

**FORM 51-102F3  
MATERIAL CHANGE REPORT**

**Item 1 Name and Address of Company**

Avnel Gold Mining Limited ("Avnel")  
22 Smith Street  
St. Peter Port, Guernsey  
GY21 2JQ

**Item 2 Date of Material Change**

March 24, 2014

**Item 3 News Release**

A news release with respect to the material change was disseminated by CNW on March 24, 2014 from Toronto.

**Item 4 Summary of Material Change**

On March 24, 2014, Avnel reported the results of a Mineral Resource Estimate ("MRE") and Preliminary Economic Assessment ("PEA") on its Kalana gold deposit located in the northwest of its 387.4 km<sup>2</sup> Kalana Exploitation Permit in Southwest Mali. The MRE includes 1.25 million ounces of gold at a grade of 4.53 g/t in the Indicated Resource category and 0.25 million ounces of gold at a grade of 3.76 g/t in the Inferred Resource category. While the PEA is by definition a preliminary assessment, it estimates a two year payback on construction capital and pre-production costs and a project NPV of US\$194 million after tax and imputed interest (at a 10% discount rate and a gold price of US\$1,100 per ounce).

**Item 5 Full Description of Material Change**

**5.1 Full Description of Material Change**

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Both of the studies were undertaken by Snowden Mining Industry Consultants Pty Ltd. ("Snowden"). The Snowden qualified persons are Mr. Ivor Jones in respect of the MRE and Mr. Allan Earl in respect of the PEA. Both are independent of Avnel and reviewed and approved their respective content in the news release. A NI 43-101

Technical Report in respect of the MRE and PEA has been filed under Avnel's SEDAR profile at [www.sedar.com](http://www.sedar.com).

### **Snowden Report**

On March 18, 2014, Snowden reported to Avnel that:

"The *Mineral Resources* for the in-situ Kalana Main Project gold deposit (0.9 g/t gold cut-off) total:

- 1.25 million ounces of gold in the Indicated Mineral Resource category (8.5 million tonnes grading 4.53 grams of gold per tonne).
- 0.25 million ounces of gold in the Inferred Mineral Resource category (2.1 million tonnes grading 3.76 grams of gold per tonne).

The Mineral Resources for the Kalana tailings (no grade cut-off applied) totals:

- *0.04 million ounces of gold the Indicated Mineral Resource category in historic and active tailings* (0.7 million tonnes grading 1.80 grams of gold per tonne).

The Mineral Resource estimate for the Kalana Main Project incorporates data from all exploration drilling completed to date. Table 1 and Table 2 summarise the 2014 Kalana Main Project Mineral Resource estimate.

The Preliminary Economic Assessment (PEA) of the Kalana Main Project Mineral Resources identified the potential for a mine life of 14 years recovering 1.46 million ounces:

- a two year construction period, with first production anticipated in H2 2017
- gold production averaging 138,000 ounces gold per year for the first four years and then 98,000 ounces gold per year over the remaining life of mine
- total capital of US\$188 million
- all-in sustaining cost of US\$577 per ounce (including total operating costs and sustaining capital costs)
- all-in cost for the project of US\$679 per ounce (including total operating costs and total capital costs)
- after tax net present value after tax (NPV 10%) of US\$194 million with a 53% project internal rate of return
- a payback period of about 2 years after the start of production.

### **Mineral Resource modelling and estimation – the in-situ deposit**

Mineralisation at the gold deposit occurs over an area of approximately 1,200 m in an east-west direction by 1,000 m in a north-south direction. The attitude of the veins varies from north-south to northeast-southwest and dips at low to moderate angles respectively to the east or the south.

Avnel and Snowden used Avnel's interpretation of the mineralisation at Kalana as the basis of the resource estimate. The deposit has been divided into a number of structural domains and vein packages which comprise varying amounts of gold mineralisation. Mineralisation within these domains is characterised by a mix of barren rock with variably mineralised parts including continuous veins and stockwork mineralisation.

