



Resolute

ASX Announcement

23 June 2016

# Bibiani Feasibility Study Completed

## Highlights

- Resolute has completed a Feasibility Study for the Bibiani Gold Project in Ghana which confirms a viable development pathway
- Initial Ore Reserve of 5.4 million tonnes @ 3.7 grams per tonne containing 640,000 ounces of gold
- Mine plan to produce up to 1.2 million tonnes per annum of underground ore
- Initial operating life of 5 years with production of approximately 100,000 ounces per annum
- Start-up capital of US\$72M including US\$29M of underground mining equipment
- Short timeline to production expected with only a 9-month development and refurbishment period
- Life of Mine All-in-Sustaining-Costs of **US\$858/oz**
- The location and characteristics of Bibiani are well matched to the technical capabilities of the Company.
- Substantial upside remains with ongoing work scheduled to focus on upgrading and expanding the orebody to extend minelife and reduce operating costs

Resolute Mining (“Resolute” or “the Company”) is pleased to advise that it has completed a positive Feasibility Study (“Study”) for its 90% owned Bibiani Gold Project (“Bibiani” or the “Project”) in Ghana. The Study has been lodged with the Government of Ghana, which owns a 10% free carried interest in the Project. Delivery of the Study to the Ghanaian Minerals Commission was a key commitment made by Resolute as part of the government’s approval of the Company’s acquisition of Bibiani in 2014.

Resolute is seeking to re-establish a successful underground mine at Bibiani. The Study contemplates production of up to 1.2 million tonnes per annum (“Mtpa”) from Long Hole Open Stope underground mining. Processing of the ore will occur at the existing Bibiani processing plant. The majority of the US\$72M of upfront capital is allocated to the refurbishment of the plant. The Project has a short lead time to production of only 9 months from commencement.

An initial Ore Reserve has been established of 5.4 million tonnes (“Mt”) @ 3.7 grams per tonnes (“g/t”) containing 640,000 ounces (“oz”). Gold production is expected to be maintained at approximately 100,000oz per annum which will sustain a 5 year mine life on the initial Ore Reserve. All-in-Sustaining-Costs are expected to be US\$851/oz for Life of Mine production of 561,000oz of gold.

Managing Director and CEO John Welborn congratulated the Resolute team on the completion of the Study: “Bibiani is a key growth asset for the Company, and the completion of the Feasibility Study and the establishment of our first Ore Reserve at the Project is an important milestone. We are delighted with the results of the Study which demonstrate a viable development plan for Bibiani, competitive costs, and excellent upside potential. The Feasibility Study is a major improvement on the scoping study completed a year ago and demonstrates the potential for even better results. In the current environment of rising gold prices Bibiani offers the Company an increasingly attractive growth opportunity. Further successful exploration to upgrade and extend the orebody will boost project economics, extend the mine life and further enhance value. We remain committed to working with our partner, the Government of Ghana, as we move towards our mutual goal of developing a long life, robust, profitable gold operation at Bibiani.

The method of mining and the production rate envisaged at Bibiani is consistent with Resolute’s demonstrated capability in operating large mechanised underground gold mines. In recent years the Company has operated a highly successful 1.5Mtpa underground mine at Mt Wright in Queensland, and we are well advanced in our plans to develop a 2.4Mtpa sub-level cave at Syama in Mali. Given our previous operating history in Ghana, and mining expertise, Bibiani is seen as a key part of Resolute’s future”.



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Estimates of costs include all capital and operating expenditure and royalties over the current life of mine. Ore mined comprises 100% Probable Reserves. Pre-production capital of US\$72M includes US\$29M for purchase of mining fleet. Options remain for some or all of the mining to be undertaken by a contractor, which would diminish the capital requirement

Key Study outcomes are summarised below.

<b>Underground Development</b>	<b>Units</b>	<b>Value</b>
Ore development	m	9,841
Waste development	m	16,389
Vertical development	m	1,280
Total development	m	27,510
<b>Ore production</b>		
Development ore	kt	609
Stoping ore	kt	4,748
Total ore	kt	5,357
Metal grade (ROM)	g/t	3.7
Metal contained (ROM)	koz	644.5
<b>Metal recovery</b>		
Processing recovery	%	87%
Metal (recovered)	koz	560.7
<b>Operating unit cost (including pre-production)</b>		
Mining	US\$/t	34.3
Processing	US\$/t	21.3
G&A	US\$/t	11.2
Royalty and refining costs	US\$/t	8.0
<b>Ore</b>		
Mine life (incl. pre-production)	years	6.25
<b>Costs</b>		
Pre-production capital	US\$M	71.5
Pre-production operating	US\$M	10.7
Sustaining capital	US\$M	89.6
Operating cost	US\$M	391.7
<b>All-in-Sustaining Costs</b>	<b>US\$/oz</b>	<b>\$858</b>

Table 1: Bibiani Study outcomes

**ASX:RSG Capital Summary**

Fully Paid Ordinary Shares: 641,582,994  
 Current Share Price: A\$1.12 as at 22 June, 2016  
 Market Capitalisation: A\$719m  
 FY16 Guidance: 315,000oz @AISC A\$1.220/oz

**Board of Directors**

Mr Peter Huston *Non-Executive Chairman*  
 Mr John Welborn *Managing Director & CEO*  
 Mr Peter Sullivan *Non-Executive Director*  
 Mr Martin Botha *Non-Executive Director*  
 Mr Bill Price *Non-Executive Director*

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## Project Summary

### Location

Bibiani is situated in the western region of Ghana. Ghana is a West African country, approximately 600km north of the Equator on the Gulf of Guinea. It is bordered by Burkina Faso to the north, the Ivory Coast to the west and Togo to the east. Ghana has an area of approximately 239,000km<sup>2</sup> and an estimated population of 25.9 million people. English is both the official and the commercial language while Twi is the most widely spoken language. The capital city is Accra which is a modern coastal city with a population of approximately two million people.

The Bibiani mineral concessions lie approximately 80km south west of the Ashanti capital, Kumasi. The principal and most practical access to the Project is from the east, along the Kumasi – Bibiani – Sefwi Bekwai highway. The Kumasi airport can be accessed from Accra by a 45-minute flight using various national airlines.

Road access to the Bibiani mine gate from Kumasi is excellent. Bibiani receives electrical power from the national grid. There are two fresh water dams at the Project. Bibiani is serviced by two well equipped coastal ports, Tema which lies just to the east of Accra and Takoradi which lies in the western half of the country.



Figure 1: Resolute project location map

### History

The exploitation of the Bibiani deposit commenced in 1902 with the mining of surface adits and oxidised ore at shallow levels. The mine closed in 1913 after recovering approximately 70,000oz of gold. In 1927 mining activities recommenced as an underground mine. The mine was operated by the State Gold Mining Corporation until it was closed in 1973, having yielded approximately 2 million ounces (“Moz”) of gold.

Ashanti Goldfields acquired Bibiani in the mid-1990s and redeveloped the mine as an open pit operation with a modern processing plant. Ashanti Goldfields (later AngloGold Ashanti (“AGA”)) produced approximately 1.8Moz of gold from the main and satellite pits until production was hampered by the failure of the western pit slope.

After the cessation of open pit mining operations in the Bibiani Main Pit (“Main Pit”), AGA continued to operate the plant by exploiting a series of small, low grade satellite pits, by depleting the remaining run of mine (“ROM”) and low grade ore stockpiles and the treatment of old tailings resources. In addition, a trackless decline was developed in 2004 and 2005 to provide access to the underground workings for resource estimation and exploration work.

In 2006 the mine was purchased from AGA by Central African Gold who continued to explore and develop the underground potential. The mine was placed on care and maintenance in late 2008. In late 2009, Noble Mineral Resources Ltd (Noble) agreed to acquire CAG Ghana Limited and commenced mining of satellite open pits to the north-east of the Main Pit in 2010.



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Following a period of declining gold price, Noble suspended operations at Bibiani in May 2013. Through a scheme of arrangement with creditors Resolute took control of the Bibiani assets with the process being essentially complete by early 2014.

Resolute then embarked on a surface and underground resource drilling program to re-assess the underground potential.

### Scope of Study

The scope of the Study included:

- assessment of the feasibility of underground mining operations;
- determination of the work required to re-establish the processing plant into a configuration suitable for efficient production and acceptable recoveries;
- identification of the support services required to sustain production, such as people, power, water and waste disposal;
- assessment of permitting and approvals required;
- identification of the risk to establishing a sustainable and viable operation; and
- identification of opportunities to improve the viability of a sustainable operation.

### Key Study Elements

#### Geology

The Bibiani deposit is hosted within a thick sequence of fine-grained graded turbidites with localised thin interbeds of fine to medium-grained turbiditic sandstones. The orebody is a mesothermal lode-type deposit which is similar to the lode deposits in the Konongo-Axim belt hosting the significant Obuasi deposit. The Bibiani orebody geometry is structurally controlled by a steep, north to north-east trending shear corridor 200 - 400m wide, within Lower Birimian sediments and close to the eastern contact of the Upper Birimian. The shear zone includes quartz infill as massive veins and quartz stock works. In the widest parts of the orebody, two and locally three individual quartz reefs or lodes can be identified. Two highly graphitic fault zones, historically referred to as pug seams or fissures, are associated with the major shear zone on footwall and hanging wall sides.

