

31 March 2022

TABLE 1 - 2012 JORC: Macraes Gold Mine

OceanaGold Corporation (**TSX: OGC**) (**ASX: OGC**) (the "Company") refers to the announcement released by the Company dated 31 March 2022 titled "OCEANAGOLD REPORTS MINERAL RESOURCES AND RESERVES FOR THE YEAR-ENDED 2021" and hereby encloses TABLE 1 - 2012 JORC: Macraes Gold Mine relating to the announcement.

#### SUMMARY OF TABLE 1 - 2012 JORC: Macraes Gold Mine

A Material Information Summary pursuant to ASX Listing Rules 5.8 and 5.9 is provided below for the Macraes Gold Project (MGP) which includes both open pit and underground mining, ore processing and a single economic analysis based on combined open pit and underground Mineral Reserves as at 31 December 2021.

MGP is controlled by OceanaGold Corporation through its wholly owned subsidiary OceanaGold (New Zealand) Limited ("Oceana"). OceanaGold is listed on the Toronto and Australian stock exchanges under the code "OGC" and is the Issuer of this Technical Report.

The areas included in the Project comprise the following:

- Coronation North, Coronation, Deepdell, Round Hill, Innes Mills, Frasers West and Gay Tan open pits;
- Frasers Underground mine and a new underground mine at Golden Point;
- Processing plant; and
- Tailings Storage Facilities, including a new storage facility that is currently being investigated for storage from 2024

The Assessment and Reporting Criteria in accordance with JORC Code 2012 is presented in Appendix 1.

#### 1.0 Macraes Gold Project

The Macraes Gold Project (MGP) is located 91 km northwest of Dunedin, in the Otago Region of the South Island, New Zealand. The MGP is located 1-2km to the east of the Macraes Flat township and is predominately surrounded by farmland. Modern open pit mining commenced in 1990 and underground mining commenced in 2006. OceanaGold (NZ) Limited (OceanaGold) holds most of the necessary permits, consents, certificates, licenses, and agreements required to operate the open pits and underground mines that form MGP. During 2020 work commenced on obtaining the necessary resource consents to add an uplift to the Top Tipperary Tails dam and to fully backfill the Frasers open pit with waste or tails. OceanaGold has a 31 year history of obtaining the necessary permits, consents, certificates, licenses, and agreements required for mining.

MGP comprises a number of areas that are at different stages of mining development. Coronation North, Deepdell, Gay Tan, Frasers West, Golden Point Underground and the Frasers Underground are in production and are the ore sources for 2022. Resource development drilling continued in 2021 and in 2022 further drilling will take place at Golden Point / Round Hill and Innes Mills. Resource development drilling is expected to continue in 2023 and beyond.

#### 1.1 Geology and Geological Interpretation

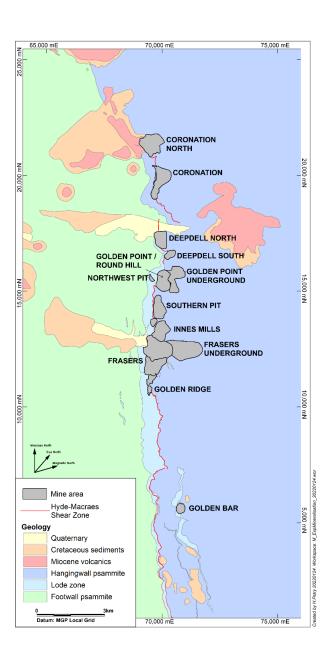
The Macraes orogenic gold deposits, consisting of a series of 12 open pits and 2 underground mines, which are located within a low-angle (~15-20°) late metamorphic (Jurassic) shear zone called the Hyde Macraes Shear Zone (HMSZ), which has been traced for at least 30km along strike (**Error! Reference source not found.**). The HMSZ consists of variably altered, deformed, and mineralized quartzo-feldspathic schist up to 150m thick, known as the Intra-shear Schist. The thickest part of the shear zone consists of several stacked mineralized zones. These shears have ductile deformation textures overprinted by cataclasis. The top of the HMSZ is

marked by a distinctive structure ('Hangingwall shear') up to 25m thick that is commonly darker coloured than adjacent schist due to fine grained graphite and sheared sulphide minerals.

The following four types of mineralization occur within the HMSZ at Macraes:

- Mineralized schist. This style of mineralization involved hydrothermal replacement of schist minerals with sulphides and microcrystalline quartz.
   Mineralization was accompanied by only minor deformation.
- Black sheared schist. This type of schist is pervaded by cm to mm scale anastomosing fine graphite and sulphide bearing micro shears. This type of mineralization is typically proximal to the Hangingwall Shear and can be up to 1m to 15m thick. Scheelite mineralization occurs in the silicified cataclastic shears.
- Shear-parallel quartz veins. These veins lie within and/or adjacent to the black sheared schist and have generally been deformed with the associated shears. The veins locally cross-cut the foliation in the host schist at low to moderate angles. Veins are mainly massive quartz, with some internal lamination and localized brecciation. Sulphide minerals are scattered through the quartz, aligned along laminae and stylolitic seams. These veins range in thickness from 1cm to > 2m. Scheelite mineralization is associated with quartz veining in some areas.
- Stockwork. These veins occur in localized swarms that are confined to the Intrashear Schist. Individual swarms range from c. 100m² to 2,000m² in area and consist of numerous (10 100) subparallel veins. Most of these veins formed sub-perpendicular to the shallow east dipping shear fabric of the Intrashear Schist. Individual veins typically extend 1-5m vertically with most filling fractures that are 5 10cm wide but can be up to 1m thick. Swarms of stockwork veins within the Intrashear Schist were lithologically controlled by the dimensions and locations of more competent psammite pods within the Intrashear Schist.





#### Figure 1: MGP Geology Plan & Pit Location

#### 1.2 Drilling, Sampling and Sub-Sampling

Between 1990 - 2021 over 7,500 surface drill holes for >1,000,000 m and over 3,000 underground diamond holes for nearly 150,000 m has been completed at MGP and used for resource estimation. About 80% of the surface holes are RC. The main ore minerals are pyrite and arsenopyrite sulphides with ubiquitous gangue consisting of quartz, sheared schist with a trace of graphite.

Resources at the MGP are defined using a combination of predominately reverse circulation (RC) drilling and diamond drilling.

RC samples were collected as bulk samples in 1 metre intervals and riffle split into uniquely numbered sample bags to produce a 2 to 4 kg sub-sample. Geological logging and sampling were completed at the drill site using Tough books. At conclusion of the drill hole the samples are taken directly to the onsite laboratory operated by SGS (NZ) Ltd.

Diamond core is geologically logged, photographed and sawn in half with a diamond saw. In general samples are 1 m in length unless dictated to by significant geological or mineralisation contacts in the core. The half-cut core samples are then delivered to the onsite lab operated by SGS (NZ) Ltd.

All drill holes collars are picked up by mine surveyors. Drill holes are routinely surveyed downhole on a 25 m or 30 m interval.

The quantity and quality of the lithological, geotechnical, geochemical data collected in the exploration, surface resource delineation, underground resource delineation and grade control drill programs are considered sufficient to support the Mineral Resource and Ore Reserve estimation. **1.3 Sample Analysis methods** 

At MGP, OceanaGold operates an assay laboratory under contract to SGS (NZ) Ltd. QAQC procedures include the routine use of certified reference materials (CRM), lab standards, lab and field duplicates and field blanks. Sample batches are re-assayed if 1 of the OceanaGold CRM's is outside 3 standard deviations. The performance of CRMs, field duplicates and blanks are actively monitored and reported.

RC samples are dried and crushed to nominal 2 mm. The crusher is integrated with a splitter to produce a 350 gram sub-sample. The entire sub-sample is pulverised to 90% passing 75 microns. A 30 gram aliquot is split for fire assay using SGS's GO FAA30V10 scheme which has a detection limit of 0.01 g/t Au.

Diamond core samples are dried and the entire sample pre crushed to nominal 25 mm. The entire sample is then crushed to nominal 2 mm. The crusher is integrated with a splitter to produce a 350 gram sub-sample. The entire sub-sample is pulverised to 90% passing 75 microns. A 30gram aliquot is split for fire assay using SGS's GO\_FAA30V10 scheme which has a detection limit of 0.01 g/t Au.

## 1.4 Estimation Methodology

Grade estimation for open pit resources is by large panel (25 mE x 25 mN x 2.5 mRL) recoverable resource estimates using either ordinary kriging or multiple indicator kriging (MIK) using FSSI proprietary GS3 software. Grades are estimated into 25 m x 25 m x 2.5 m panels which are approximately 70% the nominal drill hole spacing. A mining selectivity of 5 mE x 10 mN by 2.5 mRL is assumed.

Wire-framed shear structures are largely defined on the basis of sectional and plan interpretations of gold grade, geology and geological interpretations from previously mined resources. The wire-framed structures are generally a minimum of 2 m  $\ge$  0.3 g/t with 1 m to 2 m of external dilution. Internal dilution is generally a maximum of 2 m to 3 m  $\le$  0.3g/t. Wire-frames are extended to a maximum of 25 m past the end of any drilling. Unconstrained domains are defined by exclusion.

Grade correlation for MIK was determined by variogram analysis for each of the MIK class bins for each domain. Grades are not top cut, however, the grade of the top indicator class used in the MIK interpolation is usually assigned a value between the mean and the median of the top class, depending on the domain.

This resource estimation methodology has been successfully used at MGP since 2001 and is considered appropriate for the style of mineralisation and mining method.

For underground resources, geological domains are defined based on a combination of geology, grade and structure. Composites are first levelled within each domain by assigning a reference elevation equivalent to the elevation difference of each composite midpoint relative to a reference surface, typically the top surface of the domain wireframe. This effectively 'unfolds' the composite samples and removes offset from post-mineralisation faulting between composites. Grade estimation using the levelled composites uses Ordinary Kriging into 10 mN x 10 mE x 1 mRL blocks. Following rescaling to 5 mN x 5 mE x 1 mRL the blocks are then redistributed vertically to retain the original RL relative to the geological reference surface. Both grade estimation, rescaling and refolding are completed in Pangeos 1.5 software. This resource estimation methodology has been successfully used at MGP since 2008 and is considered appropriate for the style of mineralisation and mining method.

#### 1.5 Resource Classification

The resource estimates are classified using a combination of the geological confidence and drill spacing. For some of the open pit resource domains, an additional probability threshold is applied to mitigate the risk associated with lower grade, less continuous mineralisation

The open pit and underground classification used at MGP are considered by the Competent Person to be appropriate for the deposit.

### 1.6 Resource reporting change at Round Hill

The open pit Mineral Resource reported for Round Hill-Golden Point at 31 Dec 2020 was based on an expanded open pit which assumed the relocation of the process plant and the Mixed Tailings Impoundment (MTI). More detailed work completed during 2021 has shown a materially higher capital cost for the process plant and MTI relocation and hence it is no longer considered that there are reasonable prospects for eventual economic extraction for the portion of the resource requiring plant and MTI relocation. The open pit Mineral Resource reported for Round Hill-Golden Point at 31 Dec 2021 is now based on a smaller open pit expansion that does not require process plant and MTI relocation.

