not gyro-surveyed were surveyed using Eastman single shot cameras at 20m intervals. Downhole surveys for underground diamond drill-holes were taken at 15 – 30m intervals by Reflex single-shot cameras. Routine survey pick-ups of underground and surface holes where they intersected development indicates (apart from some minor discrepancies with pre-Avoca drilling) a survey accuracy of less than 5m.
		<ul> <li>All drilling and resource estimation is undertaken in local mine grid at the various projects.</li> <li>Topographic control is generated from Differential GPS. This methodology is adequate for the resource in question.</li> <li>SKO</li> </ul>
		Collar coordinates for surface RC and diamond drill-holes were generally determined by either RTK-GPS or a total station survey instrument. Underground drill-hole locations (Mount Marion and HBJ) were all surveyed using a Leica reflectorless total station.
		Recent surface diamond holes were surveyed during drilling with down-hole single shot cameras and then at the end of the hole by Gyro-Inclinometer at 5 or 10mm intervals. Holes not gyro-surveyed were surveyed using Eastman single shot cameras at 20m intervals. RC drill-holes utilised down-hole single shot camera surveys spaced every 15 to 30m down-hole.
		Down-hole surveys for underground diamond drill-holes were taken at 15 – 30m intervals by Reflex single-shot cameras.
		The orientation and size of the project determines if the resource estimate is undertaken in local or MGA 94 grid. Each project has a robust conversion between local, magnetic and an MGA grid which is managed by the SKO survey department.
		Topographic control is generated from RTK GPS. This methodology is adequate for the resources in question  CMGP
		All data is spatially oriented by survey controls via direct pickups by the survey department.  Drillholes are all surveyed downhole, deeper holes with a Gyro tool if required, the majority with single / multishot cameras.
		All drilling and resource estimation is preferentially undertaken in local mine grid at the various sites.
		Topographic control is generated from a combination of remote sensing methods and ground- based surveys. This methodology is adequate for the resources in question.

Criteria	JORC Code Explanation	Commentary
		FGP
		The grid system used for historic Fortnum drilling is the established Fortnum Mine Grid. Control station locations and traverses have been verified by eternal survey consultants (Ensurv). Collar locations of boreholes have been established by either total station or differential GPS (DGPS). The Yarlarweelor, Callie's and Eldorado open pits (currently abandoned) was picked up by DGPS at the conclusion of mining. The transformation between Mine Grid and MGA94 Zone 50 is documented and well established.
		A LIDAR survey over the project area was undertaken in 2012 and results are in agreement with survey pickups of pits, low-grade stockpiles and waste dumps.
		Historic drilling by Homestake was routinely surveyed at 25m, 50m and every 50m thereafter, using a single shot CAMTEQ survey tool. RC holes have a nominal setup azimuth applied. Perilya YLRC series holes had survey shots taken by gyro every 10m. Historic drilling in the area did not appear to have any significant problems with hole deviation.
		Drilling by RNI / MLX was picked up by DGPS on MGA94. Downhole surveys were taken by digital single shot camera every 50m or via a gyro survey tool.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	HGO
	<ul> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> </ul>	Drilling in the underground environment at Trident is nominally carried-out on 20m x 30m spacing for resource definition and in filled to a 10m x 15m spacing with grade control drilling. At Trident the drill spacing below the 500RL widens to an average of 40m x 80m.
	Whether sample compositing has been applied.	Drilling at the Lake Cowan region is on a 20m x 10m spacing. Historical mining has shown this to be an appropriate spacing for the style of mineralisation and the classifications applied.
		Compositing is carried out based upon the modal sample length of each project.
		SKO
		• HBJ:
		Drill spacing ranges from 10m x 5m grade control drilling to 100m x 100m at deeper levels of the resource. The majority of the Indicated Resource is estimated using a maximum drill spacing of 40m x 40m. The resource has been classified based on drill density with
		mining of the 2.2km long HBJ Open-Pit confirming that the data spacing is adequate for the resource classifications applied.
		Mount Martin:
		Drill spacing ranges from 10m x 5m grade control drilling to 60m x 60m for the Inferred areas of the resource. The drill spacing for the majority of the Indicated Resource is 20m x 20m. The resource has been classified primarily on drill density and the confidence in the geological/grade continuity — the data spacing and distribution is deemed adequate for the estimation techniques and classifications applied.

Criteria	JORC Code Explanation	Commentary
		Pernatty:
		• Drill spacing for the reported resource is no greater than 60m x 60m with the majority of the Indicated resource based on a maximum spacing of 40m x 40m. The geological
		<ul> <li>interpretation of the area is well understood, and is supported by the knowledge from open pit and underground operations. However given the mineralisation is controlled by shear zones the mineralisation continuity is considered to be less understood. The resource is classified on a combination of drill density and the number of samples used to estimate the resource blocks.</li> </ul>
		Mount Marion:
		<ul> <li>Drill-spacing ranges from 20m x 20m to no greater than 60m x 60m for the reported resource Given that the geological and mineralisation understanding is well established via mining operations, this drill-spacing is considered adequate for the classifications applied to the resource.</li> </ul>
		Compositing is carried out based upon the modal sample length of each project.
		CMGP
		<ul> <li>Data spacing is variable dependent upon the individual orebody under consideration. A lengthy history of mining has shown that this approach is appropriate for the Mineral Resource estimation process and to allow for classification of the resources as they stand.</li> </ul>
		• Compositing is carried out based upon the modal sample length of each individual domain.
		FGP
		<ul> <li>Drillhole spacing is a nominal 40m x 40m that has been in-filled to a nominal 20m x 20m in the main zone of mineralisation at Yarlarweelor, Callie's and Eldorado with 10m x10m RC grade control within the limits of the open pits.</li> </ul>
		• The spacing is considered sufficient to establish geological and grade continuity for appropriate Mineral Resource classification.
		<ul> <li>During the historic exploration phase, samples were composited to 4m by spearing 1m bulk samples. Where the assays returned results greater than 0.15ppm Au, the original 1m bulk samples were split using a 3-tier riffle splitter and analysed as described above.</li> </ul>
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling intersections are nominally designed to be normal to the orebody as far as underground infrastructure constraints / topography allows.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Development sampling is nominally undertaken normal to the various orebodies.
		<ul> <li>Where drilling angles are sub optimal the number of samples per drill hole used in the estimation has been limited to reduce any potential bias.</li> </ul>
		• It is not considered that drilling orientation has introduced an appreciable sampling bias.

Criteria	JORC Code Explanation	Commentary
Sample security	The measures taken to ensure sample security.	For samples assayed at on-site laboratory facilities, samples are delivered to the facility by Company staff. Upon delivery the responsibility for sample security and storage falls to the independent third party operators of these facilities.
		For samples assayed off-site, samples are delivered to a third party transport service, who in turn relay them to the independent laboratory contractor. Samples are stored securely until they leave site.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

# **SECTION 2 REPORTING OF EXPLORATION RESULTS**

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>HGO</li> <li>State Royalty of 2.5% of revenue applies to all tenements.</li> <li>The Trident Resource is located within mining leases M15/0642, M15/0351 and M15/0348. M15/0351 and M15/0642 also incur the Morgan Stanley royalty of 4% of revenue after 100,000oz of production and the Morgan Stanley price participation royalty at 10% of incremental revenue for gold prices above AUD\$600/oz. M15/0642 is also subject to the Mitchell Royalty at AUD\$32/oz.</li> <li>The Chalice Resource is located on mining lease M15/0786. There are no additional royalties.</li> <li>Lake Cowan is located on mining lease M15/1132. Lake Cowan is subject to an additional royalty (Brocks Creek) of \$1/tonne of ore.</li> <li>SKO</li> </ul>
		State Royalty of 2.5% of revenue applies to all tenements, although does not apply to the 16 freehold titles (which host the majority of SKO's Resource inventory). There are a number of minor agreements attached to a select number of tenements and locations with many of these royalty agreements associated with tenements with no current Resources and/or Reserves.
		Private royalty agreements are in place that relate to production from HBJ open-pit at \$10/ oz. In addition, a royalty is payable in the form of 1.75% of the total gold ounces produced from the following resources: Shirl Underground, Golden Hope, Bellevue, HBJ Open-pit, Mount Martin open-pit, Mount Martin Stockpiles and any reclaimed tailings.
		SK0 consists of 141 tenements including 16 freehold titles, 6 exploration licenses, 47 mining leases, 12 miscellaneous licenses and 60 prospecting licenses, all held directly by the Company.
		There are no known issues regarding security of tenure.
		There are no known impediments to continued operation.

Criteria	JORC Code Explanation	Commentary
		CMGP
		Native title interests are recorded against several CMGP tenements.
		The CMGP tenements are held by the Big Bell Gold Operations
		• (BBGO) of which Metals X has 100% ownership.
		<ul> <li>Several third party royalties exist across various tenements at CMGP, over and above the state government royalty.</li> </ul>
		BBGO operates in accordance with all environmental conditions set down as conditions for grant of the leases.
		There are no known issues regarding security of tenure.
		There are no known impediments to continued operation.
		FGP
		<ul> <li>The Fortnum Gold Project tenure is 100% owned by Metals X through subsidiary company Aragon Resources Pty. Ltd.</li> </ul>
		Various Royalties apply to the package. The most pertinent being;
		• \$10/oz after first 50,000oz (capped at \$2M)- Perilya
		State Government – 2.5% NSR
		The tenure is currently in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other partie	<ul> <li>The Higginsville region has an exploration and production history in excess of 30 years.</li> <li>The SKO tenements have an exploration and production history in excess of 100 years.</li> <li>The CMGP tenements have an exploration and production history in excess of 100 years.</li> <li>The FGP tenements have an exploration and production history in excess of 30 years.</li> <li>Metals X work has generally confirmed the veracity of historic exploration data.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	HGO
		<ul> <li>Trident is hosted primarily within a thick, weakly differentiated gabbro with subordinate mafic and ultramafic lithologies and comprises a series of north-northeast trending, shallowly north-plunging mineralised zones. The deposit comprises two main mineralisation styles; large wallrock-hosted ore-zones comprising sigmoidal quartz tensional vein arrays and associated metasomatic wall rock alteration hosted exclusively within the gabbro, and thin, lode-style, nuggetty laminated quartz veins that formed primarily at sheared lithological contacts between the various mafic and ultramafic lithologies.</li> </ul>
		<ul> <li>Lake Cowan mineralisation can be separated into two types. Structurally controlled primary mineralisation in ultramafics, basalts and felsics host (e.g. Louis, Josephine and Napoleon), and saprolite / palaeochannel hosted supergene hydromorphic deposits, including Sophia, Brigitte and Atreides.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		SKO
		HBJ:
		The HBJ lodes form part of a gold mineralised system along the Boulder-Lefroy shear zone that is over 5km long and includes the Celebration, Mutooroo, HBJ and Golden Hope openpit and underground mines. The lodes are hosted within a steeply-dipping, north-northwest striking package of mafic, ultramafic and sedimentary rocks and schists that have been intruded by felsic to intermediate porphyries. Gold mineralisation is structurally controlled and is focused along lithological contacts, within stockwork and tensional vein arrays and within shear zones. The main mineralised zone has a length in excess of 1.9 km and an average width of 40 m in the Jubilee workings but is generally narrower to the north in the Hampton-Boulder workings.
		Mount Marion:
		The Mount Marion deposit is located on the eastern side of the Coolgardie Domain within a flexure in the Karramindie Shear Zone. It is hosted within a sub-vertical sequence of meta-komatiites intercalated with metasediments that have been metamorphosed to amphibolite facies. Gold mineralisation occurs in a footwall and hangingwall lode, each ranging in thickness from 2 to 15m. The mineralisation plunges steeply to the west and is open at depth.
		Mount Martin:
		The Mount Martin Tribute Area, is located within a regional scale north-northwest trending Archean Greenstone Belt. Within the Mount Martin - Carnilya area, the greenstone belt comprises a mixed sequence of ultramafic (predominantly komatiitic) and fine-grained, variably sulphidic sedimentary lithologies with subsidiary mafic units. Known gold and nickel mineralisation at the Mount Martin Mine is associated with a series of stacked, westerly dipping, sulphide and quartz-carbonate bearing lodes which are mainly hosted within intensely deformed and altered chloritic schists sandwiched between talc-carbonate ultramafic lithologies.
		Pernatty:
		The Pernatty deposit is hosted within a granophyric phase of a gabbro and is controlled by a structurally complex interaction of a number of major shear zones. Shearing has altered the original granophyric quartz dolerite to a biotite-carbonate-plagioclase-pyrite schist. The sequence has also been intruded by mafic and felsic porphyritic dykes, which are also mineralised.

Criteria	JORC Code Explanation	Commentary
		CMGP
		The CMGP is located in the Achaean Murchison Province, a granite-greenstone terrane in the northwest of the Yilgarn Craton. Greenstone belts trending north-northeast are separated by granite-gneiss domes, with smaller granite plutons also present within or on the margins the belts.
		<ul> <li>Mineralisation at Big Bell is hosted in the shear zone (Mine Sequence) and is associate with the post-peak metamorphic retrograde assemblages. Stibnite, native antimony ar trace arsenopyrite are disseminated through the K-feldspar-rich lode schist. These a intergrown with pyrite and pyrrhotite and chalcopyrite. Mineralisation outside the typical B Bell host rocks (KPSH), for example 1,600N and Shocker, also display a very strong W-As-s geochemical halo.</li> </ul>
		Numerous gold deposits occur within the Cuddingwarra Project area, the majority of which are hosted within the central mafic-ultramafic ± felsic porphyry sequence. Within this broad framework, mineralisation is shown to be spatially controlled by competency contrast across, and flexures along, layer-parallel D2 shear zones, and is maximised when transected by corridors of northeast striking D3 faults and fractures.
		<ul> <li>The Great Fingall Dolerite hosts the majority gold mineralisation within the portion of the greenstone belt proximal to Cue (The Day Dawn Project Area). Unit AGF3 is the most britt of all the five units and this characteristic is responsible for its role as the most favourab lithological host to gold mineralisation in the Greenstone Belt.</li> </ul>
		FGP
		<ul> <li>The Fortnum deposits are Paleoproterozoic shear-hosted gold deposits within the Fortnu Wedge, a localised thrust duplex of Narracoota Formation within the overlying Ravelstor Formation. Both stratigraphic formations comprise part of the Bryah Basin in the Caprico Orogen, Western Australia.</li> </ul>
		The Horseshoe Cassidy deposits are hosted within the Ravelstone Formation (siltstone ar argillite) and Narracoota Formation (highly-altered, moderate to strongly deformed mafic ultramafic rocks). The main zone of mineralisation is developed within a horizon of high altered magnesian basalt. Gold mineralisation is associated with strong vein stock works th are confined to the altered mafic. Alteration consists of two types; stockwork proximal silic carbonate-fuchsite-haematite-pyrite and distal silica-haematite-carbonate+/- chlorite.
		The Peak Hill district represents remnants of a Proterozoic fold belt comprising high deformed trough and shelf sediments and mafic / ultramafic volcanics, which are general moderately metamorphosed (except for the Peak Hill Metamorphic Suite).

Criteria	JORC Code Explanation	Commentary
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	No drillhole information is being presented in this release.
	» easting and northing of the drill hole collar	
	» elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	» dip and azimuth of the hole	
	» down hole length and interception depth	
	» hole length.	
	If the exclusion of this information is justified on the basis that the information is not     Material and this exclusion does not detract from the understanding of the report, the     Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	No drillhole information is being presented in this release.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	No drillhole information is being presented in this release.
mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No drillhole information is being presented in this release.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No drillhole information is being presented in this release.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	There is no other substantive exploration data associated with this release.

Criteria	JORC Code Explanation	Commentary
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Ongoing surface and underground exploration activities will be undertaken to support continuing mining activities at Metals X Gold Operations.

### SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

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

Criteria	JORC Code Explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The database used for the estimation was extracted from the Metals X's DataShed database management system stored on a secure SQL server.</li> <li>As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mr. Russell visits Metals X Gold Operations regularly.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>HGO</li> <li>Current and historical mining activities across the Higginsville region provide significant confidence in the geological interpretation of all projects.</li> <li>No alternative interpretations are currently considered viable.</li> <li>In all cases the local lithological and structural geology has been used to inform the interpretive process. All available information from drilling, underground mapping and pit mapping has been considered during interpretation.</li> <li>The Trident, Corona, Fairplay, Vine and Two boys deposits are all hosted within a suite of east over west thrust repeated mafic, ultramafic and sedimentary rocks. In all cases the most favourable host is of mafic composition, generally gabbro and to a lesser extent basalt. Together the deposits form what is locally referred to as the Higginsville Line of Lode, a 5km long, north-northeast striking mineralised corridor of historic and current mining operations. Steep west and shallow east have been identified as the most favourable structural orientations for mineralisation.</li> <li>At Chalice, multiple generations of unmineralised felsic intrusive cross cut the host amphibolite and influence both the volume and the grade, through contact remobilisation, of the mineralisation. The Resource Estimate is sensitive to the volume of unmineralised felsics within the mineralised horizon.</li> <li>At both Chalice and Lake Cowan there is a lack of consistent visual proxies for mineralisation, making accurate ore delineation difficult.</li> </ul>
		High-grade zones within the palaeochannels are the result of a more preferential depositional environment due to changes in strike of the palaeochannel.

Criteria	JORC Code Explanation	Com	nmentary
			SKO
		•	HBJ:
			The mineralisation has been modelled focussing on the structural (shear zone) and lithological (porphyry mainly) controls. The large scale (1.9km long and ~40m wide) provides significant confidence in the geological and grade continuity within the deposit. The interpretation has used predominantly RC drilling with some DD used for the deeper parts of the resource.
			There is an alternative interpretation that could be applied to this deposit, which focuses on defining and sub-domaining higher grade mineralisation that is evident at lithological contacts.
		•	Mount Marion:
			The lithological and structural model for the Mount Marion deposit is well understood as it is supported by the knowledge gained from open-pit and underground operations.
			The mineralisation is hosted along a dilational flexure within the lode gneiss with clearly defined contact mineralisation with the surrounding ultramafic lithologies. The lithological model is used as the basis for the mineralisation interpretation and has been derived from predominantly RC and Diamond drill-holes. The confidence of the geological controls on mineralisation is consistent with the resource classification applied to the deposit. No alternative interpretations have been devised for this deposit.
		•	Mount Martin:
			Gold mineralisation at Mount Martin is associated with chlorite schists (shear zones) hosted within talc-carbonate ultramafic lithologies. Within these controlling shear zones are a series of stacked, westerly-dipping, sulphide and quartz carbonate bearing lodes which host the majority of the gold mineralisation. The geological and mineralisation interpretation used in this resource is consistent with that mined historically in the open pit. Although other interpretations have been proposed they tend to be variations on the steep westerly-dipping lodes theme adopted for this resource and as such would not represent a significant change in the contained metal.
		•	Pernatty:
			Mineralisation at Pernatty is controlled by a complex arrangement of very well-defined shear zones with the highest grade mineralisation associated with structural intersections and flexures along the three main shears. Given the consistency in orientation of the three main controlling shears, the confidence in the geological and mineralisation interpretation is deemed adequate.

Criteria	JORC Code Explanation	Con	nmentary
			CMGP
		•	Mining has occurred since 1800's providing significant confidence in the currently geological interpretation across all projects.
		•	No alternative interpretations are currently considered viable.
		•	Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.
		•	The structural regime is the dominant control on geological and grade continuity at the CMGP. Lithological factors such as rheology contrast are secondary controls on grade distribution.
			FGP
		•	Low-grade stockpiles are derived from previous mining of the mineralisation styles outlined above.
		•	Geological matrixes were established to assist with interpretation and construction of the estimation domains.
		•	Confidence in the interpretation is high as the geometry, geology, alteration and tenor of the mineralised zones was observed to be consistent along strike and down dip
		•	The interpretations was based on 10m and 20m north-south spaced sections.
		•	The information used in the construction and estimation of the respective resources mineralisation is based on Air Core (AC), Reverse Circulation (RC) and Diamond Drill (DDH) hole information. The AC was included in the poorly information estimation domains and this was considered during the classification of these domains.
		•	Oxidation surfaces were constructed from the logged information on 20m north south sections.