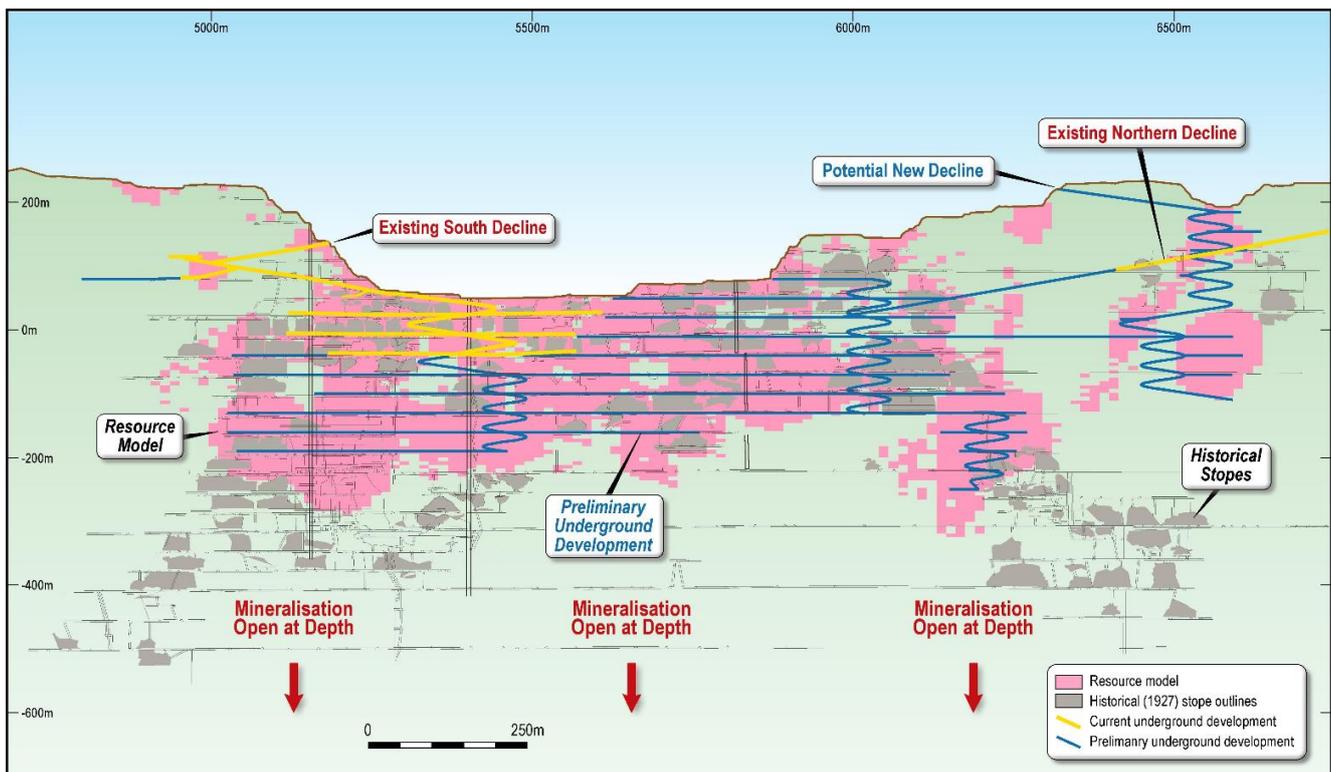


Figure 2: Bibiani long section



In general, the orebody dips east at 60 - 80°, crossing the regional structure at acute angles. At the centre of the mine the orebody alignment is 030 - 035° which changes to around 020° at the northern end of the mine. The strike of the bedding cuts across the strike of the ore body at acute angles. Traditionally the ore body has been divided into a northern and southern part based on the location of the central shaft, which lies on section line 5400N. Despite this the orebody is essentially continuous.

The southern ore zone is around 180m long and consists of a composite vein of quartz and mineralised country rock dipping about 60° to 70° to the east. The northern orebody consists of the continuation of the west lode and of the east and central lodes, which are less distinct toward the south. The latter reef lodes consist of more massive laminated smokey quartz with phyllite partings. Milky white quartz is also present, but is generally barren.

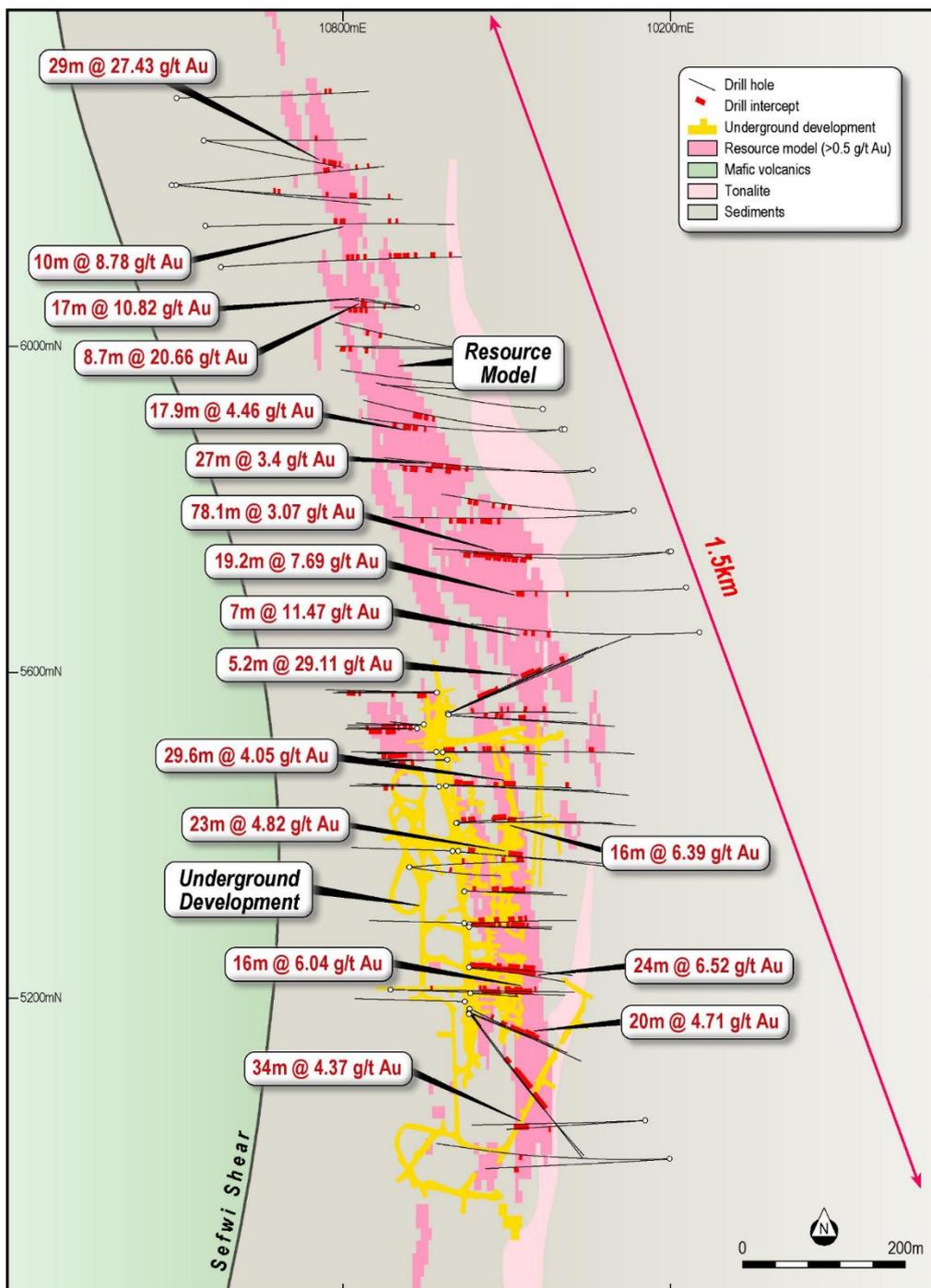


Figure 3: Bibiani drill hole plan and Resource outlines (modified from ASX Release 30 June 2015)



The northern ore zone has been mapped at 20 - 40m width near the surface and widens substantially at depth. At around 100 – 120m relative level (“mRL”) (the underground 4 and 5 Levels) horizontal widths exceed 100m. The dips are generally near vertical at surface, but the eastern boundary flattens moderately at depth to less than 65° around 150mRL. The lodes merge approximately 400 - 500m north of the central shaft. Further to the north the orebody narrows and continues as one near-vertical reef 15 - 25m in width.

The length of the main historic underground mining zone extends to 1,800m while the total strike length of the Bibiani mineralised trend is around 4,000m. The mineralisation remains open at depth (Figure 2).

## Resources

Resolute completed 26,665m of underground and surface diamond drilling at Bibiani with the aim of enhancing the existing 1.7Moz Resource announced on 15 August 2014. The underground segment of this campaign was focused on identifying a consistent high grade zone within the Central Lode on Levels 11 to 13 (375m vertical) over a strike length of 500m between 5000 and 5500N.

The drilling identified numerous broad moderate to high grade zones of mineralisation. This is despite the presence of voids in many drill holes due to the presence of historic stopes.

Surface drilling that was conducted at the same time had success concentrating on areas directly north of the modern underground workings between 5700 and 6250N (see Figure 3). This resulted in the announcement of an updated Resource estimate in June 2015.

## Mining

The mining method determined to be the most viable is Long Hole Open Stopping. The stope is commenced via a slot raise at one end of the ore drive and then mined by progressively firing the drill rings and retreating along strike.

