

## DORAY ANNOUNCE ANNUAL MINERAL RESOURCES AND ORE RESERVES STATEMENT

Doray Minerals Limited (“Doray” or “the Company”) is pleased to announce our annual Mineral Resources and Ore Reserves estimate as at 30 June 2018.

### HIGHLIGHTS

#### Deflector Gold Copper Mine

- Deflector **Mineral Resources increased 34%** after mining depletion to 762,000 ounces of gold, with the average grade increasing by **38% to 8.6g/t of gold**
- Deflector **Ore Reserves increased 4%** after mining depletion to 250,000 ounces of gold, with the average grade increasing by **6% to 5.0g/t of gold**
- Both Mineral Resources and Ore Reserves have been positively impacted by new discoveries proximal to underground operations in FY2018, with Ore Reserves yet to incorporate any potential conversion of the Da Vinci Inferred Resource, scheduled to be evaluated during the first half of FY2019
- FY2019 Deflector **exploration investment increased by 67%** to \$10M

#### Group Mineral Resources

- Gold Mineral Resources increased by 176,000 ounces to an estimated **1.6 million ounces** after accounting for mining depletion of 75,000 ounces at the Deflector Gold Copper Mine, an increase of 12%
- Copper Mineral Resources of **16,000 tonnes** after accounting for mining depletion

#### Group Ore Reserves

- Gold Ore Reserves of **250,000 ounces** after accounting for mining depletion of 91,000 ounces and care and maintenance writedowns of 3,000 ounces at the Deflector Gold Copper Mine and Andy Well Project
- Copper Ore Reserves of **5,000 tonnes** after accounting for mining depletion

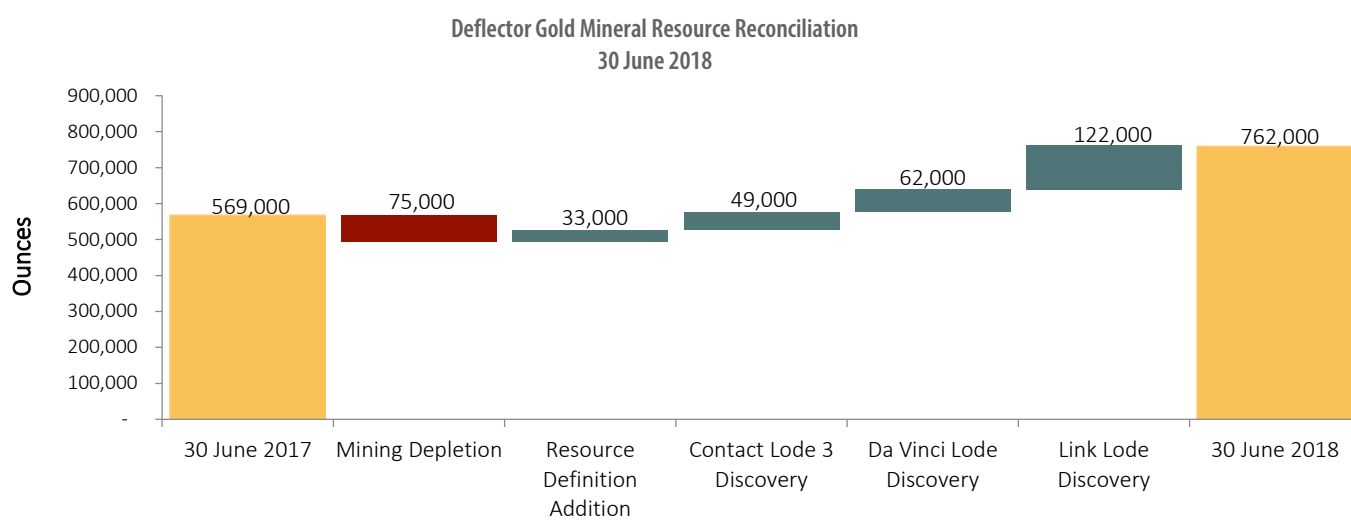
Commenting on the updated Mineral Resources and Ore Reserves estimate, Doray’s Managing Director Leigh Junk said, “Achieving such a meaningful increase in Resource gold grade and ounces, at an average discovery cost of \$25 per ounce, is a great result for Deflector’s first full year mining underground. Our unwavering focus on achieving operational efficiencies and producing cash, with an effective exploration investment during FY2018 is now delivering real results.

I believe this is just the beginning of our success at Deflector. Recent delineation and conversion of the significant mineral endowment in the Link Lode underpins a more economic and robust operation moving forward. In addition, the updated Mineral Resource and economic evaluation of Da Vinci expected during the first half of FY2019 should provide a basis to extend our mine footprint and enhance our production profile. This is complemented by a significant exploration investment and growing confidence in our strategy.”

Both Mineral Resources and Ore Reserves at the Deflector Gold Copper Mine were positively impacted by new discoveries proximal to underground operations during the previous financial year, particularly the Link Lode (see Chart 1).

The Deflector Mineral Resource also includes the maiden estimation of the Da Vinci discovery, with an average grade of 13.5g/t of gold, which does not yet incorporate the current mine development and significant underground diamond drilling program completed in June 2018.

While overall Mineral Resource tonnages remain similar to FY2018, a global increase in the grade of the Deflector orebodies has resulted in a significant increase in contained gold, after depletion from mining over the preceding 12 months.



*Chart 1: Deflector Mineral Resource estimate reconciliation*

## MINERAL RESOURCES

Group Mineral Resources as at 30 June 2018 are estimated at 1.6 million ounces of gold and 16,000 tonnes of copper, compared with the estimate at 30 June 2017 of 1.4 million ounces of gold and 18,400 tonnes of copper. The updated estimate accounts for mining depletion at Deflector in FY2018 of 75,000 ounces of gold and 3,900 tonnes of copper. Mining depletion at Andy Well in FY2018 was 16,000 ounces of gold with an additional 1,000 ounces of Resource written off.

A summary of the Group Mineral Resources Statement as at 30 June 2018 is detailed in Tables 1 and 2.

Changes to the Group Mineral Resources estimate include additions prior to mining depletion of:

- 33,000 ounces of gold through a re-estimation of the Deflector Gold Copper Mine Mineral Resource.
- 233,000 ounces of gold with three new discoveries at the Contact, Da Vinci and Link Lodes based on all available drilling data received up to 12 March 2018.

GOLD	MEASURED			INDICATED			INFERRED			TOTAL		
PROJECT	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces
Deflector	453	8.7	127,000	1,037	9.6	319,000	1,257	7.8	316,000	2,746	8.6	762,000
Andy Well	127	13.7	56,000	1,063	9.2	315,000	628	6.6	134,000	1,817	8.6	503,000
Gnaweeda	-	-	-	1,200	2.6	101,000	4,300	1.6	221,000	5,500	1.8	322,000
<b>TOTAL RESOURCE</b>	<b>580</b>	<b>9.8</b>	<b>183,000</b>	<b>3,300</b>	<b>6.9</b>	<b>735,000</b>	<b>6,185</b>	<b>3.4</b>	<b>671,000</b>	<b>10,063</b>	<b>4.9</b>	<b>1,587,000</b>

**Table 1. June 2018 Group Gold Mineral Resource estimate.**

**Notes:**

- Mineral Resources are inclusive of those modified to estimate Ore Reserves. Rounding errors may occur.
- Ore tonnes and ounce data is rounded to the nearest thousand.
- Andy Well Mineral Resources reported above 0.1g/t Au lower cut-off.
- Deflector Mineral Resources reported above 1.0g/t Au lower cut-off.
- Gnaweeda Mineral Resources reported above 0.8g/t Au lower cut-off.

COPPER	MEASURED			INDICATED			INFERRED			TOTAL		
PROJECT	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes
Deflector	453	1.2	5,500	1,037	0.5	4,900	1,257	0.4	5,500	2,746	0.6	16,000
<b>TOTAL RESOURCE</b>	<b>453</b>	<b>1.2</b>	<b>5,500</b>	<b>1,037</b>	<b>0.5</b>	<b>4,900</b>	<b>1,257</b>	<b>0.4</b>	<b>5,500</b>	<b>2,746</b>	<b>0.6</b>	<b>16,000</b>

**Table 2. June 2018 Group Copper Mineral Resource estimate.**

**Notes:**

- Mineral Resources are inclusive of those modified to estimate Ore Reserves. Rounding errors may occur.
- Ore tonnes data is rounded to the nearest thousand and copper tonnes to the nearest hundred.
- Deflector Copper Mineral Resource reported above 1.0g/t Au lower cut-off.

## Ore Reserves

Group Ore Reserves as at 30 June 2018 are estimated at 250,000 ounces of gold and 5,000 tonnes of copper compared with the 30 June 2017 estimate of 260,000 ounces of gold and 9,200 tonnes of copper.