The input data for the resource estimate comprises information from 185 diamond drillholes, 19 underground diamond drillholes and 567 RC drillholes totalling 132,391 m.

All data was composited to the nominal sample length of 1 m prior to analysis and estimation. Grade estimation was completed using Multiple Indicator Kriging into 10 m by 10 m by 5 m blocks. Indicator variograms were modelled up to the 95th percentile of the data with a mathematical model used to define the top end of the grade distribution. The result of this estimation method is that, while no top cut is used to limit the higher grades, the higher grades are limited in their influence by using a mathematical model for the higher grades in the dataset.

Following the MIK estimation, the results were post-processed to provide a proportion of the block and the grade of this portion above the 0.9 g/t Au cut-off grade (which was defined separately as a part of the preliminary economic assessment). Subsequently the estimate was depleted for historic production tonnes using a manual deduction, even though the estimate did account for this through the modelling where the reef was not represented in the drilling (drilling through stopes).

The March 2014 Mineral Resource estimate for the Kalana Main Project gold deposit was completed by Snowden on behalf of Avnel. The Mineral Resources are classified as Indicated and Inferred Resources in accordance with the CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

Classification of the Mineral Resource comprised an evaluation of data quality, confidence in the geological interpretation, a test of the reasonableness of the assumption of economic extraction, review of statistical information and comparisons of model grade estimates versus input data grades. Where grades were estimated in the first search pass (90 m by 60 m by 10 m) and more than 10% of the block was estimated as above the cut-off grade, it was considered that the confidence in the model was sufficient to define an Indicated Mineral Resource. The remainder of the estimates within the pit optimisation shell were classified as an Inferred Mineral Resource.

The Mineral Resources are reported above a cut-off grade of 0.9 g/t Au. This cut-off grade was defined as an output of the preliminary economic assessment based on a gold price of US\$1,110 per ounce.

### **The Tailings Mineral Resource**

The quantity and grade of tailings is compiled from a combination of the evaluation of the tailings mineral resource in June 2004, with the addition of tailings since 2005 (tonnes and grade as measured from production). In May 2004, a sampling programme was completed on the 1985 to 1991 Russian tailings dam. The sampling was performed by using an auger and taking 1 m vertical samples on a grid of 10 m by 10 m. The tonnage of the tailings dam has been estimated from the historical production records with the addition of the tailings from ore milled in the period January to June 2004. No survey measure of the tailings dam is possible as there is no survey record of the original topographic base for the dam. The average sample gold grade for the tailings dam was used for the June 2004 resource estimate. The tailings resource at that time was reported as 234,000 tonnes at 1.9 g/t Au in the Measured category.

Since July 2004, the tonnes and grade of added material to the tailings dam has been measured from the output from production. This has been reported as 421,000 tonnes at 1.73 g/t Au.

In 2012, IAMGOLD sampled the tailings dams on a grid of between 10 m by 10 m and 20 m by 20 m (depending on location) with an average depth of 3.6 m and maximum depth of 5 m. Whilst this sampling did not always reach the base of the tailings, the assays for the samples indicated the grade for the tailings mineral resource are conservative and support the confidence that the grades in the mineral resource can be achieved.

Snowden is therefore of the opinion that the confidence in the estimation of the tailings Mineral Resource is sufficient so that it can be classified as an Indicated Mineral Resource.

### **Kalana Main Project Mineral Resource**

The Mineral Resource estimate has been based on information collated from extensive drilling and underground workings at the Kalana Gold Mine. The mineralisation is hosted in narrow shallow dipping quartz and associated inter-vein mineralisation defining together a vein package. It is a Paleoproterozoic orogenic gold deposit emplaced in Birimian terranes of the West African Craton.

**Table 1 Kalana Main Project in-situ Mineral Resource estimate - March 2014**

| Classification     | Tonnes (millions) | Gold Grade (g/t) | Contained Gold (million ounce) |
|--------------------|-------------------|------------------|--------------------------------|
| Indicated Resource | 8.5               | 4.53             | 1.25                           |
| Inferred Resource  | 2.1               | 3.76             | 0.25                           |

(1) Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The Mineral Resources in this material change report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

(2) The quantity and grade of reported Inferred resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as an Indicated or Measured Mineral Resource and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured Mineral Resource category.