A 2.75g/t block cut-off was used for determining the available stoping blocks. This accounts for stope recovery, unplanned dilution, processing recovery and all operating and realisation costs, and was based on assumed gold price of US\$1,150 per ounce.

Level designs will comprise the following:

- Main level access excavated 5.5m wide and 5.5m high with an arched profile;
- Footwall drives excavated 5.5m wide and 5.5m high;
- Cross cuts and ore drives designed to fit long hole drills and loaders;
- Stockpiles for storing stope ore ready for truck loading placed every 150m along the footwall drive; and
- A sump placed in the Main Level access and be linked to the lower Levels via a drain hole.

The Study proposes mining at a rate of 100,000t of ore per month with approximately 25,000t of waste per month giving a total rock movement of 125,000t per month.

## Processing

A review of the current ore treatment plant at Bibiani and the results of testwork to date was used to develop an effective processing flowsheet to achieve satisfactory recovery. Gold is predominantly fine and occurs along edges or cracks in pyrite and arsenopyrite sulphide minerals. The process design produces a sulphide concentrate by flotation at a primary grind size of  $P_{80}$  106 $\mu$ m. Concentrate is fine ground to  $P_{80}$  25 $\mu$ m prior to cyanidation. The flotation tails are also cyanide leached. Gold recovery is via carbon in leach. Key process design parameters are provided below:

- Primary crushing to a  $P_{80}$  of 120mm;
- Milling via the existing SAG mill operation in single stage closed circuit, producing a product size of  $P_{80}$  106 $\mu$ m;
- Flash flotation to a target mass pull of 2%;
- Scavenger flotation which together with the flash flotation concentrate, recovers a total combined concentrate 93% gold, 98% sulphides and 60% of the organic carbon, into a concentrate mass which is 10% of new feed;
- Concentrate regrind; and



- Leaching of Concentrate in a carbon in leach (“CIL”) circuit.

The design flow sheet is presented below.

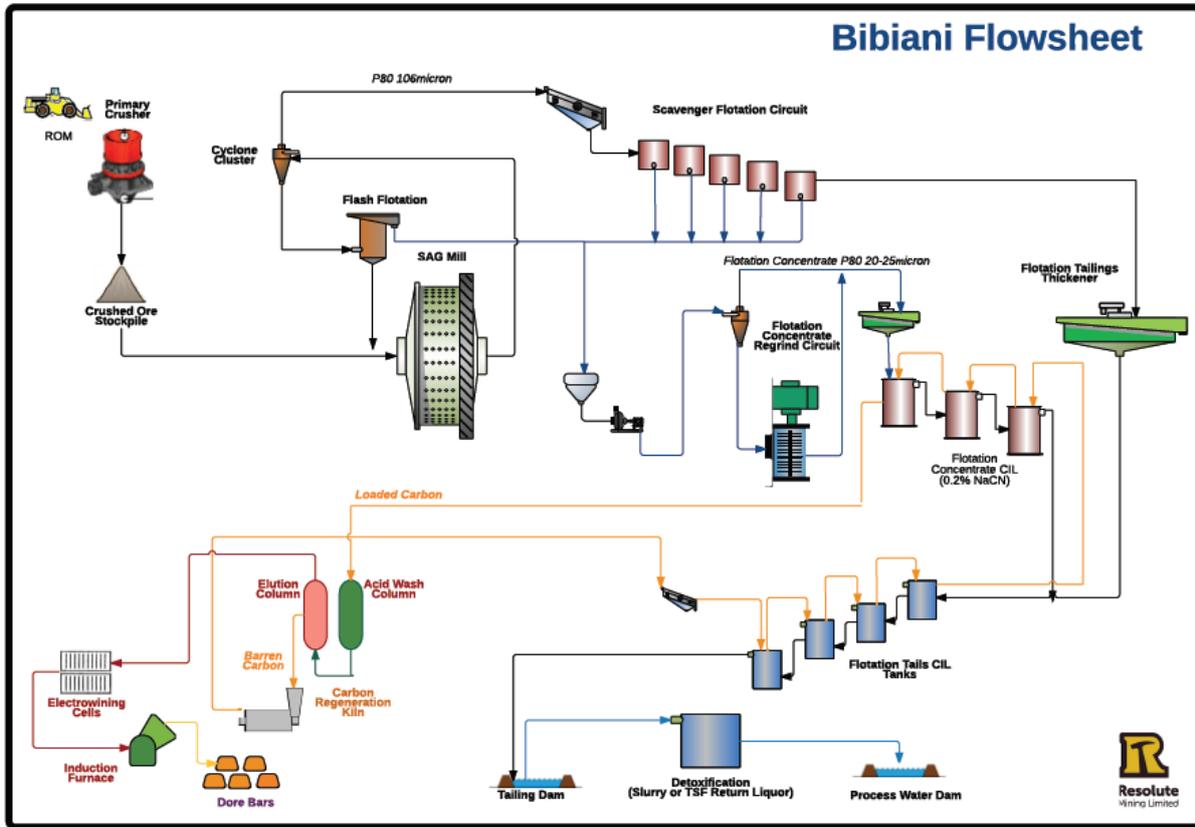


Figure 4: Bibiani process flow sheet

### Capital Cost

The capital costs associated with the recommencement of Bibiani are summarised below.

Description	Total Expenditure (US\$)	Capital (US\$/t) milled
UG Mining Equipment	28.9	5.39
UG Auxiliary Equipment & Infrastructure	15.3	2.86
Processing Plant Start Up	25.2	4.70
G & A Start Up	2.5	0.47
UG Capital development	81.3	15.17
Sustaining Projects	8.0	1.50
<b>Total</b>	<b>161.2</b>	<b>30.09</b>

Table 2: Capital expenditure summary

Total capital expenditure is US\$161.2M over the life of the Project with approximately US\$43M required at start-up to fund infrastructure and set-up and refurbish the existing processing plant. A further US\$29M will be required to purchase mining equipment based on a decision to undertake owner operated mining. The decision to be an owner operator will require the acquisition of a mining fleet and this, along with higher plant refurbishment costs, explains the increase in up front capital compared with the estimate of US\$30M contemplated in the Scoping Study announced in June 2015.



## Operating Cost

### Mining Operating Cost

The mining cost estimate is based on quantities derived from the mining schedule and the unit rates calculated using a cost model with updated prices for materials, parts and consumables.

Mining operating costs are those associated with ore development, stoping and ore haulage. It also includes a portion of mining overheads split between capital and operating costs based on tonnes mined.

The total mining operating cost averages US\$34.3/t mined.

### Processing Operating Cost

Operating cost for the plant based on an assumed throughput of 1Mtpa has been determined for the following several discrete cost centres:

- Labour and overhead rates;
- Electrical power costs;
- Reagent and consumables;
- Wear consumables;
- Maintenance spares;
- Mobile equipment; and
- Laboratory consumables and testwork.

Costs have been developed from:

- Suppliers quotations for reagents and consumables;
- Local labour rates and on-costs;
- Local power cost;
- Usage quantities derived from testwork and first principles; and
- Data base and typical industry costs for miscellaneous items.

Cost Area	Annual Cost (US\$)	Cost per Tonne (US\$/t)
Power	9,512,000	9.51
Labour	2,530,050	2.53
Reagents	5,759,891	5.76
Wear Consumables	903,625	0.90
Maintenance Spares	1,780,000	1.78
Mobile Equipment	638,562	0.64
Laboratory and testwork	200,000	0.20
<b>Total Operating Cost</b>	<b>21,324,000</b>	<b>21.32</b>

Table 3: Operating expenditure summary

### General and Administration Operating Cost

General and administration operating cost has been estimated to be US\$0.8M per month based on support expenditure incurred by Resolute in maintaining the operation whilst undertaking drilling and evaluation programs over the past two years.

### Royalties

Government royalties and refining costs constitute approximately 6% of the revenue gained from the sale of gold.



## Ore Reserves

Based on the parameters outlined above Resolute has estimated the following initial Ore Reserves for Bibiani.

Ore Reserves at Bibiani Gold Deposit (mining factors inc.)			
Category	Tonnes Mt	Grade g/t	Ounces Moz
Probable	5.4	3.7	0.64

Table 4: Bibiani Ore Reserves

Remaining Mineral Resources have been adjusted to account for the estimation of Reserves.

Mineral Resources at Bibiani Gold Deposit (2.0g/t cut-off)			
Category	Tonnes Mt	Grade g/t	Ounces Moz
Indicated	5.7	3.0	0.5
Inferred	4.5	4.1	0.6
<b>Total</b>	<b>10.2</b>	<b>3.6</b>	<b>1.1</b>

Table 5: Bibiani Mineral Resources

## Study Outcomes

Estimates of costs include all capital and operating expenditure and royalties over the current life of mine. Ore mined comprises 100% Probable Reserves. Pre-production capital of US\$72M includes US\$29M for purchase of mining fleet. Options remain for some or all of the mining to be undertaken by a contractor, which would diminish the capital requirement

Key Study outcomes are summarised below.