Criteria	JORC Code Explanation	Commentary
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>HG0</li> <li>The Trident mineral resource extends over 680m in strike length, 350m in lateral extent and 940m in depth.</li> </ul>
		• Chalice mineralisation has been defined over a strike length of 700m, a lateral extent of 200m and a depth of 650m.
		• The Lake Cowan resource has been defined over a strike length of >1.5Km, a lateral extent of >500m and to a depth of >150m.
		• SKO
		• The HBJ deposit extends over 5km of strike (includes the Golden Hope and Mutooroo lodes) and up to 650m below surface with the individual lodes being up to 40m wide.
		• Mount Marion mineralisation extends to just under $1  \text{km}$ in strike length, 800m in depth with the lodes varying in width from $3-15  \text{m}$ . The mineralisation is steeply plunging resulting in a very small surface expression of the lodes.
		<ul> <li>The Mount Martin deposit has a strike length of 1km, a vertical extent of 350m, with the individual, shallow west-south-westerly dipping lodes varying between 2 – 10m true thickness. These lodes make up a mineralised package of ~300m true thickness (hangingwall to footwall).</li> </ul>
		• The Pernatty deposit has a strike extent of 500m, 400m dip extent and up to 300m in lateral extent. The individual lodes are of varying orientations and are generally between $2-15m$ wide.
		CMGP
		Individual deposit scales vary across the CMGP.
		• The Big Bell Trend is mineralised a strike length of >3,900m, a lateral extent of up +50m and a depth of over 1,500m.
		• Great Fingall is mineralised a strike length of >500m, a lateral extent of >600m and a depth of over 800m.
		• Black Swan South is mineralised a strike length of >1,700m, a lateral extent of up +75m and a depth of over 300m.
		CMGP
		• The Yarlarweelor mineral resource extends over 1,400m in strike length, 570m in lateral extent and 190m in depth.
		• The Tom's and Sam's mineral resource extends over 650m in strike length, 400m in lateral extent and 130m in depth.
		The Eldorado mineral resource extends over 240m in strike length, 100m in lateral extent and 100m in depth.
		Low-grade stockpiles are of various dimensions.

Criteria JORC Code Explanation		Commentary	
techniques  assumptions, including treatment of exparameters and maximum distance of estimation method was chosen included.	estimation technique(s) applied and key xtreme grade values, domaining, interpolation f extrapolation from data points. If a computer assisted le a description of computer software and parameters	estimates the drill hole data to be used in the process was first validated.	lacer Gold
used.  The availability of check estimates, prewhether the Mineral Resource estimate.  The assumptions made regarding reco  Estimation of deleterious elements or of eg sulphur for acid mine drainage chate.  In the case of block model interpolation spacing and the search employed.  Any assumptions behind modelling of the Any assumptions about correlation beto the Description of how the geological interpolation of basis for using or not using the search employed.	evious estimates and/or mine production records and e takes appropriate account of such data.  every of by-products.  other non-grade variables of economic significance aracterisation).  n, the block size in relation to the average sample  selective mining units.  tween variables.  pretation was used to control the resource estimates.  ing grade cutting or capping.  g process used, the comparison of model data to drill	<ul> <li>The initial interpretation was then completed on 1:250 scale hardcopy cross s long sections and level plans, this interpretation was then validated by either to geologists or the Chief Geologist before then being digitised into the Vulcan 3D package. The digitised polygons form the basis of the three dimensional orebody Wireframing is then carried out using a combination of automated stitching algorithm and triangulation to create an accurate three dimensional representation of surface mineralised body.</li> <li>Drillhole intersections within the mineralised body are defined, these intersections used to flag the appropriate sections of the drillhole database tables for copurposes. Drillholes are subsequently composited to allow for grade estimation aspects of resource estimation the factual and interpreted geology was used to suppose the context of the context o</li></ul>	the senior I modelling Idy wireframe. Igorithms and of the sub- tions are compositing In all to guide the In to assist But using Cograms Cogra

Criteria	JORC Code Explanation	Commentary
		No by-products or deleterious elements are estimated.
		No assumptions have been made about the correlation between variables.
		The estimation is validated using the following: a visual interrogation, a comparison of the mean composite grade to the mean block grade for each domain, a comparison of the
		wireframe volume to the block volume for each domain, Grade trend plots (moving window statistics), comparison to the previous resource estimate.
		The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge.
		Production reconciliation data is regularly used to check the performance of the estimate and to adjust parameters is necessary. Good reconciliation between mine claimed figures and milled figures is routinely achieved.
		SKO
		The HBJ mineral resource estimate was undertaken in December 2011 by Widenbar and Associates Pty Ltd. The grade interpolation method used was Ordinary Kriging (OK) in the Datamine ESTIMA process — a method that is appropriate for the style of mineralisation being estimated. A simple unfolding process has been applied to the data and model blocks in order to simplify the setup of search ellipses and allow searches to follow the varying dip and strike of the various domains.
		Geological, mining as-built and mineralisation domains and a valid drillhole database were supplied by SKO personnel. The geological and mineralisation domains were used to control the interpolation as hard boundaries (mineralisation domains) and for the application of bulk density data (geological boundaries).
		The Mineral Resource estimates for Mount Marion, Mount Martin and Pernatty were undertaken by Alacer Gold in September 2011. The geological and mineralisation wireframes as well as the grade interpolation was undertaken in Vulcan 8.04 3-D modelling software with statistical analysis undertaken using Snowden Supervisor software. The interpolation method used was Ordinary Kriging (OK) — a method that is appropriate for the styles of mineralisation being estimated.
		Statistical analysis was undertaken to determine the composite length (1m) and for the application of top-cuts.
		The search ellipses applied were based on a combination of drillhole spacing and variographic analysis. Various minimum and maximum samples were used in the first search with a maximum of four samples per drill-hole allowed. Several passes were used each with increasing search ellipse sizes, all the blocks in the mineralised domains were informed in the first pass.
		The block model was depleted using surfaces / domains generated by the SKO Survey.     Validation of the models was completed by visual inspection, statistical comparisons and comparison with reconciliation data, with the final model achieving a satisfactory validation.
		No deleterious elements were estimated as they are considered not material.

Criteria	JORC Code Explanation	Commentary
		CMGP      All modelling and estimation work undertaken by Metals X is carried out in three dimensions via Surpac Vision.
		After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body.
		Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.
		Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.
		An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available.
		Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products.
		The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge.
		This approach has proven to be applicable to Metals X's gold assets.
		Estimation results are routinely validated against primary input data, previous estimates and mining output.
		Good reconciliation between mine claimed figures and milled figures was routinely achieved during past production history.

Criteria	JORC Code Explanation	Comm	entary
			FGP All modelling and estimation work undertaken by Metals X is carried out in three dimensions
			with Surpac Vision, Snowden's Supervisor v8.3 and or Isatis 2015. Ordinary kriging (OK) and Localised Indicator Kriging (LIK) has been used. LIK was used
		f	for the estimation of all Jasperoid related estimation domains due to mosaic mineralisation style. Length weighting of assay values related to surveyed volumes was undertaken for ow-grade stockpiles.
			All estimates were validated where possible against historical production records and previous estimates.
		i k a a	After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the pasis of the three dimensional orebody wireframe. Wireframing was carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body. Domaining was constructed on 20m and 10m spaced sections and was based on logged lithologies, quartz percentage and gold value.
		t F 1 k r	Orillhole intersections within the mineralised body are defined; these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing ourposes. Assay data was composited to 1m downhole using Surpac "best fit" algorithm. The "best fit" algorithm eliminates residual composites and the estimation domains coundaries defined the start and end position of the compositing routine. In all aspects of resource estimation; the factual and interpreted geology was used to guide the development of the interpretation.
		[	Support analysis of the difference drill types (Air Core (AC), Reverse Circulation (RC) and Diamond Drill holes (DDH)) was performed and the mixing these deemed acceptable. The AC drill holes were used in the estimation of the poorly informed estimation domains.
		e t	Statistical analysis was carried out on the composited data to assist with determining estimation search parameters, top-cuts and spatial continuity. Data for some of the domains exhibit an increased degree of skewness and top-cuts were applied to reduce the skewness of distribution. The appropriateness of the top-cuts was assessed for each domain utilising log-probability plots, mean and variance plots, histograms and univariate statistics for the composite Au variable.
		c G	Variogram modelling was undertaken using Isatis™ software and defined the spatial continuity of gold within all domains and these parameters were used for the interpolation process. Indicator variograms were generated within the Jasperoid related estimation domains to the used in the LIK estimation process.
			Volume models were generated in Surpac using topographic surfaces, oxidation surfaces and mineralised zone wireframes as constraints.

Criteria	JORC Code Explanation	Commentary
		Quantitative Kriging Neighbourhood Analysis was used optimise the search parameters.
		Search ellipses were aligned parallel to the maximum continuity defined during the variographic analysis. The search dimensions, generally, approximated the ranges of the interpreted variograms and ranged from 50 to 100m. The minimum and maximum number of samples range from 7 to 11 and 18 to 30, respectively. Second and third pass searches were implement to fill the un-estimated cells / blocks if they were not estimated during the first search pass and these search parameters involved increasing in the search distances and reducing in the minimum number of samples used in the estimation process.
		<ul> <li>The extrapolation was control through the interpreted estimation domains, which was limited to half the drill hole spacing within section and half the section spacing between sections.</li> </ul>
		<ul> <li>Block estimation for gold was undertaken using Isatis™ and hard boundaries were used between domains for estimation of gold grade.</li> </ul>
		No assumptions were made about recovery during the OK and LIK estimation processes.
		Grade estimation was undertaken, with the ordinary kriging (OK) estimation method for all non-jasperoid related estimation domains.
		Check estimates were run using Localised Uniform Conditioning (LUC) for the LIK estimation domains, which produces a similar form of result to LIK. The LIK and LUC models were compared, with reasonable agreement at lower cut-offs and differences at higher cut-offs reflecting higher estimated gold variability in the LIK model. The LIK is believed to be better suited to the style of mineralisation for the Jasperoid related estimation domains.
		<ul> <li>The estimation is validated using the following: a visual interrogation, a comparison of the mean composite grade to the mean block grade for each domain, a comparison of the wireframe volume to the block volume for each domain, grade trend plots (moving window statistics), comparison to the previous resource estimate.</li> </ul>
		The only element of economic interest modelled is gold.
		The Isatis™ block models were transferred and imported to Surpac Mining Software. The transfer and importing process was validated against the Isatis™ block model. The resource was then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates are dry tonnes.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The cut off grades used for the reporting of the Mineral Resources have been selected based on the style of mineralisation, depth from surface of the mineralisation and the most probable extraction technique.

Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	HGO  The principle extraction method at Trident is. For the narrow vein systems at Trident bench stoping is employed.  SKO  The Pernatty, Mount Martin and upper portions of the HBJ deposits are assumed to be amenable to open pit mining processes. A minimum mining width of 2.5m (horizontal) is applied to the lodes.  The lower parts of the HBJ deposit are assumed to be mineable via sub-level open stoping or sub-level caving. The Mount Marion deposit is assumed to be amenable to underground mining via open stoping means which is consistent with the mining practices adopted for the Mount Marion deposit.  CMGP  Variable by deposit.  FGP  Conventional open cut mining with 120t class hydraulic backhoe excavators and 90t rigid dump trucks.  2m minimum mining width has been assumed.  No mining dilution or ore loss has been modelled in the resource model or applied to the reported Mineral Resource.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	HGO  Metallurgical test work is carried out on a project by project basis. The Higginsville plant is approximately 5.5 years old and routinely averages over 96% recovery when being fed with Trident material.  SKO  The majority of the SKO resource base comprises deposits that have some level of mining history and hence established metallurgical properties.  CMGP  Not considered for Mineral Resource. Applied during the Reserve generation process.  FGP  Horizons were modelled based on oxidation state of the host rocks, taken from the drilling information. These were: transported and lateritic residuum, oxidised, transitional and fresh.  Jasperoid was flagged in the model due to its hardness and differing heap leach characteristics as identified in recent metallurgical scoping studies.

Criteria	JORC Code Explanation	Commentary
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>HGO</li> <li>Tailings are discharged to the nearby tailings storage facility and also used to form cemented backfill for underground operations.</li> <li>Process water is pumped 30 km from the Chalice open pit to the Aphrodites pit from which it is stored prior to pumping to the process mill</li> <li>Potable water is pumped from the Coolgardie—Norseman water pipe line and is provided by the state water provider.</li> <li>Water used in the Trident mine for mining operations is recycled from underground and stored in the nearby Poseidon North Pit before being returned for underground use.</li> <li>SKO</li> <li>The significant operational history at SKO has allowed for a consistent set of environmental assumptions to be applied to the mineral resource deposits in the region.</li> <li>CMGP</li> <li>BBGO operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.</li> <li>FGP</li> <li>Aragon operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>HGO</li> <li>For Trident bulk densities were assessed via test work and assigned to the model. Samples were selected to cover the full range of lithology types and ore types across the deposit. Individual unbroken half core samples of approximately 30cm length were randomly selected from within specified metre intervals. Samples were sent to the Genalysis Laboratory in Kalgoorlie, where mass and volumes (by water immersion) were measured and bulk density calculated.</li> <li>Where no drill core or other direct measurements are available, SG factors have been assumed based on similarities to other zones of mineralisation / lithologies or from historic production records.</li> <li>SKO</li> <li>For the HBJ, Mount Marion, Pernatty and Mount Martin deposits, density values were based on historic mining reconciliations combined with bulk density check test work.</li> <li>Bulk densities were assigned based on the host rock, mineralisation style and oxidation state, all of which were coded into the block models.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		CMGP
		Bulk density of the mineralisation at the CMGP is variable and is for the most part lithology rather than mineralisation dependent. Bulk density sampling is undertaken via assessments of drill core and grab samples.
		A significant past mining history has validated the assumptions made surrounding bulk density at the CMGP.
		FGP
		A large suite of bulk density determinations have been carried out across the project area.  The bulk densities were separated into different weathering domains and lithological domains (i.e. jasperoid domains). Density determinations were made on diamond drill core representing mineralisation utilised the water immersion method (Archimedes Principle).
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	Resources are classified in line with JORC guidelines utilising a combination of various
	Whether appropriate account has been taken of all relevant factors (ie relative confidence in	estimation derived parameters, input data and geological / mining knowledge.
	tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	This approach considers all relevant factors and reflects the Competent Person's view of the deposit
	Whether the result appropriately reflects the Competent Person's view of the deposit.	
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Resource estimates are peer reviewed by the Corporate technical team.
		No external reviews have been undertaken.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent	All currently reported resources estimates are considered robust, and representative on both a global and local scale.
	Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimates.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

### **SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	At all projects, all Resources that have been converted to Reserve are classified as either an Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. Some Measured Resource may be classified as Proven Reserves and some are classified as Probable Reserve based on whether they are capitally or fully developed.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mr Poepjes visits Metals X Gold Operations on a regular basis.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore	HGO
	Reserves.	Mining is in progress at HGO.
	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and	The Trident Underground mine began production in late 2008. The mining methodology, design layouts, production performance, mining modifying factors and cost profiles used in the 2015 Mineral Reserve are therefore reflective of this history.
	that material Modifying Factors have been considered	Underground mining costs have been derived from the current Australian Contract Mining (ACM) rates.
		The Lake Cowan Mining Centre (including Louis Pit) was mined in the 2000's by Harmony Gold. The Reserve for Louis involves depth and width extension of the current Pit.
		<ul> <li>Following exploration and infill drilling activity, annual resource updates and economic assessment of the Measured and Indicated resources is completed using actual costs, operating parameters and modifying factors. An annual update of Ore Reserves is completed on this basis.</li> </ul>
		SKO
		Mining is in progress at SKO.
		<ul> <li>Following exploration and infill drilling activity, annual resource updates and economic assessment of the Measured and Indicated resources is completed using actual costs, operating parameters and modifying factors. An annual update of Ore Reserves is completed on this basis.</li> </ul>
		CMGP
		Mining is in progress at CMGP.
		<ul> <li>Following exploration and infill drilling activity, annual resource updates and economic assessment of the Measured and Indicated resources is completed using actual costs, operating parameters and modifying factors. An annual update of Ore Reserves is completed on this basis.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		• The Fortnum Gold Mine Operation ceased production in May 2007 when owned by Gleneagle Gold. Previous to this the operation was operated by Perilya and Homestake, and first began commercial mining operations in the late 1980's. Extensive mining and processing records are therefore available in each of the deposits.
		<ul> <li>Various open pit styles and host domains have been mined since discovery of the area by Homestake in 1980's. Mining during this time has ranged from open pit cut backs, virgin surface excavations to extensional underground developments.</li> </ul>
		The Fortnum Gold Mine Open Pit and Underground inventory had a Pre-feasibility study completed by MLX in early 2016. Additional cost details, operational constraints and a revision of the Resources (with classification) have continued since this initial financial evaluation. A Feasibility Study was completed on these revisions and therefore forms the basis for this Reserve statement. The Fortnum Gold Mine is now at a budgetary level analysis with specific details on processing components and reagent costs, specific mining contractor cost profiles, contractual haulage costs, power provider unit rates as well as site specific G&A
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	Underground Mines - Cut off grades were determined for the various mining methods and various mining sections in the mines. The COG's have been applied to both development and stope production from their respective areas.
		Open Pit Mines - The pit rim cut-off grade (COG) was determined as part of the Reserve estimation. The pit rim COG determines which material will be processed by equating the operating cost of processing and selling to the value of the mining block in terms of recovered metal and the expected selling price. The COG is then used to determine whether or not a mining block should be delivered to the treatment plant for processing, stockpiled as low-grade or taken to the waste dump as waste.

Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> </ul>	Ore Reserves have been undertaken on a 'bottom up' process — with the physicals reflecting mine designs rather than Resource conversion factors or Whittle optimisations.  HG0
	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.	Mining methodologies for underground Reserves centre on long hole open stoping. However, there are areas which are designed as narrow vein up hole or flat bench stoping. All methods
	<ul> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> </ul>	described in the Reserve have either been trialled successfully and/or implemented historically. The stope design parameters take into account the different mining shapes and
	<ul> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> </ul>	are based on specific geology and geotechnical domains associated with those areas. Stope shapes, level layouts and extraction sequences are designed cognisant of local and regional ground conditions. Where deteriorating ground conditions are expected or where significant
	The mining dilution factors used.	fault planes run adjacent to mineralisation, stope shapes are altered to encompass these
	The mining recovery factors used.	conditions and sequenced early to ensure recovery is possible.
	Any minimum mining widths used.	Dilution factors vary pending the orebody style and host rock conditions as well as from
	<ul> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> </ul>	mining sequence and development layouts.
	The infrastructure requirements of the selected mining methods.	Each mining method applied has a minimum width, which corresponds to sub level distances, blast hole drill accuracy constraints, nature of the mineralisation and/or fleet flexibility.
		With the implementation of paste filling at Trident and the utilisation of remote loaders with telecabins, a 100% mining recovery factor is applied to the stope physicals.
		No Inferred resources are included with the Reserve Statement.
		Both underground mines are established production centres and have been in operation for several years. Mining methodologies forecasted in the Reserve are those currently being utilised.
		Conventional open pit mining methodologies and sequencing have been applied to open pits.
		A 6% dilution factor has been applied to Louis Reserve.
		Louis has a 95% mining recovery factor.
		Wall angles used in the Louis Pit are reflective of the historical parameters used.
		Lake Cowan has pre-existing haulage routes and site earthworks. Re-establishment of the haulage route into Higginsville has been costed as is included within the economic analysis.
		SKO
		Pit and underground reserves have all been subject to detailed mine design.
		Stockpile resources have been converted to reserves by application of appropriate modifying factors.
		Feasibility Evaluations have incorporated dewatering requirements.
		Open Pit geotechnical parameters have been supplied by Geotechnical Consultant following site inspection.
		Open Pits have been designed to ensure a minimum 25m bench width.

Criteria	JORC Code Explanation	Con	nmentary
			CMGP
		•	Pit and underground reserves have all been subject to detailed mine design.
		•	Stockpile resources have been converted to reserves by application of appropriate modifying factors.
		•	Feasibility Evaluations have incorporated dewatering requirements.
		•	Open Pit geotechnical parameters have been supplied by Geotechnical Consultant following site inspection.
		•	Open Pits have been designed to ensure a minimum 25m bench width.
			FGP
			Open Pit Methodology.
		•	Following consideration of the various modifying factors the following rules were applied to the reserve estimation process for the conversion of measured and indicated resource to reserve for suitable evaluation.
		•	The mining shape in the reserve estimation is generated by a wireframe (geology interpretation of the ore zone) which overlays the block model. Where the wire frame cuts the primary block, sub blocks fill out the remaining space to the wire frame boundary (effectively the mining shape). It is reasonable to assume that the mining method can selectively mine to the wire frame boundary with the additional dilution provision stated in point 4 below.
		•	Ore Reserves are based on Pit shape designs — with appropriate modifications to the original Whittle Shell outlines to ensure compliance with practical mining parameters.
		•	Geotechnical parameters allied to the Open Pit Reserves are either based on observed existing pit shape specifics or domain specific expectations / assumptions. Various geotechnical reports and retrospective reconciliations were considered in the 2016 design parameters. A majority of the open pits have a final design wall angle of 38-420, which is seen as conservative.
		•	Dilution of the ore through the mining process has been accounted for within the Reserve quoted inventory. Various dilution ratios are used to represent the style of mineralization. Where continuous, consistent ore boundaries and grade represent the mineralised system the following factors are applied: oxide 15%, transitional 17% and fresh 19%. In circumstances where the orebody is less homogenous above the COG then the following dilution factors are applied in order to model correctly the inherent variability of extracting discrete sections of the pit floor: oxide 17%, transitional 19% and fresh 21%. To ensure clarity, the following percentages are additional ore mined in relation to excavating the wire frame boundary as identified in point 1 above, albeit at a grade of 0.0 g/t. The amount of dilution is considered appropriate based on orebody geometry, historical mining performance and the size of mining equipment to be used to extract ore.
		•	Expected mining recovery of the ore has been set at 93%.
		•	Minimum Mining widths have been accounted for in the designs, with the utilization of 90T trucking parameters.