(3) Contained metal figures and totals may differ due to rounding of figures.

(4) Based on a cut-off grade of 0.9 grams of gold /tonne.

**Table 2 Kalana Gold Mine tailings Mineral Resource estimate - March 2014**

| Category           | Tonnes (millions) | Gold Grade (g/t) | Contained Gold (million ounce) |
|--------------------|-------------------|------------------|--------------------------------|
| Indicated Resource | 0.7               | 1.80             | 0.04                           |

Note: Footnotes (1), (2), (3) as per Table 1. No cut-off grade applied.

### Preliminary Economic Assessment

The Kalana Main Project PEA is a study which includes an economic analysis of the potential viability of the Kalana Main Project Mineral Resources. It is not a pre-feasibility study (PFS) or feasibility study (FS) and cannot be used to support mineral reserves. It is preliminary in nature and includes the use of Inferred Mineral Resources that are considered too speculative geologically to have reliable technical and economic considerations applied to them that would enable them to be categorised as Mineral Reserves. There is no certainty that the PEA will be realised and actual results may vary, perhaps materially. Mineral Resources that are not Mineral Reserves do not have demonstrated economic and technical viability.

The Kalana Main Project PEA is subject to a number of important assumptions, including, among others, that a competent mining contractor can mine the mineralisation in a selective manner that achieves, or better, the assumed dilution and recovery factors, that suitable locations can be identified for waste dumps and tailings storage facilities, that further test work will confirm the metallurgical recoveries, that there is no material increase in capital and operating costs, forecast construction schedules can be achieved, an adequate supply of water is available and can be exploited, environmental and social impact studies will be completed in an acceptable timeframe, all required permits will be obtained in a timely manner and the Company will continue to have the support of local communities and regulators.

The March 2014 PEA for the Kalana Main Project was completed by Snowden on behalf of Avneel. The findings of Snowden's assessment are:

- A 14 year mine life recovering 1.46 million ounces and comprising:
  - a three stage open pit containing 15.1 million tonnes at 3.2 grams of gold per tonne and 128 million tonnes of waste.
  - 655,000 tonnes of tailings at 1.8 grams of gold per tonne.
  - a 1.2 million tonnes per year of conventional gravity and CIL process plant achieving 93% recovery for saprolite, saprock and fresh material and 83% for tailings.
- About a two year construction period, with first production anticipated in H2 2017.
- Gold production averaging 138,000 ounces gold per year for the first four years and then 98,000 ounces gold per year over the remaining life of mine.
- Total capital of US\$188 million comprising:
  - US\$134 million plant, mine services and infrastructure.
  - US\$15 million pre-strip.
  - US\$29 million sustaining capital and community.
  - mine closure US\$10 million.
- All-in sustaining cost for the project of US\$577 per ounce (based on total operating costs, sustaining capital and mine closure costs).
- All-in cost for the project of US\$679 per ounce (based on total operating and total capital costs).
- After tax net present value after tax (NPV 10%) of US\$194 million with a 53% project internal rate of return.

- Payback on construction capital and pre-production costs is expected to be 2 years after the start of production.

The Kalana Main Project PEA is based on open pit mining using small-scale mining equipment to selectively mine the economic quartz and associated inter-vein mineralisation with larger equipment used in waste. The processing method will be conventional gravity concentration and CIL. The open pit will be mined in three stages with preferential processing of higher grades and lower grade material stockpiled for later processing. To account for dilution and losses during the mining process, the mineral resource had a 50% tonnage modifying factor and a mining recovery modifying factor between 92.5% and 95% applied in the mine production schedule. Only Inferred and Indicated Mineral Resources (which were constrained by the optimised open pit) were included in the mine production schedule. A tailings Mineral Resource from historic operations will be recovered and processed in the first year of production.