#### 1.8 Mining and Metallurgical methods, parameters and other modifying factors.

At the MGP mining is by a combination of conventional open pit and underground by retreat uphole open stoping methods. OceanaGold owns and operates both the open pit and underground mining fleets and the mining costs and productivities are well understood.

Recovery of gold at the MGP is achieved through crushing, grinding, sulphide floatation, pressure oxidation (POX) sulphides and a standard Carbon In Leach (CIL). The plant has an established skilled workforce and management team in place.

Inputs to the calculation of the reserve cut-off grades for the MGP open pit and underground mine include mining costs, metallurgical recoveries, treatment and refining costs, general and administration costs, royalties, and commodity prices. All these costs are reviewed annually as part of the LoM process. Annually the resource and reserve gold price assumptions are reviewed and if necessary, changed. Using the updated costs and gold prices the resource is re-optimised and forms the basis of the Resource and Reserve Statement. For the conversion of volumes to tonnage Dry bulk densities of 2.50 t/m3 are assigned to oxide, 2.65 t/m3 to fresh rock, and 2.35 t/m3 to moved fresh rock (Gay Tan).

As part of the pit design process the geotechnical stability of proposed open pit stages are reviewed by PSM geotechnical consultants of Sydney and are used as inputs into optimisation runs and subsequent pit designs. For the Frasers and Golden Point Underground mines, stope dilution has been estimated based on expected geotechnical conditions, stope spans and 12 years of operational experience. Recovery of ore requires the use of remote loaders, and allowances have been made for loss of Ore Reserves and for dilution from roof caving.

OceanaGold has one granted Mining Permit and one Mining Permit under application for extension of term. The term for both the granted and permit under application will be sufficient to extract known reserves and OceanaGold owns all the land necessary for open pit and underground mining to proceed. OceanaGold holds most of the necessary permits, consents, certificates, licenses, and agreements required to operate the open pits and underground mines that form MGP. During 2020 work commenced on obtaining the necessary resource consents to add an uplift to the Top Tipperary Tails dam and to fully backfill the Frasers open pit with waste or tails. OceanaGold has a 30-year history of obtaining the necessary permits, consents, certificates, licenses, and agreements required for mining.

#### 1.9 Mineral Resources

The combined MGP resource estimates inclusive of stockpiles, as at 31 December 2021, are presented in Table 1-1 are classified in accordance with CIM and the JORC 2012 code.

The resource estimate is sub-divided for reporting purposes: an open-cut resource that excludes material within the limits of the Golden Point and Frasers underground mines; and underground resources within the Golden Point and Frasers Underground mines. The resources are depleted for mining as at 31st December, 2021.

**Table 1-1: Open Cut Mineral Resource Estimate** 

DECEMBED 2024			Measured			Indicated		Meas	ured & Indi	cated		Inferred	
DECEMBER 2021	Cut-off	Mt	g/t	Moz	Mt	g/t	Moz	Mt	g/t	Moz	Mt	g/t	Moz
Nunns / NZGT	0.4 g/t	-	-	-	0.22	0.83	0.01	0.22	0.83	0.01	0.62	0.93	0.02
Coronation North	0.3 g/t	0.71	0.91	0.02	2.91	0.72	0.07	3.62	0.76	0.09	2.04	0.69	0.04
Coronation	0.3 g/t	0.08	0.97	0.00	2.28	0.79	0.06	2.37	0.80	0.06	0.86	0.70	0.02
Deepdell	0.3 g/t	1.37	1.07	0.05	2.58	0.89	0.07	3.94	0.95	0.12	1.14	0.60	0.02
Round Hill	0.3 g/t	4.23	1.32	0.18	17.10	0.88	0.48	21.33	0.97	0.66	3.01	0.68	0.07
Innes Mills	0.3 g/t	3.25	1.20	0.13	17.56	0.72	0.40	20.81	0.79	0.53	8.07	0.56	0.15
Frasers OP	0.3 g/t	5.03	0.76	0.12	12.20	0.55	0.22	17.23	0.61	0.34	1.89	0.53	0.03
Ounce	0.4 g/t	-	-	-	-	-	-	-	-	-	0.76	0.75	0.02
Golden Bar	0.4 g/t	0.17	1.35	0.01	1.00	1.08	0.03	1.17	1.11	0.04	3.53	1.24	0.14
Stoneburn	0.4 g/t	-	-	-	-	-	-	-	-	-	1.43	0.71	0.03
Taylors	0.4 g/t	-	-	-	0.19	0.88	0.01	0.19	0.88	0.01	0.21	0.70	0.00
Stockpiles	0.3 g/t	6.82	0.49	0.11	0.00	0.00	0.00	6.82	0.49	0.11	0.00	0.00	0.00
Frasers UG	1.25 g/t	0.44	3.21	0.05	0.60	2.54	0.05	1.04	2.82	0.09	0.03	1.67	0.00
Golden Point UG	1.34 g/t	0.28	2.61	0.02	5.54	2.47	0.44	5.82	2.48	0.46	0.24	2.12	0.02
Macraes Total		22.37	0.95	0.68	62.19	0.92	1.84	84.56	0.93	2.52	23.84	0.73	0.56

#### Notes to Accompany Mineral Resource Table:

- 1. Open pit cut-offs range between 0.3 g/t and 0.4 g/t Au. Frasers underground and Golden Point underground reported at 1.25 g/t and 1.34 g/t Au respectively. Cut-off grades are based upon a gold price of USD1,700/oz @ USD: NZD 0.70).
- 2. Open pit Mineral Resources, are reported within an open pit shell based-on gold price of USD1,710/oz @ USD: NZD 0.70).. Underground Resources are geologically constrained.
- 3. Mineral Resources reported included the Mineral Reserves reported for the same deposit and are inclusive of stockpiles.
- 4. There is no certainty that Mineral Resources that are not Mineral Reserves will be converted to Mineral Reserves.
- 5. No dilution is included in the reported figures and no adjustments have been allowed for mining recoveries or processing losses.
- 6. The tabulated resources are estimates of metal contained as troy ounces of gold.
- 7. Mineral Resources are reported on a 100% basis;

#### 1.9 Ore Reserves

The Ore Reserve estimate for MGP as at 31 December 2021 is shown in Table 1-4:

**Table 1-4: MGP Ore Reserve Estimate** 

			Proven			Probable		Prov	ven & Prob	able
DECEMBER 2021	Cut- off	Mt	g/t	Moz	Mt	g/t	Moz	Mt	g/t	Moz
Coronation North	0.4 g/t	-	-	-	-	-	-	-	-	-
Coronation	0.4 g/t	-	-	-	-	-	-	-	-	-
Deepdell	0.4 g/t	1.06	1.05	0.04	1.90	0.90	0.06	2.96	0.96	0.09
Round Hill	0.4 g/t	3.80	1.35	0.17	9.02	0.92	0.27	12.82	1.05	0.43
Innes Mills	0.4 g/t	2.06	1.29	0.09	5.57	0.83	0.15	7.63	0.96	0.24
Frasers OP	0.4 g/t	1.84	0.71	0.04	3.39	0.66	0.07	5.23	0.68	0.11
Stockpiles	0.3 g/t	6.82	0.49	0.11	-	-	-	6.82	0.49	0.11
Frasers UG	1.36 g/t	0.14	2.38	0.01	0.23	1.89	0.01	0.37	2.08	0.02
Golden Point UG	1.12 g/t	0.19	2.11	0.01	2.98	1.88	0.18	3.17	1.90	0.19
Macraes Total		15.90	0.90	0.46	23.10	0.99	0.74	39.01	0.95	1.20

#### **Notes to Accompany Ore Reserve Table:**

- 1. All figures are rounded to reflect the relative accuracy of the estimates. Totals may not sum due to rounding.
- 2. Ore reserves are reported based on cut-off grade based on metal price assumptions, exchange rates and mining, processing, general and administrative costs. Ore Reserves have been derived assuming a gold price of USD1,500/oz for Open Pit and USD1,500/oz for underground and NZD: USD 0.70. The Macraes processing plant recovery varies based on ore source and feed grade an average 82% recovery is achieved.
- 3. Open pit Dilution and recovery estimates are built into the resource model and no additional factors are applied.
- 4. Underground Insitu Recovery, Mining Recovery and Dilution modifying factors have been applied that result in an average underground mining recovery of 98% of the designed tonnage and 89% of the designed grade.
- 5. Ore Reserves have been estimated based on mine designs and plans consolidated into a Life of Mine Schedule.
- 6. JORC (2012) definitions were followed for Ore Reserves.
- 7. Ore reserves are inclusive of stockpiles and are reported within current mine designs which are based on current economic assumptions;

### 1.10 Economic Analysis

The NI 43-101 technical report published in 2020 included an economic analysis based upon a mine schedule that included only Ore Reserves. This analysis showed that over the life of mine, the Company expects to produce approximately 1.11 million ounces at an AISC of \$1,025 per ounce from July 1, 2020. The average AISC from 2021 to 2028 is forecast at \$990 per ounce. The costs were based on historic operating costs and sustaining capital expenditures.

#### LOM Unit Operating Cost Summary (NI 43-101 Technical Report)

Mining Unit Costs	Units	USD
Open Pit	per tonne total material mined	1.27
Frasers Underground	per tonne ore mined	43.63
Golden Point Underground	per tonne ore mined	37.04
Processing	per tonne milled	7.16
Site General & Administrative	per tonne milled	1.96

#### 1.11 Competent Persons

Information relating to Exploration Results was prepared by or under the supervision of J. Moore. Any information regarding metallurgy or mineral processing has been prepared, verified and approved by D. Carr. The open pit Ore Reserves have been prepared under the supervision of P. Doelman, open pit Mineral Resources have been prepared under the supervision of J. Moore, underground Mineral Resources have been verified and approved by Matthew Grant, and the underground Ore Reserves have been verified and approved by S. Mazza. The cost estimation and economic evaluation has been prepared under the supervision of P. Doelman.

Messrs Carr, Mazza and Moore are members and Chartered Professionals of the Australasian Institute of Mining and Metallurgy and are full-time employees of the Company's subsidiary, OceanaGold Management Pty Limited.

Messrs Doelman and Grant are members and Chartered Professionals of the Australasian Institute of Mining and Metallurgy and are full-time employees of the Company's subsidiary, Oceana Gold (New Zealand) Limited.

Messrs Carr, Doelman, Grant, Mazza and Moore have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Messrs Carr, Moore, Doelman and Mazza consent to the inclusion in the report of the matters based on the information in the form and context in which it appears.