Criteria	JORC Code Explanation	Commentary
		No specific ground support requirements are needed outside of suitable pit slope design criteria based on specific geotechnical domains.
		<ul> <li>Mining sequence is included in the mine scheduling process for determining the economic evaluation and takes into account available operating time and mining equipment size and performance.</li> </ul>
		No Inferred material is included within the open pit statement, though in various pit shapes inferred material is present. In these situations this inferred material is classified as waste.
		Underground Methodology.
		<ul> <li>All Underground Reserves are based on 3D design strings and polygon derived stope shapes following the Measured and Indicated Resource (in areas above the COG). A complete mine schedule is then derived from this design to create a LOM plan and financial analysis.</li> </ul>
		Mining methodology is based on previous mining experience. All mining systems within the Reserve statement are standardized, mechanized Western Australian methods.
		In large disseminated orebodies a sub level open stoping or single level bench stoping production methodology is used.
		In narrow vein laminated quartz hosted domains a conservative narrow bench style mining method is used.
		<ul> <li>In narrow flat dipping deposits a Flat Long Hole process is adopted (with fillets in the footwall for rill angle) and or Jumbo stoping.</li> </ul>
		Stope shape parameters have been based on historical data (where possible) or expected stable hydraulic radius dimensions.
		Stope inventories have been determined by cutting the geological wireframe at above the area specific COG and applying mining dilution and ore loss factors. The ore loss ratio accounts for pillar locations between the stopes (not operational ore loss) whilst dilution allows for conversion of the geological wireframe into a minable shape as well as hangingwall relaxation. A 20% dilution factor and 10% loss ratio has been subsequently applied to the Starlight Reserve statement.
		Minimum mining widths have been applied in the various mining methods. The only production style relevant to this constraint is 'narrow stoping' — where the minimum width is set at 1.5m in an 18.5m sub level interval.
		Mining operational recovery for the underground mines is set at 100% due to the use of remote loading units as well as paste filling activities.
		Stope shape dimensions vary between the various methods. Default hydraulic radii are applied to each method, and are derived either from historical production or geotechnical reports / recommendations. Where no data or exposure is available conservative HR values are used based on the contact domain type.
		Mining sequence is included in the mine scheduling process for determining the economic evaluation and takes into account available operating time and mining equipment size and performance.

Criteria	JORC Code Explanation	Commentary
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the</li> </ul>	<ul> <li>HG0</li> <li>Gold extraction is achieved using staged crushing, ball milling with gravity concentration and Carbon in Leach. The Higginsville plant has operated since 2008 and historical recoveries on Trident ore average 97%</li> </ul>
	nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	Treatment of ore is via conventional gravity recovery / intensive cyanidation and CIL is applied as industry standard technology.
	<ul> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> </ul>	Additional test-work is instigated where notable changes to geology and mineralogy are identified. Small scale batch leach tests on primary Louis ore have indicated lower recoveries (80%) associated with finer gold and sulphide mineralisation.
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	There have been no major examples of deleterious elements affecting gold extraction levels or bullion quality. Some minor variations in sulphide mineralogy have had short-term impacts on reagent consumptions.
		No bulk sample testing is required whilst geology/mineralogy is consistent based on treatment plant performance.
		SK0
		A long history of processing through the existing facility demonstrates the appropriateness of the process to the styles of mineralisation considered.
		No deleterious elements are considered, as a long history of processing has shown this to be not a material concern.
		CMGP
		A long history of processing through the existing facility demonstrates the appropriateness of the process to the styles of mineralisation considered.
		No deleterious elements are considered, as a long history of processing has shown this to be not a material concern.
		FGP
		Fortnum Gold Mine has an existing conventional CIL processing plant — which has been operational in various periods since the late 1980's. The plant has a nameplate capacity of 1.0Mtpa though this can be varied between 0.8-1.2Mtpa pending rosters and material type.
		• Grind size for the sulphide material has historically been 130 µm.
		An extensive database of historical CIL recoveries as well as detailed metallurgical test work is available for the various deposits and these have been incorporated into the COG analysis and financial models.
		For the 2016 Reserve, Plant recoveries of 93-95% have been utilised.

Criteria	JORC Code Explanation	Commentary
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	HG0     The Higginsville mine operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs.     Waste is generally stored underground in mined out stopes. When underground stopes are not available, waste is placed on approved surface waste dumps or capping material for historical tailings dams.
		<ul> <li>Waste rock created from the Open Pit operations is stored alongside the pit crest.</li> <li>SKO</li> <li>SKO operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs.</li> </ul>
		CMGP     CMGP operates under and in compliance with a number of operating environmental plans, which cover its environmental impacts and outputs.  FGP  TO SOLVE AND TO S
		The FGP has normal Western Australian permitting requirements.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>HGO</li> <li>Trident is currently active and have substantial infrastructure in place including a large amount of underground infrastructure, major electrical, ventilation and pumping networks. The main Higginsville location has an operating CIL plant a fully equipped laboratory, extensive workshop, administration facilities and a 350 person single person quarters nearby.</li> </ul>
		Infrastructure required for open production is also in place.  SKO
		SKO has an operating CIL plant, along with extensive maintenance and administration facilities.
		Power and water supplies are in place.
		Labour and accommodation is sourced from the nearby city of Kalgoorlie – Boulder.
		HBJ is currently active and have substantial infrastructure in place including a large amoun of underground infrastructure, major electrical, ventilation and pumping networks.
		Infrastructure required for open production is also in place.  CMGP
		CMGP has an operating plant, along with extensive maintenance and administration and accommodation facilities.
		Power and water supplies are in place.  FGP
		Fortnum Gold Mine, despite being under Care and Maintenance since 2007, has an existing operational infrastructure base with a 108 man camp facility, various water bores, existing TSF, a processing plant, airstrip, communications and main road access ways.

Criteria	JORC Code Explanation	Cor	nmentary
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.		HGO
	The methodology used to estimate operating costs.		Underground Mines
	Allowances made for the content of deleterious elements.     The source of exchange rates used in the study.	•	Capital Development costs are derived from the current contractor cost model (ACM). CAPEX Infrastructure costs have been sourced either from specific quotes or historical invoices.
	<ul> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> </ul>	•	Operating costs are derived primarily from the current contractor cost profile (ACM). In areas where works are outside of ACM's scope, alterative contractor costs have been sourced.
	· ·		Open Pit Mine
	The allowances made for royalties payable, both Government and private.	•	CAPEX has been sourced from a specific quote (Dec 2013).
		•	Operating costs associated with the pit operation are based on schedule of rates from various Kalgoorlie based contractors. These costs are in line with previous pit operations in both SKO and HGO.
			Surface and Plant
		•	The HGO Plant costs are derived from historical cost profiles, with updates from recent consumable negotiations.
		•	Fuel and potable water rates are reflective of current market conditions.
		•	Site Administration and Manning costs are reflective of current conditions.  Royalties
		•	All private and state royalties have been incorporated into the Reserve cost model.
			SKO
		•	Processing costs are based on actual cost profiles, as are administrative costs.
		•	Both state government and private royalties are incorporated into costings as appropriate.
		•	Mining costs are derived primarily from the current contractor cost profiles in both the open pit and underground environment.  CMGP
		•	Capital Costs were estimated as part of the DFS.
		•	Operating Costs were estimated as part of the DFS.
		•	WA State Government 2.5% applies.
		•	\$5 per oz produced Royalty applies to Great Fingall Deeps.
			FGP
		•	Open Pit Mining costs have been sourced from MLX CMGP operations whereby several contracting companies are undertaking mining works. These costs include pit load and haul as well as drill and blast, dewatering and maintenance. The costs are based on recent tender submissions (early 2016) for the CMGP which is located 200km south of the Fortnum Gold Mine.

Criteria	JORC Code Explanation	Commentary
		Underground mining costs used within the Reserve process are derived from existing operational UG mines within the Kalgoorlie and Meekatharra district. They are based on current contractual schedule of rates for all mining processes covered in this Reserve statement.
		Additional to direct mining costs, surface haulage is based on recent 2016 request for quotation. Where specific tkm rates are not available, a default value of \$0.10-0.15 /tkm has been used.
		Processing costs are based on the 2016 Feasibility profile. These costs are in line with previous operating conditions and are aligned to the cost profile seen in MLX's neighbouring operation of CMGP.
		Royalties applicable to the open pit, underground and stockpile inventory vary pending tenement, though a summary of these are:
		» \$10/oz after first 50,000oz (capped at \$2M)- Perilya
		» 1% NRS - Montezuma
		» State Government – 2.5% NSR
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade,	Mine Revenue is based on the long term forecast of A\$1,550/oz.
	metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	No allowance is made for silver by-products.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	Detailed economic studies of the gold market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine
	A customer and competitor analysis along with the identification of likely market windows for the product.	<ul><li>planning decisions.</li><li>There remains strong demand and no apparent risk to the long term demand for the gold.</li></ul>
	Price and volume forecasts and the basis for these forecasts.	
	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	

Criteria	JORC Code Explanation	Commentary
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	HG0     The Higginsville NPV assumes a 10% discount rate with no inflation. Mining costs derived from contract rates, Paste Plant costs as per cubes required at a historical A\$/m3, G&A costs on a cost per tonne basis and processing cost based on actual cost profiles.  SKO
		The SKO NPV assumes a 10% discount rate with no inflation, G&A costs on a cost per tonne basis and processing costs based on upon actual cost profiles.  CMGP  CMGP
		For the CMGP, an 8% real discount rate is applied to NPV analysis.
		Sensitivity analysis of key financial and physical parameters is applied to future development projects.
		FGP
		A straight undiscounted Cash Flow Model has been used to analyse the Fortnum Gold Mine. The 5 years term does not warrant extensive Discount / Inflationary modelling.
Social	The status of agreements with key stakeholders and matters leading to social licence to	HGO
	operate.	HG0 is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation.
		As new open pits or underground operations develop the site will require separate environmental approvals from the different regulating bodies.
		SKO
		SK0 is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation.
		As new open pits or underground operations develop the site will require separate environmental approvals from the different regulating bodies.
		CMGP
		The CMGP is progressing through environmental and other regulatory permitting.  FGP
		No negative social impacts noted.
		Local stakeholders have been consulted regarding MLX plan for the Fortnum Gold Mine.
		MLX continues to work with local governments, business owners and residence around the Fortnum Gold Mine.

Criteria	JORC Code Explanation	Commentary
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul> <li>HG0 is an active mining project.</li> <li>SK0 is an active mining project.</li> <li>CMGP is an active mining project.</li> <li>FGP is a development project.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	The basis for classification of the resource into different categories is made on a subjective basis. Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling and are in most instances capitally developed or well defined from a mining perspective. Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works.  Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on internal judgements.  The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	Site generated reserves and the parent data and economic evaluation data is routinely reviewed by the Metals X Corporate technical team.

Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>HGO</li> <li>Trident reserves are reflective of current operating practices and mine planning processes.         All currently reported reserve calculations are considered representative on a local scale.         Regular mine reconciliations occur to validate and test the accuracy of the estimates at Trident. A comprehensive production history confirms the validity of the Trident reserve.</li> <li>Reserve calculations for open pits are cognisant of the historical geological, geotechnical and mining data. Confidence in the Reserve is further achieved with the validation of historical production data and observation of structural orientations on the existing pit walls.         SKO</li> <li>All currently reported reserve calculations are considered representative on a local scale.         Regular mine reconciliations occur to validate and test the accuracy of the estimates at SKO.         CMGP</li> <li>The ore reserve has been completed to a DFS standard and benchmarked against local site historical production and experience, hence confidence in the estimates is high.         FGP</li> <li>Various sensitivity analyses have been undertaken on the 2016 Reserve models in order to understand and subsequently control risk.</li> </ul>

# Metals X Limited Mineral Resource and Ore Reserves

#### **TIN DIVISION**

(as at 30 June 2016)

#### **Contents**

- 1. TIN DIVISION EXECUTIVE SUMMARY
- 2. MINERAL RESOURCE ESTIMATE RENISON PROJECT BY LODE AND CATEGORY
- 3. ORE RESERVE ESTIMATE RENISON PROJECT BY LODE AND CATEGORY
- 4. ANNUAL MINERAL RESOURCE INVENTORY CHANGES RENISON MINE
- 5. ANNUAL ORE RESERVE INVENTORY CHANGES RENISON MINE
- 6. MINERAL RESOURCE ESTIMATE RENTAILS PROJECT
- 7. ORE RESERVE ESTIMATE RENTAILS PROJECT
- 8. ANNUAL MINERAL RESOURCE INVENTORY CHANGES RENTAILS PROJECT
- 9. MINERAL RESOURCE ESTIMATE MT BISCHOFF PROJECT
- 10. ORE RESERVE ESTIMATE MT BISCHOFF PROJECT

#### 1. TIN DIVISION — EXECUTIVE SUMMARY

	METALS X LIMIT ision - BLUESTONI neral Resource Sta 30/06/2016	E AUSTRALIA atement	
	Tonnes	Grade	Metal
MEASURED			
TIN COPPER	23,940,020 23,863,420	0.54% 0.24%	130,049 56,623
INDICATED			
TIN COPPER	7,705,748 6,303,201	1.22% 0.32%	93,944 20,247
INFERRED			
TIN COPPER	4,054,950 3,057,364	1.26% 0.22%	51,048 6,760
GRAND TOTAL			
TIN COPPER	35,700,718 33,223,985	0.77% 0.25%	275,041 83,629
	METALS X LIMI7 ision - BLUESTONI ineral Reserve Sta 30/06/2016	E AUSTRALIA Itement	
	Tonnes	Grade	Metal
PROVEN			
TIN	1,105,215	1.29%	14,251
COPPER	1,076,715	0.43%	4,599
PROBABLE			
TIN COPPER	26,213,511 25,946,970	0.59% 0.23%	155,252 59,331
GRAND TOTAL			
TIN COPPER	27,318,726 27,023,684	0.62% 0.24%	169,502 63,930

#### 2. MINERAL RESOURCE ESTIMATE – RENISON PROJECT BY LODE AND CATEGORY

													S X LIMITED											
											BL		MINES TASM											
													ce Statemen	t										
												30/	06/2016											
Ore Body			Meas	sured					Indic	cated					Infe	rred					Tota	ıl		
	Tin			Copper			Tin			Copper			Tin			Copper			Tin			Copper		
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Meta
		1									1												1	
Mines																								
Dalcoath	-	0.00%	-	-	0.00%	-	39,110	0.98%	384	-	0.00%	-	8,500	0.76%	64	-	0.00%	-	47,610	0.94%	448	-	0.00%	-
South Renison	843,129	2.16%	18,212	843,129	0.62%	5,227	3,937,601	1.28%	50,401	3,937,601	0.37%	14,569	1,613,856	1.29%	20,819	1,613,856	0.24%	3,873	6,394,586	1.40%	89,432	6,394,586	0.37%	23,670
North Renison	516,103	1.98%	10,219	516,103	0.15%	774	2,365,600	1.40%	33,118	2,365,600	0.24%	5,677	1,443,508	1.59%	22,952	1,443,508	0.20%	2,887	4,325,211	1.53%	66,289	4,325,211	0.22%	9,339
Sligo	-	0.00%	-	-	0.00%	-	153,871	1.02%	1,569	-	0.00%	-	-	0.00%	-	-	0.00%	-	153,871	1.02%	1,569	-	0.00%	-
Stockpiles																								
Renison	134	1.57%	2	134	0.46%	1	_	0.00%	_	_	0.00%	_		0.00%		_	0.00%	_	134	1.57%	2	134	0.46%	1
Fine Ore Bins	186		2		0.31%	1	-	0.00%	_	_	0.00%	-	_	0.00%	-	-	0.00%	-		1.33%	2		0.31%	1
Mount Bischoff	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
Scats	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Tin In Circuit	398	2.11%	8	398	0.21%	1	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	398		8	398	0.21%	1
Prospects																								
Argents	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	26,000	1.67%	434	-	0.00%	-	26,000	1.67%	434	-	0.00%	-
Eldon	-	0.00%	-	-	0.00%	-	13,400	0.88%	118	-	0.00%	-	59,700	2.70%	1,613	-	0.00%	-	73,100	2.37%	1,731	-	0.00%	-
Battery	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Colebrook	63,600	1.41%	897	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	63,600	1.41%	897	-	0.00%	-
Dreadnought	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Fire	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Godkin	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	85,400	0.81%	692	-	0.00%	-	85,400	-	692	-	0.00%	-
Luck	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Montana North	-	0.00%	-	-	0.00%	-	5,000		60	-	0.00%	-	-	0.00%	-	-	0.00%	-	5,000	1.20%	60	-	0.00%	-
Myrtle	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	25,300	0.83%	210	-	0.00%	-	25,300	IF.	210	-	0.00%	-
Nevada	-	0.00%	-	-	0.00%	-	-	0.00%	1 250	-	0.00%	-	60,300	1.02%	615	-	0.00%	-	60,300	W.	615	-	0.00%	-
Penzance	-	0.00%	-	-	0.00%	-	109,400		1,258	-	0.00%	-	-	0.00%	-	-	0.00%	-	109,400		1,258	-	0.00%	-
Pieman Pieman West	-	0.00%	-	-	0.00%	-	10,800	1.70% 0.00%	184	-	0.00%	-	3,200	0.00% 3.75%	120	-	0.00%	-	,	1.70% 3.75%	184 120		0.00%	-
Polaris	13,000		- 265	-	0.00%	-		1.52%	- 85	-	0.00%	-	3,200	0.00%	-	-	0.00%	-	18,600		350		0.00%	- :
Sassafras	13,000	0.00%	203		0.00%	-	5,600	0.00%	- 03		0.00%	-		0.70%	70	-	0.00%		,	0.70%	70		0.00%	
Tyndall		0.0070	-	-	0.00%	-		1.11%	1,086	-	0.00%	-		0.70%	160	-	0.00%	-	117,800		1,246	-	0.00%	-
	1 10 5 5	<b>7</b> 0.045	22.62-	4.250.0	<b>7</b> 0.445:		4 700 4	/a 245:			/a 205:	20.04-	2 255 7	/a 405:	4	20575	, a a a a a		44.500	<b>7a a a c</b> :	4.5	40 700 5:-	<b>7</b> 0.245:	
Totals	1,436,550	2.06%	29,605	1,359,950	0.44%	6,004	6,738,182	1.31%	88,263	6,303,201	0.32%	20,247	3,355,764	1.42%	47,748	3,057,364	0.22%	6,760	11,530,496	1.44%	165,617	10,720,515	0.31%	33,010

#### 3. ORE RESERVE ESTIMATE – RENISON PROJECT BY LODE AND CATEGORY

									METALS X LIMIT									
								BLUI	STONE MINES TA									
									Reserve Statem 30/06/2016									
									30/00/2010									
Ore Body			Prove	n					Probab	le			]		Total			
-		Tin			Copper			Tin	1		Copper			Tin			Copper	
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
	Tonnes	Grade	311 WELUI	Tonnes	Grade	Cu ivietai	Tonnes	Grade	Sii Wetai	Tonnes	Grade	Cu ivietai	Tonnes	Grade	Sii ivietai	Tonnes	Grade	Cu ivietai
Mines																		
Dalcoath	-	0.00%	-	-	0.00%	-	33,496	0.93%	312	-	0.00%	-	33,496	0.93%	312	-	0.00%	-
South Renison	772,924	1.30%	10,045	744,424	0.58%	4,320	3,244,601	1.30%	42,145	3,125,904	0.29%	8,974	4,017,525	1.30%	52,190	3,870,329	0.34%	13,293
North Renison	331,572	1.26%	4,193	331,572	0.08%	277	1,193,427	1.26%	15,090	1,193,427	0.14%	1,671	1,524,999	1.26%	19,283	1,524,999	0.13%	1,948
Sligo	-	0.00%	-	-	0.00%	-	114,349	1.04%	1,189	-	0.00%	-	114,349	1.04%	1,189	-	0.00%	-
Stockpiles																		
																	,	
Renison	134	1.57%	2	134	0.46%	1	-	0.00%	-	-	0.00%	-	134	1.57%	2	134	0.46%	1
Fine Ore Bins	186	1.33%	2	186	0.31%	1	-	0.00%	-	-	0.00%	-	186	1.33%	2	186	0.31%	1
Mount Bischoff (i	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Scats Tin In Circuit	398	2.11%	- 8	398	0.00%	- 1		0.00%		-	0.00%	-	398	2.11%	- 8	398	0.21%	- 1
_																		
Prospects																		
Argents	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Eldon	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Battery	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Colebrook	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Dreadnought	-	0.00%	=	-	0.00%	-	-	0.00%	-	-	0.00%	-	- [	0.00%	-	-	0.00%	-
Fire	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	- [	0.00%	-	-	0.00%	-
Godkin	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Luck	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	- [	0.00%	-	-	0.00%	-
Montana North	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-		0.00%	-	-	0.00%	-
Myrtle Nevada	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-
Nevada Penzance	-	0.00%		-	0.00%	-	-	0.00%	-		0.00%	-	-	0.00%	-	-	0.00%	
Pieman	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-		0.00%	-	-	0.00%	
Pieman West	-	0.00%		-	0.00%	-	-	0.00%	-		0.00%	-	-	0.00%		-	0.00%	
Polaris		0.00%		-	0.00%	-	-	0.00%	-		0.00%	-		0.00%	-	-	0.00%	
Sassafras	-	0.00%		-	0.00%	-	-	0.00%	-		0.00%		-	0.00%	-	-	0.00%	
Tyndall	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Totals	1,105,215	1.29%	14,251	1,076,715	0.43%	4,599	4,585,872	1.28%	58,735	4,319,331	0.25%	10,644	5,691,087	1.28%	72,986	5,396,045	0.28%	15,243

