OCEANAGOLD

PROJECT MARTHA

Response (2) to Request for Further Information pursuant to s92 of the Resource Management Act 1991 - HDC

27 July 2018

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1. INTRODUCTION

1.1 On 17 July 2018, Oceana Gold (New Zealand) Ltd ("OGNZL") provided a response to Hauraki District Council ("HDC") following a request for further information dated 22nd June 2018.

1.2 Following a review of the information, HDC replied on 25th July 2018 seeking more information relating to Appendix 5 of the response.

1.3 The following paragraphs respond to that request.

2. REFERENCES TO AMENDMENTS TO THE AEE

Peter has reviewed the further information submitted.

Firstly – Peter found references re amendments to the AEE in the AMC report as follows:

- ***RFI No 4 Page 2 – "The drawings and concept plans are now included in the AEE…" and***
- ***RFI No 8 Page 9 – "also now included in AEE and associated technical reports.***

Could you please advise if the AEE has been amended since the original copy lodged. If not could you please clarify with AMC what is meant with these statements?

The AEE as lodged with the HDC on 25th May 2018 is the final version. There have been no subsequent amendments. In its response, AMC is simply stating that the concept drawings and description of the mining methods are included in the AEE (pages 53 to 57 section 3.2.4) and supporting documents.

3. SIDE RING MINING METHOD

During his review Peter also noted In SRK's Martha Mine Design report dated August 2017, details of the remote side ring mining method are provided in section 2.3.2. It involves ore and backfill being mined in a top-down stope block extraction sequence with each stope being mined in four steps shown in cross section (elevation) in Figure 2-5 on page 8 of the report. The sketch in step 4 shows the final step in which the stope void is filled with cemented aggregate fill (CAF) from the crosscut above. The next step after step 4 would be to mine secondary stopes either side of the stope shown before then progressing to the block below and mining primary and secondary stopes under the CAF in the stopes above.

Peters further information request arising from this is: For the stopes in the block immediately below, how are they to be backfilled given that the accesses for each (as shown in step 4 of the sketch) will be blocked with CAF?

The step 4 in the sketch, Figure 2.5 of the August 2017 SRK report and Figure 3.3 of the AEE does show that placement of CAF or cemented backfill would block off access to the upper level of the lower stope; meaning that access for backfilling (by end tipping or loader) to the lower stope would not be available in a top down mining sequence. The Company is aware of this and is currently conducting studies to evaluate options / designs for backfilling. The Company has also been in discussions with Rosebery, Tasmania where the method is practiced. At a concept stage the Company sees a number of options available to it to facilitate backfilling of the stopes as mining progresses in a top down sequence. This may involve a combination of, but not necessarily restricted to:

1. Mining through the cemented fill;
2. Remotely placing formwork inside the stope prior to backfilling with cemented fill – this could include stacked waste rock, polystyrene blocks, Armco pipe or corrugated tunnel liners;
3. Employing a trough undercut;
4. Floor benching a ramp to provide access into the lower stope. The Company has used floor benching over a number of years as a mining method;
5. Slashing a ring or rings against the footwall or hangingwall from the upper drive to provide an open pass;
6. Developing a dedicated or alternate filling access or pass; and
7. Use of a sand material / slurry for tight fill.

Any method selected by the Company would need to provide for sufficient backfilling of the void to eliminate the potential for future chimney caving.

The Company has also noted in its AEE submission, page 56, that trials into the placement of CAF would be undertaken as part of the verification of the mining method as highlighted below*:*

"It is expected that the side-ring method will be initially trialled in selected mine areas to initially define the operating parameters, including offset distances for the footwall drive, the ability to drill rings from the cross cuts or parallel with the hanging wall footwall, ***the placement of CAF****, the spacing of crosscuts and the stope panel heights / widths".*