All drill data in relation to the information presented in this release can be found on the Company's website at <a href="http://www.oceanagold.com/investor-centre/filings/">http://www.oceanagold.com/investor-centre/filings/</a>. In line with ASX listing requirements, the JORC Table 1 for the Macraes drill results, and Resources and Reserves estimates are appended to this release and available on OceanaGold's website at <a href="https://www.oceanagold.com">www.oceanagold.com</a>.

For further scientific and technical information relating to the Macraes Gold Project, please refer to the NI 43-101 technical report available on SEDAR

# JORC Code, 2012 Edition – Table 1 for the Macraes Gold Project Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul> <li>Reverse Circulation (RC) drill hole samples comprise 90% of the drilling at the Macraes Gold Project (MGP). The remaining 10% are from sampled diamond core.</li> <li>The current RC sampling, logging and assay protocol has been in place since 1994. Prior to 1994 the logging protocol was more complex and in 1994 was simplified to the existing protocol.</li> <li>Reverse circulation drill holes are sampled on 1 metre intervals from which 2 to 4 kg sub-samples are riffle split. In mid-2018 RC samples started to be weighed as a check on recovery.</li> <li>Since 1994 representative RC drill chips for each 1 metre were collected and placed in plastic chip trays which are stored on-site at MGP for future reference.</li> <li>Assay pulps are recovered from the contract laboratory and stored onsite at MGP for future reference.</li> <li>Diamond drill core is photographed, logged, sawn to half core and sampled by OceanaGold personnel at the on-site core shed.</li> <li>Sample lengths are generally 1 metre lengths, or less, as dictated by lithological contacts.</li> <li>The remaining half cut core and assay pulps are stored on-site at MGP for future reference.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diametre, 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> <li>Between 1985 and 1994, 29 holes were drilled using open-hole hammer. With the mining of Round Hill these holes have been mined out.</li> <li>Pre 1995 approximately 300 RC holes were drilled using cross over sub technology. With 30 years of mining these holes have now been mined out.</li> <li>In 1995 RC drill holes were obtained by using a reverse circulation drill rig with a 135mm face sampling hammer.</li> <li>The diamond drill core was obtained using triple tube PQ, HQ or NQ diameter drilling, however the majority of the diamond drilling is HQ.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>The reverse circulation drilling was sampled in 1 metre intervals. Sample recovery was estimated from visual inspection of sample bags with a target of &gt; 90% recovery. Since mid-2018 samples have been weighted to confirm the mass of the sample recovered. For the drill holes reported sample recovery was considered acceptable.</li> <li>It is OceanaGold's current procedure that if a reverse circulation drill hole goes wet, drilling is stopped and completed with a diamond tail. This is because reverse circulation drill hole sampling at MGP under wet conditions is prone to sampling grade bias.</li> <li>In the Round Hill, Innes Mills, Frasers &amp; Golden Bar resource estimate there are a number of wet RC holes. Where RC holes have been twinned by diamond core, the RC holes have been removed from the resource estimate. For the remaining wet RC holes, grade-based correction factors derived from wet RC / diamond pairs have been applied. A significant proportion of wet sampled RC drill holes have been mined out over the past 25 years. The remaining risk related to sample bias is considered relatively low.</li> <li>For diamond drilling recovery is recorded for every run and in general core recovery is in excess of 95%. Triple tube drilling was used to maximize core recovery through the Au mineralised zones.</li> <li>Analysis of grade versus diamond core recovery does not show any grade-recovery relationship to be present.</li> </ul>
Logging  Sub-sampling	· · · · · · · · · · · · · · · · · · ·	<ul> <li>RC drilling is logged every 1 metre using MGP logging codes that have been in place since 1994. For holes prior to 1994 holes were logged using a similar protocol.</li> <li>Diamond core was geologically logged and photographed following OceanaGold's standard operating procedure for core logging. The geological logging process documents lithological and structural information as well as basic geotechnical information on RQD and major defects. Core logging generally identifies the upper surface of the mineralised shear. RC chip logging is not as effective at defining the position of this contact. As a result, a combination of logged geology and gold grade data is required to define the boundaries of mineralised shears.</li> <li>Drill holes were generally logged and sampled from 20 m above the Hangingwall contact. If the position of the Hangingwall contact was uncertain then holes were/are logged and sampled in their entirety.</li> <li>RC 1 metre samples are collected into a cyclone and then split</li> </ul>
techniques	all core taken.	through a cone or riffle splitter. Close attention is paid to ensure each

	Criteria	JORC Code explanation	Commentary
onal use only	and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	interval sampled is 1 metre. Drilling advance is paused at the end of each 1 metre, to allow the entire sample to clear the splitter prior to resuming drilling. The cyclone and splitter are kept clean and dry.  Diamond core was cut along the long axis of the mineralised ellipse to achieve a representative half core sample. The only rare exception to this is in the Frasers Underground where areas of resource development drilling are going to be mined within 3 months of hole completion the full core is sent for assay.  Sub-sampling size is considered appropriate and the method representative for the style and thickness of mineralisation. This is borne out by 30 years of mining at Macraes.  At MGP, OceanaGold and its predecessors have utilised an on-site, independently operated sample preparation / assay laboratory for 30 years under contract.  QAQC procedures involve the use of certified reference material, lab duplicates, and lab standards.  Sample preparation RC  1. Samples checked off against submission sheet.  2. Samples are then dried at 150 degrees C until visibly dry.  3. Entire sample is crushed, to nominal 2 mm with an integrated splitter producing a 350 g subsample.  4. The entire 350-gram subsample is pulverised to 90% passing 75 micron and put into a bag.  5. From the bag a 30 g aliquot is scooped out.  6. The pulverised reject for all samples is recovered from the laboratory and retained by OceanaGold for future reference.
			<ol> <li>Samples are then dried at 150 degrees until visibly dry.</li> <li>Half core pre-crushed using a crusher. Nominal top size is 25 mm (in one dimension only).</li> <li>Entire sample is crushed to nominal 2 mm with an integrated splitter producing a 350 g subsample.</li> <li>The entire 350-gram subsample is pulverised to 90% passing 75 micron and put into a bag.</li> <li>From the bag a 30 g aliquot is scooped out.</li> <li>The pulverised reject for all samples is recovered from the</li> </ol>
			laboratory and retained by OceanaGold for future reference.
			14

Criteria	JORC Code explanation	Commentary
		<ul> <li>Metallurgical Samples</li> <li>Where sufficient core is available, generally &gt;15kgs and preferably &gt;30kgs of quarter cut core are selected. Due to the volume requirement this means a metallurgical sample may consist of material from multiple holes.</li> <li>Metallurgical sampling aims to be as geologically and spatially representative as possible.</li> <li>RC chips cannot be used at MGP for metallurgical sampling due to contamination with hammer oil which negatively impacts sulphide float test work.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>At MGP, OceanaGold and its predecessors have used an on-site, independently operated sample preparation / assay laboratory for 30 years under contract.</li> <li>Assay</li> <li>30g fires assays were completed using SGS's GO_FAA30V10 scheme.         <ol> <li>30 gram of sample is weighed with 170 gram of lead flux and tumble mixed in a plastic pot.</li> <li>contents are transferred to a crucible and fusion of the gold in the sample with the lead in the flux occurs in a LPG fired blast furnace at 1,100 degrees C</li> <li>cupellation of the lead button to recover the gold prill then occurs in an LPG fired muffle furnace set at 950 degrees C</li> <li>the prills are recovered from the cupels, digested in plastic test tubes with aqua regia. Gold determinations by atomic absorption.</li> <li>The laboratory QA/QC is checked, and results released</li> </ol> </li> </ul>
		<ul> <li>For RC holes one of 8 randomly selected Certified Reference Material (CRM) is inserted into every 20th sample for each hole.</li> <li>For Diamond drill holes one of 8 randomly selected CRM is added every 20th sample into the sample submission. Also, blank basalt standards are inserted into each ore zone and a duplicate sample of ¼ cut core from each ore zone is added into the sample submission.</li> <li>On receipt of assays all the laboratory and OceanaGold's QA/QC information is loaded into the acQuire database. If all the CRMs are within 3 standard deviations the submission is loaded to the</li> </ul>

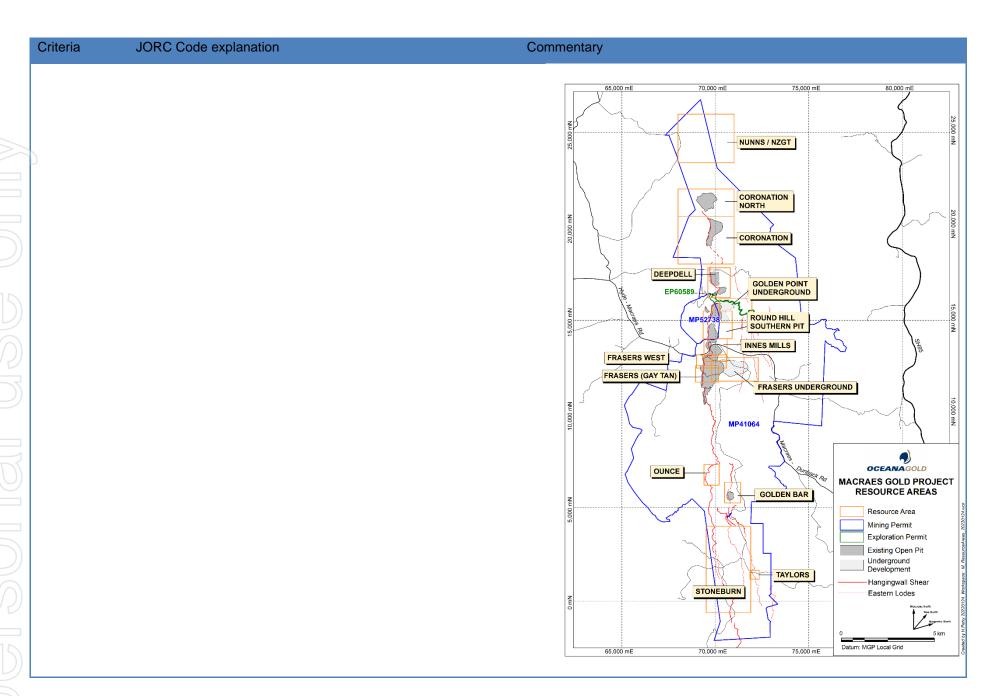
	Criteria	JORC Code explanation	Commentary
			<ul> <li>database. If a single CRM is outside 3 standard deviation the submission is rejected and sent for re-assay.</li> <li>As part of the QA/QC process open pit and Frasers Underground use the same set of CRMs'. This generates statistical mass which enables OceanaGold to track monthly performance of all CRM's and to identify and raise any QA/QC issues with the laboratory.</li> <li>OceanaGold has not recently completed an external laboratory check.</li> </ul>
JO BSM [[	Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Geological logging since 1995 was compiled digitally using Tough Books or equivalent at the drill site or the core shed. Prior to 1995 geological logging was onto paper logs that were then manually entered, checked and loaded into the geological database.</li> <li>Geological observation of mineralisation is generally well correlated with assay results.</li> <li>No adjustments have been made to the assay data received from the respective companies that have operated the Macraes site laboratory.</li> <li>Where wet sampled RC holes have been twinned by diamond core, the wet sampled RC holes have been removed from the resource estimate. For the remaining wet RC holes, grade-based correction factors derived from wet RC / diamond pairs have been applied. A significant proportion of wet sampled RC drill holes have been mined out over the past 30 years. The remaining risk related to sample bias / resource estimation is considered relatively low.</li> </ul>
	Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All drill hole collars are surveyed by mine surveyors using MGP grid to an accuracy of +/- 0.15 metre</li> <li>Prior to 1994 RC drill holes were not downhole surveyed. Post 1994 and for RC holes deeper than 70 m RC holes were surveyed every 50m to the end of hole with an Eastman single shot or multi shot camera. With the advent of digital down hole cameras holes since 2006 have been down hole surveyed at 25 m or 30 m intervals to end of hole.</li> <li>Diamond drill holes have always been down hole surveyed at 25 m or 30 m intervals and at end of hole.</li> <li>Topographic control is by detailed aerial/drone surveys of the mine and prospect areas.</li> </ul>
			16