#### 4. ANNUAL MINERAL RESOURCE INVENTORY CHANGES – RENISON MINE

			2015 JUNE F	RESOURCE					2016 JUNE	RESOURCE					DIFFER	ENCE					CREDITE	O MINED		
Orebody		Tin		C	opper			Tin		C	opper			Tin		(	Copper			Tin		(	Copper	
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade :	Sn Metal	Tonnes	Grade	Cu Meta
Mines																								
Dalcoath	47.610	0.94%	448	-	0.00%	_	47.610	0.94%	448	-	0.00%	_	-	0.00%	_	-	0.00%	_	-	0.00%	_	-	0.00%	_
South Renison	7,685,586	1.48%	113,689	7,635,505	0.40%	30,856	6,394,586	1.40%	89,432	6,394,586	0.37%	23,670	- 1,291,000	1.88%	- 24,258	- 1,240,919	0.58%		537,799	1.50%	8,067	537,799	0.48%	
North Renison	4,409,990	1.48%	65,212	4,359,909	0.19%	8,477	4,325,211	1.53%	66,289	4,325,211	0.22%	9,339	- 84,779	-1.27%	1,077	- 34,698	-2.48%	862	125,275	1.28%	1,604	125,275	0.19%	238
Sligo	153,871	1.02%	1,569	-	0.00%	-	153,871	1.02%	1,569	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
Stockpiles																								
Renison	14,332	1.17%	168	14,332	0.54%	77	134	1.57%	2	134	0.46%	1	- 14,198	1.17%	- 166	- 14,198	0.54%	- 77	-	0.00%	-	-	0.00%	-
Fine Ore Bins	802	1.25%	10	802	0.76%	6	186	1.33%	2	186	0.31%	1	- 616	1.23%	- 8	- 616	0.90%	- 6	-	0.00%	-	-	0.00%	-
Mount Bischoff (in	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Scats	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Tin In Circuit	379	2.17%	8	379	0.15%	1	398	2.11%	8	398	0.21%	1	19	0.91%	0	19	1.41%	0	-	0.00%	-	-	0.00%	-
Prospects																								
Argents	26,000	1.67%	434	-	0.00%	-	26,000	1.67%	434	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Eldon	26,000	1.67%	434	-	0.00%	-	73,100	2.37%	1,731	-	0.00%	-	47,100	2.75%	1,296	-	0.00%	-	-	0.00%	-	-	0.00%	-
Battery	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Colebrook	63,600	1.41%	897	-	0.00%	-	63,600	1.41%	897	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Dreadnought	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	-
Fire	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
Godkin	85,400	0.81%		-	0.00%	-	85,400	0.81%	692	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
Luck	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Montana North	5,000	1.20%		-	0.00%	-	5,000	1.20%	60	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Myrtle	25,300	0.83%		-	0.00%	-	25,300	0.83%	210	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Nevada	60,300	1.02%		-	0.00%	-	60,300	1.02%	615	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Penzance	109,400	1.15%	-	-	0.00%	-	109,400	1.15%	1,258	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
Pieman	10,800	1.70%		-	0.00%	-	10,800	1.70%	184	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
Pieman West	3,200	3.75%		-	0.00%	-	3,200	3.75%	120	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Polaris	18,600	1.88%		-	0.00%	-	18,600	1.88%	350	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Sassafras	10,000	0.70%		-	0.00%	-	10,000	0.70%	70 1,246	-	0.00%		-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	
Tyndall	117,800	1.06%	1,246	-	0.00%	-	117,800	1.06%	1,240	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Totals	12,873,970	1.46%	187,674	12,010,927	0.33%	39,417	11,530,496	1.44%	165,617	10,720,515	0.31%	33,010	- 1,343,474	1.64%	- 22,057	- 1,290,412	0.50%	- 6,407	663,074	1.46%	9,671	663,074	0.42%	2,793

#### 5. ANNUAL ORE RESERVE INVENTORY CHANGES – RENISON MINE

										- ILL	JEITT E ITE	CONCILIA	11011											
			2015 JUNE	RESERVE					2016 JUNE	RESERVE					DIFFER	ENCE					CREDITE	) MINED		
			2013 3011						20.030.11						0						CHEDITE	, ,,,,,,,		
		Tin		(	Copper			Tin		(	Copper			Tin		(	Copper			Tin		(	Copper	
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade (	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade (	Cu Meta
Mines																								
Dalcoath	33,496	0.93%		-	0.00%	-	33,496	0.93%	312	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-
outh Renison	4,706,717	1.32%	62,191	4,533,167	0.35%	15,727	4,017,525	1.30%	52,190	3,870,329	0.34%	13,293	- 689,192	1.45%	- 10,001	- 662,839	0.37% -	- 2,434	537,799	1.50%	8,067	537,799	0.48%	2,55
North Renison	1,802,984	1.24%	22,343	1,802,984	0.13%	2,308	1,524,999	1.26%	19,283	1,524,999	0.13%	1,948	- 277,985	1.10%	- 3,061	- 277,985	0.13%	- 360	125,275	1.28%	1,604	125,275	0.19%	238
Sligo	114,349	1.04%	1,189	-	0.00%	-	114,349	1.04%	1,189	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Stockpiles																								
Renison	14.332	1.17%	168	14,332	0.54%	77	134	1.57%	2	134	0.46%	1	- 14.198	1.17%	- 166	- 14,198	0.54% -	- 77		0.00%	-		0.00%	
Fine Ore Bins	802	1.17%		802	0.76%	6	186	1.33%	2	186	0.40%	1	- 616	1.17%		- 616	0.90%	- 6		0.00%	-		0.00%	
Nount Bischoff (i	-	0.00%		-	0.00%	-	-	0.00%		-	0.00%		-	0.00%		-	0.00%	-		0.00%	_		0.00%	
cats	_	0.00%		_	0.00%			0.00%	_		0.00%			0.00%		_	0.00%	_		0.00%	_		0.00%	
Fin In Circuit	379	2.17%		379	0.15%	1	398	2.11%	8	398	0.21%	1	19	0.91%		19	1.41%	0	-	0.00%	-	-	0.00%	-
Prospects																								
Argents	_	0.00%		_	0.00%	-	-	0.00%	-	-	0.00%	-	_	0.00%	-	-	0.00%	-	_	0.00%	-		0.00%	-
Idon	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-
Battery	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-		0.00%	-
Colebrook	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-
Dreadnought	-	0.00%		-	0.00%	-		0.00%	-		0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	
ire	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Godkin	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
uck	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Montana North	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Myrtle	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Nevada	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Penzance	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Pieman	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Pieman West	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Polaris	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Sassafras	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
「yndall	-	0.00%		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Гotals	6.673.059	1.29%	86,221	6,351,664	0.29%	18,119	5,691,087	1.28%	72,986	5,396,045	0.28%	15,243	- 981,973	1 35%	- 13,235	- 955,619	0.30% -	- 2.876	663.074	1.46%	9.671	663,074	0.42%	2,793

#### 6. MINERAL RESOURCE ESTIMATE – RENTAILS PROJECT

													METALS 2	X LIMITED											
											BLU	JESTONE	MINES TAS	MANIA JO	NT VENTU	RE									
														Statement											
								•					30/06	5/2016					-						
Ore Body				Mea	sured					Indi	cated					Infe	rred					Tota	al		
			Tin			Copper			Tin			Copper			Tin			Copper			Tin			Copper	
	CoG	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade Sn	Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
Mines																									
Dam A	0.00% Sn	3,005,694	0.46%	13,892	3,005,694	0.20%	6,119	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	3,005,694	0.46%	13,892	3,005,694	0.20%	6,119
Dam B	0.00% Sn	3,378,719	0.44%	14,931	3,378,719	0.21%	7,136	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	3,378,719	0.44%	14,931	3,378,719		
Dam C	0.00% Sn	16,119,057	0.44%	71,621	16,119,057	0.23%	37,363	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	16,119,057	0.44%	71,621	16,119,057	0.23%	37,363
Stockpiles																									
Prospects																									
Totals		22,503,470	0.45%	100,443	22,503,470	0.22%	50,619	-	0.00%	-	-	0.00%	-	-	0.00%	_	-	0.00%	-	22,503,470	0.45%	100,443	22,503,470	0.22%	50,619

#### 7. ORE RESERVE ESTIMATE – RENTAILS PROJECT

									•		METALS X LI							-	
										BLUESTONE	MINES TASMA Reserve Stat		VENTURE						
											30/06/2								
Ore Body				Pro	ven					Pr	obable					Tota	ıl		
			Tin			Coppe	r		Tin			Copper			Tin		Co	opper	
	CoG	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
Mines																			
Dam A	0.00% Sn	-	0.00%	-	-	0.00%	-	2,782,371	0.46%	12,860	2,782,371	0.20%	5,665	2,782,371	0.46%	12,860	2,782,371	0.20%	5,665
Dam B	0.00% Sn	-	0.00%	-	-	0.00%	-	3,209,783	0.44%	14,184	3,209,783	0.21%	6,780	3,209,783	0.44%	14,184	3,209,783	0.21%	6,780
Dam C	0.00% Sn	-	0.00%	-	-	0.00%	-	15,635,485	0.44%	69,473	15,635,485	0.23%	36,243	15,635,485	0.44%	69,473	15,635,485	0.23%	36,243
Stockpiles																			
Prospects																			
Totals		-	0.00%	-	-	0.00%	-	21,627,639	0.45%	96,516	21,627,639	0.23%	48,687	21,627,639	0.45%	96,516	21,627,639	0.23%	48,687

#### 8. ANNUAL MINERAL RESOURCE & ORE RESERVE INVENTORY CHANGES – RENTAILS PROJECT

Tonnes	Tin	2015 JUNE	RESOURCE																				
Tonnes	Tin							2016 JUNE R	ESOURCE					DIFFE	RENCE					CREC	DITED MI	NED	
Tonnes				Copper			Tin			Copper			Tin			Copper			Tin			Сорре	er
	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
3,005,694	0.46%	13,892	3,005,694	0.20%	6,119	3,005,694	0.46%	13,892	3,005,694	0.20%	6,119	-	0.00%	-	- '	0.00%	-	-	0.00%	-	-	0.00%	
2,842,484	0.45%		2,842,484	0.17%	4,723	3,378,719	0.44%	14,931	3,378,719	0.21%	7,136	536,235	0.40%		536,235	0.45%		-	0.00%		-	0.00%	-
15,993,420	0.44%	71,131	15,993,420	0.23%	37,338	16,119,057	0.44%	71,621	16,119,057	0.23%	37,363	125,637	0.39%	490	125,637	0.02%	25	-	0.00%	-	-	0.00%	
21,841,598	0.45%	97,809	21,841,598	0.22%	48,181	22,503,470	0.45%	100,443	22,503,470	0.22%	50,619	661,872	0.40%	2,635	661,872	0.37%	2,438	-	0.00%	-	-	0.00%	
103%	100%	103%																			-		
									RESERVE RECO	NCILIATION	l												
		2015    III	IE DECEDVE					2016 ILINE						DIFFE	DENCE					CDEL	DITED M	INIED	
		2015 JUN	IE KESEKVE					2016 JUNE	KESEKVE					DIFFE	KENCE					CKEL	JITED MII	NED	
	Tin			Copper			Tin			Copper			Tin			Copper			Tin			Сорре	er
Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
2,782,371	0.46%	12,860	2,782,371	0.20%	5,665	2,782,371	0.46%	12,860	2,782,371	0.20%	5,665	-	0.00%	-	- '	0.00%	-	-	0.00%	-	-	0.00%	
2,704,341	0.45%	12,164	2,704,341	0.17%	4,494	3,209,783	0.44%	14,184	3,209,783	0.21%	6,780	505,442	0.40%	2,020	505,442	0.45%	2,286	-	0.00%	-	-	0.00%	
15,478,074	0.44%	68,839	15,478,074	0.23%	36,135	15,635,485	0.44%	69,473	15,635,485	0.23%	36,243	157,411	0.40%	633	157,411	0.07%	107	-	0.00%	-	-	0.00%	-
20.964.786	0.45%	93.863	20.964.786	0.22%	46,293	21.627.639	0.45%	96,516	21.627.639	0.23%	48.687	662.853	0.40%	2.653	662.853	0.36%	2,393	_	0.00%	_	-	0.00%	
	15,993,420 21,841,598 103% Tonnes	15,993,420 0.44%  21,841,598 0.45%  103% 100%  Tin  Tonnes Grade  2,782,371 0.46% 2,704,341 0.45% 15,478,074 0.44%	15,993,420 0.44% 71,131  21,841,598 0.45% 97,809  103% 100% 103%  Tin  Tonnes Grade Sn Metal  2,782,371 0.46% 12,860 2,704,341 0.45% 12,164 15,478,074 0.44% 68,839	15,993,420 0.44% 71,131 15,993,420  21,841,598 0.45% 97,809 21,841,598  103% 100% 103%  2015 JUNE RESERVE  Tin  Tonnes Grade Sn Metal Tonnes  2,782,371 0.46% 12,860 2,782,371 2,704,341 0.45% 12,164 2,704,341 15,478,074 0.44% 68,839 15,478,074	15,993,420 0.44% 71,131 15,993,420 0.23%  21,841,598 0.45% 97,809 21,841,598 0.22%  103% 100% 103%  2015 JUNE RESERVE  Tin Copper  Tonnes Grade Sn Metal Tonnes Grade  2,782,371 0.46% 12,860 2,782,371 0.20% 2,704,341 0.45% 12,164 2,704,341 0.17% 15,478,074 0.44% 68,839 15,478,074 0.23%	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338  21,841,598 0.45% 97,809 21,841,598 0.22% 48,181  103% 100% 103%  2015 JUNE RESERVE  Tin Copper  Tonnes Grade Sn Metal Tonnes Grade Cu Metal  2,782,371 0.46% 12,860 2,782,371 0.20% 5,665 2,704,341 0.45% 12,164 2,704,341 0.17% 4,494 15,478,074 0.44% 68,839 15,478,074 0.23% 36,135	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338 16,119,057  21,841,598 0.45% 97,809 21,841,598 0.22% 48,181 22,503,470  103% 100% 103%  2015 JUNE RESERVE  Tin Copper  Tonnes Grade Sn Metal Tonnes Grade Cu Metal Tonnes  2,782,371 0.46% 12,860 2,782,371 0.20% 5,665 2,782,371 2,704,341 0.45% 12,164 2,704,341 0.17% 4,494 3,209,783 15,478,074 0.44% 68,839 15,478,074 0.23% 36,135 15,635,485	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338 16,119,057 0.44%  21,841,598 0.45% 97,809 21,841,598 0.22% 48,181 22,503,470 0.45%  103% 100% 103%	15,993,420	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338 16,119,057 0.44% 71,621 16,119,057 21,841,598 0.45% 97,809 21,841,598 0.22% 48,181 22,503,470 0.45% 100,443 22,503,470 103% 100% 103% 2016 JUNE RESERVE 2016 JUNE RESERVE 2016 JUNE RESERVE Tin Copper Tin Tonnes Grade Sn Metal Tonnes Grade Sn Metal Tonnes Grade Sn Metal Tonnes 12,782,371 0.46% 12,860 2,782,371 0.20% 5,665 2,782,371 0.46% 12,860 2,782,371 2,704,341 0.45% 12,164 2,704,341 0.17% 4,494 3,209,783 0.44% 14,184 3,209,783 15,478,074 0.44% 68,839 15,478,074 0.23% 36,135 15,635,485 0.44% 69,473 15,635,485	15,993,420	15,993,420	15,993,420	15,993,420	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338 16,119,057 0.44% 71,621 16,119,057 0.23% 37,363 125,637 0.39% 490  21,841,598 0.45% 97,809 21,841,598 0.22% 48,181 22,503,470 0.45% 100,443 22,503,470 0.22% 50,619 661,872 0.40% 2,635  103% 100% 103%	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338 16,119,057 0.44% 71,621 16,119,057 0.23% 37,363 125,637 0.39% 490 125,637    21,841,598 0.45% 97,809 21,841,598 0.22% 48,181 22,503,470 0.45% 100,443 22,503,470 0.22% 50,619 661,872 0.40% 2,635 661,872    RESERVE RECONCILIATION  2015 JUNE RESERVE	15,993,420 0.44% 71,131 15,993,420 0.23% 37,338 16,119,057 0.44% 71,621 16,119,057 0.23% 37,363 125,637 0.39% 490 125,637 0.02% 21,841,598 0.45% 97,809 21,841,598 0.22% 48,181 22,503,470 0.45% 100,443 22,503,470 0.22% 50,619 661,872 0.40% 2,635 661,872 0.37% 103% 100% 103%	15,993,420	15,993,420	15,993,420	15,993,420	15,993,420	15,993,420

#### 9. MINERAL RESOURCE ESTIMATE - MT BISCHOFF PROJECT

														S X LIMITED											
												BLU		MINES TASA											
														e Statemen	t										
													30/	06/2016											
					-																				
Ore Body				Mea	sured					Indic	ated					Infe	rred					Tota	l		
					ı					1							1							_	
			Tin			Copper			Tin			Copper			Tin			Copper			Tin			Copper	
	CoG	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade (	Cu Meta
Mines																									
Bischoff Pit	0.30% Sn	-	0.00%	-	-	0.00%	-	959,463	0.59%	5,626	-	0.00%	-	699,186	0.47%	3,300	-	0.00%	-	1,658,649	0.54%	8,926	-	0.00%	
North Face	0.30% Sn	-	0.00%	-	-	0.00%	-	4,063	0.86%	35	-	0.00%	-	-	0.00%	-	-	0.00%	-	4,063	0.86%	35	-	0.00%	-
Slaughter Yard	0.30% Sn	-	0.00%	-	-	0.00%	-	4,040	0.50%	20	-	0.00%	-	-	0.00%	-	-	0.00%	-	4,040	0.50%	20	-	0.00%	-
Stockpiles																									
ROM Pad HG	0.00% Sn	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
ROM Pad LG	0.00% Sn	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Brown's Face LG Dump	0.00% Sn	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Prospects																									
Bischoff Extended		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Cross Lode		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Northeast Level		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Queen's		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Stanhope		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Thompson's		-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Totals			0.00%		_	0.00%		967,566	0.50%	5,681	-	0.00%	_	699,186	0.47%	3,300	_	0.00%	_	1,666,752	0 5406	8,981	_	0.00%	
IUlais		-	0.00%	-	-	0.00%	-	907,500	0.39%	3,081	-	0.00%		099,180	0.47%	3,300	-	0.00%	-	1,000,732	0.34%	0,981	-	0.00%	

#### 10. ORE RESERVE ESTIMATE – MT BISCHOFF PROJECT

									METALS 2									
								BLU		NES TASMA	NIA							
										Statement								
									30/06	/2016								
Ore Body			Pr	oven		<u> </u>		<u> </u>	Pro	bable					To	otal	<u> </u>	<u> </u>
		Tin			Copper			Tin			Copper			Tin			Copper	
	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal	Tonnes	Grade	Sn Metal	Tonnes	Grade	Cu Metal
Mines																		
Bischoff Pit	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	) -	-	0.00%	-
North Face	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Slaughter Yard	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Stockpiles																		
ROM Pad HG	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	_	-	0.00%	) -	-	0.00%	-
ROM Pad LG	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Brown's Face LG Dump	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Prospects																		
Bischoff Extended	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	, -	-	0.00%	-
Cross Lode	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Northeast Level	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Queen's	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Stanhope	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Thompson's	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-
Totals		0.00%		_	0.00%			0.00%		_	0.000/	_	_	0.00%		_	0.00%	
Totals	-	0.00%	-	_	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-	-	0.00%	-