	Units	Value
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Ore development	m	9,841
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Total development	m	27,510
<b>Ore production</b>		
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<b>Metal recovery</b>		
Processing recovery	%	87%
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<b>Operating unit cost (including pre-production)</b>		
Mining	US\$/t	34.3
Processing	US\$/t	21.3
G&A	US\$/t	11.2
Royalties and refining costs	US\$/t	8.0
<b>Ore</b>		
Mine life (incl. pre-production)	years	6.25



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	Units	Value
<b>Costs</b>		
Pre-production capital	US\$M	71.5
Pre-production operating	US\$M	10.7
Sustaining capital	US\$M	89.6
Operating cost	US\$M	391.7
<b>All-in-Sustaining Costs</b>	<b>US\$oz</b>	<b>\$858</b>

Table 6: Bibiani Study outcomes

**Potential Enhancements**

Substantial opportunity exists to enhance the outcomes of the Study. While defining a viable development pathway based on the initial Ore Reserve, the Study has also highlighted the strong economic benefit of upgrading the higher grade portions of the Inferred Resource. The existing Inferred Resource of 4.5Mt @4.1g/t could be upgraded to Indicated Resource with a modest investment in additional drilling. Most of this material occurs close to the current Probable Reserves. Consequently, any development planned to access the current Reserves could be utilised to extract this material at minimal additional cost. The Company will consider options for undertaking the necessary drilling to upgrade this Resource in the coming months. Substantial potential for discovery of additional mineralisation also remains below the current reserves.

The original workings at Bibiani extend to around 800m below surface. The current Resource of 1.9Moz only considers the area between the base of the pit at around 200m below surface, and the limit of Resolute's drilling, at around 450m below surface. There is considerable exploration upside in these areas as well as along strike to the north.

In addition, Resolute sees opportunities for introducing emerging technologies in mining and processing at Bibiani to improve productivity and safety and reduce costs. The Company intends to transfer a number of innovations from its Mt Wright Mine, where it has made a number of advances in equipment productivity through sophisticated maintenance planning and in remote operation of mobile equipment.

For further information, contact:

**John Welborn****Managing Director and CEO**

Resolute Mining Limited

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Email: [contact@rml.com.au](mailto:contact@rml.com.au)Web: [www.rml.com.au](http://www.rml.com.au)**ASX:RSG Capital Summary**

Fully Paid Ordinary Shares: 641,582,994

Current Share Price: A\$1.12 as at 22 June, 2016

Market Capitalisation: A\$719m

FY16 Guidance: 315,000oz @AISC A\$1,220/oz

**Board of Directors**Mr Peter Huston *Non-Executive Chairman*Mr John Welborn *Managing Director & CEO*Mr Peter Sullivan *Non-Executive Director*Mr Martin Botha *Non-Executive Director*Mr Bill Price *Non-Executive Director***Contact****John Welborn** *Managing Director & CEO*4<sup>th</sup> Floor, BGC Centre | 28 The Esplanade

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### About Resolute

Resolute is a successful gold miner with more than 25 years of continuous production. The Company is an experienced explorer, developer, and operator having operated nine gold mines across Australia and Africa which have produced in excess of 7 million ounces of gold. The Company currently operates two mines, the Syama gold mine in Africa and the Ravenswood gold mine in Australia, and is one of the largest gold producers listed on the Australian Securities Exchange with FY16 guidance of 315,000 ounces of gold production at a cash cost of A\$915/oz and All-in-sustaining-costs of A\$1,220/oz.

Resolute's flagship Syama gold mine in Mali is a robust long life asset benefitting from fully operational parallel sulphide and oxide processing plants. The move to underground mining will continue the asset's history of strong cash generation and extend the mine life to out beyond 2028. The Ravenswood gold mine in Queensland demonstrates Resolute's significant underground expertise in the ongoing success in mining the Mt Wright ore body. In Ghana, the Company is completing a feasibility study on the Bibiani gold project focused on the development of an underground operation requiring very low capital and using existing plant infrastructure. Resolute also controls an extensive exploration footprint along the highly prospective Syama Shear and greenstone belts in Mali and Cote d'Ivoire and is active in reviewing new opportunities to build shareholder value.

### Competent Persons Statement

The information in this report that relates to the Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Mr Richard Bray who is a Registered Professional Geologist with the Australian Institute of Geoscientists and Mr Andrew Goode, a member of The Australasian Institute of Mining and Metallurgy. Mr Richard Bray and Mr Andrew Goode both have more than 5 years' experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Richard Bray and Mr Andrew Goode are full time employees of Resolute Mining Limited Group and each hold equity securities in the Company. They have consented to the inclusion of the matters in this report based on their information in the form and context in which it appears. This information was prepared and disclosed under the JORC code 2012 except where otherwise noted. Particular Reserves and Resources remain 2004 JORC compliant and not updated to JORC code 2012 on the basis that information has not materially changed since it was last reported.

### Cautionary Statement about Forward Looking Statements

This announcement includes certain statements, estimates and projections with respect to the future performances of Resolute. Such statements, estimates and projections reflect various assumptions concerning anticipated results, which assumptions may prove not to be correct. The projections are merely estimates by Resolute, of the anticipated future performance of Resolute's business based on interpretations of existing circumstances, and factual information and certain assumptions of economic results, which may prove to be incorrect. Such projections and estimates are not necessarily indicative of future performance, which may be significantly less favourable than as reflected herein. Accordingly, no representations are made as to the fairness, accuracy, correctness or completeness of the information contained in this announcement including estimates or projections and such statements, estimates and projections should not be relied upon as indicative of future value, or as a guarantee of value of future results. This announcement does not constitute an offer, invitation or recommendation to subscribe for or purchase securities in Resolute Mining Limited (ASX:RSG).

**BIBIANI GOLD MINE GHANA****JORC Code, 2012 Edition – Table 1****Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<p>Recent data (Mensin Gold 2014) was collected from reverse circulation (RC) and diamond core (DD) drill holes. Previous data (Noble Mineral Resources Limited 2011-2012) was collected from RC and DD drill holes, and historic data (1994-2007) from RC, DD and underground channel sampling (CHAN).</p> <p>During the period of prior owners the RC, DD and CHAN drilling and sample collection was assumed to have been completed to industry standards at that time. The Bibiani mine has been operating since the early 1920’s and limited sampling technique data has been recorded by previous owners over periods of its history. During 2010-2012, Noble Mineral Resources Ltd sampled RC intervals as four metre composites which were subsequently resampled at one metre intervals where required, while diamond core was cut in half and sampled on variable interval lengths.</p> <p>Mensin Gold (2014) have conducted reverse circulation (precollars only) and diamond drilling since September 2014. For RC samples each 1m interval is riffle split to obtain a 2-4kg sample, which is sent to the laboratory for pulverisation to produce a 30g charge for analysis. Diamond core is sampled on one metre intervals, defined by geologists to ensure the interval does not cross geological contacts. Core is cut into half to provide a 2-4kg sample which is sent to the laboratory for crushing, splitting and pulverising to 85% passing 75 microns, to provide a 30g charge for analysis. Sampling and sample preparation protocols for Mensin Gold drilling are industry standard and are deemed appropriate by the Competent Person. QAQC samples are included with all sample batches.</p>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i></li> </ul>	<p>The Bibiani Main Zone deposit was modelled by Resolute using a subset of regional data comprising of 705 DD holes (230 Underground, 475 Surface), 494 RC holes and 265 Underground CHAN sampling runs.</p> <p>Core type and size has been recorded for some historic holes, but many holes do not have this data recorded.</p>



		Mensin Gold completed 109 holes for 26,665 metres by RC (1,356m) and diamond drilling methods (25,309m) between September 2014 and February 2015. Core type and core size has been included in the drilling database and comprises PQ, HQ and NQ2 core sizes.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<p>In the historical data, sample recovery was not recorded in the digital drill hole database and it is unknown if this data was collected.</p> <p>Where stopes or voids have been intersected, this was noted in the drilling log. Any additional measures taken to ensure samples are representative has not been documented in company records.</p> <p>Any historical relationship between sample recovery and grade was not identified in company records.</p> <p>Mensin Gold (2014) has recorded diamond core and RC recovery in the database. Diamond core recovery is compromised in areas immediately adjacent to old underground workings and separate void intervals are identified in the database where possible from driller records. Void intervals are allocated zero Au grade. During logging operations diamond core is assembled into continuous runs for orientation work allowing down hole depths and sample recovery to be determined.</p>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p>Logging records lithology, alteration and mineralisation details for RC, DD holes and underground channel samples.</p> <p>From 2014 Mensin Gold has recorded structural and geotechnical rock mass features for diamond core. Drill core is photographed in both dry and wet form.</p> <p>Diamond core and RC chips are digitally logged, then validated and imported into the drill hole database.</p> <p>Holes were logged in their entirety (100%).</p>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> </ul>	<p>Historic RC samples were split using a riffle (dry) to obtain a 2-4kg sample. Sample moisture content was not recorded. More recent grade control RC samples were sampled wet and dry where identified. All samples were riffle split unless recorded otherwise. Spear sampling was used in some cases for wet samples. Underground channel samples are assumed to have been taken from walls and faces using industry standard methods.</p> <p>RC intervals are riffle split (dry) to obtain a 2-4kg sample, which are sent to the laboratory for pulverising and analysis.</p>