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill hole spacing at the exploration stage is initially at 100 m by 100 m spacing. If drill holes intersect significant mineralisation the drill hole spacing is progressively reduced to limited infill to between 37 m x 37 m to 25 m x 25 m, depending on the mineralisation style. RC drill holes are sampled in 1 metre intervals. Diamond drill holes are generally sampled in 1 metre intervals unless hole geology dictates otherwise.</li> <li>Typical drill hole spacing for the open pit Indicated Resources is 25 m x 25 m to 37 m x 37 m</li> <li>Average spacing of pierce points for Frasers Underground and Golden Point Underground Indicated Resources is 25 m x 25 m spacing.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Surface drill holes are generally vertical to intersect a generally 15 to 25-degree dipping gold mineralised structure.</li> <li>Whilst this direction is sub-optimal for steeply dipping quartz vein arrays, near-vertical reverse circulation and diamond drilling has been used as the basis for resource definition MGP since 1985. Whilst this results in local estimation variance, long term reconciliation is generally reasonable.</li> <li>At FRUG drill holes are typically drilled from exploration drives or rises, positioned 25 metres to 100 metres above the Hangingwall Shear. The holes fan out to achieve pierce point intersections at angles typically greater than 45 degrees relative to the mineralised structure.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Sample bags are uniquely numbered and transported directly from the drill site or core shed to the on-site laboratory and are logged into the laboratory system on delivery.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>RSC completed an audit of the MGP site laboratory in November 2014 and concluded that" the laboratory in general operates at an acceptable level of quality"</li> <li>OceanaGold's sampling procedures conform to industry standard practice and resource to mine to mill reconciliation for over 25 years of mining supports this.</li> </ul>

# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>The Resources covered by this report fall in a number of permits as shown on Figure below.</li> <li>MP40 164 is a granted mining permit held 100% by Oceana Gold (NZ) Ltd which expires on 31<sup>st</sup> January 2030.</li> <li>MP52 738 is a granted mining permit held 100% by Oceana Gold (NZ) Ltd which expires on 30<sup>th</sup> October 2045.</li> <li>EP60 589 is a granted exploration permit held 100% by Oceana Gold (NZ) Ltd which expires on 13<sup>th</sup> July 2025.</li> </ul>



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Within permits listed above and shown on Figure above Oceana Gold (NZ) Ltd and its predecessor companies have carried out most of the exploration.</li> <li>Prior to Oceana Gold (NZ) Ltd and its predecessor companies' exploration was carried out by Homestake, BHP Gold Mines Ltd, BP Minerals (NZ) Ltd and Kiwi Gold.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The Macraes orogenic gold deposits, consisting of a series of 12 open pits and 2 underground mines, are located within a low-angle (~15-20°) late metamorphic (Jurassic) shear zone called the Hyde Macraes Shear Zone (HMSZ), which has been traced for at least 30 km along strike (Figure 1). The HMSZ consists of variably altered, deformed, and mineralized quartzo-feldspathic schist up to 150 m thick, known as the Intra-shear Schist. The thickest part of the shear zone consists of several stacked mineralized zones. These shears have ductile deformation textures overprinted by cataclasis. The top of the HMSZ is marked by a distinctive structure ('Hangingwall shear') up to 25 m thick that is commonly darker coloured than adjacent schist due to fine grained graphite and sheared sulphide minerals. The following four types of mineralization occur within the HMSZ at Macraes.
		<ul> <li>Mineralized schist. This style of mineralization involved hydrothermal replacement of schist minerals with sulphides and microcrystalline quartz. Mineralization was accompanied by only minor deformation.</li> <li>Black sheared schist. This type of schist is pervaded by cm to mm scale anastomosing fine graphite and sulphide bearing micro shears. This type of mineralization is typically proximal to the Hangingwall Shear and can be up to 1m to 15m thick. Scheelite mineralization occurs in the silicified cataclastic shears.</li> <li>Shear-parallel quartz veins. These veins lie within and/or adjacent to the black sheared schist and have generally been deformed with the associated shears. The veins locally cross-cut the foliation in the host schist at low to moderate angles. Veins are mainly massive quartz, with some internal lamination and localized brecciation. Sulphide minerals are scattered through</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>the quartz, aligned along laminae and stylolitic seams. These veins range in thickness from 1cm to &gt; 2m. Scheelite mineralization is associated with quartz veining in some areas.</li> <li>Stockwork. These veins occur in localized swarms that are confined to the Intrashear Schist. Individual swarms range from c. 100m² to 2,000m² in area and consist of numerous (10 – 100) subparallel veins. Most of these veins formed sub-perpendicular to the shallow east dipping shear fabric of the Intrashear Schist. Inidividual veins typically extend 1-5m vertically with most filling fractures that are 5 – 10cm wide but can be up to 1m thick. Swarms of stockwork veins within the Intrashear Schist were lithologically controlled by the dimensions and locations of more competent psammite pods within the Intrashear Schist.</li> </ul>
)		•
		MACRAES GOLD PROJECT GEOLOGY Mining Permit Exploration Permit Interpreted Geology Interpreted Geology Flooked Paramite Lode Scrist Mocene Volcarics Cretacous Red mens Coustmany Sediments Hargingmal Shear Mineralised Shear / Eastern Mineralised Shear / Eastern Flooked Fl
		MP927384  MACRAES  MACRAES  MACRAES  MACRAES  MACRAES
1		
		OCEANAGOLD  Dawn NZG02000 (NZIM)  TS03444  TS03444  TS03444  TS03444  TS03444  TS03444
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> </ul>	No exploration results are presented in this report.

Criteria	JORC Code explanation	Commentary
	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <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>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No exploration results are presented in this report.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Drill holes are generally vertical to intersect a generally 15 to 25- degree dipping gold mineralised structure.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	No exploration results are presented in this report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No exploration results are presented in this report.

Criteria	JORC Code explanation	Commentary
-Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>OceanaGold has been mining the MGP for over 30 years and in that time has mined and milled over 130Mt of ore. As a result, OceanaGold has significant in-house experience in mining what is a structurally complex, low grade and refractory ore body.</li> <li>As far as the Competent Person is aware there is no other substantive exploration data.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Infill drilling Innes Mills for gold will continue in 2022 to define and derisk open pit resources.</li> <li>Assaying by pXRF of resource development drilling pulps will continue in 2022.</li> <li>Metallurgical samples will be collected and submitted as the resource definition drilling proceeds.</li> <li>Routine collection of relative rock hardness data from drill core using Procep Equotec instrument will continue with the ultimate objective of getting these parameters into a resource estimate block model.</li> </ul>

# **Section 3 Estimation and Reporting of Mineral Resources**

#### Introduction

Exploration at Macraes began in the early 1980's for gold and tungsten and culminated in the definition of the Round Hill resource in 1985. The Macraes Gold Project (MGP) as it became known commenced operations in November 1990 and has been in continuous operation since that time. In that time ore has been sourced from Golden Bar, Golden Ridge, Frasers, Gay Tan, Frasers Underground, FRIM, Innes Mills, Southern Pit, Round Hill, North West pit, Golden Point, Deepdell South, Deepdell North, Coronation and Coronation North (pits in Macraes Grid south to north order). To date over 130Mt of ore has been mined and milled from these ore sources. Milling at MGP commenced in 1990 using a 1.0g/t mining cut-off and a milling rate of 1.5Mtpa. In 2019 MGP operated at a 0.4g/t mining cut-off milling 5.9Mtpa. The annual Life of Mine Plan (LoMP) was updated and based the increased gold price at the end of 2019 it was determined that it was economic to treat at the end of mine life ore with a grade as low as of 0.3g/t. Consequently, since January 2020 the mine cut-off was lowered to 0.3g/t and resources within 10km are reported at this cut-off. The MGP consists of 14 resource estimates spaced along 25km of strike and are spread across two mining permits MP52 738 and MP41 064 and one exploration permit EP60 589. The resource estimates covered by this Table 1 report are for Stoneburn, Taylors, Golden Bar, Ounce, Frasers Underground, Frasers West, Gay Tan, Innes Mills, Round Hill/Golden Point, Golden Point Underground, Deepdell, Coronation, Coronation North and Nunn's-NZGT as shown in the Figure 1. The majority of the open pit resource estimates are large panel recoverable resource estimates generated using GS3 software and have

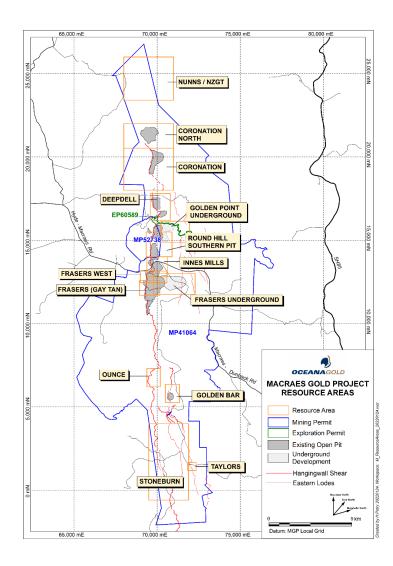
been in use since 2001. Taylors, Golden Bar, Frasers (Frasers West and Gay Tan), Innes Mills, Round Hill/Golden Point, Deepdell, Coronation and Coronation North are estimated using large panel recoverable resource estimates and these resource estimates cover all current open pit Life of Mine (LoM) production.

Stoneburn, Ounce and Nunns/NZGT inferred resources were estimated using ordinary kriging into large blocks. No portion of these resources has yet been converted to reserves.

The Frasers and Golden Point Underground resources are estimated using ordinary kriging within geological domains are defined based on a combination of geology, grade and structure.