A summary of the Group Ore Reserves Statement as at 30 June 2018 is detailed in Table 3 and 4, with explanatory notes provided in Appendix B.

Changes to the Group Ore Reserves estimate include:

- An increase of 10,000 ounces of gold inclusive of mining depletion at the Deflector Gold Copper Mine. The grade of the Ore Reserve has increased by 6% to 5.0g/t of gold reflecting the improvement in the quality of the underlying Mineral Resource and the continuing refinement of underground mining practices.
- A decrease of 19,000 ounces of gold inclusive of mining depletion at the Andy Well operation as the project was placed on care and maintenance in November 2017, which resulted in the decision to write off all remaining Ore Reserves.

GOLD	PROVED			PROBABLE			TOTAL		
PROJECT	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces
Deflector	300	4.3	41,000	1,300	5.1	210,000	1,600	5.0	250,000
Andy Well	-	-	-	-	-	-	-	-	-
<b>TOTAL RESERVE</b>	<b>300</b>	<b>4.3</b>	<b>41,000</b>	<b>1,300</b>	<b>5.1</b>	<b>210,000</b>	<b>1,600</b>	<b>5.0</b>	<b>250,000</b>

*Table 3. June 2018 Proved and Probable Gold Ore Reserves.*

**Notes:**

o All data rounded to two significant figures. Rounding errors may occur.

COPPER	PROVED			PROBABLE			TOTAL		
PROJECT	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes
Deflector	300	0.5	1,500	1,300	0.3	3,500	1,600	0.3	5,000
<b>TOTAL RESERVE</b>	<b>300</b>	<b>0.5</b>	<b>1,500</b>	<b>1,300</b>	<b>0.3</b>	<b>3,500</b>	<b>1,600</b>	<b>0.3</b>	<b>5,000</b>

*Table 4. June 2018 Proved and Probable Copper Ore Reserves.*

**Notes:**

o All data rounded to two significant figures. Rounding errors may occur.

## Deflector Gold Copper Project

### MINERAL RESOURCE AND ORE RESERVE COMMENTARY

As at 30 June 2018, Mineral Resources for the Deflector Gold Copper Mine were **2.7 million tonnes @ 8.6g/t of gold and 0.6% of copper for 762,000 ounces of gold and 16,000 tonnes of copper**. This Mineral Resource has been depleted for all open pit and underground production as at 30 June 2018. A breakdown of the Deflector Mineral Resource is detailed in Tables 5 and 6.

The updated Mineral Resource Estimate utilises a revised orebody interpretation based on geological data generated from both Resource extensional drilling and observations made from underground mining. All Resource extensional drill data utilised in the Mineral Resource Estimate have been previously released by Doray (refer to ASX Announcements on [7 August 2017](#) and [20 March 2018](#)). The maiden Da Vinci Mineral Resource estimate is based on surface drilling completed prior to 12 March 2018, and does not include the current mine development and significant underground diamond drilling program. This additional data should allow a re-estimation of the Da Vinci Resource in the first half of FY2019 with the expectation of an increase in confidence from the Inferred category to largely Indicated, allowing for an economic assessment to be undertaken.

Reconciliation to the previously released Mineral Resource is illustrated in Chart 1, with an increase from 30 June 2017 (after depletion for mining) by 193,000 ounces of gold. Major additions to the Mineral Resource for Deflector have come from the new Link Lode discovery within the mine footprint (refer to [ASX Announcement dated 7 June 2018](#)) as well as the Da Vinci discovery north of the Western Zone. In addition, an overall improvement in the geological interpretation of the Contact Lodes, and the associated discovery of Contact Lode 3, has resulted in significantly more confidence in the continuity of these lodes (see Figure 1), with a resulting increase in contained gold and copper. In addition, an increase in overall Mineral Resource grade can be attributed to a raising of the lower cut-off grade from 0.5g/t Au to 1.0g/t Au. This increase in the lower cut-off grade has been adopted to better reflect the selectivity applied during the underground mining process, whilst not affecting the overall continuity of mineralisation.

GOLD	MEASURED			INDICATED			INFERRED			TOTAL		
	PROJECT	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)
Western Zone	195	8.7	55,000	329	11.2	119,000	31	7.5	7,000	555	10.1	181,000
Central Lode	177	7.2	41,000	169	8.6	47,000	154	10.4	52,000	500	8.7	139,000
Link Lode	32	21.9	23,000	93	29.1	87,000	64	5.8	12,000	190	20.0	122,000
Contact Lodes	35	5.8	6,000	445	4.6	66,000	278	3.8	34,000	758	4.4	107,000
Western Zone Splays	-	-	-	-	-	-	587	7.9	149,000	587	7.9	149,000
Da Vinci	-	-	-	-	-	-	143	13.5	62,000	143	13.5	62,000
Stockpiles	13	5.0	2,000	-	-	-	-	-	-	13	5.0	2,000
<b>TOTAL RESOURCE</b>	<b>453</b>	<b>8.7</b>	<b>127,000</b>	<b>1,037</b>	<b>9.6</b>	<b>319,000</b>	<b>1,257</b>	<b>7.8</b>	<b>316,000</b>	<b>2,746</b>	<b>8.6</b>	<b>762,000</b>

**Table 5. Deflector - Gold Mineral Resource Estimate as at 30 June 2018.**

**Notes:**

- o Mineral Resources are inclusive of those modified to estimate Ore Reserves. Rounding errors may occur.
- o Ore tonnes and ounce data is rounded to the nearest thousand.
- o Mineral Resources reported above 1.0g/t Au lower cut-off.

COPPER	MEASURED			INDICATED			INFERRED			TOTAL		
	PROJECT	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)
Western Zone	195	1.6	3,100	329	0.6	2,000	31	0.3	100	555	0.9	5,200
Central Lode	177	0.8	1,300	169	0.6	1,000	154	0.2	400	500	0.6	2,800
Link Lode	32	2.5	800	93	1.1	1,000	64	0.8	500	190	1.2	2,300
Contact Lodes	35	0.6	200	445	0.2	900	278	0.2	400	758	0.2	1,500
Western Zone Splays	-	-	-	-	-	-	587	0.6	3,500	587	0.6	3,500
Da Vinci	-	-	-	-	-	-	143	0.4	600	143	0.4	600
Stockpiles	13	0.7	100	-	-	-	-	-	-	13	0.7	100
<b>TOTAL RESOURCE</b>	<b>453</b>	<b>1.2</b>	<b>5,500</b>	<b>1,037</b>	<b>0.5</b>	<b>4,900</b>	<b>1,257</b>	<b>0.4</b>	<b>5,500</b>	<b>2,746</b>	<b>0.6</b>	<b>16,000</b>

**Table 6. Deflector - Copper Mineral Resource estimate as at 30 June 2018.**

**Notes:**

- o Mineral Resources are inclusive of those modified to estimate Ore Reserves. Rounding errors may occur.
- o Ore tonnes data is rounded to the nearest thousand and copper tonnes to the nearest hundred.
- o Deflector Copper Mineral Resource reported above 1.0g/t Au lower cut-off.

A breakdown of the Deflector Ore Reserve is detailed in Tables 7 and 8 below. A summary of the methodology for estimation of Ore Reserves is included as below, and is detailed in the attached JORC (2012) Table 1.

GOLD	PROVED			PROBABLE			TOTAL			
	LOCATION	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces
	Underground	280	4.2	39,000	1,100	5.3	190,000	1,400	5.1	230,000
	Open Pit	-	-	-	170	3.8	21,000	170	3.8	21,000
	Surface Stockpiles	13	5.0	2,100	-	-	-	13	5.0	2,100
	<b>TOTAL RESERVE</b>	<b>300</b>	<b>4.3</b>	<b>41,000</b>	<b>1,300</b>	<b>5.1</b>	<b>210,000</b>	<b>1,600</b>	<b>5.0</b>	<b>250,000</b>

*Table 7. Deflector - Gold Ore Reserves as at 30 June 2018.*

**Notes:**

o All data rounded to two significant figures. Rounding errors may occur.

COPPER	PROVED			PROBABLE			TOTAL			
	LOCATION	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes	Tonnes (kt)	Cu Grade (%)	Cu Tonnes
	Underground	280	0.5	1,400	1,100	0.3	2,900	1,400	0.3	4,300
	Open Pit	-	-	-	170	0.3	570	170	0.3	570
	Surface Stockpiles	13	0.7	90	-	-	-	13	0.7	90
	<b>TOTAL RESERVE</b>	<b>300</b>	<b>0.5</b>	<b>1,500</b>	<b>1,300</b>	<b>0.3</b>	<b>3,500</b>	<b>1,600</b>	<b>0.3</b>	<b>5,000</b>

*Table 8. Deflector - Copper Ore Reserves as at 30 June 2018.*

**Notes:**

o All data rounded to two significant figures. Rounding errors may occur.