	<ul style="list-style-type: none"> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>Diamond core was sampled at one metre intervals and cut in half to obtain a 2-4kg sample which was sent to the laboratory for crushing, splitting, pulverising and assaying.</p> <p>The sampling techniques for RC, DD and underground channel samples appear appropriate. Where they are unknown, best practice was assumed. Historic sample intervals were commonly 5 or 10 feet, (stored as 1.5 or 3 meters in the current database). Recent RC drilling has been sampled using 4 metre composites, and then resampled at one metre intervals as required.</p> <p>Analysis of sample sizes appeared to be appropriate.</p> <p>Best practice was assumed at the time of historic RC, DD and underground channel sampling.</p> <p>Sampling, sample preparation and quality control protocols are industry standard and all attempts are made to ensure an unbiased representative sample is collected. The methods applied in this process are deemed appropriate by the Competent Person.</p>
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<p>RC and DD samples were assayed for gold by Intertek Tarkwa FA25/AAS method which is a 25g fire assay fusion with AAS instrument finish. This analytical method is appropriate for the style of mineralisation.</p> <p>Methods for historic RC and DD holes included fire assay and AAS finish. During 2010-2013 regional and grade control RC drilling used a combination of bulk leach with AAS finish or fire assay with AAS finish. These methods appear suitable for determining gold concentrations of this type.</p> <p>Noble Mineral Resources samples were submitted to Intertek, ALS Ghana and Performance Laboratories (Ghana) Ltd for assay analysis. Historically samples have been analysed by Analabs, SGS, and onsite laboratory (Performance Laboratories).</p> <p>No geophysical tools were used to determine any elemental concentrations.</p> <p>Quality control (QC) procedures included the use of certified reference standards and blanks inserted at a rate of one in twenty samples. Field duplicates are taken for RC and diamond core at the rate of one in twenty.</p> <p>Umpire pulp analysis of 2-5% of pulps is performed by a second laboratory at the completion of a drill program to verify the results from the primary laboratory.</p> <p>Laboratory quality control data including laboratory standards, blanks, duplicates, repeats and grind size results are also captured into the digital database and analysed for accuracy and precision.</p> <p>Analysis of the QC sample assay results indicates that an acceptable level of accuracy and precision has been achieved.</p>



		<p>Maxwell GeoServices completed a QAQC audit for Coffey Mining and Noble Mineral Resources in Nov 2011 and determined historic sampling and laboratory practises used were of industry standard.</p> <p>Coffey Mining Pty Ltd reviewed the available QAQC reports in 2012 and concurred with the conclusions and recommendations of Maxwell GeoServices. Coffey Mining notes that the positive and negative assay bias that was calculated by Maxwell GeoServices included data with mislabelled CRM. Coffey Mining recommended that bias be calculated after eliminating those results which can reasonably be attributed to mislabelled CRM.</p> <p>Coffey Mining also concluded that while the available QAQC data demonstrates acceptable levels of assay precision and accuracy, this was considered only marginally acceptable and considerable room for improvement existed.</p>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Verification of significant intersections was completed by company personnel and Coffey Mining personnel.</p> <p>No drill holes within the resource were twinned.</p> <p>Drill holes were logged onto paper templates, validated and then entered into a relational SQL 2008 database using DataShed© data management software (Maxwell GeoServices). The data management software has a variety of verification protocols which are used to validate the data entry. The DataShed© drill hole database was backed up on a daily basis to the head office server.</p> <p>Assay result files were reported by the laboratory in CSV format or hardcopy and are imported into the SQL database without adjustment or modification.</p>
Location of data points	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p>Collar coordinates are surveyed in UTM (WGS84) by registered mine surveyors using electronic survey equipment.</p> <p>Down hole surveys are collected every 30-50m using Reflex single shot and multi shot instruments.</p> <p>Location coordinates and azimuth bearings are reported in UTM WGS84 Zone 30 North.</p> <p>Bibiani Mine Grid is a locally established grid based on mining operations and is the principal grid system used on the site.</p>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<p>Drill hole spacing was sufficient to demonstrate geological and grade continuity appropriate for the Mineral Resource and the classifications applied under the JORC Code.</p> <p>The appropriateness of the drill spacing was reviewed earlier by the Coffey Mining technical team in 2012 and more recently by the Competent Person.</p> <p>RC and diamond samples approximated 1m intervals.</p>



<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <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>	Holes are drilled predominantly perpendicular to mineralised domains where possible. No orientation based sampling bias has been identified in the data.
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	Sample Chain of Custody is managed by Mensin Bibiani Project personnel. RC and diamond samples were collected from the drill location and stored on site before being securely dispatched to the commercial laboratory by specialised transport.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	An external audit of sampling procedures was conducted by Maxwell GeoServices and external consultants Coffey Mining indicated sampling protocols remained within industry standards.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>• The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<p>Drilling was conducted within the Ghanaian Mining Concession Permit of Bibiani which covers the current mining leases of the Bibiani Project.</p> <p>Resolute Mining Limited has a 90% interest in the Bibiani Project through its subsidiary company Mensin Gold Bibiani Limited and the Exploitation Permit on which it is based. The Ghana Government holds a free carried 10% interest in Mensin Gold Bibiani Ltd (MGBL).</p> <p>The Bibiani Mine concession is located approximately 6° 27' latitude north and 2° 17' longitude west in the Western Region of Ghana. The Bibiani mineral concessions lie approximately 80 kilometres south west of the Ashanti capital, Kumasi. The principal access to the mine is from the east, along the Kumasi – Bibiani – Sefwi Bekwi Highway. Ghana mining law provides that all mineral resources are administered by the Minerals Commission of Ghana.</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Commercial gold production commenced at Bibiani in the early 1900s and was suspended in 1915. In 1927 mining activities recommenced as the mine was developed and operated by foreign investors until it was nationalized in 1958. Post nationalisation, the mine was operated by SGMC (State Gold Mining Corporation) until it was closed in 1973 following the depletion of economic reserves.



		<p>During the SGMC period, reserves within the existing infrastructure were depleted and the old workings were reworked to recover pillars and remnant lower grade material (probably plus 6g/t) that was below the pay limit applied to the deposit prior to nationalisation.</p> <p>Reports have suggested that during the first 65 years of production a total of 7.8 million tonnes from underground mining and 0.5million tonnes from surface operations were milled, producing over 2 million ounces of gold at an average recovered grade of approximately 9.5 g/t Au.</p> <p>In the late-1980s, Glamco and International Gold Resources (“IGR”) gained rights to the old Bibiani mine and initiated tailings reclamation and surface exploration, which activities led to the delineation of an open pit resource and a positive feasibility study.</p> <p>Ashanti Goldfields purchased Bibiani from IGR in the mid-1990s for US\$ 130 million, financed an additional US\$ 85 million to capitalize the operation, and redeveloped the mine as an open pit operation with a modern processing plant. Ashanti Goldfields (now AngloGold Ashanti (“AGA”) produced approximately 1.8 million ounces of gold from the main and satellite pits (after main pit production was hampered by a slope failure in 2004) and tailings retreatment, bringing total Bibiani production since inception to almost four million ounces.</p> <p>Central African Gold plc (CAG) purchased Bibiani, for a cash consideration of US\$ 40 million. Subsequent to acquisition, CAG expended a further US\$ 51 million of capital on the mine, nearly all of which was used to accelerate underground access and to purchase a modern underground mining fleet. Despite development and capital constraints Bibiani produced a further 53,066 oz. of gold between 2007 and 2008 from three sources, namely old tailings, underground ore, and near-mine open pit oxide ore not included in the mineral resources.</p> <p>In late 2009, Noble Mineral Resources Ltd signed a ‘Sale of Shares’ agreement to acquire Central African Gold Ghana Ltd from Investec Bank subject to a number of Conditions. One of these Conditions states that Noble shall formulate a ‘Development Plan’ for the development of and the return to production of the Bibiani mining and processing operations.</p> <p>Resolute Mining Ltd became the owner of the Bibiani Project in June 2014 following the completion of the Deed of Company Arrangement (DOCA) regarding Noble Mineral Resources Limited (ASX:NMG) and acceptance and approval of a scheme of arrangement in Ghana.</p>
Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p>The license area is underlain by metasedimentary rocks of the Lower Birimian in the eastern parts and by intercalated metasedimentary and metavolcanic rocks of the Upper Birimian in the western part of the license. Granites occur in the south-western corner of the license. The Lower Birimian sediments consist mainly of phyllites with intercalated greywackes and minor tuffs, while the Upper Birimian rocks consist of basalt to rhyolites flows with intercalated tuffs and minor phyllites and chert horizons. Diorite intrusives are found within the Upper Birimian metavolcanic rocks.</p>



		<p>In the southern part of the license the rocks strike about 020° to 030° and dip steeply to the southeast. Further to the north the strike changes to between 040° and 050°.</p> <p>Previous mapping identified several cross faults that offset the stratigraphy however there is no clear evidence of a relationship between these faults and the gold mineralisation. The Bibiani ore body trend continues north to the Pamunu River approximately two kilometres from the Bibiani Mine. A parallel splay off the Bibiani trend continues obliquely to the Bibiani North deposit one kilometre to the north of the Bibiani Mining Lease.</p>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>Whole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<p>All information including easting, northing, elevation, dip, azimuth, coordinate system, drill hole length, interval length and depth are measured and recorded in UTM Zone 30N WGS84.</p> <p>Accuracy of the survey measurements is considered to meet acceptable industry standards.</p> <p>Information provided for the Exploration drillhole results includes :</p> <ol style="list-style-type: none"> <li>1. Easting, Northing and RL of the drill hole collars are measured and recorded in UTM Zone 30N (WGS84).</li> <li>2. Dip is the inclination of the drill hole from horizontal. For example a drill hole drilled at -60° is 60° from the horizontal.</li> <li>3. Down hole length is the distance down the inclination of the hole and is measured as the distance from the horizontal to end of hole.</li> <li>4. Intercept depth is the distance from the start of the hole down the inclination of the hole to the depth of interest, assayed interval of interest or start of reported significant intercept.</li> </ol>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be</i></li> </ul>	<p>Significant intercepts are calculated using a lower cutoff value of Au=1.0 g/t.</p> <p>No top cuts have been used.</p> <p>Internal waste up to a maximum of 3m consecutive internal dilution can be included within the intercept.</p> <p>Intercepts &gt;=3m and with 'grade x width' &gt; 10 gram metres are reported.</p> <p>Historic mining voids or backfill have been included within intercepts but grades have been set at Au=0.0g/t. Void intervals up to 7.1m downhole.</p> <p>Metal equivalent reporting was not used.</p>