This Table 1 covers 14 separate resource estimates complied using drilling data collected over a 35-year period, using a number of resource estimation methods. As a result, this Table 1 should be considered a summary and will focus on the large panel recoverable resource estimates which form the basis of current and future open pit mining.

Figure 1: Resource Estimate Locations at the Macraes Gold Project



Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The Macraes Gold Project (MGP) commenced circa 1984 with Homestake (NZ) Exploration Ltd commencing the drill out of the Round Hill project. Drilling has continued on a semi continuous basis since 1984 over a 25km of strike length of the Hyde Macraes Shear Zone as shown in Figure 1. As a result, data collection has evolved from paper to electronic data methods.</li> <li>The pre 1994 drilling data has been checked and validated on a number of occasions and OceanaGold has the original drill logs and in most cases the original assay reports.</li> <li>From 1996 drill hole data was captured electronically via Tough Books or equivalents and loaded into an electronic acQuire database.</li> <li>Assay data were/are loaded electronically from digital data files supplied by the on-site laboratory. No editing or factoring of the assay results during the database loading process. The data is checked and validated in 3D. On completion of validation drill hole data is locked to prevent any further editing.</li> <li>Copies of the electronic drill logs and assay files are also archived for future reference.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Mining commenced at MGP in Nov 1990 at Round Hill. Mining has continued continuously since that time. Over this period Jonathan Moore has been employed at MGP between 1996 to current and has an extensive knowledge of the MGP.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Geological complexity remains a challenge at Macraes, particularly for smaller subsidiary structures. However, experience gained through 30+ years of open pit and underground mining on site has mitigated much of the geological interpretation risk at MGP.</li> <li>Geological interpretation is based on drill logs and assay results open pit blast hole assays, and where available, core photos, trench mapping and underground face mapping. Underground resource estimates are supported by drill core (cr RC) and therefore more reliable geological logging information is available. Given the high proportion of RC drilling for the open pit estimates, much of the open pit geological interpretation is made via wire framing on the basis of</li> </ul>
	26	

Criteria .	JORC Code explanation	Commentary
		<ul> <li>gold grade and logged geology. These wireframes define discrete mineralised shears and are modelled with hard grade boundaries. Mineralisation outside these shears is modelled as unconstrained "Stockwork" mineralisation.</li> <li>Alternative geological interpretation is possible when correlating mineralized intercepts between drill holes and results in variation in the modelled location of mineralised shears but typically with little impact on global resource estimation.</li> <li>Wireframes are generally a minimum of 2 m ≥ 0.3 g/t with 1 m to 2 m of external dilution. Internal dilution is generally a maximum of 2 m to 3 m ≤ 0.3 g/t. Wireframes are extended to a maximum of 25 m past the end of any drilling.</li> <li>For Frasers &amp; Golden Point underground the geological wireframes are generally a minimum of 2 m ≥ 0.5 g/t. Internal dilution is generally a maximum of 2 m to 3 m ≤ 0.5 g/t.</li> <li>Geological risk can be reduced by decreasing the drill spacing. At MGP most of the open pit Indicated Resources are drilled to 37 m x 37 m or better. In areas of geological uncertainty or where overly thick or high-grade intersections are intersected the drill spacing is reduced to 25 m x 25 m.</li> </ul>
Dimensions •	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul> <li>All the resources covered in this Table 1 are located along the 35kilometre long Hyde Macraes Shear Zone. The down-dip limit of mineralisation has not been closed off but the extension potential is limited by increasing depth.</li> <li>See Section 2; Geology for a description of the project geology and mineralisation styles.</li> </ul>
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.  The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	<ul> <li>DPEN PITS:</li> <li>Large panel recoverable open pit resource estimates via multiple indicator kriging (MIK) using FSSI proprietary GS3 software have been successfully used at MGP since 2001 and are considered appropriate for the style of mineralisation and mining method. The panels are 25 mE x 25 mN x 2.5 mRL. Recoverable proportions and grades are estimated into panels for a number of cut-off grades. The panel dimensions approximate the nominal drill hole spacing. The mining selectivity is accommodated by defining selective mining unit (SMU) dimensions which are independent of the panel size. An SMU</li> </ul>
	2	27

	Ouitonia	IODO Cada annianation	C
	Criteria	JORC Code explanation	Commentary
MIUO BSN		<ul> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	<ul> <li>of 5 mE x 10 mN x 2.5 mRL is typically used</li> <li>Wireframes define mineralised shears, largely defined on the basis of sectional interpretations of geology, gold grade and where available grade control data. Unconstrained domains are defined by exclusion.</li> <li>Search parameters for the wire framed mineralisation vary between the various resource estimates and are a function of mineralisation orientation and drilling spacing. As a general rule, searches require a minimum of 16 samples and a maximum of 48 samples from a minimum of 4 octants with the search ellipse aligned along the trend of the mineralisation.</li> <li>Indicator thresholds and variograms are defined at 10, 20, 30, 40, 50, 60, 70, 75, 80, 85, 90, 95, 97.5, 99 percentiles for each domain.</li> <li>MIK grades are not top capped; however, the class mean for the top indicator class is set between the class mean and median depending on the grade distribution.</li> <li>Block support correction used the indirect log normal method for large panel recoverable resource estimates.</li> <li>The maximum extrapolation distance of a drill hole assay is generally less than 75 m.</li> </ul>
1 IBUOSJE			<ul> <li>The estimates for Frasers &amp; Golden Point Underground are E-Type estimates. Composites are first levelled within each domain by assigning a reference elevation equivalent to the elevation difference of each composite midpoint from a reference surface, typically the top surface of the domain wireframe. This effectively 'unfolds' the composite samples and removes offset from post-mineralisation faulting between composites. Grade estimation using the levelled composites uses Ordinary Kriging into 10 mN x 10 mE x 1 mRL blocks. Following rescaling to 5 mN x 5 mE x 1 mRL the blocks are then redistributed vertically to retain the original RL relative to the geological reference surface. Both grade estimation, rescaling and refolding are completed in Pangeos 1.5 software.</li> <li>For underground Ordinary Kriging estimates, the composite grades are top capped to a value between 97.5 and 99 percentiles of the uncapped composite grade as grouped by the geological domain, typically within the range of 5 – 15 g/t Au.</li> </ul>
		28	8

	Criteria	JORC Code explanation	Commentary
			BOTH UNDERGROUND AND OPEN PIT:
			<ul> <li>The resource estimates are classified using a combination of the geological confidence and drill spacing. For some of the open pit resource domains, an additional probability threshold is applied to mitigate the risk associated with lower grade, less continuous mineralisation</li> </ul>
			<ul> <li>There are currently no economically significant by-products recovered at the MGP, however, there have been investigations on the economic viability of recovering Tungsten.</li> </ul>
			<ul> <li>No deleterious or non-grade variables are currently estimated.</li> <li>The resource estimates were validated by comparing the block grades with the average of the bench composites on a domain by domain and swath basis.</li> </ul>
			<ul> <li>The resource estimates were validated in 3D.</li> <li>In 2017 sulphur estimates based on 100 m x 100 m x 1 m down hole sampling were estimated using ordinary kriging for Coronation &amp; Coronation North prospects. The estimates were required as the sulphate leachate threshold was lowered from a 1,000 ppm to</li> </ul>
			400 ppm in resource consents for the Coronation North prospect. The estimates were used to model bulk waste, mineralised waste and ore sulphur contents to enable modelling of sulphate leaching in the new Coronation North waste rock stack. These estimates are not validated and are not currently being reconciled.
CO	Majatura	Miles the section of	
	Moisture	<ul> <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>	Tonnages in the resource estimate are estimated on a dry basis.
	Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>The open-pit resource estimate is reported at a 0.3 g/t cut-off which the current is mining cut-off used at MGP. The Frasers Underground resource is reported using a combination of geological wireframes and a 1.25 g/t cut-off and the Golden Point Underground resource is reported using a combination of geological wireframes and a 1.34 g/t. The cut-off is applied to undiluted grades (cf underground reserves).</li> </ul>
			29

Criteria	JORC Code explanation	Commentary
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>The resource estimates at MGP are constrained to a USD1710 ounce per tonne optimised pit shell using on 2021 mining costs. Inferred Resources are included in the optimisation of the resource reporting shell.</li> <li>Approximately 80% of the ore will be mined by open pit mining methods using the current mining fleet. The remaining 20% is anticipated to be mined by underground methods using the existing underground mining fleet.</li> <li>Open cut mining is on 2.5 m benches with grade control drilling on a 4 m x 4.5 m pattern drilling 7.5 m deep holes sampled in 3 m x 2.5 m lengths. Ore is blasted in 7.5 m lifts and waste in 15 m lifts.</li> <li>Underground mining commenced at MGP in 2006 and is by long hole open stope methods. It is anticipated that this mining method will continue for the foreseeable future.</li> <li>The 2021 Life of Mine has all the ore mined being recovered from MP41 064 &amp; MP52-738. The location of the respective royalty areas is shown on the Figure below.</li> <li>Mining permit MP41 064 is subject to two royalties, a royalty payable to the New Zealand government "Crown" and a private individual "Hopgood Royalty"</li> <li>The "Crown" Royalty is to a maximum of 1% ad valorem, or 5% of accounting profits, whichever is greater which are payable to the Crown annually for gold, silver or any other recovered minerals.</li> <li>A private royalty (payable to Owen Hopgood) of 5% of gross value (from open pit mining) or 3% of gross value (from underground mining) for gold, silver, or any recovered mineral. The area of the royalty is shown in red on the diagram below.</li> <li>Mining permit MP52 738 is subject a royalty payable to the New Zealand government "Crown". The "Crown" Royalty is to a maximum of 2% ad valorem which is payable to the Crown annually for gold, silver or any other recovered minerals.</li> </ul>
		30

when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with

Criteria	JORC Code explanation	Commentary
	an explanation of the basis of the metallurgical assumptions made.	The Macraes processing plant recoveries have ranged from 81% to 86% over the last 5 years with an average of 82.9%
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	<ul> <li>OceanaGold owns all the land required for current open pit and underground mining operations and the associated infrastructure. For the Nunns/NZGT and Stoneburn resource areas OceanaGold does not own the land nor have access agreements, however, OceanaGold is confident that access agreements with the right to purchase can be obtained.</li> <li>With the exception of consents for a tailings storage and consents for mining at Golden Bar pit, OceanaGold has all of the necessary resource consents and permits to continue mining (mining = mining of ore and waste from open pits and underground, construction of waste rock stacks and tailings dam facilities). OceanaGold is in the process of obtaining the necessary resource consents for those areas for which it does not have consent and is confident that the necessary resource consents will be obtained.</li> <li>OceanaGold has successfully operated for 30 years within the issued resource consent the conditions that are designed to protect the environment.</li> </ul>
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Over 667 SG measurements have been done on core from the respective resource areas at MGP.</li> <li>The tonnages are based on dry bulk densities that were determined in 1994/2005/2013 from the analysis of 667 drill core samples. From this work an SG of 2.50 is applied to oxide ore and waste and an SG of 2.65 is applied to sulphide ore and waste.</li> <li>MGP is in an area of active uplift and therefore experienced high erosion rates. As a consequence, the weathering profile at MGP is typically 10 m to15 m. The only exception to this has been at Coronation North where the orebody was overlain by younger flow basalts, tuffs and sediments. This cover has protected the oxidized schist and as a result the weathering profile is 30 m to 40 m deep. By the end of 2019 all this material had been mined off the Coronation North orebody.</li> </ul>
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	<ul> <li>For the MIK resource estimates a three-tier classification methodology is used; geological domain, drill spacing, and probability</li> </ul>
	32	2

Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>of a panel exceeding the cut-off grade.</li> <li>Once the geological domains have been assigned, classification is assigned via search parameters, which includes drill hole spacing, octants and minimum sample thresholds.</li> <li>Measured if the panel meets the primary sample search distance, minimum octant, minimum sample criteria. If the panel's recoverable proportions above the cut-off grade are greater than 80% it is classified as Measured. If not, the panel is classified as Indicated.</li> <li>Indicated if the panel meets the secondary sample search distance, minimum octant, the minimum sample criteria If the panel's recoverable proportions above the cut-off grade are greater than 30% it remains Indicated. If not, the panel is classified as Inferred.</li> <li>Inferred if the panel meets the secondary sample search distance, minimum octant, but only meets half the minimum sample number threshold.</li> <li>The above classification protocol has been used at MGP since 2001 and is considered by the Competent Person to be appropriate for the deposit.</li> <li>Underground OK resource estimates use a combination of drill spacing and geological domain.</li> </ul>
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>A majority of the resource estimates have not been externally audited, although internal peer review is standard practice at OceanaGold. The Round Hill and Golden Bar resource estimates have been audited by FSSI Consultants (Australia)</li> <li>All resources that are being mined are reconciled monthly in order to monitor resource estimate predictions.</li> </ul>
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	<ul> <li>OceanaGold has been using large panel recoverable resource estimation for resource estimates since 2001 and has long history of acceptable reconciliation. The method is considered appropriate by the competent person.</li> <li>The open pit and underground resource estimates are expected to provide acceptable outcomes for periods no less than 3 months</li> <li>Table 5 summarizes the combined open pit and underground resource model reconciliations for 2018 to 2021. The reserve</li> </ul>
	3	3

#### Criteria **JORC Code explanation** Commentary The statement should specify whether it relates to global or model to mill-adjusted mine reconciliation data for the four local estimates, and, if local, state the relevant tonnages, years to 2021 show variable performance from year to year, which should be relevant to technical and economic albeit the long-term average performance for this period has evaluation. Documentation should include assumptions been reasonable; plus 9% for tonnes, minus 3% for grade and made and the procedures used. plus 6% for contained gold. While the long-term performance These statements of relative accuracy and confidence of the has been reasonable, the grade performance for 2020 and 2021 estimate should be compared with production data, where available. was less than 2018 and 2019, although the contained gold reconciliation has been positive. The causes for the recent grade performance have been a combination of complex mineralization styles, the realization of additional low-grade mineralization in grade control, difficulty in achieving representative drilling coverage at Gay Tan open pit due to limited drill rig access, and in 2021, near-surface depletion at Deepdell open pit. While geological complexity remains in 2022, resource model performance is expected to return to long term performance and while annual reconciliation fluctuations are expected to continue, the resource estimates are believed to provide an acceptable basis for medium to long term mine planning purposes. Table 5: Combined Open Pit and Underground Model to Mill-Adjusted Mine Reconciliation Year Reserve Model Mill-Adjusted Mine Reconciliation Ratios Μt grade Moz Μt grade Moz tonnes grade οz 2021 4.11 1.06 0.14 4.78 0.97 0.15 1.16 0.91 1.06 2020 3.74 4.71 1.15 0.14 1.04 1.26 0.91 1.14 0.16 2019 4.34 1.23 0.17 4.80 1.18 0.18 1.11 0.96 1.07 6.17 1.21 0.24 5.79 1.30 0.24 0.94 1.00 Total 18.4 1.17 0.69 20.1 1.13 0.73 1.09 0.97 1.06 Open pit resource models implicitly include mining selectivity. Underground models include reserve modifying factors for ore loss and dilution.

Budget models for each year used

# **Section 4 Estimation and Reporting of Ore Reserves**

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

	Criteria	JORC Code explanation	Commentary
	Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>The Mineral Resource estimates used as a basis for conversion to Ore Reserves are described in Section 3 of Table 1.</li> <li>Mineral Resources are reported inclusive of the Ore Reserves.</li> </ul>
	Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>The Competent Person for Open Pit Ore Reserves is Pieter Doelman who is an employed by the Company's subsidiary, Oceana Gold (New Zealand) Limited as the Technical Services and Projects Manager, at the Macraes Gold Mine. Mr Doelman makes regular visits to the operating areas.</li> <li>The Competent Person for Underground Ore Reserves is Stephen Mazza who is employed by the Company's subsidiary, OceanaGold Management Pty Limited as a Group Mining Engineer, based in Brisbane. Mr Mazza has not visited the Macraes site due to COVID-19 travel restrictions.</li> </ul>
	Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore</li> <li>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> <li>Open pit mining and ore processing at Macraes has been in continuous operation since 1990. Life of Mine planning studies are undertaken annually to demonstrate the future economic viability of the mine.</li> <li>Underground mining and ore processing at Frasers underground has been in continuous operation since 2006. Life of Mine planning studies are undertaken annually to demonstrate the future economic viability of the mine.</li> <li>A Pre-Feasibility level study was completed for the Golden Point underground mine in August 2020. The mine is now being developed and is included in the annual Life of Mine planning studies along with Frasers underground and Macraes open pits. Modifying Factors have been considered based on local geotechnical information and experience at the nearby Frasers underground mine.</li> </ul>

	JORC Code explanation	Commentary
		<ul> <li>A mine plan has been developed which is technically achievable and economically viable for both the Macraes open pit, Frasers underground and Golden Point underground operations. All Modifying Factors have been considered.</li> </ul>
		<ul> <li>With the exception of consents for a tailings storage and consents for mining at Golden Bar pit, OceanaGold has all of the necessary resource consents and permits to continue mining (mining = mining of ore and waste from open pits and underground, construction of waste rock stacks and tailings dam facilities). OceanaGold is in the process of obtaining the necessary resource consents for those areas for which it does not have consent and is confident that the necessary resource consents will be obtained. OceanaGold</li> </ul>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>Cut –off grade is based on Ore Reserve metal price of NZD2,143 per ounce (USD1,500 and an exchange rate of NZD:USD 0.70).</li> <li>Inputs to the calculation of cut-off grades for Macraes open pits, Frasers underground and Golden Point underground include mining costs, metallurgical recoveries, treatment and refining costs, general and administrative costs, royalties and metal prices.</li> <li>The cut-off grade used to report Ore Reserves for the Macraes open pits is 0.4 g/t Au.</li> </ul>
		<ul> <li>The following cut-off grades have been used to determine the Frasers underground Ore Reserve:</li> </ul>
		<ul> <li>If capital development is in place but ore drive development is required - 1.47 g/t Au,</li> </ul>
		<ul> <li>If ore drive development is in place ready for stoping - 1.36 g/t Au,</li> </ul>
		<ul> <li>If material is removed from the mine to the portal area –</li> <li>0.5 g/t Au.</li> </ul>
		<ul> <li>The following cut-off grades have been used to determine the Golden Point underground Ore Reserve:</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>If capital development is in place but ore drive development is required - 1.22 g/t Au,</li> </ul>
		<ul> <li>If ore drive development is in place ready for stoping - 1.12 g/t Au,</li> </ul>
		<ul> <li>If material is removed from the mine to the portal area –</li> <li>0.5 g/t Au.</li> </ul>
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Macraes Open Pits</li> <li>The resource models used to determine the 2021 Ore Reserve are:         <ul> <li>Deepdell: dd2115.dat (June 2021)</li> <li>Round Hill: rhgp15.dat (October 2020)</li> <li>Innes Mills: 210615.dat (July 2021)</li> <li>Frasers West: gt0715.dat (March 2021)</li> <li>Frasers Gay Tan:gt0715.dat (March 2021)</li> </ul> </li> <li>Stockpile Reserves were taken from the end of December 2021 survey.</li> <li>Pit optimisation methods were used to determine the subset of the Mineral Resources that could be converted to Ore Reserves. Whittle software was used to provide design basis pit shells but the Reserves are based on actual pit designs, inclusive of all berms/batters and pit access ramps.</li> <li>Macraes Gold Project open pits str an owner-mining operation and utilises conventional drill, blast, load and haul with standard 180-t off highway rear dump trucks and a combination of 250 tonne and 360 tonne excavators. The selected mining method and design is appropriate for the Macraes open pits.</li> <li>The open pit mining process at Macraes is determined largely by the land use consents granted to the Company. Waste is categorised into Topsoil, Brown rock, and general bulk waste. Topsoil and brown rock are stockpiled for later use during rehabilitation and general waste rock is dumped onto waste rock stacks. Waste is also used for construction of the Tailings Storage Facilities or for backfilling mined</li> </ul>

Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	<ul> <li>Open cut mining is on 2.5 m benches with grade control drilling on a 4 m x 4.3 m pattern drilling 7.5 m deep holes sampled in 2.5 m lengths. Ore is blasted in 7.5 m lifts and waste in 15 m lifts. Ore blocks are blocked out based on this sampling and consider the selective mining capacities of the site equipment. Ore blocks are generally a minimum of 500 t.</li> <li>Geotechnical design parameters for the open pits are recommended by PSM consultants. PSM have been involved with the Macraes open pits for over 20 years. Open pit geotechnical conditions are primarily governed by geological structures rather than rock mass strength. Overall slope angles range between 37° and 54°, and are typically 43°.</li> <li>The resource model provides recoverable resource estimates using panel dimensions (25 mE x 25 mN x 2.5 mRL) that approximate the nominal drill hole spacing. The mining selectivity is accommodated by defining SMU dimensions which are independent of the panel size. No additional dilution is applied beyond that already built into the resource model and mining recovery is assumed 100%. These parameters are supported by resource model to mine to mill reconciliation results (that is, mined metal is typically close to or more than that modelled).</li> <li>All pit optimisations are based on Measured and Indicated Resources</li> </ul>
		only and pit designs are developed on this basis. Inferred Resources that are mined within these pits are included in Life of Mine Plan. Only Measured and Indicated Resources within these designs have
		been reported as Ore Reserves.
		Frasers Underground
		<u>Mining</u>
		<ul> <li>The resource model used to determine the December 2021 Ore Reserve for Frasers underground is 211115.dat (November</li> </ul>