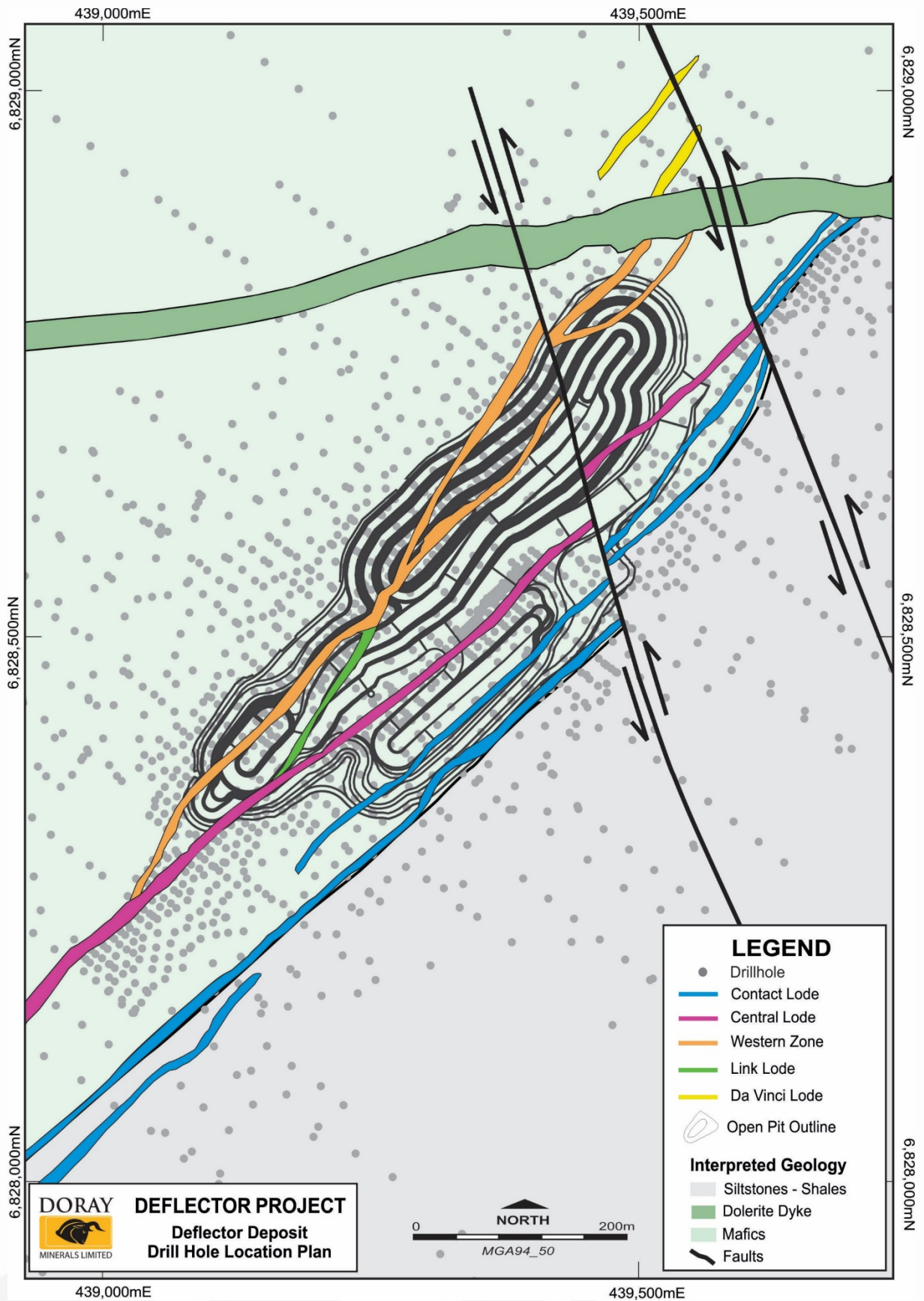


Figure 1. Deflector Gold Copper Mine – Schematic plan view of the various mineralised ore bodies.

## Mineral Resource Methodology

The Mineral Resource estimate is based on all available information as at 12 March 2018 and has been depleted for mining as at the 30 June 2018.

The lode interpretations were completed by the Deflector Mine Geology team utilising both Leapfrog and Surpac software. The parent block size is 1mE x 20mN x 20mRL with sub-celling permitted to 0.25mE x 5.0mN x 5.0mRL to reflect the narrowness of the orebody at depth. A total of 28 domains were estimated using 3D Ordinary Kriging with the remaining four (minor splay structures) assigned a mean grade for gold and copper due to an insufficient number of data points. Variography was modelled in Snowden Supervisor software, with the estimation carried out in Surpac.

Gold grade continuity is generally strongest at approximately 40° to 50° plunging to the north, which corresponds to the convergence of the Central and Western Zone in the southern part of the mine. This high-grade plunge orientation is replicated at the intersection of the Link Lode structure with the Central and Western Zones. Copper continuity exhibits a similar northerly plunge, but also demonstrates a secondary trend of approximately 30° to the south.

The Mineral Resource estimate has been classified as Measured, Indicated or Inferred in accordance with JORC (2012) guidelines. Classification is based on data density and geological continuity, exposure of the mineralisation through mining and statistical performance of the estimation parameters. All interpreted Western Zone splays and the Da Vinci Lodes were assigned an Inferred classification.

Several checks were run to validate the block grade estimate against the input drill hole data. These included comparing raw mean and composite mean against the mean of the block estimate for each domain. Swath plots were also generated to compare the composite grades to block model grades by northing, easting and RL. Finally, block grades were compared to the drill hole data visually throughout the entire deposit.

The 2018 Mineral Resource estimate has been compared against production to date (mill reconciled and stockpiles). This comparison shows fair reconciliation for gold and copper (123,000 ounces of gold estimated against 145,000 ounces of gold produced, 8,700 tonnes of copper estimated against 10,000 tonnes of copper produced), with the Mineral Resource undercalling the contained metal. However, it is known from underground mining that significant ore tonnes of gold and copper are mined from outside the main interpreted lodes and in mineralised stringer zones proximal to the main ore structures. This material has not been captured in the JORC (2012) classified Mineral Resource estimate. Doray is comfortable that the undercalling of metal from the Mineral Resource estimate can be attributed to the additional ore delineation during mining.

## Ore Reserve Methodology

The Deflector Ore Reserve estimate is focused on four separate lodes (Western, Link, Central and Contact) and accessed underground via a 5.3mW x 5.5mH, 1:7 gradient decline. Level cross-cuts are mined to the east and west of the decline at 20m vertical intervals (floor-to-floor) to intersect the respective lodes, with ore development headings then driven along strike to the lateral economic extents based on a Net Smelter Return (NSR) calculation.

Ore is mined using a top-down mechanised open-stopping method with a shallow chevron retreat pattern along strike, leaving a variety of island, rib and sill pillars for void stability. The Link Lode between 1,055m RL and 1,115m RL, and localised portions of the upper mine will be extracted using a bottom-up mechanised open-stopping method with cement and unconsolidated rock backfill for long term stability.

Mine design and scheduling work was undertaken using Deswik software. The Deswik Stope Optimiser was used to generate preliminary mineable stope shapes along the strike of each level with a nominal length of 10m and minimum mining width of 2.5m for Central and Contact Lodes, and 3.0m for Western Zone and Link Lode. Ore drives are designed at a 4.0mW x 5.0mH profile. Development design solids were split into individual tasks 3.3m in length (reconciled development cut length) for manipulation within the scheduling software.

Each development and stope task was interrogated against the Mineral Resource block model to derive the respective tonnes, grades and NSR values. Tonnes and grade values were further defined into weathering and Mineral Resource



categories to assist with processing and reporting. Modifying factors for development overbreak and mining recovery were applied inside the scheduling software when creating the schedule.

The Stope Optimiser shapes were evaluated for NSR and only those above the applicable mine operating cost cut-off grade assumption were retained which determined the economic extent of stoping and the underlying development. Depending on location, final stopes for scheduling were recreated at 20m-30m lengths along strike.

The Ore Reserve design extends from near the base of the Deflector open pit (approximately 1,200mRL) to 976mRL for Western Zone, 975mRL for Link Lode, 1,018mRL for Central Lode and is limited to three levels between 1,240mRL and 1,166mRL for the Contact Lode.

The open pit portion of the Ore Reserve comprises cutbacks to the southern end and to the northeast of the existing Deflector pit, and a stand-alone pit immediately to the north of the Deflector pit. These pits would be mined utilising conventional truck and excavator techniques.

The depth of the pits are between 60m and 80m below surface, and generally cover the region above the extremities of the underground workings. Ore dilution of 45% has been applied, which results in a minimum mining width of approximately 2.5m for open pit mining.