	<p><i>shown in detail.</i></p> <ul style="list-style-type: none"> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<p>The mineralisation is steeply east dipping at approximately 70° from the horizontal, although there are examples with sub-vertical and west dipping orientations. Drilling sections are designed to intersect the main mineralisation orthogonal to strike and dip.</p> <p>Surface drill hole azimuths were planned at mine grid 090° at a general inclination of -65° west to intersect as close to perpendicular to the ore zone as possible. In general, true widths may be 50-90% of the downhole length.</p> <p>Some underground drillholes have been drilled as fans due to limited access.</p>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	Refer to the maps and sections provided with this report.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	No reporting of drill holes accompanies this report.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating</i></li> </ul>	<p>No geophysical and geochemical data are reported in this release as they are not deemed relevant to the release.</p> <p>All samples are measured for bulk density which has a mean value of 2.77 g/cm<sup>3</sup> and varies between 2.30 and 3.00 g/cm<sup>3</sup>.</p>



	<i>substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	Mensin Gold Bibiani Limited is continuing with an evaluation drilling program assessing the potential for an underground project using a combination of surface and underground drilling.

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Data validation procedures used.</i></li> </ul>	<p>Data have been compiled into a relational SQL database. The setup of this database precludes the loading of data which do not meet the required validation protocols. The data was managed using DataShed© drill hole management software (Maxwell Geoservices) using SQL database techniques. Validation checks are conducted using SQL and DataShed© relational database standards.</p> <p>The resource estimation was based on the available exploration and grade control drill hole database which was compiled by Noble. The database has been reviewed and validated by Coffey Mining prior to commencing the resource estimation studies. Extensive data validation was also undertaken by Mensin Gold personnel.</p> <p>Data included samples from RC and diamond drilling which were included in the modelling process. All available drill hole data has been utilised. The database contained underground channel sampling from the Main Pit area which was excluded from the resource estimation studies. The database was validated and checks made to the database prior to use included:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Check for overlapping intervals.</li> <li><input type="checkbox"/> Downhole surveys at 0m depth.</li> <li><input type="checkbox"/> Consistency of depths between different data tables.</li> <li><input type="checkbox"/> Check gaps in the data.</li> </ul>



		<ul style="list-style-type: none"> <li><input type="checkbox"/> Replacing less than detection samples with half detection.</li> <li><input type="checkbox"/> Replacing intervals with no sample with -999.</li> <li><input type="checkbox"/> Replacing intervals with assays not yet received with -999.</li> </ul> <p>There are no significant issues identified with the drillhole data.</p>
<p><i>Site visits</i></p>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<p>The Competent Persons have conducted numerous site visits to the Bibiani Project in Ghana.</p> <p>All aspects of drilling, sampling and resource modelling were considered by the Competent Persons to be of industry standard.</p>
<p><i>Geological interpretation</i></p>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<p>The Bibiani ore body is a lode type deposit similar to deposits in the Konongo - Axim belt which hosts the Obuasi deposit. The ore body is located in a shear zone within Lower Birimian sediments close to the eastern contact with Upper Birimian rocks. The shear zone is filled with quartz, either as massive veins or as quartz stockworks. In the widest parts of the ore body two and locally three quartz reefs can be identified. Two highly graphitic fault zones, historically referred to as pug seams or fissures, are associated with the major shear zone on the footwall and hanging wall. The ore body generally dips eastward at 60° to 80°, crossing the regional structure at a low angle. The rocks around the Bibiani deposit have been structurally interpreted as an elongate, isoclinally folded roof pendant within granitic batholiths. In the central part of the mine the strike of the ore body is 300-350, which changes to around 020 in the northern extension of the mine. The strike of the bedding cuts across the strike of the ore body at a shallow angle. Historically the ore body was divided into a northern and southern part, located north and south of the Central Shaft which lies on section line 5,400N (mine grid). In the open pit the ore body is continuous at lower cut-off grades. The South ore body, which occurs on the hanging wall of the West Fissure is about 180 meters long and consists of a composite vein of quartz and mineralised country rock dipping 60°-70° to the east. The North ore body, consists of the continuation of the West Reef and the East and Central reefs, which are poorly defined to the south. The latter reefs consist of more massive laminated smokey quartz with phyllite partings. Milky white quartz is also present, but this type is generally barren. The North ore body has been mapped as 20-40 meters wide near surface, widening substantially at depth. On 4 and 5 Level (100-120mRL), horizontal widths exceed 100m. The dip is generally near vertical at surface, but the eastern boundary flattens moderately at depth to less than 65° at around 150mRL. The two or three reefs merge between 400-500 meters north of Central Shaft. Further to the north the ore thins and continues as one near vertical reef 15-25 meters wide. Even further to the north the mineralisation appears as two thin parallel reefs each generally less than 10 metres wide. At Big Mug the ore body is in an overturned orientation. Intrusive porphyry dykes occur in the hanging wall and to a lesser extent in the footwall straddling the main shear zone.</p>



		<p>They can transgress into the ore body, where they become strongly altered and mineralised. At around 400 meters to the north of the old Central Shaft the porphyry body bends off to the north-east.</p> <p>The strike length of the delineated mineable area extends up to 2000 meters, although there are two short zones, where the ore body is too thin for economic extraction. The total strike length of the Bibiani mineralised trend is around 4,000 meters. Two parallel trends occur about 600 meters and 1,200 meters to the east of the main trend. They start around 500 meters north of Central Shaft. They have been interpreted as splays from the main trend, breaking-off near Central Shaft but there is limited geological evidence to support this interpretation.</p> <p>In early 2014 Model Earth Pty Ltd completed a geological and structural review of the Bibiani deposit. Onsite investigations comprised a three week campaign that included re-logging diamond drill core through representative sections of the deposit, geological mapping of the Bibiani Main Pit, inspection of accessible underground workings, and compilation of historical data. This work was used to create a 3D geological model of the Bibiani gold deposit. This model was used for the planning of the 26,000m diamond drilling program completed in early 2015.</p> <p>Based on grade information and geological observations, oxidation and mineralised domain boundaries have been interpreted and wireframes modelled to constrain the resource estimate in the Main Pit area. Interpretation and digitising of all constraining boundaries has been undertaken on cross sections orientated perpendicular to mine grid. The resulting digitised boundaries were used to construct wireframe surfaces and solids defining the three dimensional geometry of each interpreted feature.</p>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<p>Mineralisation in the Main Pit area lies within a vertical to steeply east dipping zone extending over approximately 2,300 metres of strike. The average dip of the mineralisation in the upper portion of the deposit is approximately 60° to the east although locally the dip is variable. At depth and to the north of the deposit the dip of the mineralisation becomes sub-vertical to vertical. The width of the mineralisation ranges from a few meters to over 60 metres. The mineralisation is complex and comprises multiple contiguous structurally controlled zones. The Main Zone is generally continuous with a number of smaller footwall and hanging wall subsidiary zones.</p>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include</i></li> </ul>	<p>For resource estimation the gold mineralisation has been modelled and constrained by a mineralised envelope based on geological modelling and grade shells generated using Leapfrog™ implicit modelling software.</p> <p>The method of Multiple Indicator Kriging (MIK) was used to estimate gold. MIK of gold grades use indicator variography based on the resource composite sample grades within distinct mineralised</p>