Criteria	JORC Code explanation	Commentary
		2021).
		<ul> <li>The Frasers underground Mineral Resource was converted to an Ore Reserve through detailed design.</li> </ul>
		<ul> <li>Retreat Long Hole Open Stoping is the preferred mining method for ore extraction. In addition, caving stopes are used to recover regional pillars.</li> </ul>
		The Frasers underground orebody encompasses the down dip continuation of the hangingwall shear mined in the Frasers      The graph of the probability shellow disprise (15%, 20%) to
		open pit. The orebody is relatively shallow dipping (15° - 20°) to the east. The orebody is tabular with undulations and has a thickness varying between 5m - 30m. The Frasers underground
		mine targets the high-grade ore zone at the top of the hangingwall shear.
		<ul> <li>The open stope retreat mining method used involves 15 m wide open stopes with 6 m wide yielding pillars between stopes. In</li> </ul>
		areas where relatively poor ground conditions are expected  11 m wide stopes are used with 5 m wide yielding pillars
		between them. Mining areas are separated by 20 m to 60 m wide regional pillars. The mining areas are generally restricted to approximately 120 m width and 160 m length. Stope heights
		vary between minimum drive height (4.5 m) and 25 m.  • The minimum mining width used is 4.5 m.
		<ul> <li>Access to Frasers underground is via a decline located in the</li> </ul>
)		south-east wall of Frasers pit. This decline serves as the primary fresh air intake. A raisebore shaft from surface (collared
		outside of Frasers pit) serves as a supplementary fresh air
		intake. There is a single primary exhaust, being a raisebore shaft that exits at the surface outside Frasers pit.
		<ul> <li>Frasers underground mine designs are completed with the inclusion of Inferred Resources. Only Measured and Indicated</li> </ul>
		Resources within these designs have been reported as Ore Reserves. The Frasers underground mine has a positive economic
		value based on Ore Reserves alone.

	Criteria	JORC Code explanation	Commentary
			Hydrogeology
			Hydrogeology has been investigated by Kingett Mitchell. The outcome was dry mining conditions expected with any ground water being
			slightly alkaline.
			Geotechnical Model
			The geotechnical design parameters are based off several reports written by K. Rosengren and Associates. The main stipulation is that stoping retreat shall, wherever possible, be based upon a centre-out
			approach, whereby stoping panels are retreated towards solid abutments and not internal regional pillars. Regional pillars range from 30 m wide solid pillars to 60 m wide access pillars.
			oo iii iiidaa oo iid gaaraa oo iii iiidaa aaaaaa piiidaa
4			
			Mining Recovery and Dilution
			The assumptions for ore loss and dilution in 15 m wide stopes are as follows:
1			• In situ recovery (fired material after under-break and hangingwall
Í			uncertainty) is 89.5% of design tonnage;
			Dilution/enrichment is 19.3% of the design tonnes at an average
			<ul> <li>grade of 0.80 g/t Au; and</li> <li>In an open stope mined recovery is 92%. This is less than 100%</li> </ul>
			due to ore being trapped behind large waste rocks that have
			fallen from the stope backs, ore that is unable to be bogged from
			the very corners of a blast, and stope collapses. This gives a mined stope quantity of 98.2% of the design tonnes at 89.0% of the design grade.
) [			<ul> <li>In a cave stope the mined recovery is reduced to 75%. It is assumed that by the time 75% of the ore has been extracted, the</li> </ul>

Criteria	JORC Code explanation	Commentary
3)		grade at the draw point will be decreasing due to lower grade material getting drawn in. This gives a mined stope quantity of 80.1% of the design tonnes at 89.0% of the design grade.  • Where regional pillars are being removed using a Retreat Open Stope method the mined recovery is reduced to 60%. This is to account for the anticipated reduction in stope stability. This gives a mined stope quantity of 64.1% of the design tonnes at 89.0% of the design grade.
		11 m wide stopes are used in areas where relatively poor ground conditions are expected. The assumptions for ore loss and dilution in 11 m wide stopes are as follows:
		<ul> <li>In situ recovery (fired material after under-break and hangingwall uncertainty) is 88% of design tonnage;</li> <li>Dilution/enrichment is 24.2% of the design tonnes at an average grade of 0.64 g/t Au; and</li> <li>In an open stope mined recovery is 92%. This is less than 100% due to ore being trapped behind large waste rocks that have fallen from the stope backs, ore that is unable to be bogged from the very corners of a blast and stope collapses. This gives a mined stope quantity of 100.6% of the design tonnes at 85.5% of the design grade.</li> </ul>
		Golden Point Underground
		<u>Mining</u>
		<ul> <li>The resource model used to determine the December 2021 Ore Reserve for Golden Point underground is 210515.dat (May 2021).</li> <li>The Golden Point underground Mineral Resource was converted to an Ore Reserve through detailed design and scheduling.</li> <li>Retreat Long Hole Open Stoping was selected as the preferred mining method for ore extraction. This is due to ore body</li> </ul>

Ouitouio	IODO Carla annianation	O - manufami
Criteria	JORC Code explanation	Commentary
		<ul><li>geometry (flat dipping), the relatively high productivity and relatively low cost.</li><li>The Golden Point underground orebody encompasses the down</li></ul>
		dip continuation of the hangingwall shear mined in the Golden Point and Round Hill open pits. The orebody is relatively shallow
		dipping (15° - 20°) to the east. The majority of the orebody is
		tabular with undulations and has a thickness varying between 5m - 10m. In addition, some concordant lodes are present
1		parallel to the main shear. The Golden Point underground mine
		targets the higher-grade zone at the top of the main tabular
)		orebody and within the concordant lodes.
		<ul> <li>The retreat open stope mining method selected comprises of 11 m and 15 m wide open stopes with 5 m yielding pillars</li> </ul>
)		between stopes. Mining areas are separated by 25 m wide regional pillars containing no development. The mining areas
		between regional pillars are generally restricted to a hydraulic
		radius of 25 m – 30 m. Mine production targets the higher-
		grade zones within the mineralized zone. Stope heights vary between minimum drive height (4.5 m) and 10 m.
		The minimum mining width used is 4.5 m.
		<ul> <li>Access to Golden Point underground is via a decline with the</li> </ul>
		portal located in the east wall of Golden Point pit. This access serves as the fresh air intake for the mine. A second portal
)		located 75 m south of the access portal serves as the vent
1		return. Secondary egress from the mine is via this portal.
1		Golden Point underground life of mine plan was completed with
		the inclusion of Inferred Resources, with only Measured and Indicated Resources converted to and reported as Ore Reserves.
)		Hydrogeology
		<del></del>
1		Hydrogeology has been investigated by WGA Consultants. The prediction is a groundwater inflow of up to 22 L/s, twice that

Criteria	JORC Code explanation	Commentary
		experienced at the nearby Frasers underground. Pumps and pump lines have been upsized accordingly in the Pre-Feasibility Study.
		<u>Geotechnical Model</u>
		The geotechnical design parameters are based off a report by OreTeck Mining Solutions completed in 2020. Stopes widths are reduced in areas of expected low RQD. Regional pillars of 25 m to 60 m width are
		maintained between stoping panels and around the decline. Stoping areas are retreated towards solid abutments, with permanent accesses within stoping areas avoided.
		Mining Recovery and Dilution
		Two stope widths are used in the design, 15 m wide stopes where RDQ $\geq$ 50 and 11 m wide stopes where RQD $<$ 50.
		The modifying factors described below have been derived from reconciliation and operating practices at FRUG.
		The assumptions for ore loss and dilution in 15 m wide stopes are as follows:
		<ul> <li>In situ recovery (fired material after under-break, hangingwall uncertainty and periodic reslots) is 89.5% of design tonnage;</li> </ul>
		<ul> <li>Dilution/enrichment is 19.3% of the design tonnes at an average grade of 0.80 g/t Au; and</li> </ul>
		<ul> <li>Mined recovery is 92% of the diluted tonnage to account for ore trapped behind large waste rocks that have fallen from the stope</li> </ul>
		backs. This gives a mined stope quantity of 98.2% of the designed tonnage and 89.0% of the design grade.
1		<ul> <li>Where regional pillars are being extracted the mined recovery is reduced to 60%. This is to account for the anticipated reduction in</li> </ul>
		stope stability and increased likelihood of rockfalls in stopes. This gives a mined stope quantity of 64.1% of the design tonnes at

Criteria	JORC Code explanation	Commentary
		89.0% of the design grade.
		The assumptions for ore loss and dilution in 11 m wide stopes are as follows:
		<ul> <li>In situ recovery (fired material after under-break, hangingwall uncertainty and rings lost at the brow) is 88% of design tonnage;</li> <li>Dilution/enrichment is 24.2% of the design tonnes at an average grade of 0.64 g/t Au; and</li> <li>Mined recovery is 92% of the diluted tonnage. This is less than 100% due to ore being trapped behind large waste rocks that have fallen from the stope backs. This gives a mined stope quantity of 100.6% of the design tonnes at 85.5% of the design grade.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	<ul> <li>The metallurgical process at Macraes is well-tested and proven technology, having been in operation for 31 continuous years.</li> <li>Recovery of gold at the MGP is achieved through crushing, grinding, sulphide flotation, pressure oxidation (POX), carbon-in-leach (CIL), elution, electro-winning and gold smelting.</li> <li>The Processing Plant has the capacity to treat 5.9 million tonnes per annum (Mtpa) of ore. Typically, the plant will preferentially treat all UG ore that is delivered and make up the rest of its capacity from open pit ore. This normally means a split of 0.9 Mtpa UG and 5.0 Mtpa open pit.</li> <li>Metallurgical test work on the 13 identified orebodies at MGP has been an ongoing and continuous process. At the exploration stage it is standard practice to select for testing diamond drill core from representative holes and for the various orebodies.</li> <li>The Macraes processing plant recoveries have ranged from 81% to 86% over the last 5 years with an average of 82.9%.</li> <li>Test work on Golden point underground ore has confirmed metallurgical recoveries of 83.7%</li> </ul>

Criteria	JORC Code explanation	Commentary
Criteria	30NG Gode explanation	Confinencially
		<ul> <li>A metallurgical test programme is underway to test the recoveries of material below the current open pit cut-off grade. This may result in a lower cut-off grade in the future</li> </ul>
Environmen- tal	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.	<ul> <li>OceanaGold holds the necessary permits, consents, certificates, licenses, and agreements required to operate the open cuts and underground mine that form MGP including the storage of waste rock.</li> <li>Current consents and approvals for tailings storage are not in place for the entire Ore Reserve. The current tailings storage facility at Top Tipperary has all required Resource Consents, however requires an additional Building Consent to enable construction to be completed to its currently envisaged extent and this facility is expected to be full in early 2024. Work is underway to design and permit tailings storage capacity for the remainder of the mine life, this is likely to be within the mined-out Frasers open pit. Applications are expected to be submitted into the applicable local authorities by the end of 2022.</li> <li>Environmental management and mitigation measures are maintained at MGP, including ongoing monitoring to ensure compliance with resource consent conditions. These consents are issued by the Otago Regional Council ("ORC"), the Waitaki District Council ("WDC") and the Dunedin City Council ("DCC"). Tailings and waste rock disposal facilities are maintained and managed on an ongoing basis. Progressive rehabilitation is ongoing.</li> <li>Environmental data has been collected over the last 31 years of MGP operations and baseline data was collected prior to the start of operations and reported in the original mining license application. Data is routinely collected for noise levels, blast vibration, air quality, and discharge water quality from various sources, ground settlement</li> </ul>
		and ground water levels. Data collected in relation to hydrogeology,
		open pit and tailings storage facility, geotechnical engineering,
		geochemistry, closure and rehabilitation is peer reviewed on an
		annual basis by independent reviewers engaged by the Regional