Open pit mining assumptions, including modifying factors, costs and production rates are based on recent project data from the Stage 1 and 2 Deflector pit development with applicable cost review and escalation.

## Andy Well Gold Project

### MINERAL RESOURCE AND ORE RESERVE COMMENTARY

The underlying Mineral Resource estimate for the Andy Well Gold Project has not been updated since previously stated as at 30 June 2017, however the existing estimate has now been depleted for all mining, up to the cessation of operations in November 2017.

The Andy Well operation was placed on care and maintenance in November 2017, which resulted in the decision to write off all remaining Ore Reserves. A breakdown of the Andy Well Mineral Resource is detailed in Table 9 below.

GOLD	MEASURED			INDICATED			INFERRED			TOTAL			
	PROJECT	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces
	Wilber	127	13.6	56,000	467	12.2	184,000	194	11.0	69,000	788	12.2	308,000
	Judy	-	-	-	392	7.1	90,000	287	5.5	51,000	678	6.4	141,000
	Suzie	-	-	-	204	6.2	41,000	147	2.9	14,000	351	4.8	54,000
	<b>TOTAL RESOURCE</b>	<b>127</b>	<b>13.6</b>	<b>56,000</b>	<b>1,063</b>	<b>9.2</b>	<b>315,000</b>	<b>628</b>	<b>6.6</b>	<b>134,000</b>	<b>1,817</b>	<b>8.6</b>	<b>503,000</b>

Table 9. Andy Well - Gold Mineral Resource estimate as at 30 June 2018.

#### Notes:

- Rounding errors may occur.
- Ore tonnes and ounce data is rounded to the nearest thousand.
- Mineral Resources reported above 0.1g/t Au lower cut-off.

### Andy Well Gold Project Gold Mineral Resource Reconciliation 30 June 2018

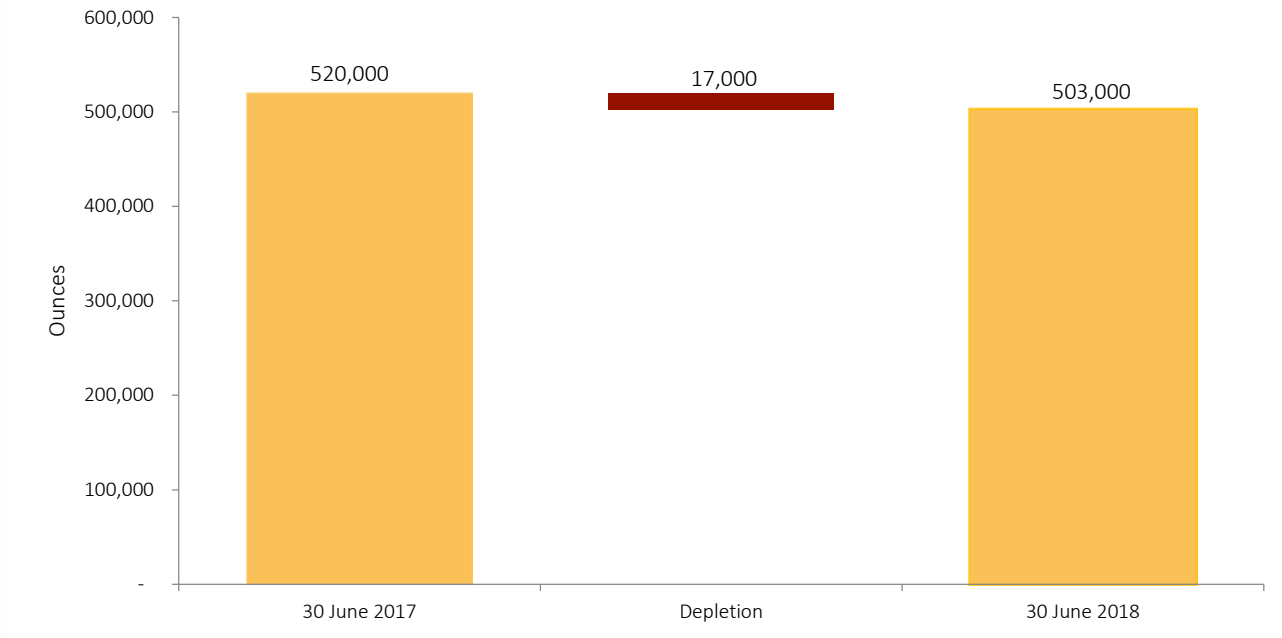


Chart 2. Andy Well Mineral Resource estimate reconciliation

### Gnaweeda Gold Project

No changes have been made to the Gnaweeda Mineral Resource estimate as detailed in the ASX release dated 9 June 2017. A breakdown of the Gnaweeda Mineral Resource is detailed in Table 10 below.

GOLD	MEASURED			INDICATED			INFERRED			TOTAL		
	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces	Tonnes (kt)	Au Grade (g/t)	Au Ounces
PROJECT												
Turnberry	-	-	-	1,200	2.6	101,000	4,300	1.6	221,000	5,500	1.8	322,000
<b>TOTAL RESOURCE</b>	-	-	-	<b>1,200</b>	<b>2.6</b>	<b>101,000</b>	<b>4,300</b>	<b>1.6</b>	<b>221,000</b>	<b>5,500</b>	<b>1.8</b>	<b>322,000</b>

Table 10. Gnaweeda - Gold Mineral Resource estimate as at 30 June 2018.

**Notes:**

- o Rounding errors may occur.
- o Ore tonnes and ounce data is rounded to the nearest thousand.
- o Mineral Resources reported above 0.8g/t Au lower cut-off

-ENDS-

**For further information, please contact:**

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## Competent Persons Statement

The information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Mark Cossom. Mr Cossom is a full time employee of Doray Minerals Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Cossom has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activities, which he is undertaking. This qualifies Mr Cossom 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 Cossom consents to the inclusion of information in this announcement in the form and context in which it appears. Mr Cossom holds shares and performance rights in Doray Minerals Ltd.

The information in this announcement that relates to Ore Reserves is based on information compiled by Rod Jacobs. Mr Jacobs is a full time employee of Doray Minerals Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Jacobs has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activities, which he is undertaking. This qualifies Mr Jacobs 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 Jacobs consents to the inclusion of information in this announcement in the form and context in which it appears. Mr Jacobs holds performance rights in Doray Minerals Ltd.