## JORC 2012 TABLE 1 - TIN DIVISION **SECTION 1 SAMPLING TECHNIQUES AND DATA**

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Face Sampling     Each development face / round is horizontally chip sampled at Renison. The sampling
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	intervals are domained by geological constraints (e.g. rock type, veining and alteration / sulphidation etc.). Samples are taken in a range from 0.3m up to 1.2m in waste. All exposures within the orebody are sampled. A similar process would have been followed for historical Mount Bischoff face sampling.  There is no face sampling for the Rentails Project.
Drill sample recovery	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Sludge Drilling         Sludge drilling at Renison is performed with an underground production drill rig. It is an open hole drilling method using water as the flushing medium, with a 64mm (nominal) hole diameter. Sample intervals are ostensibly the length of the drill steel. Holes are drilled at sufficient angles to allow flushing of the hole with water following each interval to prevent contamination.         There is no sludge drilling for the Mount Bischoff Project.         There is no sludge drilling for the Rentails Project.         </li> <li>RC Drilling         RC drilling has been utilised at Mount Bischoff.         Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal.         There is no RC drilling for the Renison Project.         There is no RC drilling for the Rentails Project.</li> </ul>

Criteria	JORC Code Explanation	Commentary
		<ul> <li>Percussion Drilling</li> <li>This drilling method was used for the Rentails project and uses a rotary tubular drilling cutter which was driven percussively into the tailings. The head of the cutting tube consisted of a 50mm diameter hard tipped cutting head inside which were fitted 4 spring steel fingers which allowed the core sample to enter and then prevented it from falling out as the drill tube was withdrawn from the drill hole.</li> <li>There is no percussion drilling for the Renison Project.</li> <li>There is no percussion drilling for the Mount Bischoff Project.</li> <li>All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged</li> </ul>	<ul> <li>Diamond core is logged geologically and geotechnically.</li> <li>RC chips are logged geologically.</li> <li>Development faces are mapped geologically.</li> <li>Logging is qualitative in nature.</li> <li>All holes are logged completely, all faces are mapped completely.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Drill core is halved for sampling. Grade control holes may be whole-cored to streamline the core handling process if required.</li> <li>Samples are dried at 90°C, then crushed to &lt; 3mm. Samples are then riffle split to obtain a sub-sample of approximately 100g which is then pulverized to 90% passing 75um. 2g of the pulp sample is then weighed with 12g of reagents including a binding agent, the weighed sample is then pulverised again for one minute. The sample is then compressed into a pressed powder tablet for introduction to the XRF. This preparation has been proven to be appropriate for the style of mineralisation being considered.</li> <li>QA/QC is ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor.</li> <li>The sample size is considered appropriate for the grain size of the material being sampled.</li> <li>The un-sampled half of diamond core is retained for check sampling if required.</li> <li>For RC chips regular field duplicates are collected and analysed for significant variance to primary results.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> </ul>	<ul> <li>Assaying is undertaken via the pressed powder XRF technique. Sn, As and Cu have a detection limit 0.01%, Fe and S detection limits are 0.1%. These assay methodologies are appropriate for the resource in question.</li> <li>All assay data has built in quality control checks. Each XRF batch of twenty consists of one blank, one internal standard, one duplicate and a replicate, anomalies are re-assayed to</li> </ul>
	<ul> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>ensure quality control.</li> <li>Specific gravity / density values for individual areas are routinely sampled during all diamond drilling where material is competent enough to do so.</li> </ul>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	• Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process.
	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	Virtual twinned holes have been drilled in several instances across all sites with no significant issues highlighted. Drillhole data is also routinely confirmed by development assay data in the operating environment.
	Discuss any adjustment to assay data.	Primary data is loaded into the drillhole database system and then archived for reference.
		All data used in the calculation of resources and reserves are compiled in databases     (underground and open pit) which are overseen and validated by senior geologists.
		No primary assays data is modified in any way.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> </ul>	All data is spatially oriented by survey controls via direct pickups by the survey department.  Drillholes are all surveyed downhole, currently with a GyroSmart tool in the underground environment at Renison, and a multishot camera for the typically short surface diamond holes.
	Quality and adequacy of topographic control.	All drilling and resource estimation is undertaken in local mine grid at the various sites.
		Topographic control is generated from remote sensing methods in general, with ground based surveys undertaken where additional detail is required. This methodology is adequate for the resource in question.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Drilling in the underground environment at Renison is nominally carried-out on 40m x     40m spacing in the south of the mine and 25m, x 25m spacing in the north of the mine     prior to mining occurring. A lengthy history of mining has shown that this data spacing is     appropriate for the Mineral Resource estimation process and to allow for classification of the     resource as it stands.
	Whether sample compositing has been applied.	Drilling at Mount Bischoff is variably spaced. A lengthy history of mining has shown that this data spacing is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands.
		Drilling at Rentails is usually carried out on a 100m centres. This is appropriate for the Mineral resource estimation process and to allow for classification of the resource as it stands.
		Compositing is carried out based upon the modal sample length of each individual domain.

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling intersections are nominally designed to be normal to the orebody as far as underground infrastructure constraints / topography allows.
	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Development sampling is nominally undertaken normal to the various orebodies.</li> <li>It is not considered that drilling orientation has introduced an appreciable sampling bias.</li> </ul>
Sample security	The measures taken to ensure sample security.	At Renison, Mount Bischoff and Rentails samples are delivered directly to the on-site laboratory by the geotechnical crew where they are taken into custody by the independent laboratory contractor.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

# **SECTION 2 REPORTING OF EXPLORATION RESULTS**

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

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	All Tasmania resources are hosted within 12M1995 and 12M2006. Both tenements are standard Tasmanian mining leases.     No native title interests are recorded against the Tasmanian tenements.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Tasmanian tenements are held by the Bluestone Mines Tasmania Joint Venture of which Metals X has 50% ownership.
		No royalties above legislated state royalties apply for the Tasmanian tenements.
		Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the mining leases.
		There are no known issues regarding security of tenure.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other partie	The Renison and Mount Bischoff areas have an exploration and production history in excess of 100 years.
		Bluestone Mines Tasmania Joint Venture work has generally confirmed the veracity of historic exploration data.
Geology	Deposit type, geological setting and style of mineralisation.	Renison is one of the world's largest operating underground tin mines and Australia's largest primary tin producer. Renison is the largest of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Renison Mine area is situated in the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Renison there are three shallow-dipping dolomite horizons which host replacement mineralisation.
		Mount Bischoff is the second of three major Skarn, carbonate replacement, pyrrhotite-cassiterite deposits within western Tasmania. The Mount Bischoff Mine area is situated within the Dundas Trough, a province underlain by a thick sequence of Neoproterozoic-Cambrian siliciclastic and volcaniclastic rocks. At Mount Bischoff folded and faulted shallow-dipping dolomite horizons host replacement mineralisation with fluid interpreted to be sourced from the forceful emplacement of a granite ridge and associated porphyry intrusions associated with the Devonian Meredith Granite, which resulted in the complex brittle / ductile deformation of the host rocks. Lithologies outside the current mining area are almost exclusively metamorphosed siltstones. Major porphyry dykes and faults such as the Giblin and Queen provided the major focus for ascending hydrothermal fluids from a buried ridge of the Meredith Granite. Mineralisation has resulted in tin-rich sulphide replacement in the dolomite lodes, greisen and sulphide lodes in the porphyry and fault / vein lodes in the major faults. All lodes contain tin as cassiterite within sulphide mineralisation with some coarse cassiterite as veins throughout the lodes.
		The Rentails resource is contained within three Tailing Storage Facilities (TSF's) that have been built up from the processing of tin ore at the Renison Bell mine over the period 1968 to 2013.

Criteria	JORC Code Explanation	Commentary
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  Beasting and northing of the drill hole collar  Belevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar  Belevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar  Belevation or RL (Reduced Level — elevation above sea level in metres) of the drill hole collar  Belevation of the dr	No drillhole information is being presented in this release.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No drillhole information is being presented in this release.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	No drillhole information is being presented in this release.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No drillhole information is being presented in this release.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No drillhole information is being presented in this release.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No relevant information to be presented.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Exploration assessment and normal mine extensional drilling continues to take place at Renison.</li> <li>Exploration assessment continues to progress at Mount Bischoff.</li> <li>Project assessment continues to progress at Rentails.</li> </ul>

# **SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES**

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

Criteria	JORC Code Explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	<ul> <li>Drillhole data is stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".</li> <li>As new data is acquired it passes through a validation approval system designed to pick-</li> </ul>
	Data validation procedures used.	up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), face chip and sludge drilling data and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mr. Russell visits Metals X Gold Operations regularly.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	Mining has occurred since 1800's providing significant confidence in the currently geological interpretation across all projects.
	Nature of the data used and of any assumptions made.	No alternative interpretations are currently considered viable.
	<ul> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.
		The architecture of the Renison horst / graben system is the dominant control on geological and grade continuity.
		Similarly at Mount Bischoff the extent of intrusive felsic dykes in proximity to carbonate horizons control the continuity of grade within the system.
		The depositional history of Rentails is well documented.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral	<ul> <li>Renison has currently been mined over a strike length of &gt;1,950m, a lateral extent of &gt;1,250m and a depth of over 1,100m.</li> </ul>
	Resource.	<ul> <li>Mount Bischoff mineralisation has currently been defined over a strike length of &gt;600m, a lateral extent of &gt;250m and a depth of &gt;250m.</li> </ul>
		Rentails is deposited in three adjacent TSFs which have and aggregate length of approximately 1.8km and a width at the widest point of circa 1km. Maximum depth is in excess of 20m.

Criteria	JORC Code Explanation	Commentary
Estimation and modelling techniques	Possible Explanation  The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.  The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).  In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.  Any assumptions behind modelling of selective mining units.  Any assumptions about correlation between variables.  Description of how the geological interpretation was used to control the resource estimates.  Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul> <li>All modelling and estimation work undertaken by BMTJV is carried out in three dimensions via Surpac Vision.</li> <li>After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body.</li> <li>Drillhole intersections within the mineralised body are defined, these intersections are then used to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes are subsequently composited to allow for grade estimation. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.</li> <li>Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters, which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.</li> <li>An empty block model is then created for the area of interest. This model contains attributes set at background values for the various elements of interest as well as density, and various estimation parameters that are subsequently used to assist in resource categorisation. The block sizes used in the model will vary depending on orebody geometry, minimum mining units, estimation parameters and levels of informing data available.</li> <li>Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to b</li></ul>
		Estimation results are routinely validated against primary input data, previous estimates and mining output.
		Good reconciliation between mine claimed figures and milled figures is routinely achieved.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates are dry tonnes.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The resource reporting cut-off grade is 0.7% Sn at Renison.
		The resource reporting cut-off grade is 0.5% Sn at Mount Bischoff.
		There is no lower reporting cut-off grade for Rentails.

Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Not considered for Mineral Resource. Applied during the Reserve generation process.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Not considered for Mineral Resource. Applied during the Reserve generation process.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Both Bluestone Mines Tasmania Joint Venture operates in accordance with all environmental conditions set down as conditions for grant of the respective mining leases.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Bulk density of the mineralisation at Renison and Mount Bischoff is variable. Bulk density sampling is undertaken via assessments of drill core (BMTJV practice is to undertake bulk density determinations on a representative selection of drill core sent for assay), and are reviewed constantly (BMTJV practice is to collect check SG samples as a regular part of the mining cycle). Where no drill core or other direct measurements are available, SG factors have been assumed based on similarities to other zones of mineralisation.</li> <li>Given the volume of the TSF's are known, and the tonnage of tailings material deposited into the dams was recorded, the insitu bulk density of the Rentails resource has been back-calculated.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, the input data and geological / mining knowledge.</li> <li>This approach considers all relevant factors and reflects the Competent Person's view of the deposit.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Resource estimates are peer reviewed by the site technical team as well as Metals X's Corporate technical team.

Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>All currently reported resources estimates are considered robust, and representative on both a global and local scale.</li> <li>A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimate for Renison and Mount Bischoff.</li> <li>A detailed set of production records provides confidence in the accuracy of the estimate for Rentails.</li> </ul>

# **SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	At all projects, all resources that have been converted to reserve are classified as either an Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves after adding appropriate modifying factors. Some Measured Resource may be classified as Proven Reserves and some is classified as Probable Reserve based on whether is capitally or fully developed.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mr Poepjes visits the active Metals X operations on a regular basis.
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to 0re Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to 0re Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered</li> </ul>	<ul> <li>Mining is in progress at Renison and has occurred for nearly 50 years. Following exploration and infill drilling activity, annual resource updates and economic assessment of the Measured and Indicated resources is completed using actual costs, operating parameters and modifying factors. An annual update of Ore Reserves is completed on this basis. With regard to the Rentails Mineral Resource and Ore Reserve, the proposed Rentails Tailings Retreatment Project has been subject to a Definitive Feasibility Study to validate the operating parameters applied. Increases in both the Mineral Resource and Ore Reserve for Renison are a direct reflection of total tailings output to the tailings dam from the operating Renison tin concentrator plant.</li> <li>No reserve is stated for Mount Bischoff.</li> </ul>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>The cut-off grade used for inclusion in the Renison Reserve is 0.8% Sn based on economic assessment and current operating and market parameters. No consideration is given to copper co-product revenue in the economic assessment as the mining and recovery of the material is ad hoc and occurs as a consequence of mining the tin.</li> <li>There is no lower cut-off for reporting of the Rentails Reserve as the entire resource will be mined as far as physical constraints allow.</li> <li>No reserve is stated for Mount Bischoff.</li> </ul>

Criteria	JORC Code Explanation	Commentary
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).  The obtain method and assumptions are father selected mining method (a) and other mining.	The Renison mine predominantly applies an up-hole benching with in some cases post fill and cemented aggregate fill to fill voids. The mining method has been successfully applied over the past decade with small tweaks and geotechnical considerations progressively applied.
	<ul> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> </ul>	Mining dilution for the Mining Reserve is generally 25% at zero grade.
	<ul> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> </ul>	A minimum mining width of underground development is 3.5m and for underground stoping a minimum width of 1.5m and resource models are diluted to these limits before dilution
	<ul> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> </ul>	<ul><li>applied.</li><li>A mining recovery 80% of the material developed and/or stoped is applied.</li></ul>
	The mining dilution factors used.	No Inferred resources are included within either the Reserve or the mine plan.
	The mining recovery factors used.	Rentails resources have been converted to reserve via a DFS study.
	Any minimum mining widths used.	Rentails will be mined via a combination of dredging and monitoring.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the	Mining dilution at Rentails is minimal.
	sensitivity of the outcome to their inclusion.	Mining recovery at Rentails will exceed 95%.
	The infrastructure requirements of the selected mining methods.	No Inferred resources are included within either the Rentails Reserve or the mine plan.
		No reserve is stated for Mount Bischoff.
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> </ul>	The Renison mine produces a tin concentrate of grade varying between 50-60 % Sn with internal process designed to reduce penalty metals such as iron, sulphur, tungsten and copper.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	The metallurgical process is complex and applies several stages of gravity-type concentration as well as sulphide and oxide flotation, regrinding and acid leach methods. The method is proved and has successfully operated for over 45 years.
	Any assumptions or allowances made for deleterious elements.	The metallurgical recovery as estimated based on regression analysis of grade recovery curves from the actual processing of ores in the plant.
	<ul> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based</li> </ul>	Metallurgical recoveries on the various ore and grades were considered as part of the cut-off grade analysis.
	on the appropriate mineralogy to meet the specifications?	<ul> <li>The process proposed by Rentails project is to regrind the ores to a finer grind, the pre- concentration using sulphide and oxide flotation, and high-g-force gravity separation to produce a low-grade concentrate which is planned to be processed using an Ausmelt process to fume the tin to a high grade concentrate tap out a copper matte.</li> </ul>
		No reserve is stated for Mount Bischoff.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Waste is generally stored underground in old mine voids. Smaller amounts are placed on approved dumps.
		The Renison mine operates under and in compliance with a number of operating permits, which cover its environmental impacts and outputs.
		No reserve is stated for Mount Bischoff.

Criteria	JORC Code Explanation	Commentary
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	The Renison mine is currently active and has substantial in place infrastructure in place including a large amount of mine infrastructure, major electrical and pumping networks, and underground primary crusher and automated shaft hoist system, a 650,000tpa tin concentrator plant, a fully equipped laboratory, extensive workshop, administration facilities and a 100 person single person quarters nearby.
		The Rentails Project will be integrated with the Renison Project. There is sufficient land set aside for the Rentails expansion and future infrastructure requirements including tailings storage.
		No reserve is stated for Mount Bischoff.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Mining costs for the Renison mine are based on Actual Mining Contractor Costs and actual
	The methodology used to estimate operating costs.	realised costs and future budget estimates for all other functions at the existing mine.
	Allowances made for the content of deleterious elements.	Costs for the Rentails Project have been defined through a Definitive Feasibility Study.
	The source of exchange rates used in the study.	No reserve is stated for Mount Bischoff.
	Derivation of transportation charges.	
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.	
	The allowances made for royalties payable, both Government and private.	
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	For the Renison Mine, revenue is based upon existing smelter contract costs and a base international tin price of US\$17,000 and an AUD to USD exchange rate of 0.75 : 1. No coproduct revenue is considered in Mining Reserve or cut-off grade estimation.
	The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	For the Rentails Project, similar industry based smelter contracts is considered. Credits for sale of a high-grade copper matte product are considered and applied as a co-product revenue in the estimation of operating costs.
		No reserve is stated for Mount Bischoff.
Market assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	Detailed economic studies of the tin market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine
	A customer and competitor analysis along with the identification of likely market windows for the product.	<ul><li>planning decisions.</li><li>There remains strong demand and no apparent risk to the long term demand for the tin</li></ul>
	Price and volume forecasts and the basis for these forecasts.	products and / or copper products generated from the project.
	<ul> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	

Criteria	JORC Code Explanation	Commentary
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	As an operating mine, internal cash flow estimates and impairment models apply an implied 8% real discount rate for NPV analysis and only economically viable ores are considered for mining. The mine is operated in a JV and carries no external debt.
	NPV ranges and sensitivity to variations in the significant assumptions and inputs.	For the Rentails Project, which is yet to be funded, an 8% real discount rate is applied to NPV analysis.
		Sensitivity analysis of key financial and physical parameters is applied to future development project considerations and mine.
		No reserve is stated for Mount Bischoff.
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	The Renison mine is fully permitted and a major contributor to the local and regional economy. It has no external pressures that impact its operation or which could potentially jeopardise its continuous operation.
		The Rentails Project is yet to start and will require environmental and other regulatory permitting.
		The Mount Bischoff Project is currently closed and the site is under care and maintenance whilst addition drilling and economic evaluation or remaining resources is considered.
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	Renison is an active mining project.
	Any identified material naturally occurring risks.	
	The status of material legal agreements and marketing arrangements.	
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral</li> </ul>	The basis for classification of the resource into different categories is made on a subjective basis. Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling.
	Resources (if any).	and are in most instances capitally developed or well defined from a mining perspective.  Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works.
		Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on subjective internal judgements, but generally based upon the intensity of capital and normal development they have been subjected to.  The subject of
		The result appropriately reflects the Competent Person's view of the deposit.