Test work and historic operations show the work index for saprolite and fresh rock will be in a range of 11 kwh/t to 17 kwh/t. Metallurgical tests have shown gravity gold recoveries in the range 40% up to 95% in saprolite and fresh rock. Operating experience has shown gravity recoveries of between 80% and 92%. Cyanide leach test work of saprolite and fresh mineralisation has achieved up to 95% gold recovery from mineralisation ground to 80% passing 75 micron. Gold recovery of 93% using a combination of gravity recovery and CIL has been used in the PEA.

The optimised pit shell was defined using standard optimisation software, a gold price of US\$1,110 per ounce, mining and processing costs that reflect the weathering profiles and general and administrative (G&A) costs. Overall pit-slope angles range from 37° to 45° depending on the weathering profile. The production schedule was constrained to an advance rate of 30 vertical meters per year.

Over the life of mine, mining costs are estimated to average US\$3.32 per total tonne mined. Processing and administration costs are estimated to average US\$20.87 per tonne processed. Using a discount rate of 10%, the Kalana Main Project open pit has an estimated project NPV (after allowance for tax and interest) of about US\$194 million and a project internal rate of return (IRR) of 53% after accounting for all operating costs, capital expenditures, tax, imputed interest and royalty payments. Pre-feasibility and feasibility study costs of about US\$16 million have not been included in the financial analysis. The base case results of the Kalana Main Pit PEA are summarised in Table 3 and sensitivity to metal price and discount rate in Table 4.

**Table 3 Kalana Main Project PEA results – base case**

| Item                                     | Value  |
|------------------------------------------|--------|
| Tonnes processed (kt)                    | 15,753 |
| Au grade (g/t)                           | 3.1    |
| Au contained (koz)                       | 1,578  |
| Recovery                                 | 93%    |
| Au recovered (koz)                       | 1,464  |
| Revenue (US\$M)                          | 1,625  |
| Royalty (US\$M)                          | 49     |
| Selling cost (US\$M)                     | 16     |
| Net revenue (US\$M)                      | 1,560  |
| Mining cost (US\$M)                      | 477    |
| Process cost (US\$M)                     | 258    |
| G&A (US\$M)                              | 71     |
| Total operating cost (US\$M)             | 806    |
| Capital plant and infrastructure (US\$M) | 134    |
| Pre-strip (US\$M)                        | 15     |
| Sustaining capital (US\$M)               | 29     |
| Closure cost (\$M)                       | 10     |
| Total capital cost (US\$M)               | 188    |
| Net cash flow (US\$M)                    | 566    |
| NPV after tax and interest (US\$M)       | 194    |
| IRR after tax and interest               | 53%    |

**Table 4 Kalana Main Project Sensitivity (gold price and discount rate)**

| Metal price (US\$/oz) | NPV (5%)        | NPV (10%)       | IRR |
|-----------------------|-----------------|-----------------|-----|
| 1,110                 | US\$276 million | US\$194 million | 53% |
| 1,300                 | US\$424 million | US\$306 million | 74% |

## 5.2 Disclosure for Restructuring Transactions

N/A

### Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

This report is not being filed on a confidential basis.

### Item 7 Omitted Information

N/A

## **Item 8 Executive Officer**

For further information, please contact:

### **Howard Miller**

Chief Executive Officer

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## **Item 9 Date of Report**

April 1, 2014

### **Forward-Looking Information**

This material change report includes certain statements that may be deemed "forward-looking statements". All statements in this report, other than statements of historical facts are forward-looking statements. Forward-looking statements in this report include, among other things, statements about the potential development and operation of an open-pit mine based on the PEA and the completion of a pre-feasibility study and feasibility study. Although Avnel believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Factors that could cause actual results to differ materially from those in forward looking statements include market prices, gold prices, continued availability of capital and financing and general economic, market, political or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements. Avnel does not assume any obligation to update or revise its forward- looking statements, whether as a result of new information, future events or otherwise.