**JORC Code 2012 Edition Summary (Table 1) – Deflector Gold Copper Mine**

**Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Surface Diamond Drilling HQ2 size core collected in sample trays, core is marked and cut in half. Diamond core samples are collected on a nominal 1m interval, but based on geology. Minimum sample width of 0.3m and a maximum of 1.3m</li> <li>Underground Diamond drilling NQ size core collected in sample trays, core is marked and whole core sampled. Diamond core samples are collected on a nominal 1m interval, but based on geology. Minimum sample width of 0.3m and a maximum of 1.3m</li> <li>Reverse circulation (RC) percussion drill chips collected through a cyclone and sampled at the rig in 1 metre intervals via cone splitter</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Surface DD core is cut in half, with half submitted for assay</li> <li>Underground DD core is whole core submitted for assay</li> <li>RC chips undergo a mass decrease through cone splitting to approximately 3kg. Splitter is levelled at the beginning of each hole</li> </ul>
	<ul style="list-style-type: none"> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation determined qualitatively through: presence of sulphide in quartz; internal structure (massive, brecciated, laminated) of quartz</li> <li>Mineralisation determined quantitatively via fire assay with atomic absorption (AAS) and inductively coupled mass spectrometry and optical emission spectrometry (ICPMS/OES)</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>All samples pulverized to 75 µm and all samples analysed by 50g Fire Assay and AAS finish</li> <li>When visible gold is observed in RC chips or DD core this sample is flagged by the supervising geologist for the benefit of the laboratory</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Surface DD drilling collected at HQ2 size</li> <li>Undeground DD collected at NQ size</li> <li>RC drilling collected using a face sampling hammer and 127mm (5") bit</li> </ul>
	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <li>DD core recovery data is recorded on core block for each core run</li> <li>RC drill chip recoveries recorded at the time of logging and stored in DRM database</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate drilling muds are used to maximise DD core recovery in broken ground</li> <li>RC Drilling: sample splitter is cleaned at the end of each rod to ensure no sample hang-ups have occurred. Sample bag weights are recorded and in general should be approximately 3kg. Wet samples due to excess ground water were noted when present</li> </ul>
	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>There is no known relationship between sample recovery and grade</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Holes logged to a level of detail to support mineral resource estimation: lithology; alteration; mineralization</li> <li>DD drilling is also structurally and geotechnically logged</li> </ul>
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	<ul style="list-style-type: none"> <li>Qualitative: lithology, alteration, foliation</li> <li>Quantitative: vein percentage; mineralization (sulphide) percentage; assayed for gold and copper, structures</li> <li>All DD core not assayed is retained in core trays and stored</li> <li>All RC holes are chipped and archive</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All holes logged and for entire length of hole; sampling over 75% of hole length based on observed and expected mineralisation</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether Quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>Surface DD core is sawn in half, with half submitted for analysis</li> <li>Underground DD core is whole core sampled and submitted for analysis</li> </ul>
	<ul style="list-style-type: none"> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>RC chips cone split, sampled dry where possible and wet when excess ground water could not be prevented. Sample condition (wet, dry or damp) is recorded at the time of logging</li> </ul>
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>The entire ~3kg sample is pulverized to 75µm (85% passing)</li> <li>Gold analysis is determined by a 50g charge fire assay with an AAS finish. Copper and silver analysis is determined by ICP-MS and ICP-OES techniques (dependent on grade)</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>Pulp duplicates taken at the pulverising stage and selective repeats conducted at the laboratories discretion</li> </ul>
	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Surface DD samples are taken via ½ core sawn along the core axis, which is statistically representative of the drill core returned for each metre drilled.</li> <li>Underground DD samples are taken via whole core sample in order to maximize sample volume</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Sample size appropriate for grain size of samples material</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>Fire assay (50g), total digest technique, appropriate for gold</li> <li>AAS determination, appropriate for gold</li> <li>ICP-MS/OES technique, appropriate for copper and silver</li> </ul>
	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>KT10 handheld magnetic susceptibility meter used</li> </ul>
	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Certified reference material standards, 1 in 20 samples</li> <li>Blanks: unmineralised material is inserted following predicted high grade samples (ie. Visible gold)</li> <li>A lab barren quartz flush is requested following a predicted high grade sample (i.e. visible gold)</li> <li>Duplicates: <ul style="list-style-type: none"> <li>Field duplicates on RC samples across mineralised zones are taken on average 1 in every 50 samples</li> <li>Lab: Random pulp duplicates are taken on average 1 in every 10 samples</li> </ul> </li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	<ul style="list-style-type: none"> <li>All sampling is routinely inspected by senior geological staff Significant intersections are inspected by senior geological staff and DRM corporate staff</li> <li>2% of samples returned &gt; 0.1g/t Au are sent to an umpire laboratory on a quarterly basis for verification</li> </ul>
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>No twinned holes utilised</li> </ul>
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>Data stored in Datashed database on internal company server, logging performed on LogChief and synchronised to Datashed database, data validated by database administrator, import validate protocols in place. Visual validation in Micromine by Doray geologists</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>No adjustments made to assay data. First gold assay is utilised for any Resource estimation</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Collars: surveyed with DGPS or via total station (underground)</li> <li>Downhole: surveyed with north-seeking Champ Axis Gyro tool</li> <li>Some historic collars were unable to be validated and were removed from the estimation process</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>MGA94 - Zone 50</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Topographic control is based on survey pick-ups of drill sites, as well as historical surface surveys of the general area</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling planned on targeted features, with an average sectional spacing of 20-40m</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Data spacing considered appropriate for the stage of exploration and geological conditions encountered</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples taken on a 1m basis for RC drilling</li> <li>• Diamond core samples are based on logged geology, with a minimum of 0.3m and maximum of 1.3m width taken</li> <li>• No Doray sample composites taken</li> <li>• Historically composite sampling has been undertaken however these holes are not included in the Resource estimation process</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes are oriented at right angles to strike of deposit, dip optimized for drilling purposes and dip of orebody, sampling believed to be unbiased</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All samples are bagged in a tied numbered calico bag, grouped into larger polyweave bags and cable tied. Polyweave bags are placed into larger bulky bags with a sample submission sheet and tied shut. Consignment note and delivery address details are written on the side of the bag and dispatched from Deflector minesite via Coastal Midwest Transport. The bags are delivered directly to MinAnalytical in Canning Vale, WA who are NATA accredited for compliance with ISO/IEC17025:2005</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Performance meetings held between a DRM and MinAnalytical representative are conducted quarterly. QAQC data are reviewed with each assay batch returned, and on regular monthly intervals (trend analysis)</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Doray Minerals Ltd controls a 100% interest in M59/442 via its 100% owned subsidiary Deflector Gold Pty Ltd</li> <li>M59/442 is covered by the Southern Yamatji Native Title Claim</li> <li>Heritage surveys have been conducted over active exploration areas</li> <li>M59/442 is valid until 4 November 2018</li> <li>M59/442 is subject to the Gullewa Royalty, being a 1% royalty on gross revenue from the tenement, payable to Gullewa Ltd</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Historic exploration and open pit mining was carried out at Deflector by various parties between 1990 and 2006. Modern exploration, consisting mainly of mapping, sampling and surface drilling, was carried out by Sons of Gwalia Ltd. (1990-1994), National Resources Exploration Ltd. (1995-1996) Gullewa Gold NL Ltd. (1996-2000); King Solomon Mines Pty Ltd./Menzies Gold NL (2001-2002); Batavia/Hallmark Consolidated Ltd. (2003-2008); ATW Gold Corp. Pty Ltd. (2008-2010); Mutiny Gold Ltd. (2010-2014)</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Geology consists of Archean aged orogenic style gold copper mineralisation. Primary mineralisation is hosted in three main vein sets, the Western, Central, and Contact Lodes. The main ore lodes are narrow, sub-parallel, fault-hosted, quartz-sulphide veins within a thick sequence of high-Mg basalt intruded by a series of dacitic, dolerite, and lamprophyre dykes</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>See previous ASX releases</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>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.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No top-cuts have been applied when reporting results</li> <li>First assay from the interval in question is reported (i.e. Au1)</li> <li>Aggregate sample assays calculated using a length weighted average</li> <li>Significant intervals are based on a minimum of 1m @ 1g/t Au (RC drilling) or 0.3m @1g/t Au (diamond drilling), with a maximum of 3m internal dilution (for both). No metal equivalent values are used for reporting exploration results</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill holes are oriented at right angles to strike of deposit, dip optimized for drilling purposes and dip of ore body. However, indications are that this drilling (with the exception of DVDD003) is actually orientated slightly down-dip of mineralisation in parts. Down hole widths are reported</li> <li>Strike of mineralisation is approximately 040° dipping to the West at 80°</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to plan attached</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>All holes used in the Resource update have been reported</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>All meaningful and material data is reported</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Further drilling is to be conducted down dip and along strike of significant intersections to test for lateral extensions to mineralisation</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></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
<b>Database integrity</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>DRM data is hard keyed into LogChief software that contains internal data validation eliminating any keying errors. Data is then synchronized with an internal company server where further validation checks are run</li> <li>A further visual validation of the data is completed in 3D via Surpac software</li> <li>Sample numbers are unique and pre-numbered bags are used</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Numerous site visits have been conducted by the Competent Person. The deposit area, core logging and cutting facility was inspected with no issues identified</li> <li>Not Applicable</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Confidence in the geological interpretation of the mineral deposit is high with exposure to the mineralised lodes in both open pit and underground mining</li> <li>Uncertainty inevitably increases as the drill spacing increases which is reflected in the classification of the Resource</li> <li>All holes used in the estimation were either RC or diamond drilled</li> <li>Historic drill holes met minimum requirements for drilling and sampling. Holes sampled via 4m composites were excluded from the estimate.</li> <li>Historic drilling has intervals that are not assayed and these intervals are treated as blank</li> <li>Alternative interpretations have been investigated with modelling a gold equivalent in an attempt to account for the poor copper reconciliation, however this did not improve the estimation</li> <li>A second estimation of the Mineral Resource included a halo to account for stringer mineralisation that occurs outside the main modelled lodes. This estimate reconciled well to produced metal data however due to the uncertainty surrounding geological continuity of the halo mineralisation at this stage this material cannot be classified in accordance with the JORC Code (2012)</li> <li>A total of 32 mineralised domains were interpreted based on drill hole logging and assay results (see attached diagrams). The Western Zone comprises of three main domains, separated by the Shredder and Krang Faults with thirteen subsidiary splay and parallel lodes interpreted. The Western Zone generally strikes north-south (Local grid) and dips steeply to the west. The Central Lode consists of two main domains with one smaller splay structures striking NNE and generally steeply east dipping. The Contact Lode is modelled as three NNE striking domains, steeply dipping to the east and a supergene domain. The Link Lode is modelled as a linking structure between the Western and Central Lodes. The Da Vinci Lodes are extensions of the Western Zone north of a large Dolerite dyke</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>The majority of wireframes were generated in LeapFrog and converted to Surpac dtms for estimation. Six domains were modelled in Surpac using sectional interpretations.</li> <li>Fault structures are modelled and used to offset/terminate lodes</li> <li>Continuity of geology and grade can generally be traced from section to section using geochemical and visual attributes</li> <li>Gold and copper mineralisation occurs in multiple phases, reflected by multiple directions of continuity in geostatistical analysis</li> <li>Gold grade continuity is generally strongest at around 40 degrees plunging to the north, which corresponds to the intersection of cross cutting fault structures with the Western and Central Lodes.</li> <li>Copper grade continuity is generally similar to gold above, but also with a moderate southerly plunge</li> <li>There are several NW-SE faults which appear to offset mineralisation and lithology</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource covers over 1,000m in strike length, from 10m below surface to 400m below surface</li> <li>32 individual domains have been interpreted. These vary between 0.5m to 5m in width</li> <li>Domain continuity was extrapolated to half the average drill spacing</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Ordinary Block Kriging of 1m composites was used for the grade estimation. A 3D block model consisting of 20mN x 1mE x 20mRL parent cells was created with sub-celling to 5mN x 0.25mE x 5mRL. Data spacing, geometry of mineralised zones and volume fill were the primary considerations taken into account when selecting an appropriate estimation block size. Block discretisation points were set to 5(Y) x 2(X) x 5(Z) points</li> <li>Surpac's block modelling module was used to for the grade interpolation process</li> <li>Data was composited to 1m intervals, with separate composite files generated for gold and copper to account for different sampling campaigns in historic drill programs</li> <li>Statistical analysis and variogram modelling were carried out in Supervisor software. Due to the limited number of samples available for some of the splay domains, the variogram parameters derived from the main lode domains were rescaled to the variance of the splay</li> <li>For smaller splay structures a mean grade was assigned (domains 12023, 12071, 12121, 12132)</li> <li>Top cuts were applied to 1m composites before estimation if determined necessary to restrict the influence of gold and copper outliers</li> <li>Kriging Neighbourhood Analysis was used to aid the selection of relevant estimate and search parameters for both gold and copper estimates</li> <li>A one pass ellipsoidal search strategy was utilized for all estimated domains excluding the Link Lode. The Link Lode was estimated with a three pass octant search. Any remaining unestimated blocks within the domain are excluded from the Resource</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Reconciliation between production records and the metal depleted by mining shapes in the block estimate indicate the Resource model is robust</li> </ul>
	<ul style="list-style-type: none"> <li>The assumptions made regarding recovery of by-products.</li> </ul>	<ul style="list-style-type: none"> <li>Copper is estimated, and is assumed as recoverable based on existing processing parameters at Deflector. Silver is a recoverable by-product but no assumptions are made regarding recovery, and is not estimated</li> </ul>
	<ul style="list-style-type: none"> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> </ul>	<ul style="list-style-type: none"> <li>No non-grade elements have been estimated</li> </ul>
	<ul style="list-style-type: none"> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> </ul>	<ul style="list-style-type: none"> <li>Data spacing was the primary consideration taken into account when selecting an appropriate estimation block size. Data spacing within the mineralised domain is quite variable ranging from less than 7.5mN x 10mE to 80mN x 100mE</li> <li>A parent block size of 20mN x 1mE x 20mRL parent cells was created with sub-celling to 5mN x 0.25mE x 5mRL</li> </ul>
	<ul style="list-style-type: none"> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	<ul style="list-style-type: none"> <li>No selective mining units were assumed in this estimate</li> </ul>
	<ul style="list-style-type: none"> <li>Any assumptions about correlation between variables.</li> </ul>	<ul style="list-style-type: none"> <li>Gold and copper are weakly correlated so no assumptions have been made. The two elements have been treated separately from compositing through to variogram modelling and block estimation</li> </ul>
	<ul style="list-style-type: none"> <li>Description of how the geological interpretation was used to control the resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation is hosted in quartz-sulphide veins which are modelled in Surpac. Hard boundaries are enforced between mineralisation and waste rock. Known fault offsets control the limits of lode interpretations where necessary</li> <li>High grade trends associated with the intersection lineation of the Link Lode to the Western Zone and Central Lode were subdomained with a hard boundary applied</li> </ul>
	<ul style="list-style-type: none"> <li>Discussion of basis for using or not using grade cutting or capping.</li> </ul>	<ul style="list-style-type: none"> <li>Each domain was assessed individually for gold and a top-cut was applied where geostatistical analysis indicated outliers were present</li> <li>Top-cuts were generally not applied to the copper composites after statistical review, and due to historic production indicating a tendency to underestimate copper in block model estimation</li> </ul>
	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Plotting and tabulating kriged estimates and mean composite grades were completed as a validation check. Although these two items (kriged values and mean values) are not strictly comparable due to data clustering and volume influences they provide a useful validation tool in detecting any major biases</li> <li>Swath plots showing the estimated tonnes, estimated grade, number of composites and mean cut composite grade (tabulated by northing and RL) were created for all the interpolated mineralisation domains</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Visual checks are also completed to compare block grades against raw drill hole data</li> <li>Reconciliation of mined-to-date metal production indicates the Mineral Resource is understating gold metal by 17% and copper by 14%. The main reason for this undercall lies in unmodelled stringer mineralisation proximal to the main lodes</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>Tonnage is estimated on a dry basis</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>A lower cut of 1.0/t Au was used for reporting</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The interpretation and reporting of the Deflector Resource is based on a geological domain which is assumed to be mineable in its entirety, using standard underground development and long hole stoping techniques</li> <li>A Net Smelter Return (NSR) attribute was added to the block model using the estimated gold and copper values using block maths in Surpac</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>It is assumed all material will continue to be processed through the Deflector processing facility producing gold in doré and a gold copper concentrate</li> </ul>