Criteria	JORC Code Explanation	Commentary
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	Site generated reserves and the parent data and economic evaluation data is routinely reviewed by the Metals X Corporate technical team. Resources and Reserves have in the past been subjected to external expert reviews, which have ratified them with no issues. There is no regular external consultant review process in place.
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>All currently reported reserve calculations are considered representative on a local scale.     Regular mine reconciliations occur to validate and test the accuracy of the estimates at     Renison. A comprehensive production history confirms the validity of the Rentails reserve.</li> <li>No reserve is stated for Mount Bischoff.</li> </ul>

#### Metals X Limited - Gold Division Mineral Resource and Ore Reserves

#### NICKEL DIVISION

(as at 30 June 2016)

#### 1. **WINGELLINA PROJECT – EXECUTIVE SUMMARY**

М	METALS X LIMITED  Nickel Division  Mineral Resource Statement  30/06/2016												
	Tonnes	Grade	Metal										
MEASURED													
NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	37,567,496 37,567,496 37,567,496	0.98% 0.07% 45.94%	367,960 28,016 17,259,298										
INDICATED													
NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	130,854,910 130,854,910 130,854,910	0.91% 0.07% 45.55%	1,193,482 94,605 59,610,593										
INFERRED													
NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	47,415,492 47,415,492 47,415,492	0.83% 0.07% 39.48%	392,022 31,801 18,720,554										
GRAND TOTAL													
NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	215,837,898 215,837,898 215,837,898	0.91% 0.07% 44.29%	1,953,464 154,423 95,590,446										

M	METALS X LIMI' Nickel Divisic Iineral Reserve Sta 30/06/2016	on atement	
	Tonnes	Grade	Metal
PROVEN			
NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	- - -	0.00% 0.00% 0.00%	
PROBABLE			
NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	168,422,406 168,422,406 168,422,406	0.93% 0.07% 45.64%	1,561,442 122,622 76,869,891
GRAND TOTAL NICKEL COBALT Fe <sub>2</sub> O <sub>3</sub>	168,422,406 168,422,406 168,422,406	0.93% 0.07% 45.64%	1,561,442 122,622 76,869,891

## 1.1 MINERAL RESOURCE AND ORE RESERVE ESTIMATES AS AT 30 JUNE 2016

									METALS X LI	MITED							
									METEX NIC	CKEL							
								F	Resource Sta	tement							
									30/06/20	016							
Ore Body			Meas	sured			Indicated	t			Inferre	d			Tota	I	
	-		Nickel	Cobalt	Fe2O3		Nickel	Cobalt	Fe2O3		Nickel	Cobalt	Fe2O3		Nickel	Cobalt	Fe2O3
	CoG	Tonnes	Grade	Grade	Grade	Tonnes	Grade	Grade	Grade	Tonnes	Grade	Grade	Grade	Tonnes	Grade	Grade	Grade
Mines																	
Claude Hills	0.50%	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	33,277,475	0.81%	0.07%	38.73%	33,277,475	0.81%	0.07%	38.739
Wingellina	0.50%	37,567,496	0.98%	0.07%	45.94%	130,854,910	0.91%	0.07%	45.55%	14,138,017	0.87%	0.06%	41.25%	182,560,423	0.92%	0.07%	45.649
Stockpiles																	
Prospects																	
Beadell		-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.009
Totals		37,567,496	0.98%	0.07%	45.94%	130,854,910	0.91%	0.07%	45.55%	47,415,492	0.83%	0.07%	39.48%	215,837,898	0.91%	0.07%	44.299

						Ň	METALS X LIMI	TED					
							METEX NICK						
						Ore	Reserve State						
							30/06/2016						
Ore Body			Pro	ved			Probable	2			Total		
			Nickel	Cobalt	Fe2O3		Nickel	Cobalt I	Fe2O3		Nickel	Cobalt	Fe2O3
	CoG	Tonnes	Grade	Grade	Grade	Tonnes	Grade	Grade	Grade	Tonnes	Grade	Grade	Grade
Mines													
Claude Hills	0.50%	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	38.73%
Wingellina	0.50%	-	0.00%	0.00%	0.00%	168,422,406	0.93%	0.07%	45.64%	168,422,406	0.93%	0.07%	45.64%
Stockpiles													
Prospects													
Beadell		-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%	-	0.00%	0.00%	0.00%
Totals		_	0.00%	0.00%	0.00%	168,422,406	0.93%	0.07%	45.64%	168,422,406	0.93%	0.07%	45.64%

## 1.2 ANNUAL MINERAL RESOURCE ESTIMATE & ORE RESERVE CHANGES

												RECONCILIAT	ION											
			2015 JUN	IE RESOURCE						2016 JU	INE RESOL	JRCE								DIFFERE	NCE			
		obalt			Fe2O3			Nickel			Cobalt			Fe2O3			Nickel			Cobalt			Fe2O3	
	Tonnes	Grade	Co Metal	Tonnes	Grade	Fe2O3	Tonnes	Grade	Ni Metal	Tonnes	Grade	Co Metal	Tonnes	Grade	Fe2O3	Tonnes	Grade	Ni Metal	Tonnes	Grade	Co Metal	Tonnes	Grade	Fe2O3
Mines																								
Claude Hills	33,277,475	0.07%	22,674	33,277,475	38.73%	12,888,994	33,277,475	0.81%	269,654	33,277,475	0.07%	22,674	33,277,475	38.73%	12,888,994	-		-	-		-	-		-
Wingellina	183,197,000	0.08%	138,520	183,197,000	46.95%	86,006,731	182,560,423	0.92%	1,683,810	182,560,423	0.07%	131,748	182,560,423	45.30%	82,701,451	- 636,577		- 113,855	- 636,577		- 6,771	- 636,577	51.92% -	3,305,27
Stockpiles																								
Prospects																								
Beadell			-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fotals	216,474,475		161,194	216,474,475	45.68%	98,895,725	215,837,898	0.91%	1,953,464	215,837,898	0.07%	154,423	215,837,898	44.29%	95,590,446	- 636,577		- 113,855	- 636,577		- 6,771	- 636,577	51.92% -	3,305,27

										F	RESERVE RE	CONCILIATIO	N											
			2015 JU	NE RESERVE						2016 .	JUNE RESE	RVE								DIFFERE	NCE			
		obalt			Fe2O3			Nickel			Cobalt			Fe2O3			Nickel			Cobalt			Fe2O3	
	Tonnes	Grade	Co Metal	Tonnes	Grade	Fe2O3	Tonnes	Grade	Ni Metal	Tonnes	Grade	Co Metal	Tonnes	Grade	Fe2O3	Tonnes	Grade	Ni Metal	Tonnes	Grade	Co Metal	Tonnes	Grade	Fe2O3
Mines																								
Claude Hills	-	0.00%	-	-	0.00%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wingellina	167,470,000	0.08%	127,668	-	0.00%	-	168,422,406	0.93%	1,561,442	168,422,406	0.07%	122,622	168,422,406	45.64%	76,869,891	952,406	-8.79%	- 83,671	952,406	-0.53%	- 5,046	168,422,406	45.64%	76,869,8
Stockpiles																								
Prospects																								
Beadell	-	0.00%	-	-	0.00%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals	167,470,000	0.08%	127,668	-	0.00%	-	168,422,406	0.93%	1,561,442	168,422,406	0.07%	122,622	168,422,406	45.64%	76,869,891	952,406	-8.79%	- 83,671	952,406	-0.53%	- 5,046	168,422,406	45.64%	76,869,8

## JORC TABLE 1 - NICKEL DIVISION

# **SECTION 1 SAMPLING TECHNIQUES AND DATA**

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

Criteria	JORC Code explanation	Commentary
Criteria Sampling techniques  Drilling techniques  Drill sample recovery	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of</li> </ul>	<ul> <li>Diamond Drilling</li> <li>A small portion of the data used in resource calculations at the Central Musgrave Project (CMP) has been gathered from diamond core. This core is geologically logged prior to sampling.</li> <li>RC Drilling</li> <li>RC drilling has been utilised extensively at the CMP.</li> <li>Drill cuttings are extracted from the RC return via cyclone. The underflow from each interval is transferred via bucket to a four tiered riffle splitter, delivering approximately three kilograms of the recovered material into calico bags for analysis. The residual material is retained on the ground near the hole. Composite samples are obtained from the residue material for initial analysis, with the split samples remaining with the individual residual piles until required for re-split analysis or eventual disposal.</li> <li>Historical</li> <li>A variety of drilling methods were employed by INCO, including churn drilling (102 holes) DDH (19 holes) RAB Drilling (2,643 holes) Vacuum (77 holes) Becker Drilling (102 holes).</li> <li>Sample recovery from early drilling by INCO is not known. Sample recovery from RC drilling carried out from RC drilling after 2001 was generally very good, except where the drill encountered strong water flow from the hole.</li> <li>All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery. No defined relationship exists between sample recovery and grade. Nor has sample bias due to preferential loss or gain of fine or coarse material been noted.</li> <li>Diamond core is logged geologically and geotechnically.</li> </ul>
	detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	RC hole chips are logged geologically.      Logging is qualitative in nature.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All holes are logged completely.
	The total length and percentage of the relevant intersections logged.	

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>A sample of each 5ft of drilling from INCO drilling were quartered and forwarded for assay, either to AMDEL in Adelaide, or to INCO's in-house laboratory at Blackstone.</li> <li>Samples of RC drilling taken prior to 2006 were composited on 3 or 4m basis, and the composite assayed. A 1m riffle-split sample was also taken for each metre drilled, and was submitted for analysis if the composite assayed &gt;0.4%Ni.</li> <li>Sub-sampling for the 2006 and later RC drilling were riffle split each 2m sample drilled.</li> <li>Chips / core chips undergo total preparation.</li> <li>QA/QC is currently ensured during the sub-sampling stages process via the use of the systems of an independent NATA / ISO accredited laboratory contractor. A portion of the historical informing data has been processed by in-house laboratories.</li> <li>The sample size is considered appropriate for the grain size of the material being sampled.</li> <li>The un-sampled half of diamond core is retained for check sampling if required.</li> <li>For RC chips regular field duplicates are collected and analysed for significant variance to primary</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples of INCO's drilling were dried and assayed by AAS either at AMDEL in Adelaide, or at INCO's inhouse laboratory at Blackstone. The digest method was not specified. Samples were assayed for Ni, Co and Fe. Analytical quality control was maintained by the by the insertion of standard samples and reanalysis of duplicates at separate laboratories at a frequency of two check analyses for every twenty samples.</li> <li>Composite samples of RC drilling completed in 2001 were submitted to AMDEL, dried and pulverised, and assayed for Ni, Co, Ag, As, Bi, Cu, Cr, Fe, Mg, Mn, Pb, S, Sb, Ti, V, Zr, Ca and Al by HF-multi-acid digest / ICP-0ES. The 1m riffle-splits for any composite sample assaying</li> <li>&gt;0.4%Ni were retrieved, and re-assayed using the same method.</li> <li>Composite samples from 2002-2004 were assayed for Al, Ca, Cr, Fe, Mg, Mn, Ni, Si, Ti by borate fusion ICP-0ES, and for Ag, As, Bi, Co, Cu, Ni, Pb, S, Sb, V, Zr by HF-multi-acid digest / ICP-0ES.</li> <li>During 2005 two metre composite riffle-split (or spear-sampled for wet samples) samples were sent to SGS Laboratories in Perth. Each 2m composite sample was dried and pulverised to a nominal 90 per cent passing 75 microns and analysed for: As, Bi, Co, Cu, Ni, Pb, S and Zn by ICP-0ES. Samples returning &gt;0.4%Ni were re-assayed for Ni, Co, Al<sub>2</sub>O<sub>3</sub>, CaO, K<sub>2</sub>O, Fe<sub>2</sub>O<sub>3</sub>, MgO, MnO, Na<sub>2</sub>O, SiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, Cr, SO<sub>3</sub>, Cu, Zn by fused disc XRF.</li> <li>After 2005 two metre composite riffle-split (or spear-sampled) samples were sent to SGS Laboratories in Perth. Each sample was pulverised to nominal 90 per cent passing 75 micron for analysis for assay for Ni, Co, Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, TiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, MnO, CaO, K2O, MgO, SO<sub>3</sub>, Na<sub>2</sub>O, V<sub>2</sub>O<sub>5</sub>, Cr, Cu and Zn by fused disc XRF.</li> <li>Duplicate samples were taken by spearing the sample pile on the ground approximately every 20 samples, and an in-house standard was inserted into the sample run every alternate 20 samples.</li> <li>No significant OA/OC issues have arisen in recent drill</li></ul>

Criteria	JORC Code explanation	Commentary
Verification of sam- pling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process.
	The use of twinned holes.	Virtual twinned holes have been drilled in several instances across all sites with no significant issues
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>highlighted.</li> <li>Primary data is loaded into the drillhole database system and then archived for reference.</li> </ul>
	Discuss any adjustment to assay data.	All data used in the calculation of resources and reserves are compiled in databases which are overseen and validated by senior geologists.
		No primary assays data is modified in any way.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	All hole collar locations for RC holes drilled after 2000 were surveyed by using a Real Time Kinematic GPS. This measured X, Y and Z to sub-centimetre accuracy in terms of the MGA 94, Zone 52 metric grid.
	Specification of the grid system used.	Hole collars for almost all INCO drill holes were re-located, and survey in using the RTK GPS. Several
	Quality and adequacy of topographic control.	INCO collars could not be located, and their MGA positions are estimated from their drilled location on the original INCO Imperial local grid.
		Topographic control is generated from a combination of remote sensing methods and ground-based surveys. This methodology is adequate for the resource in question.
Data spacing and	Data spacing for reporting of Exploration Results.	Drill hole spacing at CMP is generally on a 120m x 50m spacing. This has been filled-in to 60 x 50 and
distribution	• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure (s)	30m x 25m spacing in some areas. The data spacing is sufficient for both the estimation procedure and resource classification applied.
	and classifications applied.	Compositing of drill assay data to 1.5m was used in the estimate.
	Whether sample compositing has been applied.	
Orientation of	Whether the orientation of sampling achieves unbiased sampling of possible structures and	Drilling intersections are nominally designed to be sub-normal to the orebody.
data in relation to geological structure	the extent to which this is known, considering the deposit type.	It is not considered that drilling orientation has introduced an appreciable sampling bias.
geological structure	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	
Sample security	The measures taken to ensure sample security.	Samples are delivered to a third party transport service, who in turn relay them to the independent laboratory contractor. Samples are stored securely until they leave site.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

## **SECTION 2 REPORTING OF EXPLORATION RESULTS**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The CMP comprises 5 granted exploration leases and 1 granted miscellaneous lease.</li> <li>Native title interests are recorded against the CMP tenements.</li> <li>The CMP tenements are held by the Austral Nickel Pty. Ltd. (South Australia) and Hinckley Range Pty. Ltd. (Western Australia). Metals X has 100% ownership of both companies.</li> <li>One third party royalty agreement applies to the tenements at CMP, over and above the state government royalty.</li> <li>Hinckley Range and Austral Nickel operate in accordance with all environmental conditions set down as conditions for grant of the leases.</li> <li>There are no known issues regarding security of tenure.</li> <li>There are no known impediments to continued operation.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The CMP area has an exploration history which extends to the 1960's, with significant contributors being INCO, Acclaim and Metex Nickel.</li> <li>On balance, MLX work has generally confirmed the veracity of historic exploration data.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The Musgrave Block is an east-west trending, structurally bounded mid-Proterozoic terrane some 130,000km² in area, straddling the common borders of Western Australia, South Australia and the Northern Territory.
		<ul> <li>Deep weathering of olivine-rich ultramafic units has resulted in the concentration of nickel mineralisation. The olivines in the ultramafic units have background values of about 0.15% Ni to 0.3% Ni. The almost complete removal of MgO and SiO<sub>2</sub> to ground waters during the weathering of olivines in the ultramafic units resulted in extreme volume reductions and consequent significant upgrading of other rock forming oxides (Fe<sub>2</sub>O<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub>) and metal element concentrations in the weathered profile.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drillhole information is being presented in this release.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No drillhole information is being presented in this release.
Relationship between minerali- sation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	No drillhole information is being presented in this release.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No drillhole information is being presented in this release.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No drillhole information is being presented in this release.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No relevant information to be presented.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Exploration and mine planning assessment continues to take place at the CMP.

### SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

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

Criteria	JO	RC Code explanation	Con	mmentary
Database integrity	•	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation	•	Drillhole data is stored in a Maxwell's DataShed system based on the Sequel Server platform which is currently considered "industry standard".
	•	purposes.  Data validation procedures used.	•	As new data is acquired it passes through a validation approval system designed to pick up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data), and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
Site visits	•	Comment on any site visits undertaken by the Competent Person and the outcome of those	•	The site is manned continually by Senior Geological personnel.
		visits. If no site visits have been undertaken indicate why this is the case.	•	As no material update to the data supporting the resource has been undertaken since early 2008 no recent site visits by the Competent Person have been undertaken.
Geological interpre- tation		Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	•	Confidence in the geological model used to constrain the Wingellina estimate is high, with the genetic model for lateritic nickel development well understood. Logged geology has been used to drive the
	•	Nature of the data used and of any assumptions made.		mineralisation interpretation, with the base of laterite defined with drill holes, or its level on a given
	•	The effect, if any, of alternative interpretations on Mineral Resource estimation.		section interpreted from surrounding drill sections. Continuity of the interpretation across and along the Wingellina deposit is for the most part good, with intersections of hard rock in drill holes, and well
	•	The use of geology in guiding and controlling Mineral Resource estimation.		mapped outcropping basement the primary causes of breaks within the mineralised horizon.
	•	The factors affecting continuity both of grade and geology.	•	No alternative interpretations are currently considered viable.
			•	Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.
			•	The protolithology is the dominant control on grade continuity at the CMP. Structural controls which influence depth of weathering are secondary controls on grade distribution.
Dimensions	•	The extent and variability of the Mineral Resource expressed as length (along strike or	•	Individual deposit scales vary across the CMP.
		otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	•	The Wingellina deposits are mineralised over a strike length of >9km, a lateral extent of up to 2.5km and a depth of up to 200m.

Criteria	JORC Code explanation	Commentary
Estimation and mod- elling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> </ul>	undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated
	<ul> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.</li> <li>An empty block model is then created for the area of interest. This model contains attributes set at</li> </ul>
		<ul> <li>Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products.</li> <li>The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge.</li> <li>This approach has proven to be applicable to Metals X's nickel assets.</li> <li>Estimation results are routinely validated against primary input data, previous estimates and mining output.</li> </ul>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	'
Cut-off param- eters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The resource reporting cut-off grade is 0.5% Ni. The reporting cut-off used was based on MLX's current interpretation of commodity markets, and to allow peer group comparison.

Criteria	JORC C	ode explanation	Con	nmentary
Mining factors or assumptions	inte of o mir est	sumptions made regarding possible mining methods, minimum mining dimensions and ernal (or, if applicable, external) mining dilution. It is always necessary as part of the process determining reasonable prospects for eventual economic extraction to consider potential ning methods, but the assumptions made regarding mining methods and parameters when timating Mineral Resources may not always be rigorous. Where this is the case, this should reported with an explanation of the basis of the mining assumptions made.	•	Not considered for Mineral Resource. Applied during the Reserve generation process.
Metallurgical factors or assumptions	ned ext me ma	e basis for assumptions or predictions regarding metallurgical amenability. It is always cessary as part of the process of determining reasonable prospects for eventual economic traction to consider potential metallurgical methods, but the assumptions regarding etallurgical treatment processes and parameters made when reporting Mineral Resources ay not always be rigorous. Where this is the case, this should be reported with an explanation the basis of the metallurgical assumptions made.	•	Not considered for Mineral Resource. Applied during the Reserve generation process.
Environmental factors or assumptions	ned ext ope for the	sumptions made regarding possible waste and process residue disposal options. It is always cessary as part of the process of determining reasonable prospects for eventual economic traction to consider the potential environmental impacts of the mining and processing eration. While at this stage the determination of potential environmental impacts, particularly a greenfields project, may not always be well advanced, the status of early consideration of ese potential environmental impacts should be reported. Where these aspects have not been asidered this should be reported with an explanation of the environmental assumptions ade.	•	MLX operates in accordance with all environmental conditions set down as conditions for grant of the respective leases.
Bulk density	me	nether assumed or determined. If assumed, the basis for the assumptions. If determined, the bethod used, whether wet or dry, the frequency of the measurements, the nature, size and presentativeness of the samples.	•	Sampling of HQ diamond drill core was used to determine the dry density of laterite ore. Average measured dry density is 1.28t/m³.
	• The	e bulk density for bulk material must have been measured by methods that adequately count for void spaces (vugs, porosity, etc.), moisture and differences between rock and eration zones within the deposit.	mea ends	A total of 281 triple-tube HQ core samples were collected immediately from the core barrel and measured for bulk density on site. The core length was measured for diameter and length (square-cut ends), dried for 24 hours in a gas oven at 120°C, and weighed.
	• Dis	scuss assumptions for bulk density estimates used in the evaluation process of the different sterials.	•	Density was calculated by dividing the weight (kg) of dry sample by the volume of the core piece.
Classification	• Wh	e basis for the classification of the Mineral Resources into varying confidence categories. nether appropriate account has been taken of all relevant factors (i.e. relative confidence in nage/grade estimations, reliability of input data, confidence in continuity of geology and etal values, quality, quantity and distribution of the data).	•	Resources are classified in line with JORC guidelines utilising a combination of various estimation derived parameters, the input data and geological / mining knowledge.  This approach considers all relevant factors and reflects the Competent Person's view of the deposit.
Audits or reviews		nether the result appropriately reflects the Competent Person's view of the deposit.  e results of any audits or reviews of Mineral Resource estimates.	•	Resource estimates are peer reviewed by the site technical team as well as Metals X's Corporate technical team.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Minera Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> </ul>	and local-scale.
	<ul> <li>The statement should specify whether it relates to global or local estimates, and, if local state the relevant tonnages, which should be relevant to technical and economic evaluation Documentation should include assumptions made and the procedures used.</li> </ul>	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

## SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource esti- mate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of the Ore Reserves.</li> </ul>	Indicated or Measured Resource. Indicated Resources are only upgraded to Probable Reserves
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Irregular site visits have been undertaken. The reserve has remained materially consistent since the 2008 Feasibility Study was completed.
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	to allow the conversion of Mineral Resources to Ore Reserves.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>The cut-off grade used for inclusion in the CMP Reserve were determined through the Feasibility Study process.</li> <li>Cobalt co-product revenue is considered by the FS.</li> </ul>

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate facto by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc. grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Surpac.</li> <li>Mining studies indicate most material will be free digging, but an allowance has been made to blast some material.</li> <li>The material outcrops on surface and has an overall strip ratio of 1.1:1. Due to the shallow nature and expected ground conditions, slope angles are low. Geotechnical data has been obtained through logging.</li> <li>The Mineral Resource was used to formulate the Ore Reserves.</li> <li>Due to the bulk nature of the deposit, limited dilution factors have been used, combined with high recovery factors.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factor applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such sample are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based of the appropriate mineralogy to meet the specifications?</li> </ul>	acid leach flowsheet.  • Pressure acid leach is a proven nickel extraction method both in Australia and globally  • Extensive test-work including at pilot plant scale has been conducted on CMP material over the period 1965 to 2013.
Environmental	The status of studies of potential environmental impacts of the mining and processir operation. Details of waste rock characterisation and the consideration of potential site status of design options considered and, where applicable, the status of approvals for processidue storage and waste dumps should be reported.	S, A draft Public Environmental Notice has been completed and will be published.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power water, transportation (particularly for bulk commodities), labour, accommodation; or the easy with which the infrastructure can be provided, or accessed.	