Criteria	JORC Code explanation	Commentary
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	<ul> <li>In obtaining and operating within the granted resource consents to mine and mitigate the environmental effects of mining for the Macraes Mine, the Company is deemed to have met the purpose and requirements of New Zealand's Resource Management Act 1991 ("RMA")</li> <li>OceanaGold is in partnership with Otago Fish and Game, a semi-government organisation, to manage a Trout Hatchery on the Macraes mine site. OceanaGold has consents for the expansion of the Macraes Mine through to 2020. The closure strategy includes expenditure focussed on community projects with the establishment of a Macraes Community Trust</li> <li>The 31-year operational history since attainment of commercial production in 1990 has provided a good understanding of performance of the waste rock dumps and tailings storage facilities.</li> <li>The Macraes operation has been in commercial production since 1990 and all mine site infrastructure has been completed to support the open pit and underground operations including; tailings storage facility, workshops, water and power reticulation and ore processing facilities.</li> </ul>
		<ul> <li>The Macraes operations are connected to the local power grid which supplies electrical power. The power line has adequate capacity to supply the mine at full operating limits.</li> <li>Water supply has not been a significant problem in the history of the project.</li> <li>OceanaGold owns all the land required for current open pit and underground operations.</li> </ul>
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	Macraes Open Pits
	<ul> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</li> <li>The source of exchange rates used in the study.</li> </ul>	<ul> <li>A detailed cost model provides the basis for the estimate of open pit operating costs. The cost model was developed using first principles derived from supplier quotations and current cost data. Other capital costs include the Property and Community programs, plant and</li> </ul>

Criteria	JORC Code explanation	Commentary		
Ornoria	<ul> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and</li> </ul>	based on:	mining schedules, processing stockpiles and mine feed to process plant,	
	private.	0	application of driver and non-driver costs to mining, processing, and General and Administration (G&A) costs,	
		0	application of capital costs, closure costs, exploration, and employee severance costs, and	
		0	calculation of cash flows including provision of royalties, working capital, and depreciation and taxation.	
		<ul> <li>Processing, freight, insurance, and G&amp;A costs have been developed using data sourced from recent operating activities.</li> <li>The detailed cost model is in New Zealand currency. Pit optimisations and resultant designs are based on a gold price of USD1,500/oz. Financial models to evaluate the Ore Reserves have used a long-term gold price of USD1,500/oz and an exchange rate of 0.70 NZD/USD.</li> </ul>		
		<ul> <li>All open pits with the exception of Round Hill fall within the Macraes Mining Permit 41 604 (MP 41 604) area which is governed by the 1996 Minerals Program for Crown royalty purposes. The Macraes Mining Permit provides for the higher of one per cent royalty on net sales revenue from gold and silver, or five per cent royalty on accounting profits.</li> </ul>		
		<ul> <li>Round Hill pit p 738. In additionarea.</li> </ul>	partly lies within MP41 604 and partly withinMP52 n, part of Round Hill is within the OW Hopgood royalty	
1		of 2% ad valore or the Governr	o gold and silver recovered from MP 52 738, a royalty em is payable to the reigning monarch of New Zealand ment acting on behalf of that monarch (the "Crown") valty in an amount that is yet to be fixed will also be	

Cuitouio	IODC Code avalenction	Comments
Criteria	JORC Code explanation	Commentary
		<ul> <li>payable in respect of any scheelite (Tungsten) recovered from the permit area.</li> <li>A royalty is payable to OW Hopgood on any gold, scheelite (Tungsten), or other minerals recovered from a specified project area in an amount equal to 5% of recovered minerals if recovered by open pit mining, and 3% of recovered minerals if recovered by underground mining. The area of the royalty is shown in green in the diagram below. MP boundaries are shown in red:</li> </ul>
		71000 E MP 41064
)		18000 N —
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		15000 N
		71000 N 14000 N —
)		Frasers and Golden Point Underground Mines

Criteria	JORC Code explanation	Commentary
		<ul> <li>Capital costs for Frasers underground are negligible as mining is nearly complete. The capital costs that do remain include minimal mine development in addition to property, plant, and administration sustaining capital.</li> </ul>
		<ul> <li>Golden Point underground capital costs include all pre-production capital equipment, portal and ventilation circuit establishment, some replacement mining equipment, and capital mine development.</li> </ul>
		<ul> <li>A detailed cost model provides the basis for the estimate of underground operating costs. The cost model was developed from supplier quotations and current cost data. The model develops cash flows based on:</li> </ul>
		<ul> <li>mining schedules, processing stockpiles and mine feed to process plant,</li> <li>application of driver and non-driver costs to mining, processing, and G&amp;A,</li> </ul>
		<ul> <li>application of capital costs, closure costs, exploration, and employee severance costs, and</li> <li>calculation of cash flows including provision of royalties, working capital, and depreciation and</li> </ul>
1		taxation
		<ul> <li>Processing, freight, insurance, and G&amp;A costs have been sourced from recent operating activities.</li> </ul>
)		<ul> <li>The detailed cost model is in New Zealand currency. The commodity assumptions used in the determination of Ore Reserves were USD1,500 per ounce for gold. An exchange rate of 0.70 NZD/USD has been used.</li> </ul>
		<ul> <li>Both underground mines fall within MP41 604 which has the same royalty regime for underground as open pit mining.</li> </ul>
		<ul> <li>A small section of the Golden Point underground falls within the OW Hopgood royalty area. An amount equal to 3% of any gold,</li> </ul>

	scheelite, or other minerals recovered from the area by underground mining methods is payable in addition to the MP 41 604 royalties.
<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>he derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul> <li>Detailed mine designs were undertaken for both the open pit and underground operations. Diluted and recovered grades were calculated for all material being mined, which were in turn assessed against the relevant cut-off grades for determination of inclusion within the Ore Reserve estimate. Head grades for material sent to the process plant directly correspond to mined grades calculated.</li> <li>Silver credits are not included in the revenue factors.</li> <li>All costs at Macraes operation are based in New Zealand Dollars. Costs have been converted using the following exchange rates, which are long-term OceanaGold benchmark rates:         <ul> <li>USD 0.70: NZD 1.00</li> </ul> </li> <li>Charges for transportation, treatment and refining are based on operational history and in part based on existing contracts that are periodically reviewed and renewed.</li> <li>Metal prices used for in economic evaluation were:         <ul> <li>USD1,500 per ounce for gold.</li> </ul> </li> </ul>
<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	The market for gold doré is well-established and it is assumed that Macraes bullion will always be able to be sold into this market.
<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>Open pit mining costs, underground mining costs, processing costs and G&amp;A costs at Macraes open pit and Frasers underground are well understood, with a long history of continuous operation.</li> <li>Sensitivity studies were carried out on various parameters including mining cost, processing cost, metal prices, and discount rate. This data suggests that the NPV is robust.</li> </ul>
	<ul> <li>including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>he derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant</li> </ul>

Criteria	JORC Code explanation	Commentary
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	<ul> <li>OceanaGold is committed to operating in a way that protects and supports social integrity, environmental biodiversity, and equitable development. The Company has maintained a greater focus on Corporate Social Responsibility through the implementation of specific and detailed Policies for Health and Safety, Environment, Communities, and Human Rights</li> <li>The 31-year operating history has proven that Macraes complies with all material statutory requirements applicable to its operations and is committed to rehabilitating the mine site during operations and on closure, so the site does not pose any unacceptable risk to the environment</li> <li>OceanaGold is committed to develop an end of mine life land use that aims to leave a positive legacy.</li> </ul>
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul> <li>Procedures and costing are in place to deal with high rainfall events for the open pit operation and will not impact on the viability of extracting the Ore Reserve.</li> <li>Provision has been made in the Golden Point underground dewatering strategy to account for anticipated water inflow, based on a hydrogeology study undertaken by WGA.</li> <li>New Zealand has an established framework that is well regulated and monitored by a range of regulatory bodies. OceanaGold has dedicated programs and personnel involved in monitoring consent compliance and works closely with authorities to promptly address additional requests for information. Risks associated with review and renewal of operating consents is, upon that basis, regarded as manageable within the ordinary course of business.</li> <li>Contracts are in place covering transportation and refining of bullion, and the purchase and delivery of fuel, electricity supply, explosives, and other commodities. These agreements conform to industry norms.</li> <li>Macraes mine maintains several operating permits for the importation of reagents into New Zealand. New Zealand has an established framework that is well regulated and monitored by a</li> </ul>

Criteria	JORC Code explanation	Commentary
		range of regulatory bodies. Risk associated with renewal of importation permits is, upon that basis, regarded as manageable.
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>The Proved Ore Reserve is a sub-set of Measured Mineral Resources and the Probable Ore Reserve is derived from Indicated Mineral Resources.</li> <li>Underground enrichment is included at a nominal 0.8 g/t Au and 0.64 g/t Au.</li> <li>No Probable Ore Reserves have been derived from Measured Mineral Resources.</li> <li>It is the opinion of the Competent Persons for Ore Reserve estimation that the Mineral Resource classification adequately represents the degree of confidence in the orebody.</li> </ul>
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	In 2018, OceanaGold conducted an internal technical review for the Macraes operation. The guiding principles for the review included quality of data, supporting information, methodologies employed, conformance to acceptance industry practice and professional standards, and site coverage and capability. The review found that: (aspects relevant to the production of Ore Reserves):
		<ul> <li>The understanding of material flows in bottom lift 'cave' stopes made inadequate to satisfactorily estimate the recovery of tonnes and grade. Since the audit was completed, sufficient production information has been collected to give confidence in the cave recovery parameters used.;</li> <li>The selection of ore samples for future metallurgical test work should be made on drill hole intervals rather than as a blended composite. Subsequent to the audit, where practical drill hole intervals are used for metallurgical testing. At times two holes are composited together if the sample size is insufficient.</li> </ul>
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to	<ul> <li>Reconciliation of actual production to the Mineral Resource model since the commencement of operations indicates that the estimate is representative of the deposit (see resource model versus mine versus mill reconciliation in "discussion of relative accuracy/</li> </ul>
	53	

	Criteria	JORC Code explanation	Commentary
		<ul> <li>quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	confidence" in Section 3).
n IBUO			
<u>a</u> 5			
		54	