Criteria	JORC Code explanation	Commentary																																							
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Current waste rock management onsite is progressing well with the waste dump designed to accommodate all waste rock types from the underground operations. The design and orientation of final landforms will have the overall objective of creating surface conditions which are conducive to the establishment and survival of self-sustaining vegetation</li> <li>Topsoil and laterite storage areas are located on the perimeter of the landforms and in other dedicated locations designed to be close to end use areas</li> </ul>																																							
<b>Bulk density</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>Assigned density data was derived from a combination of downhole gamma and water displacement measurements taken on diamond drill core</li> </ul> <table border="1" data-bbox="1010 783 1709 1173"> <thead> <tr> <th>Description</th> <th>Density</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>Overburden</td> <td>2.1</td> <td>Gamma</td> </tr> <tr> <td>Oxide, Waste, Sediment</td> <td>2.23</td> <td>Gamma, mean</td> </tr> <tr> <td>Oxide, Waste, Mafics</td> <td>2.32</td> <td>Gamma, mean</td> </tr> <tr> <td>Oxide, Ore</td> <td>2.51</td> <td>Gamma, mean</td> </tr> <tr> <td>Transitional, Waste, Mafics</td> <td>2.62</td> <td>Gamma, mean</td> </tr> <tr> <td>Transitional, Waste, Sediment</td> <td>2.59</td> <td>Gamma, mean</td> </tr> <tr> <td>Transitional, Ore</td> <td>2.69</td> <td>Gamma, mean</td> </tr> <tr> <td>Fresh, Waste, Sed</td> <td>2.72</td> <td>Core</td> </tr> <tr> <td>Fresh, Waste, Mafic</td> <td>2.96</td> <td>Core</td> </tr> <tr> <td>Fresh, Central/Contact Lode</td> <td>2.97</td> <td>Core</td> </tr> <tr> <td>Fresh, Western Lode</td> <td>3.01</td> <td>Core, median</td> </tr> <tr> <td>Fresh, Link Lode</td> <td>3.09</td> <td>Core</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Densities are assigned according to oxidation and mineralisation coding as per the table above.</li> </ul>	Description	Density	Source	Overburden	2.1	Gamma	Oxide, Waste, Sediment	2.23	Gamma, mean	Oxide, Waste, Mafics	2.32	Gamma, mean	Oxide, Ore	2.51	Gamma, mean	Transitional, Waste, Mafics	2.62	Gamma, mean	Transitional, Waste, Sediment	2.59	Gamma, mean	Transitional, Ore	2.69	Gamma, mean	Fresh, Waste, Sed	2.72	Core	Fresh, Waste, Mafic	2.96	Core	Fresh, Central/Contact Lode	2.97	Core	Fresh, Western Lode	3.01	Core, median	Fresh, Link Lode	3.09	Core
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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>Modelling of weathering horizons (oxide, transitional and fresh) were taken from geology logs for both RC and diamond drilling. Densities were assigned to each of these weathered zones.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> </ul>	<ul style="list-style-type: none"> <li>Lodes that have been mined in the open pit or underground, or have been defined by suitably spaced grade control sampling, have been classified as Measured</li> <li>Lodes with data spacing of 40mN by 40mE or less, that have been mined and estimated were classified as Indicated</li> <li>Interpreted splays were assigned Inferred unless they have been mapped in the mine workings at which point they were classified as Indicated</li> <li>All domains with mean grade assignments are classified as Inferred</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>There is sufficient confidence in the grade continuity and geological information obtained through open pit and underground mining supported by drill information to classify this Resource as Measured, Indicated and Inferred</li> </ul>
	<ul style="list-style-type: none"> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate appropriately reflects the Competent Person's view of the deposit</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate was completed by Doray Minerals Limited and internally peer reviewed</li> <li>Cube Consulting were engaged to conduct an independent review on the Mineral Resource in June 2018, with no material or fatal flaws found.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource is considered robust for classification as Measured, Indicated and Inferred Resources as per the guidelines of the 2012 JORC code</li> <li>The level of confidence in the estimate is supported by exposure of the lodes through mining, drill data density and results of kriging statistics generated in the estimation process</li> <li>Confidence decreases in the Resource estimate as drill spacing increases at depth which is reflected by Resource classification</li> </ul>
	<ul style="list-style-type: none"> <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</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate at Deflector is a global estimate</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>assumptions made and the procedures used.</i>	
	<ul style="list-style-type: none"> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>Confidence is high in this Mineral Resource estimate reflecting the high grade trends of the main mineralised lodes. Doray are aware there is metal carried outside of the main lodes in the form of stringer veins and short range splay structures, which does not form part of the current classified Mineral Resource. As a result, reconciliation data indicates the Mineral Resource is undercalling the contained gold and copper metal</li> </ul>