<p><i>a description of computer software and parameters used.</i></p> <ul style="list-style-type: none"><li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li><li>• <i>The assumptions made regarding recovery of by-products.</i></li><li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).</i></li><li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li><li>• <i>Any assumptions behind modelling of selective mining units.</i></li><li>• <i>Any assumptions about correlation between variables.</i></li><li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li></ul>	<p>populations defined by wire-frames. Within each domain gold grade continuity was characterised by indicator variograms at 14 indicator thresholds spanning the global range of grades.</p> <p>Data viewing, compositing and wire-framing were performed using Micromine© software. Exploratory data analysis, variogram calculation and modelling, and resource estimation have been performed using Supervisor©, MP© and Micromine© software packages.</p> <p>MIK was used as the preferred method for estimation of gold at Bibiani as the approach has been demonstrated to work well in a large number of deposits of diverse geological styles. The gold mineralisation seen at Bibiani is typical of that seen in most structurally controlled gold deposits and where the MIK method has been found to be of most benefit.</p> <p>Resource block modelling included:</p> <ul style="list-style-type: none"><li>• Mineralized domains defined as Lode_E, Lode_N, Lode_S, Lode_W, Lode_W_nth and S13 along the strike of the orebody.</li><li>• 2m composites extracted from the resource dataset excluding the underground channel sampling.</li><li>• Indicator variography developed based on the Au indicator transforms for each mineralized domain.</li><li>• Block model developed to cover the area of the main pit containing 5mE x 15mN x 6mRL blocks and attributes added to enable indicator grade estimates at varying Au cut-offs.</li><li>• Grade shells derived at 0.5g/t, 1.0g/t, 1.5g/t, 2.0g/t and 3.0g/t Au cut-offs.</li><li>• This interpretation was completed based on geological review and has captured both the broad mineralization halo and the higher grade &gt;2.0g/t Au material that has been determined to be the economic cut-off required.</li></ul> <p>The drill hole database was flagged or constrained by the grade shells and mineralised domain envelope. In addition the drill hole database was flagged by modelled underground stopes and adits and any material flagged as being within underground voids has been excluded for the purposes of grade estimation, as it is considered high grade material that has already been mined. After consideration of the sampled interval lengths in the drill hole database, 2m run length composites were generated and coded by the grade shells.</p> <p>Prior to compositing, intervals that were blank have been assigned grades of 0.0g/t Au. These un-sampled intervals are a significant feature of the Bibiani resource data set, as many deeper drill holes (including the MGBL drill holes) went through voids or backfill from historical underground mining.</p>
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	<ul style="list-style-type: none"> <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>	<p>Geological domain wireframes used in the underground modelling completed by Model Earth Pty Ltd in February 2013 were used to define the geological ore zones to a depth of -237mRL</p> <p>These surfaces were generated using Leapfrog© software and the drill hole lithological logging information.</p> <p>Variography is used to describe the spatial variability or correlation of an attribute. The spatial variability is traditionally measured by means of a variogram, which is generated by determining the averaged squared difference of data points at a nominated distance (h), or lag (Srivastava and Isaacs, 1989). The averaged squared difference (variogram or <math>\gamma(h)</math>) for each lag distance is plotted on a bivariate plot, where the X-axis is the lag distance and the Y-axis represents the average squared differences (<math>\gamma(h)</math>) for the nominated lag distance.</p> <p>Directional and downhole grade variography was generated to enable grade estimation using MIK. Variogram values have been calculated and modelled and the interpreted anisotropy directions rotated for each portion to correspond with the observed orientation of the domains.</p> <p>Geological elements coded to the block model include the weathering surfaces, geology model for the porphyry and the metasediments. The grade shell models were coded to allow for an appropriately constrained mineralisation grade estimate. Underground void models were also coded to allow for depletion of the resource.</p> <p>Resource estimation was completed using MIK, Ordinary Kriging and Inverse Distance Squared techniques within the geological domains, to allow comparison with the MIK grade estimate used. Grade estimation was carried out using the Micromine implementation of the GSLIB kriging algorithms.</p>
Moisture	<ul style="list-style-type: none"> <li>• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	All tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> <li>• The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	The mineral resources were reported at a 2.0 g/t Au grade cut-off for Bibiani in this release. This cut off was chosen as the insitu marginal cut- grade estimation, using current estimates from the Snowden Scoping Study update on underground mining completed in 2015.
Mining factors or assumptions	<ul style="list-style-type: none"> <li>• Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider</li> </ul>	Mining methods for the extraction of gold at Bibiani has primarily been by open pit and underground methods. It is anticipated that large scale underground mining methods will be applied for the remaining resources. Grade control of ore stopes and drives will be based on sampling from high quality diamond drilling spaced appropriately for underground mining definition.



	<p><i>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.</i></p>	<p>Bibiani was mined historically by open pit mining with a backhoe type excavator and truck operation. Beneath the open cut, mechanised and hand held underground open stope mining methods were used dating back to early 1900s.</p> <p>Subsequent to the Ashanti Goldfields acquisition, approximately 2 million ounces of gold was recovered from combined underground and some surface quarrying operations. Mineralisation was identified in a number of north south striking subparallel / enechelon reefs with gold contained in quartz and sulphide ore zones within porphyry dyke intruded shear zones. In the historic underground mine several shafts were sunk commencing in the southern part of the deposit and progressing northwards. Underground mine development has been recorded to a vertical depth of 800 metres and over a strike of two kilometres.</p>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<p>The crushing circuit at Bibiani comprises a single stage gyratory crusher.</p> <p>The ore zone is carbonated, silicified, albitised and sericitised. The pyrite content generally increases towards the ore body from the footwall and hanging wall with typically 2-3% observed in the central part of the ore body. Arsenopyrite has been observed within the ore body and is rarely found outside it. There is generally a good correlation between the presence of gold and the presence of arsenopyrite. The maximum arsenopyrite content is around 2-3%.</p> <p>The ore host rock can be graphitic and carbonaceous with the graphite content increasing in the more intensely sheared zones and especially within stockwork mineralisation along the footwall. Historic processing data suggests the graphite has a preg-robbing effect. Gold mineralisation is closely associated with sulphides and photomicrographs show gold along sulphide margins or in cracks within sulphide which suggests it can be recovered by conventional leaching operations. The gold grain size distribution is reported as predominantly less than 50 microns however visible gold has been observed within some quartz veins. The circuit configuration includes a Knelson Concentrator which typically recovers up to 35% of the gold.</p> <p>The majority of gold mineralisation is associated with quartz veins and quartz stockworks however the altered host rock contains a selvedge of mineralisation which can contain up to 2 g/t.</p> <p>The milling circuit comprises 2.625 MW SAG mill and a 4.35 MW ball mill. Discharge from both mills reports to a common sump and is pumped to classification hydro cyclones. The cyclone underflow reports to the Knelson Concentrator and back through the ball mill, while the cyclone overflow reports to the first of seven leach tanks in the conventional CIL plant.</p> <p>Gold is recovered from loaded carbon in a four tonne capacity AARL elution plant. Gold is then deposited on to stainless steel cathodes in an electrowinning circuit.</p>



		Gold in dore bars historically have a fineness of 80% gold and 20% silver.
Environmental factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<p>Future processing operations would use the existing regulated tailings storage facility that was being used until 2013.</p> <p>Some waste rock from future mining underground may be potentially-acid forming while the majority of waste rock will be non-acid forming. Waste rock dumping has been scheduled, along with encapsulation designs and optimization determined to minimize the risk of acid forming conditions from the waste rock dumping landform. The rehabilitation plan for the landform is also a key control.</p> <p>Tailings generated from the project are not expected to be net acid forming and will be stored in the current regulated storage facility.</p>
Bulk density	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<p>Bulk density has been coded to the block model based on data provided by Noble Mineral Resources Limited. The average bulk density for each subdivision, as presented below, was coded via a block model script.</p> <ul style="list-style-type: none"> <li>Backfill rock 1.80</li> <li>Oxide Metasediments 2.00</li> <li>Transition Metasediments 2.50</li> <li>Fresh Metasediments 2.75</li> <li>Fresh Porphyry 2.77</li> </ul>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of</li> </ul>	<p>The resource classification has been based on the robustness of the various data sources available, including:</p> <ul style="list-style-type: none"> <li>Geological knowledge and interpretation;</li> <li>Variogram models and the ranges of the first structure in multi-structure models;</li> <li>Drilling density; and</li> <li>Estimation statistics.</li> </ul>



	<p><i>the data).</i></p> <ul style="list-style-type: none"> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>The Resource estimate for the Bibiani Project deposit was classified as Indicated and Inferred Resources based on the confidence levels of key criteria such as kriging neighbourhood, data verification and validation. Resource classification codes were assigned to the block model.</p>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<p>No audits or independent reviews have been undertaken on the current mineral resource estimate, although comparisons with previous estimates completed by Coffey Resources in 2012, are within acceptable accuracy.</p>
<p><i>Discussion of relative accuracy/confidence</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of Measured, Indicated and Inferred categories.</p> <p>The relative accuracy of each resource is based on data quality, data quantity, geological confidence and the estimation accuracy.</p> <p>The precision of the estimation is globally acceptable with the assumption that at a mining level more detailed grade control drilling will be required.</p> <p>The geostatistical techniques applied to estimate the Bibiani deposit are deemed appropriate for the anticipated mining method.</p>

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

Criteria	JORC Code explanation	Commentary
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<p><i>Mineral Resource estimate for conversion to Ore Reserves</i></p>	<ul style="list-style-type: none"> <li>• <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></li> <li>• <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></li> </ul>	<p>The Ore Reserves are based on a Mineral Resource estimated by Resolute using Multiple Indicator Kriging (MIK) to model grades into cells 5.0 mE by 12.5 mN by 6 mRL. These cell sizes are appropriate for the bulk underground mining method considered for Bibiani.</p> <p>Only Mineral Resources below the base of the final open pit have been considered in the mining studies. The highest tonnes, grade and metal content are from immediately below the base of the open pit at about 120 mrl to about -50 mrl. Below -50 mrl, the tonnage, grade and metal content decrease rapidly, which may reflect lower drill densities at depth.</p> <p>Resources at Bibiani are reported above a 2.0 g/t cut-off. This is calculated as a marginal and geological cut off. Material below this cut-off is not considered in the resource. These are exclusive of the Reserves.</p> <table border="1" data-bbox="1238 683 1845 908"> <thead> <tr> <th colspan="4">Mineral Resources at Bibiani Gold Deposit (2.0g/t cut-off)</th> </tr> <tr> <th>Category</th> <th>Tonnes</th> <th>Grade</th> <th>Ounces</th> </tr> </thead> <tbody> <tr> <td>Indicated</td> <td>5.7Mt</td> <td>3.0g/t</td> <td>0.5Moz</td> </tr> <tr> <td>Inferred</td> <td>4.5Mt</td> <td>4.1g/t</td> <td>0.6Moz</td> </tr> <tr> <td><b>Total</b></td> <td><b>10.2Mt</b></td> <td><b>3.6g/t</b></td> <td><b>1.1Moz</b></td> </tr> </tbody> </table> <p>Ore Reserves are the material reported as a sub-set of the resource, which can be extracted from the mine and processed with an economically acceptable outcome. The Ore Reserves have been calculated by means of an economic assessment, which results in a Life Of Mine Plan. Reported Ore Reserves are exclusive to the Resources and include mining dilution and recovery factors. The mining recovery and dilution factors applied are 85% and 15% respectively.</p> <table border="1" data-bbox="1211 1155 1872 1289"> <thead> <tr> <th colspan="4">Mineral Reserves at Bibiani Gold Deposit (mining dilution Inc.)</th> </tr> <tr> <th>Category</th> <th>Tonnes</th> <th>Grade</th> <th>Ounces</th> </tr> </thead> <tbody> <tr> <td>Probable Reserve</td> <td>5.4Mt</td> <td>3.7g/t</td> <td>0.64 Moz</td> </tr> </tbody> </table>	Mineral Resources at Bibiani Gold Deposit (2.0g/t cut-off)				Category	Tonnes	Grade	Ounces	Indicated	5.7Mt	3.0g/t	0.5Moz	Inferred	4.5Mt	4.1g/t	0.6Moz	<b>Total</b>	<b>10.2Mt</b>	<b>3.6g/t</b>	<b>1.1Moz</b>	Mineral Reserves at Bibiani Gold Deposit (mining dilution Inc.)				Category	Tonnes	Grade	Ounces	Probable Reserve	5.4Mt	3.7g/t	0.64 Moz
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<p><i>Site visits</i></p>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken</i></li> </ul>	<p>Mr Richard Bray who is a Registered Professional Geologist with the Australian Institute of Geoscientists and Mr Andrew Goode, a member of The Australasian Institute of Mining and Metallurgy are the Competent Persons. Both have conducted regular site visits to the project location.</p>																																