Criteria	JORC Code explanation	Commentary
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>The Feasibility Study was completed in 2008 using both independent and internal cost estimates. These costs were updated in 2012.</li> <li>Both government and private royalties are payable. All royalties were considered as part of the Feasibility Study.</li> </ul>
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	The Pre-Feasibility Study progressed utilising assumptions regarding foreign exchange rates and commodity prices presented below. These prices have been set by corporate management and are considered a realistic forecast of expected commodity prices and exchange rates over the initial period of projected operation at Wingellina.  Ni = US \$20,000/t Co = US \$45,000/t  Exchange Rate (\$AUD : \$US) = US \$0.85  Head grades have been defined via Whittle optimisation and subsequent scheduling.
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	Detailed economic studies of the nickel market and future price estimates are considered by Metals X and applied in the estimation of revenue, cut-off grade analysis and future mine planning
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.  NPV ranges and sensitivity to variations in the significant assumptions and inputs.	
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	The CMP is yet to start and will require environmental and other regulatory permitting.

Criteria	JO	RC Code explanation	Cor	mmentary
Other	•	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	•	A Native Title agreement has been reached.
	•	Any identified material naturally occurring risks.		
	•	The status of material legal agreements and marketing arrangements.		
	•	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.		
Classification	•	The basis for the classification of the Ore Reserves into varying confidence categories.	•	The basis for classification of the resource into different categories is made on a subjective basis.
	•	Whether the result appropriately reflects the Competent Person's view of the deposit.  The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).		Measured Resources have a high level of confidence and are generally defined in three dimensions and have been accurately defined or capitally and normally developed. Indicated resources have a slightly lower level of confidence but contain substantial drilling and are in most instances capitally developed or well defined from a mining perspective. Inferred resources always contain significant geological evidence of existence and are drilled, but not to the same density. There is no classification of any resource that isn't drilled or defined by substantial physical sampling works.
			•	Some Measured Resources have been classified as Proven and some are defined as Probable Reserves based on subjective internal judgements, but generally based upon the intensity of capital and normal development they have been subjected to.
			•	The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	•	The results of any audits or reviews of Ore Reserve estimates.	•	Site generated reserves and the parent data and economic evaluation data is routinely reviewed by the Metals X Corporate technical team. Resources and Reserves have in the past been subjected to external expert reviews, which have ratified them with no issues. There is no regular external consultant review process in place.
Discussion of relative	•	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve	•	All currently reported reserve calculations are considered representative on a global scale.
accuracy / confidence		estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	•	Only material considered as part of the Pre-Feasibility study has been included as part of the reserve statement.
			•	Limited modifying factors have been applied due to the massive nature of the deposit and the closeness to the surface.
	•	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.		
	•	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.		
	•	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.		

#### Metals X Limited — Gold Division

#### Mineral Resource and Ore Reserves

#### **ROVER POLYMETALLIC PROJECTS**

(as at 30 June 2016)

## Mineral Resource Estimates – Rover 1, Explorer 108 & Explorer 142

(Note: no change during the year)

	Gold			Copper			Bismuth				Silver		Cobalt		
Rover 1 Project	Kt	Grade %	Metal Koz	Kt	Grade %	Metal Kt	Kt	Grade %	Metal Kt	Kt	Grade %	Metal Koz	Kt	Grade %	Metal Kt
Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indicated	2,741	2.42	213	2,741	1.42	59	2,741	0.18	5	2,741	2.33	205	2,741	0.04	1
Inferred	4,073	1.27	168	4,073	1.06	52	4,073	0.11	4	4,073	1.90	249	4,073	0.08	3
	6,814	1.73	381	6,814	1.20	112	6,814	0.14	9	6,814	2.07	454	6,814	0.06	4

		Zinc			Lead		Co	pper		Silver			
Explorer 108 Project	Kt	Grade %	Metal Kt	Kt	Grade %	Metal Kt	Kt	Grade %	Metal Kt	Kt	Grade %	Metal Koz	
Measured	-	-	-	-	-	-	-	-	-	-	-	-	
Indicated	8,438	3.41	288	8,438	2.05	173	5,689	0.36	20	8,438	14.32	3,886	
Inferred	3,429	2.81	96	3,429	1.88	64	-	-	-	3,429	3.32	366	
	11,868	3.24	384	11,868	2.00	237	11,868	0.36	20	11,868	11.14	4,252	

		Gold		Copper						
Explorer 142 Project	Kt	Grade %	Metal Koz	Kt	Grade %	Metal Kt				
Measured	-	-	-	-	-	-				
Indicated	-	-	-	-	-	-				
Inferred	176	0.21	1	176	5.21	9				
	176	0.21	1	176	5.21	9				

### JORC TABLE 1 – NORTHERN TERRITORY

# **SECTION 1 SAMPLING TECHNIQUES AND DATA**

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

Criteria	JOI	RC Code explanation	Cor	nmentary
Sampling tech- niques	•	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.		Diamond Drilling  All data used in resource calculations at the Tennant Creek Project has been gathered from diamond core. Multiple core sizes have been used historically. This core is geologically logged and subsequently halved for sampling.
	•	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	•	All geology input is logged and validated by the relevant area geologists, incorporated into this is assessment of sample recovery.
	•	Aspects of the determination of mineralisation that are Material to the Public Report.	•	No defined relationship exists between sample recovery and grade. Nor has sample bias due to
Drilling techniques	•	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.		preferential loss or gain of fine or coarse material been noted.
Drill sample recovery	•	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).		
	•	Method of recording and assessing core and chip sample recoveries and results assessed.		
	•	Measures taken to maximise sample recovery and ensure representative nature of the samples.		
	•	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.		
Logging	•	Whether core and chip samples have been geologically and geotechnically logged to a level of	•	Diamond core is logged geologically and geotechnically.
		detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	•	Logging is qualitative in nature.
	•	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	•	All holes are logged completely.
	•	The total length and percentage of the relevant intersections logged.		

Criteria	JORC Code explanation	Commentary
Sub-sampling tech-	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond Drilling - Half-core niche samples, sub-set via geological features as appropriate.
niques and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Core undergoes total preparation.
	For all sample types, the nature, quality and appropriateness of the sample preparation	The sample preparation process consists of;
	technique.	Crushing using a vibrating jaw crusher to achieve a maximum sample size of 4mm.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.  Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample is then weighed, and if the sample weight is greater than 3.2kg, the sample is split into two using a Jones-type Riffle splitter.
		The crushed sample is then pulverised in a Labtech LM5 Ring Mill for 6 minutes. For samples weighing greater than 3.2kg the first portion is removed and second portion is homogenised in the same.
		machine. Once complete the first portion is put back in the LM5 and both portions are homogenised.
		• From the pulverised sample, approximately 200g is taken as a master sample which stays in Alice Springs, while a second sample of approximately 150g taken and sent to for assaying. These samples are collected via a scoop inserted to the bottom of the bowl. The remaining sample is transferred to a calico bag for storage.
		For every 20th sample, an approximately 25g sample is screened to 75 microns to check that homogenising has achieved 80% passing 75 microns.
		QA/QC is ensured during sampling via the use of sample ledgers, blanks, standards and repeats.
		QA/QC is ensured during the assays process via the use of blanks, standards and repeats at a NATA / ISO accredited laboratory.
		The sample sizes are considered appropriate to the grainsize of the material being sampled.
		The un-sampled half of diamond core is retained for check sampling if required.
Quality of assay	The nature, quality and appropriateness of the assaying and laboratory procedures used and	Analysis of drill core for Au, Ag, Cu, Pb, Zn was carried out in Perth in the following manner;
data and laboratory tests	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations	• Gold (Au-AA25 scheme – lower detection limit = 0.01ppm, upper detection limit = 100ppm). A 30g
16363		charge of prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents and then cupelled to yield a precious metal bead.
	factors applied and their derivation, etc.  Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external	The bead is then dissolved in acid and analysed by atomic absorption spectroscopy against matrix-matched standards.
	laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Samples returning assay values in excess of 100g/t Au were repeated using the Au- AA26 method.
		Ag, Cu, Pb, Zn (ME-0G62) - A prepared sample is digested using a 4 acid digest.
		The subsequent solution is analysed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry.
		No significant QA/QC issues have arisen in recent drilling results.
		These assay methodologies are appropriate for the resource in question.

Criteria	JORC Code explanation	Commentary
Verification of sam- pling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Anomalous intervals as well as random intervals are routinely checked assayed as part of the internal QA/QC process.
	The use of twinned holes.	Virtual twinned holes have been drilled in several instances with no significant issues highlighted.
	Documentation of primary data, data entry procedures, data verification, data storage (physical	Primary data is loaded into the drillhole database system and then archived for reference.
	and electronic) protocols.	All data used in the calculation of resources are compiled in databases which are overseen and
	Discuss any adjustment to assay data.	validated by senior geologists.
		No primary assays data is modified in any way.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> </ul>	All data is spatially oriented by survey controls via direct pickups by the survey department. Drillholes are all surveyed downhole, deeper holes with a Gyro tool if required.
	Specification of the grid system used.	All drilling and resource estimation is undertaken in MGA grid.
	Quality and adequacy of topographic control.	Topographic control is generated from a combination of remote sensing methods and ground-based surveys. This methodology is adequate for the resource in question.
Data spacing and	Data spacing for reporting of Exploration Results.	Data spacing is variable dependent upon the individual orebody under consideration. This approach is
distribution	Whether the data spacing and distribution is sufficient to establish the degree of geological and	appropriate for the Mineral Resource estimation process and to allow for classification of the resource as it stands.
	grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure (s) and classifications applied.	Compositing is carried out based upon the modal sample length of each individual domain.
	Whether sample compositing has been applied.	compositing is carried out based upon the modal sample length of each mulvidual domain.
Orientation of data in relation to	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling intersections are nominally designed to be normal to the orebody as far topography / economics allows.
geological structure	<ul> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	
Sample security	The measures taken to ensure sample security.	Samples are delivered to a third party transport service, who in turn relay them to the independent laboratory contractor. Samples are stored securely until they leave site.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Site generated resources and reserves and the parent geological data is routinely reviewed by the Metals X Corporate technical team.

### **SECTION 2 REPORTING OF EXPLORATION RESULTS**

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

Criteria	JOI	RC Code explanation	Cor	nmentary
Mineral tenement and land tenure status	•	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.		The Tennant Creek Project comprises 5 granted exploration leases.  Native title interests are recorded against the Tennant Creek tenements.
	•			The Tennant Creek tenements are held by Castile with is 100% Metals X owned.  Several third party royalties exist across various tenements at Tennant Creek, over and above the Northern Territory government royalty.
			•	Castile operates in accordance with all environmental conditions set down as conditions for grant of the leases.
			•	There are no known issues regarding security of tenure.
			•	There are no known impediments to continued operation.
Exploration done by other parties	•	Acknowledgment and appraisal of exploration by other parties.	•	The Tennant Creek area has an exploration and production history in excess of 100 years. The Rover area in particular has an intensive exploration history stretching from the 1970's.
			•	On balance, Castile work has generally confirmed the veracity of historic exploration data.
Geology	•	Deposit type, geological setting and style of mineralisation.	•	The Tennant Creek Project is located in the 1,860-1,850Ma Warramunga Province is approximately centred on the township of Tennant Creek, and contains the Palaeoproterozoic Warramunga Formation. This is a weakly metamorphosed turbiditic succession of partly tuffaceous sandstones and siltstones which includes argillaceous banded ironstones locally referred to as 'haematite shale'.
		•	Copper in the form of chalcopyrite occurs around the upper margins of the quartz magnetite ironstones and in the silicified BIF or haematitic shales that often form an alteration transition to the adjacent chlorite alteration envelope. Although copper levels in the upper quartz magnetite portion of the ironstones is usually very low, pervasive sub-economic copper levels can persist throughout this zone. Economic levels of copper are dominantly contained in the lower massive magnetite portion or in massive magnetite "veins" identified in the magnetite quartz zones. The massive magnetite zones grade laterally and at depth into magnetite chlorite stringer zones. Gold content increases where the content of magnetite veining and chlorite alteration decreases and there is an increase in early haematite dusted quartz veins and indurated sediments and fine chlorite veining related to the mineralisation phase. The transition from massive magnetite copper mineralisation to magnetite quartz chlorite stringer gold mineralisation is also the zone of increased bismuthinite mineralisation.	
			•	Lead and zinc mineralisation at Explorer 108 is associated with a brecciated dolomitised sediment unit, consisting of irregular, generally narrow, domains or veins of semi-massive sulphides (sphalerite and galena). A basal "high-grade" zone is present at the contact of the dolomite and lower felsic units.

Criteria	JO	RC Code explanation	Commentary
Drill hole Informa- tion	•	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	No drillhole information is being reported.
		easting and northing of the drill hole collar	
	•	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	•	dip and azimuth of the hole	
	•	down hole length and interception depth	
	•	hole length.	
	•	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	•	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No drillhole information is being reported.
	•	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	•	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship	•	These relationships are particularly important in the reporting of Exploration Results.	No drillhole information is being reported.
between minerali- sation widths and	•	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
intercept lengths	•	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	•	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	No drillhole information is being reported.
Balanced reporting	•	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No drillhole information is being reported.
Other substantive exploration data	•	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No relevant information to be presented.
Further work	•	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Exploration and mine planning assessment continues to take place at the Tennant Creek Project.
	•	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

### SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

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

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation	
	purposes.  • Data validation procedures used.	• As new data is acquired it passes through a validation approval system designed to pick-up any significant errors before the information is loaded into the master database. The information is uploaded by a series of Sequel routines and is performed as required. The database contains diamond drilling (including geotechnical and specific gravity data) and some associated metadata. By its nature this database is large in size, and therefore exports from the main database are undertaken (with or without the application of spatial and various other filters) to create a database of workable size, preserve a snapshot of the database at the time of orebody modelling and interpretation and preserve the integrity of the master database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.      Mr Russell	Mr Russell visits site on a regular basis.
	If no site visits have been undertaken indicate why this is the case.	
Geological interpre- tation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul>	<ul> <li>Mining of similar deposits in the region provides confidence in the current geological interpretation.</li> <li>No alternative interpretations are currently considered viable.</li> </ul>
		<ul> <li>Geological interpretation of the deposit was carried out using a systematic approach to ensure that the resultant estimated Mineral Resource figure was both sufficiently constrained, and representative of the expected sub-surface conditions. In all aspects of resource estimation the factual and interpreted geology was used to guide the development of the interpretation.</li> </ul>
	The factors affecting continuity both of grade and geology.	The structural regime and the presence of intrusive source bodies are the dominant controls on geological and grade continuity at the Tennant Creek Project.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	
		<ul> <li>The Explorer 108 deposit is mineralised over a strike length of &gt;400m, with a thickness of up to 60m.</li> <li>The Explorer 142 deposit is mineralised over a strike length of &gt;200m, with a thickness of up to 8m.</li> </ul>

Criteria	JORC Code explanation	Commentary
Estimation and mod- elling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and</li> </ul>	Surpac Vision.  • After validating the drillhole data to be used in the estimation, interpretation of the orebody is undertaken in sectional and / or plan view to create the outline strings which form the basis of the three dimensional orebody wireframe. Wireframing is then carried out using a combination of automated
	<ul> <li>whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> </ul>	stitching algorithms and manual triangulation to create an accurate three dimensional representation of the sub-surface mineralised body.
	<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing</li> </ul>	to flag the appropriate sections of the drillhole database tables for compositing purposes. Drillholes
	<ul> <li>and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	Once the sample data has been composited, a statistical analysis is undertaken to assist with determining estimation search parameters, top-cuts etc. Variographic analysis of individual domains is undertaken to assist with determining appropriate search parameters. Which are then incorporated with observed geological and geometrical features to determine the most appropriate search parameters.
	Discussion of basis for using or not using grade cutting or capping.  The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
		Grade estimation is then undertaken, with ordinary kriging estimation method is considered as standard, although in some circumstances where sample populations are small, or domains are unable to be accurately defined, inverse distance weighting estimation techniques will be used. Both by-product and deleterious elements are estimated at the time of primary grade estimation if required. It is assumed that by-products correlate well with gold. There are no assumptions made about the recovery of by-products.
		The resource is then depleted for mining voids and subsequently classified in line with JORC guidelines utilising a combination of various estimation derived parameters and geological / mining knowledge.
		<ul> <li>This approach has proven to be applicable to Metals X's gold assets.</li> <li>Estimation results are routinely validated against primary input data, previous estimates and mining output.</li> </ul>
		Good reconciliation between mine claimed figures and milled figures was routinely achieved during past production history.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates are dry tonnes.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>The Rover 1 reporting cut-off grade is 2.5g/t Au.</li> <li>The Explorer 108 reporting cut-off grade is 2.5% Pb + Zn.</li> <li>The Explorer 142 reporting cut-off grade is 2.5g% Cu.</li> </ul>

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	the respective leases.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and appropriate in the complete of the complete.	and alteration / mineralisation dependent.
	<ul> <li>representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different</li> </ul>	
	materials.	
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> </ul>	
	Whether the result appropriately reflects the Competent Person's view of the deposit.	
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Resource estimates are peer reviewed by the site technical team as well as Metals X's Corporate technical team.

Criteria	JO	RC Code explanation	Cor	mmentary
Discussion of relative accuracy/confidence	•	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	•	All currently reported resources estimates are considered robust, and representative on both a global and local scale.  No production data exists to compare the resource estimate against.
	•	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	ı	
	•	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.		

#### **SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JOI	RC Code explanation	Со	mmentary
Mineral Resource esti- mate for conversion to Ore Reserves	•	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.  Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of,	•	No reserve has been stated for the Northern Territory Project.
		the Ore Reserves.		
Site visits	•	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	•	No reserve has been stated for the Northern Territory Project.
	•	If no site visits have been undertaken indicate why this is the case.		
Study status	•	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	•	No reserve has been stated for the Northern Territory Project.
	•	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.		
Cut-off parameters	•	The basis of the cut-off grade(s) or quality parameters applied.	•	No reserve has been stated for the Northern Territory Project.
Mining factors or assumptions	•	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	•	No reserve has been stated for the Northern Territory Project.
	•	The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.		
	•	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.		
	•	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).		
	•	The mining dilution factors used.		
	•	The mining recovery factors used.		
	•	Any minimum mining widths used.		
	•	The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.		
	•	The infrastructure requirements of the selected mining methods.		

Criteria	JO	RC Code explanation	Cor	nmentary
Metallurgical factors or assumptions	•	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	•	No reserve has been stated for the Northern Territory Project.
	•	Whether the metallurgical process is well-tested technology or novel in nature.		
	•	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.		
	•	Any assumptions or allowances made for deleterious elements.		
	•	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.		
	•	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?		
Environmental	•	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	•	No reserve has been stated for the Northern Territory Project.
Infrastructure	•	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	•	No reserve has been stated for the Northern Territory Project.
Costs	•	The derivation of, or assumptions made, regarding projected capital costs in the study.	•	No reserve has been stated for the Northern Territory Project.
	•	The methodology used to estimate operating costs.		
	•	Allowances made for the content of deleterious elements.		
	•	The source of exchange rates used in the study.		
	•	Derivation of transportation charges.		
	•	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.		
	•	The allowances made for royalties payable, both Government and private.		
Revenue factors	•	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	•	No reserve has been stated for the Northern Territory Project.
	•	The derivation of assumptions made of metal or commodity price (s), for the principal metals, minerals and co-products.		
Market assessment	•	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.	•	No reserve has been stated for the Northern Territory Project.
	•	A customer and competitor analysis along with the identification of likely market windows for the product.		
	•	Price and volume forecasts and the basis for these forecasts.		
	•	For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.		

Criteria	JOI	RC Code explanation	Co	mmentary
Economic	•	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.  NPV ranges and sensitivity to variations in the significant assumptions and inputs.	•	No reserve has been stated for the Northern Territory Project.
Social	•	The status of agreements with key stakeholders and matters leading to social licence to operate.	•	No reserve has been stated for the Northern Territory Project.
Other	•	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	•	No reserve has been stated for the Northern Territory Project.
	•	Any identified material naturally occurring risks.		
	•	The status of material legal agreements and marketing arrangements.		
	•	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.		
Classification	•	The basis for the classification of the Ore Reserves into varying confidence categories.	•	No reserve has been stated for the Northern Territory Project.
	•	Whether the result appropriately reflects the Competent Person's view of the deposit.		
	•	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).		
Audits or reviews	•	The results of any audits or reviews of Ore Reserve estimates.	•	No reserve has been stated for the Northern Territory Project.
Discussion of relative accuracy / confidence	•	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	•	No reserve has been stated for the Northern Territory Project.
	•	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.		
	•	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.		
	•	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.		