#### Section 4 Estimation and Reporting of Ore Reserves – Deflector Gold Copper Mine

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

Criteria	JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Mineral Resource estimate compiled by Doray Minerals Limited with internal checks as reflected in the reporting of the Mineral Resource per the guidelines of the 2012 JORC code</li> <li>The Mineral Resources are inclusive of the Ore Reserves.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Frequent site visits have been undertaken by the Competent Person over the past 15-months of operations, reviewing the mining and processing of the Deflector ore lodes which are currently being, or planned to be, extracted. The Competent Person also regularly oversees the offsite transport logistics and marketing of the doré and copper-gold concentrate saleable products.</li> </ul>
<b>Study status</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The Deflector underground mine is currently operational with development commencing in June 2016 and stoping commencing in January 2017. Current operations demonstrate that the mine planning underpinning this Ore Reserve is technically achievable and economically viable.</li> <li>Appropriate modifying factors have been applied in the estimation of this Ore Reserve. The factors have been reviewed against the current operational achievements, or in the case of a robust data set, based on actual results achieved.</li> <li>The portion of this Ore Reserve planned to be mined by open pit mining methods has utilised modifying factors derived from the Deflector Stage 1 and Stage 2 open pit which was completed in January 2016.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>A “Mortimer-style” (Hall 2014, p. 51) cut-off grade methodology i.e.: <ul style="list-style-type: none"> <li>the average grade of rock must provide a certain minimum profit, and</li> <li>the lowest grade of rock must pay for itself</li> <li>derived on a NSR basis, has been applied in the estimation of the Ore Reserves.</li> </ul> </li> <li>Known economic costs from current mining of Deflector ore lodes were used to derive cut-off values (See the “Costs” criteria for further details of the basis of the material cost inputs).</li> <li>Revenue parameters used in the cut-off grade calculation are described in the “Costs” criteria below</li> <li>Ore Reserve grades were derived from the underlying Mineral Resource block model. Development ore drive grades were calculated from the model grades diluted to a mining width of 4 metres plus 10-15% overbreak depending on location.</li> <li>Similarly, the mineralised zones within the proposed stopes were outlined from the Mineral Resource block model using industry standard software (Deswik), and diluted to achievable mining widths to estimate the resultant Ore Reserve grades. Where the proposed stope outline suggests stope grades are economic, development drives will be mined below a nominal cut-off if the combined mineralised volume is profitable overall.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>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).</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></li> <li>• <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></li> <li>• <i>The mining dilution factors used.</i></li> <li>• <i>The mining recovery factors used.</i></li> <li>• <i>Any minimum mining widths used.</i></li> <li>• <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></li> <li>• <i>The infrastructure requirements of the selected mining methods.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The assumptions and mining factors were updated to assess and optimise Ore Reserves at Deflector based on the previous 12 months of underground mining. Open pit mining factors and assumptions were derived from Deflector Pit stage 1 and stage 2 activities.</li> <li>• A detailed design for extraction of the Deflector ore lodes was compiled and scheduled using similar mining methodology, design parameters and equipment as employed project to date as the style of mineralisation, host rock qualities and tenor of the mineralisation are similar in style to what has already been mined.</li> <li>• Ore lodes are accessed underground via a 5.3mW x 5.5mH, 1:7 decline centrally located along strike and between lodes. Below 1,100mRL the decline position shifts to the east of Central lode due to the discovery of the high grade Link Lode. Level cross-cuts are mined to the east and west of the decline at 20m vertical intervals with ore development headings driven along strike to the lateral economic extents of lodes. Ore is mined using top-down mechanised open stoping methods on a shallow chevron retreat (when viewed in long section), leaving a variety of island, rib and sill pillars for stability. The Link Lode between 1,055mRL and 1,115mRL, and localised portions of the upper mine will be extracted using a bottom-up mechanised open stoping method with cement and unconsolidated rock backfill.</li> <li>• All development has had 10% or 15% overbreak applied, depending on drive type and location, as well as 100% mining recovery. All stoping has nil overbreak (as this is accounted for in the Deswik automated Stope Optimiser process with minimum mining widths). The development overbreak estimation is based on contractually acceptable limits and 12 month actual data from April 2017 to March 2018. Stopes were designed as diluted shapes, hence no dilution factor has been applied. Mining recovery is 95% for stopes with no island pillars, and 87.5% for stopes where an island pillar, 4.8mL x 6.0mH that will remain in-situ, is required. Minimum stope width has been applied based upon the lode being mined. For Central and Contact Lodes, minimum mining width is 2.5 m. For the Western Zone and Link Lodes, the minimum mining width is 3.0 m. These widths are derived from actual project-to-date extraction widths.</li> <li>• The Ore Reserves do not include any inferred material.</li> <li>• Mining infrastructure to facilitate the selected mining method comprises ventilation and escape raises, high-voltage electrical substations and dewatering pump stations with appropriate service connections. This existing infrastructure will be progressively extended as the mine develops vertically, and appropriate allowances have been made in the capital cost schedule for these works to occur as required.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></li> <li>• <i>Whether the metallurgical process is well-tested technology</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Deflector lodes are processed through an existing purpose-built on-site facility featuring three stage crushing, single stage grinding, gravity gold circuit, rougher and cleaner flotation, concentrate filtration and handling, tailings pumping &amp; storage and power and water supplies. The underlying</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>or novel in nature.</i></p> <ul style="list-style-type: none"> <li><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></li> <li><i>Any assumptions or allowances made for deleterious elements.</i></li> <li><i>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.</i></li> <li><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></li> </ul>	<p>plant technology is conventional and well proven, and whilst it is able to treat a variety of ore types, the predominant design criteria was for primary mineralisation.</p> <ul style="list-style-type: none"> <li>Metallurgical recoveries originally based on the Mutiny Gold Pty Ltd Feasibility Study have been updated using project to date operating data and performance assessment reviews from the 2.5 years of operating history. The vast majority of the Ore Reserve is domained as primary material, which has been the plant feed for the previous 12-months and is metallurgically well understood.</li> <li>The Western Zone tends to have more copper and sulphide minerals than the Central and Contact Lodes, but no material processing differences have been demonstrated, and the mining schedule underpinning the Ore Reserves purposely provides a blend of the lodes for processing.</li> <li>No material deleterious impurities have been experienced project to date and geological modelling has not identified the existence of future issues.</li> <li>Allowances for minor penalty elements, Fluoride and Chloride (F+Cl), has been made based on operational history of the relevant ore domain.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Environmental approvals are held for the mining of Deflector lodes from all necessary government authorities, including approval to extract ore using open pit and underground mining methods. Approval amendments will be required for the Southern Pit extension and any satellite pits in the area. The mining schedule underpinning the Ore Reserves has allowed sufficient time for these amendments to be procured.</li> <li>A submission for Tailings Storage Facility (TSF) capacity upgrades sufficient to contain this Ore Reserve estimate have been lodged with the appropriate regulators and are currently undergoing assessment. There is no reason to expect that approval will not be provided.</li> <li>The current permitted waste dump capacity is sufficient to hold all waste generated from the Ore Reserve mining schedule.</li> <li>The process for gaining regulatory approval amendments which underpin the Ore Reserves is well understood and reasonable grounds exist to expect that the required amendments will be gained as required.</li> <li>Dewatering discharge is described in the “Other” criteria below</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>As an existing operation, the surface infrastructure comprises the processing plant, TSF, power station, workforce village, administration buildings, maintenance workshops and support contractor facilities. Infrastructure is appropriate to manage and process ore from Deflector lodes.</li> <li>The TSF will have progressive embankment raises over the life of the Ore Reserves to store the required tailings.</li> <li>Sufficient land is available (under control of the Company) for any further infrastructure that may be warranted into the future.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li><i>The derivation of, or assumptions made, regarding projected</i></li> </ul>	<ul style="list-style-type: none"> <li>Capital and operating underground development and stoping costs are based on existing mining and</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>capital costs in the study.</i></p> <ul style="list-style-type: none"> <li>• <i>The methodology used to estimate operating costs.</i></li> <li>• <i>Allowances made for the content of deleterious elements.</i></li> <li>• <i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</i></li> <li>• <i>The source of exchange rates used in the study.</i></li> <li>• <i>Derivation of transportation charges.</i></li> <li>• <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></li> <li>• <i>The allowances made for royalties payable, both Government and private.</i></li> </ul>	<p>supply contracts and were used to convert the Deflector Mineral Resources to Ore Reserves. Project to date mining of the Deflector lodes has established the technical feasibility and profitable extraction of the mineralised lodes by both open pit and underground methods.</p> <ul style="list-style-type: none"> <li>• An allowance has been made for minor penalty charges (based on project to date actual F+CI charges) within the Treatment and Refining Charges.</li> <li>• Gold price, copper price and exchange rates forecasts have been sourced from the average of ten major Australian and international investment bank’s individual forecasts covering the Ore Reserve period. The silver price adopted was a forecast over the Ore Reserve period from one major Australian bank (as the investment bank’s forecasts did not include silver).</li> <li>• Gold produced onsite in the form of doré (which represents approximately 60%-70% of the expected gold production from these Ore Reserves), has cost allowances for transport and refining based on existing service contracts.</li> <li>• Gold and copper produced onsite in the form of concentrate has cost allowances for shipping container hire, land transport, port storage and ship loading charges based existing service contracts. The concentrate administration, sea freight, insurance, and disport charges are based on existing service contract where applicable, otherwise actual project to date costs to the expected destinations and includes allowances for occasional extra-over charges such as demurrage.</li> <li>• Treatment Charges (TC) and Refining Charges (RC) are based on an existing service contract with an industry-recognised marketing partner that factors the annual Japanese benchmark terms depending on the oxidation classification of the ore source of the concentrate i.e. oxide, transitional or primary. The current 2018 TC &amp; RCs have been held constant for the Ore Reserve period as they are believed to represent a reasonable approximation of potential range of future charges.</li> <li>• The financial modelling of Deflector Reserves allowed for the statutory 2.5% Western Australian State Government gold royalty, as well as the “Gullewa Royalty” a 1% royalty on gross revenue from the Deflector tenement (M59/442), payable to Gullewa Ltd.</li> </ul>
<b>Revenue factors</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Deflector Ore Reserve estimate will produce a revenue stream from sale of gold doré, and copper/gold/silver concentrate.</li> <li>• See “Mining Factors” and “Cut-Off parameters” above for commentary regarding head grade derivation.</li> <li>• See “Costs” above for commentary regarding commodity price and exchange rate assumptions</li> <li>• Transport and treatment charges as well as other administration charges incurred on site are all based upon actual costs being incurred mining the Deflector ore lodes</li> </ul>
<b>Market assessment</b>	<ul style="list-style-type: none"> <li>• <i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Gold demand is assumed to be steady and rising in the medium to longer term worldwide but the gold price is variable and affected by many factors - as a safe-haven reflecting geopolitical factors, demand for jewellery and as part of many countries’ currency reserves.</li> </ul>

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	<ul style="list-style-type: none"> <li>• <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></li> <li>• <i>Price and volume forecasts and the basis for these forecasts.</i></li> <li>• <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The market demand for physical gold is deemed infinite i.e. all gold produced can be sold, and pricing assumptions are described above in “Costs” criteria</li> <li>• Copper demand over the life of the Ore Reserve is deemed robust with generally increasing global economic growth. Copper pricing, which reflects the supply &amp; demand balance, is described above in “Costs” criteria.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Economic analysis was carried out using established site costs for mining, geology, processing and administration.</li> <li>• Sensitivities to existing unit costs, principally of underground mining, were carried out to establish the viability of the Deflector Ore Reserves</li> <li>• An undiscounted and uninflated cashflow model was used to evaluate the economic return of the mine plan underlying the Ore Reserves</li> <li>• As an ongoing operation, monthly cost review is undertaken along with geological reconciliation to analyse conformance to the expectations that form the basis of the Ore Reserve estimation</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• <i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></li> </ul>	<ul style="list-style-type: none"> <li>• M59/442 tenement on which the mine is located pre-dates Native Title determinations i.e. no Native Title requirements are applicable.</li> <li>• The overall project area which includes M59/442 currently has two adjoining Native Title Claims, being those of the Southern Yamatji People and the Widi Mob. Good working relations have been established with both Claimant Groups during heritage survey work on surrounding exploration tenements.</li> <li>• The landholder of the (previously Barnong Station) pastoral lease is the State Government (via the Parks and Wildlife Service of the Department of Biodiversity, Conservation and Attractions), and the project falls within the Yalgoo Shire. Good working relations are in place with both the State and local government bodies.</li> <li>• The nearest communities to the project are Yalgoo township approximately 50km to the northeast, and Morawa township approximately 70km to the southwest.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• <i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></li> <li>• <i>Any identified material naturally occurring risks.</i></li> <li>• <i>The status of material legal agreements and marketing arrangements.</i></li> <li>• <i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>• The project has encountered consistent ground water inflows in excess of that envisaged in the Mutiny Gold Pty Ltd Feasibility Study (approximately 50l/s vs. 10l/s). Infrastructure has been installed and allowance has been made for the operating productivities and costs to manage the realised water volumes in the Ore Reserve estimation. Environmental studies are ongoing to support an amendment to the Prescribed Premises Licence to allow greater discharge rates. Discussions with the relevant regulators (primarily DWER and DMIRS) have been ongoing with regards to the amendments and other licencing requirements for the actual water volumes encountered and reasonable grounds exist to expect that the required amendments will be gained.</li> </ul>

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	<p><i>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.</i></p>	
<b>Classification</b>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> <li>• <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Stope and development schedule 'tasks' were classified as Proved, Probable or not classified, when the task centroid (Y and Z co-ordinates) was situated within the Measured, Indicated or Inferred Mineral Resource classification regions respectively. All Measured and Indicated material within a task is reported to the respective Proven and Probable confidence categories. Inferred and unclassified material has tonnage, but no metal reported.</li> <li>• The Proved confidence category is comprised of 99% and 1%, Measured and Indicated Mineral Resource material respectively, and as a minimum has completed development drives mined either above or below a stoping block.</li> <li>• The Probable confidence category comprises 5% and 95%, Measured and Indicated Mineral Resource respectively.</li> <li>• All open pit material is classified as Probable even when derived from Measured Resources.</li> <li>• The Ore Reserve estimate appropriately reflects the Competent Person's view of the deposit.</li> <li>• Grade control drilling is currently in progress at the mine, and is planned to better delineate areas currently classified as Probable to add further confidence to the Ore Reserve.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Ore Reserve estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Ore Reserve estimate was completed by Doray Minerals Limited with internal checks completed.</li> <li>• No specific external audit of the Ore Reserve estimate was undertaken.</li> <li>• Various independent external consultants have worked on separate technical and economic scopes of work related to the operation over the past year, and therefore their work has had an influence on this Ore Reserve estimation.</li> </ul>

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<p><b>Discussion of relative accuracy/ confidence</b></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Ore Reserve estimate is considered robust given the existing geological, mining and processing history of the operation to date, and the plant and equipment currently in use on site.</li> <li>• The majority of the mining costs are incurred under a mining contract with a reputable WA based mining contractor (GBF Mining Services Pty Ltd) who has experience in similar style mining methods. The processing costs are well established for the Doray-operated plant, and transport costs are contracted for a material portion of the mining schedule.</li> <li>• Treatment Charges, Refining Charges and sea freight costs are subject to annual pricing negotiations and further description of the basis of reasonableness for these allowances is given in the “Costs” area above</li> <li>• The level of knowledge with regards the characteristics of the ore lodes has increased considerably over the past operational year. Geological interpretation of further resource drilling has led to the expectation that similar geological characteristics that have been experienced to date will continue into the future, lending confidence to the accuracy of mineralisation volume, tenor, mining recovery and treatment plant recoveries and the derived costs used in the estimation of Ore Reserves.</li> <li>• No statistical procedures to quantify the relative accuracy / confidence of the estimation have been undertaken. However, the Ore Reserve is based on the Mineral Resource where appropriate geostatistical procedures have been used (and reviewed) to inform the grade estimation process from which the Ore Reserve derives the underlying grade data.</li> </ul>