# Metals X Limited - Copper Division Mineral Resource Estimatesand Ore Reserves Estimates (as at 31 March 2016)

# Nifty Copper Mine Maroochydore Copper Prospect

		MEASURED		INDICATED			INFERRED			TOTALS		
	C C%	Tonnes	C 1/	Tonnes	C 0/	Со	Tonnes	C 1/	Со	Tonnes	Cu %	Со
	CoG%	(Mt)	Cu %	(Mt)	Cu %	ppm	(Mt)	Cu %	ppm	(Mt)		ppm
In situ Oxide	0.4	1.43	0.91	1.22	0.86	-	1.68	0.83	-	4.33	0.86	-
Sub Total Oxide		1.43	0.91	1.22	0.86	-	1.68	0.83	-	4.33	0.86	-
In situ Sulphide	1.2	17.34	2.16	3.29	1.8	-	2.83	1.52	-	23.46	2.03	-
Stocks - Sulphide	N/A	-	-	-	-	-	-	-	-	-	-	-
Sub Total Sulphide		17.34	2.16	3.29	1.8	-	2.83	1.52	-	23.46	2.03	-
Heap Leach Pad	0.5	-	-	2.85	0.75	-	0.46	0.66	-	3.31	0.74	-
Sub Total Heap Leach pad		-	-	2.85	0.75	-	0.46	0.66	-	3.31	0.74	-
Total Mineral Resource		18.77	2.06	7.36	1.24	-	4.97	1.21	-	31.1	1.73	-

	MAROOCHYDORE COPPER PROSPECT - Mineral Resources Estimates as at 31 <sup>st</sup> March 2016											
		MEASURED		INDICATED			INFERRED			TOTALS		
	CoG%	Tonnes	Cu %	Tonnes	Cu %	Со	Tonnes	Cu %	Со	Tonnes	Cu %	Со
		(Mt)		(Mt)		ppm	(Mt)		ppm	(Mt)		ppm
	0.5	-	-	40.8	0.92	388	2.4	0.81	451	43.2	0.91	391
In situ Sulphide	1.1	-	-	-	-	-	5.43	1.66	292	5.43	1.66	292
Total Mineral Resource		-	-	40.8	0.92	388	7.83	1.4	341	48.63	1	380
GRAND TOTAL		18.77	2.06	48.16	0.97		12.8	1.32		79.73	1.28	

NIFTY COPPER MINE - Mineral Reserve Estimates as at 31 <sup>st</sup> March 2016								
	Cut-off Grade	Proved Or	e Reserve	Probable (	re Reserve	Total Ore Reserve		
	Cu%	Tonnes(Mt)	Cu%	Tonnes(Mt)	Cu%	Tonnes(Mt)	Cu%	
Nifty Underground Sulphide	1.5	3.63	1.88	1.61	1.78	5.24	1.85	
Broken Ore Stocks - Sulphide		-	-	-	-	-	-	
Nifty Sulphide Ore Reserves		3.63	1.88	1.61	1.78	5.24	1.85	

# JORC TABLE 1 - COPPER DIVISION

# **SECTION 1 SAMPLING TECHNIQUES AND DATA**

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

Criteria JORC Code explanation		Commentary
industry standard measurement tools ap down hole gamma sondes, or handheld X taken as limiting the broad meaning of sa lnclude reference to measures taken to calibration of any measurement tools or so a separate of the determination of mineralise.  Drilling techniques  Drilling techniques  Drill sample recovery  In cases where 'industry standard' work 'reverse circulation drilling was used to older produce a 30 g charge for fire assay'). In as where is coarse gold that has in mineralisation types (e.g. submarine nod sonic, etc.) and details (e.g. core diameter sampling bit or other type, whether core is sampling bit or other type, whether core is samples.	propriate to the minerals under investigation, such as RF instruments, etc.). These examples should not be impling. In ensure sample representivity and the appropriate systems used. In that are Material to the Public Report. In has been done this would be relatively simple (e.g., btain 1 m samples from which 3 kg was pulverised to other cases more explanation may be required, such inherent sampling problems. Unusual commodities or ules) may warrant disclosure of detailed information. In open-hole hammer, rotary air blast, auger, Bangka, et, triple or standard tube, depth of diamond tails, faces oriented and if so, by what method, etc.). In and chip sample recoveries and results assessed. In recovery and ensure representative nature of the sample recovery and grade and whether sample bias	<ul> <li>The deposit has been drilled and sampled using various techniques with diamond and reverse circulation drilling utilised for mineral estimation. This information comes from surface and underground and is on variable spacing along and across strike. The total metres within the immediate vicinity of the Deposit are 143,497m. The holes are drilled on most occasions to intersect as near as possible perpendicularly the synclinal east plunge mineralisation.</li> <li>The drilling programs have been ongoing since initial discovery to both expand the mineralisation and provided control for mining. The hole collars were surveyed by Company employees / contractors with the orientation recorded. Down holes survey is recorded using appropriate equipment. The diamond core was logged for lithology and other geological features.</li> <li>The diamond core varied from H0 to N0 in diameter and mineralised intervals and adjacent locations were sampled by cutting the core in 1/2 based on observation from the core photographs. The RC samples were collected from the cyclone of the rig and spilt at site to approximate 2 to 3kg weight. The preparation and analysis was undertaken at an accredited commercial laboratory with the core dried, pulverised and split to produce a 30gm sample for assay by fire assay with either atomic absorption finish or gravimetric determination.</li> <li>The drilling was completed using a combination of surface and underground drilling. In general the orientation of the drilling is appropriate given the given the strike and dip of the mineralisation.</li> <li>The core recovery is recorded in the database and in most instances was in excess of 95%. This was assessed by measuring core length against core run. There is no record of the quantity (weight) of RC chips collected per sample length.</li> <li>The ground condition in the mineralised zone is very competent. In areas of less competent material are identified in the log.</li> <li>Whilst no assessment has been made, the</li></ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.)</li> </ul>	The routine logging of core and chips describes the general geology features including lithology, mineralisation, alteration etc. For the majority of holes this information is sufficient and appropriate to apply mineralisation constraints. Some core drilling is orientated and structural measurements of bedding, joints, veins etc. has been undertaken as well as facture densities.
	<ul><li>photography.</li><li>The total length and percentage of the relevant intersections logged.</li></ul>	Geological logging has recorded both summary and detailed lithology, mineralisation content, alteration, some angle to core axis information, vein type, incidence and frequency, magnetic content
		The entire length of all holes, apart from surface casing, was logged.
Sub-sampling tech-	• If core, whether cut or sawn and whether quarter, half or all core taken.	All core to be sampled was halved using a mechanical saw.
niques and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	RC chip samples are collected via a cyclone which is cleaned with air blast between samples. The samples is riffled to collect between 2 and 3kg. Most samples are dry with any moisture noted on the logs.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field sub-sampling for chip samples appears appropriate as is the method of generating halved core.  Procedures adopted in the laboratories are industry standard practises including that in the mine site facility.
	<ul> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	In field riffles are cleaned between sampling using compressed air. The diamond cutting equipment is cleaned during the process using water. All laboratories adopt appropriate industry practises to reduce sample size homogeneously to the required size.
		No field duplicate information was observed.
		The style of mineralisation and high sulphide content does not rely on grain size as being influential on grade. Thus there is confidence in the overall grade of the deposit being fairly represented by the sampling.
Quality of assay data and laboratory	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The assay techniques are appropriate for the determination of the level of mineralisation in the sample. The technique was 4 acid digest with ICP finish.
tests	$\bullet \qquad \text{For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in} \\$	No geophysical tools were utilised to ascertain grade
	determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Standard and Blanks are included with all samples sent for analysis in the rate of between 1 in 20 and 1 in 30. The most recent reporting covering the majority of holes used in the estimate provide support
	<ul> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	for the quality of the Cu assays.
Verification of sam- pling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	The extensive data set has been review by various parties including Maxwell Geoscience and DataGeo and the intersections within the mineralisation have been confirmed.
	The use of twinned holes.	None observed but there is a significant amount of closely spaced supportive drilling results.
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Field data is captured electronically, validated by responsible geologist and stored on corporate computer facilities. Protocols for drilling, sampling and QA/QC are contained with the company operating manuals. The information generated by the site geologist is loaded into a database by the company database manager and undergoes further validation at this point against standard acceptable codes for all variables.
		No adjustments to the raw assay data has been made.

Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The collar positions were resurveyed by the Company surveyor or their contractors from a known datum. The survey is on a known local grid with demonstrated control. The orientation and dip at the collars is checked (aligned) by the geologist and down hole recording of azimuth and dip are taken at 30m intervals on most occasion using appropriate equipment.</li> <li>The regional grid is GDA 94 Zone 50 and the drilling is laid out on a local grid.</li> <li>Topographic control is from surface survey.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and</li> </ul>	The majority of drilling utilised is on 40m x 20m grid specifically targeting lithological and hence mineralisation sequence definition.
	grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure (s) and classifications applied.	The geological sequence is well understood from the mining which supports the current drill spacing as adequate for both grade continuity assessment and lithological modelling.
	Whether sample compositing has been applied.	The sampling reflects the geological conditions. For mineral resource estimation a 1m composite length was chosen given that this is the dominant sample length in dataset.
Orientation of data in relation to	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Given the shape of the sequence the drilling as best as practically possible orientated to intersect the sequence perpendicularly. This is limited to drill sites from underground and surface.
geological structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No sampling bias is considered to have been introduced.
Sample security	The measures taken to ensure sample security.	The samples once collected and numbered are stored in the lockable site core yard chain. Batches of samples with each sample bag security tied and with sample number on the bag and inside on metal tags transported by commercial contractors to Perth. Upon receipt at the laboratory the samples are checked against the dispatch sheets to ensure all samples are present.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Database management companies have over the past 2 years audited the drill hole database and found is representative of the information contained.

# **SECTION 2 REPORTING OF EXPLORATION RESULTS**

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

Criteria	JORC Code explanation	Commentary				
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	NCO consists of 92 tenements including 33 exploration licenses, 20 mining leases, 6 miscellaneous licenses and 33 prospecting licenses, all held directly by the Company.				
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	NCO has a long history of exploration. The deposit was discovered during regional exploration by WMC in 1982. Since that time a significant exploration effort has been undertaken by WMC, and subsequently Straits Resources Limited and Aditya Birla Minerals Limited.				

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The Nifty deposit is hosted within the folded late-Proterozoic Broadhurst Formation which is part of the Yeneena Group. The Broadhurst Formation is between 1,000m to 2,000m thick and consists of a stacked series of carbonaceous shales, turbiditic sandstones, dolomite and limestones. The Broadhurst Formation hosts all known significant base metal occurrences including the Nifty copper mine and the Maroochydore, Rainbow and Warrabarty prospects.
		The Broadhurst Formation deposit is unconformably overlain by the Isdell Formation which consists of an approximately 1000 m thick sequence of carbonate rocks, siltstones and shales. The sequence below the Broadhurst Formation consists of the Coolbro Sandstone, a 4,000 m thick sequence of sandstones with minor siltstones, volcanics, conglomerates and shales.
		The Nifty copper deposit is a structurally and lithologically controlled, stratabound body of massive, disseminated and vein-style chalcopyrite. Structurally, the dominant feature at the Nifty copper mine is the Nifty Syncline which strikes approximately southeast-northwest and plunges at about 6-12 degrees to the southeast. The copper mineralisation occurs as a structurally controlled, chalcopyrite-quartz-dolomite replacement of carbonaceous and dolomitic shale within the folded sequence. The copper mineralisation is largely confined to the keel of the syncline and the northern limb.
Drill hole Informa- tion	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	No drillhole information is being presented in this release.
	easting and northing of the drill hole collar	
	• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	down hole length and interception depth	
	hole length.	
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No drillhole information is being presented in this release.
	<ul> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship	These relationships are particularly important in the reporting of Exploration Results.	No drillhole information is being presented in this release.
between minerali- sation widths and intercept lengths	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	
	• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	No drillhole information is being presented in this release.  ANNUAL LIPDATE - MINERAL RESOURCE & ORE RESERVES AS AT 30 JUNE 2016

Criteria	JO	RC Code explanation	Con	nmentary
Balanced reporting	•	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.		No drillhole information is being presented in this release.
Other substantive exploration data	•	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.		No relevant information to be presented.
Further work	•	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	•	Ongoing surface and underground exploration activities will be undertaken to support continuing mining activities at NCO.
	•	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.		

#### SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES

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

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	
	Data validation procedures used.	
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Mr. Russell visits the operational Metals X sites on a regular basis.
	If no site visits have been undertaken indicate why this is the case.	
Geological interpre- tation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The confidence in the geological interpretation comes from the history of underground mining and the closely spacing drill and other sample information.
	Nature of the data used and of any assumptions made.	Only physical data obtained from the drilling and underground workings was utilised.
	<ul> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> </ul>	The application of hard boundaries to reflect the position of the mineralised sequence was supported by the underground and drilling observations. No other assessment style is thought appropriate at this time. The hard boundaries are important to the physical constraining of the mineralisation given
	The factors affecting continuity both of grade and geology.	that each sequence member has different mineralisation characteristics.
		The sequence units are subject to vertical and horizontal dimension changes along and across strike and in thickness. The mineralisation occurs as either disseminated or massive within the sequence and thus influences the grade continuity.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	, , , , , , , , , , , , , , , , , , , ,

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>The grade is estimated using ordinary kriging by individual sequence member. The geo-statistical assessment of the controlling variograms and the grade estimation was carried out by unfolding the sequence. Unfolding and estimation was carried out using Datamine software.</li> <li>The orientation for variogram calculation was changed from the previous variography to be aligned with the general mineralisation control in the unfolded space.</li> <li>Density was assigned by lithological and grade range. The composites were created within each unit and input to the grade estimation was restricted to those composites which were within the unit being estimated. No top-cuts were applied to the composites.</li> <li>Estimated blocks were informed by a three step strategy. The initial (primary) search was relatively short and governed by the unit geo-statistics. This search range was expanded by double the length for blocks that were not informed in the primary search. This strategy informed over 80% of the blocks within the deposit except for the bottom unit.</li> <li>Previous estimates have occurred which in both tonnage and grades are supportive of the mineral estimate. Production is ongoing and supportive of the modelled outcome.</li> <li>There are no by-products</li> <li>There are no deleterious elements</li> <li>The block model was constructed using blocks which were 20mE (along strike) x 10mN (across strike) by 5m in the vertical plane. Sub-celling to ½ the block size in each direction was adopted to ensure accurate volume representation. Estimation was to the parent block size.</li> <li>Hard boundaries were applied to the units. Grade was estimated within these boundaries.</li> <li>Statistical analysis indicated that top-cutting of the lessor mineralised zones did not normalise the population statistics hence the strategy adopted was to restrict the influence of outlier grades using by imposing search restrictions. No top-cuts were applied.</li> <li>Volume valid</li></ul>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnage estimates are dry tonnes.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Lithological boundaries are used to define sequence units with statistical grade assessment used for confirmation.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	respective leases.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.	
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	Resources are classified in line with JORC guidelines utilising a combination of various estimation
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	
	Whether the result appropriately reflects the Competent Person's view of the deposit.	
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Resource estimates are peer reviewed by the Corporate technical team.
		Multiple external reviews have been undertaken under previous ownership.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Minera Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	<ul> <li>and local-scale.</li> <li>A continuing history of mining with good reconciliation of mine claimed to mill recovered provides confidence in the accuracy of the estimates.</li> </ul>
	The statement should specify whether it relates to global or local estimates, and, if local state the relevant tonnages, which should be relevant to technical and economic evaluation Documentation should include assumptions made and the procedures used.	
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

#### **SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES**

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource esti- mate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>The Nifty 31 March 2016 Mineral Resource estimate is the basis for the Ore Reserve estimate.</li> <li>The Mineral Resource estimate reported is inclusive of the Ore Reserve estimate.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mr Poepjes visits site on a regular basis.
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	AMC has undertaken life-of- mine planning for Nifty at a PFS level.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	AMC estimated the cut-off grade to be 1.65% copper using FY2017 parameters. However the Nifty Ore Reserve estimate is based on a design cut-off grade of 1.5% copper, which has been used for stope design.
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).	<ul> <li>The Ore Reserve estimate is based on life of mine planning, utilising a long hole open stoping mining method.</li> <li>Long hole open stoping has been the applied mining method at Nifty since production started.</li> </ul>
	<ul> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.),</li> </ul>	
	grade control and pre-production drilling.	The Mineral Resource model used to estimate Ore Reserves was "sulmod0316depv1.1.dm".
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Mining dilution is estimated for each stope. Waste dilution varies up to a maximum of 30%, depending on the stopes place in the sequence and the anticipated condition of surrounding.
	The mining dilution factors used.	areas.
	<ul><li>The mining recovery factors used.</li><li>Any minimum mining widths used.</li></ul>	• Mining recovery is estimated for each stope and ranges from 50% to 98%, depending on the stopes place in the sequence and the anticipated condition of surrounding areas.
	The manner in which Inferred Mineral Resources are utilised in mining studies and the	Inferred Mineral Resources were not utilised in the life-of- mine planning.
	sensitivity of the outcome to their inclusion.  • The infrastructure requirements of the selected mining methods.	Nifty is an established and operating mine, and significant additional infrastructure is not required for the extraction of Ore Reserves based on the existing mining method.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	The current process uses conventional grinding and flotation equipment. It is the industry standard for copper sulphide extraction and considered appropriate.
	Whether the metallurgical process is well-tested technology or novel in nature.	The process is very well established, although there is scope for the use of different reagents.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.	commencement of processing, is well understood and requires no further test-work.
	applied.	Test-work is continuing for ore sourced from new areas, although they are expected to behave  similarly to the are previously an expectation.
	Any assumptions or allowances made for deleterious elements.  The printegraph of any holds are the printegraph of the continuous and the degraph of the continuous and the continuo	similarly to the ore previously encountered.
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.	
	For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Nifty is an operating mine and has environmental approvals in place.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Nifty is an established and operating mine, and significant additional infrastructure is not required for the extraction of Ore Reserves.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Capital costs include allowance for replacement of mobile equipment, relocation of underground
	The methodology used to estimate operating costs.	infrastructure, access development for new mining areas and sustaining capital for the processing plant and site infrastructure.
	Allowances made for the content of deleterious elements.	l '
	The source of exchange rates used in the study.	Mining operating costs are based on budgeted and historical costs from the existing operation.  Proceeding and site administration operations posts are estimated from historical neglections.
	Derivation of transportation charges.	Processing and site administration operating costs are estimated from historical performance and budgeted costs.
	<ul> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	No deleterious elements have been identified and thus no allowances made.
		Concentrate transport, shipping and treatment charges are based on actual performance and consensus forecasts of future charges.
		A state government royalty of 5% applies.
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal	The head grade is estimated from life-of-mine planning.
	or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.  • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	NCO used consensus median copper prices and exchange rates forecasts for the purposes of estimating Ore Reserves. NCO has included that advice in its financial model.
		Forecast copper prices increase from US\$4,935/t in FY2017 to US\$5,333/t in FY2020, with a peak of US\$5,762/t in FY2019.
		Forecast exchange rates increase from US\$0.715 : 1\$A in FY2017 to US\$0.77 : 1\$A in FY2020.

Criteria	JORC Code explanation	Commentary
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	For the Ore Reserve estimate, it is assumed that current arrangements in place for the sale of copper concentrates to the Hindalco owned copper smelter in India will continue.
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.  NPV ranges and sensitivity to variations in the significant assumptions and inputs.	<ul> <li>The financial model prepared for life-of-mine planning indicates a positive NPV, and consequently that the project is economic.</li> <li>The NPV of the Project is estimated using a post-tax discount rate of 9.5%.pa. Achieving a positive NPV is not sensitive to discount rate or capital costs, when considering +20% sensitivities.</li> <li>The Project is sensitive to copper price and operating costs, and requires only a 5% deterioration in either to exhibit a negative NPV.</li> </ul>
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Nifty is an ongoing mining operation in northern Western Australia, and maintains a social license to operate.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul> <li>No naturally occurring hazards have been identified</li> <li>Nifty is on ongoing mining operation, and is in possession of necessary approvals.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>Mining areas have been classified into Ore Reserves categories based on Mineral Resource classification. In the main Checkerboard mining area the majority of Measured Mineral Resources are classified as Proved Ore Reserves. Area that consist of a majority of Indicated Mineral Resources are classified as Probable Ore Reserves.</li> <li>In the North Limb and West Limb mining areas, which have not been accessed for mining yet, have been classified as Probable Ore Reserves to reflect that risk.</li> </ul>
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve estimate has not been audited or reviewed.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.	<ul> <li>include:</li> <li>All currently reported reserve calculations are considered representative on a local scale. Regular mine reconciliations occur to validate and test the accuracy of the estimates at NCO.</li> </ul>
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation.  Documentation should include assumptions made and the procedures used.	
	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	