	<i>indicate why this is the case.</i>	
<p><i>Study status</i></p>	<ul style="list-style-type: none"> <li>• <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></li>   <li>• <i>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.</i></li> </ul>	<p>Through a scheme of arrangement with creditors Resolute was able to take over control of the Bibiani assets (Project) with the process being essentially complete by early 2014. In June 2014, the Minister Lands and Natural Resources granted Resolute’s request for approval of ‘Material Change in Ownership’ of the company, and a change in company name to Mensin Gold Bibiani Limited (MGBL).</p> <p>MGBL embarked on a re-assessment of the underground potential and commenced a resource drilling program using surface and underground drilling.</p> <p>MGBL will utilise the findings of this study to help develop future strategy and direction for the Project. As such the feasibility study has looked at the requirements and viability for re-commencing operations at Bibiani. This work has included;</p> <ul style="list-style-type: none"> <li>• identifying the Reserve;</li> <li>• feasibility of underground mining operations;</li> <li>• identify the work required to re-establish the processing plant into a suitable configuration for efficient production;</li> <li>• identify the support services required to sustain production, such as people, power, water and waste disposal;</li> <li>• assessing permitting and approvals required;</li> <li>• identification of the risk to establishing a sustainable and viable operation;</li> <li>• identification of opportunities to improve the viability of a sustainable operation;</li> <li>• evaluation of the financial viability of the Project.</li> </ul> <p>Geotechnical parameters have been derived from geotechnical core logging, materials testing and application of standard industry methods. Ore loss and dilution estimates have been estimated from similar operations and using Snowden Mining Consultants experience, who contributed to study inputs.</p> <p>SRK Consulting conducted a geotechnical site visit, inspected the underground workings on the 7, 8 and 9 Levels, inspected the core from recent and historical diamond drilling, inspected the walls of the Bibiani open pit and reviewed historical reports and records available.</p> <p>Based on SRK observation and those from previous reports, the geotechnical consideration for mining can be considered to be compiled to a PFS standard.</p>



Mine operating costs were calculated from first-principles using local rates, and bench mark productivities, adjusted to reflect local operating conditions. Processing and site costs, and recoveries are based on the historic operations at Bibiani.

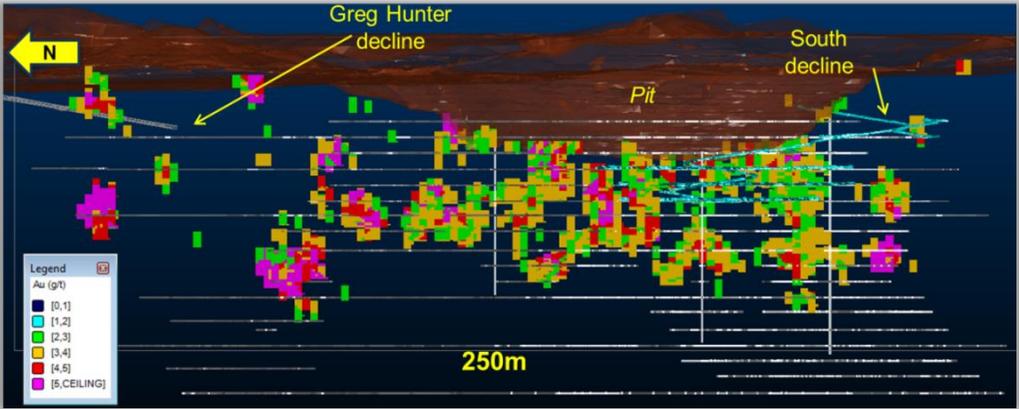
*Cut-off parameters*

- *The basis of the cut-off grade(s) or quality parameters applied.*

This initial Stopesizor model utilised the measured and indicated portion of the resource model. A second Stopesizor model was created utilising measured, indicated and inferred portions of the resource model. This second model has been used to demonstrate the further potential of the Bibiani ore body but not reported on here.

Activity	Units	2015
Stope mine recovery	%	<b>85.0%</b>
Dilution – unplanned	%	<b>15.0%</b>
Mining cost	\$/t ore	<b>\$35.00</b>
Processing cost	\$/t ore	<b>\$25.00</b>
Metallurgical recovery	%	<b>87.0%</b>
General and Administration	\$/t ore	<b>10.50</b>
Other (Selling, refining, royalties, etc)	% sold	<b>6.0%</b>
Gold prices	\$/oz Au	<b>\$1,150</b>
Gold grade mined	g/t	<b>1.00</b>
Metal mined after mining dilution and loss	oz Au / (g/t)	0.85
Metal recovered after plant	oz Au / (g/t)	0.74
Metal value after plant (Metal produced)	\$/ (g/t Au)	\$27.34
Royalties, sales, refining, etc costs		\$1.64
Metal value sold less royalties, sales, refining, etc costs	\$/ (g/t Au)	\$25.70
Opex Cost	<b>\$/t ore</b>	<b>\$70.50</b>
COG	<b>g/t Au</b>	<b>2.74</b>



		<p>It should be noted that while Stopesizer is a useful tool for identifying potential production stopes, it does not consider some key elements such as voids, support pillars or access development, thus it is more an indicator of mining inventory.</p> <p>An overall break even cut-off grade was calculated using cost estimates for mining, processing and administration cost. The cut-off grade was then used to filter the mining inventory from the Stopesizer block model to allow conceptual mine designs to be completed.</p>
<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>• <i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimization or by preliminary or detailed design).</i></li> <li>• <i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></li> <li>• <i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling.</i></li> <li>• <i>The major assumptions made and Mineral Resource model used for pit and stope optimization (if appropriate).</i></li> </ul>	<p>Following the completion of the drilling campaign in early 2015 and the subsequent updating of the resource model, Snowden were employed to update the potential mining inventory and conduct a scoping study.</p> <p>Snowden used their in-house software Stopesizer© to produce a preliminary outline of potential production stopes at given cut off grades. Stopesizer© defines potential stopes by searching for groups of blocks that satisfy the criteria of minimum stope size 5m wide, 15m long and 24m high. Using the Measured and Indicated resource model, Stopesizer© was run for a series of different cut off grades enabling a tonne/grade curve to be produced.</p>  <p>This figure shows the general location of the Stopesizer shapes above 2g/t. Colours have been used to show the potential grades.</p> <p>The ore body outline is designed using a cut-off grade of 2.0g/t Au based on current overhead and treatment costs, combined with PFS level estimates for the underground component of the</p>



	<ul style="list-style-type: none"><li>• <i>The mining dilution factors used.</i></li><li>• <i>The mining recovery factors used.</i></li><li>• <i>Any minimum mining widths used.</i></li><li>• <i>The manner in which Inferred Mineral Resources are utilized in mining studies and the sensitivity of the outcome to their inclusion.</i></li><li>• <i>The infrastructure requirements of the selected mining methods.</i></li></ul>	<p>mine. There are some obvious areas where the Stopesizor inventory will not be mined such as areas above the 6 Level and below the 15 Level.</p> <p>Bibiani has a large mining inventory, and while it has some complexity with mining around voids in some sections it also has the advantage of multiple declines and potential for multiple stoping areas on each Level. Based on this, McCarthy's methodology has been used to select a production rate of 1.2Mtpa.</p> <p>The mining method considered the most viable is Long Hole Open Stope (LHOS). Where the planned stope is less than 15m wide, it would be done using a longitudinal method. This entails developing a drill drive along the strike of the stope and drilling production holes in rings perpendicular to the drive. The stope is commenced via a slot raise at one end of the ore drive and then progressively firing the drill rings and bogging the ore in a retreating manner along the strike.</p> <p>Rib pillars will need to be left between stopes to support the walls and backs of the stope. Minimum thickness for a pillar should be an equal ratio to the width of the excavation, thus for a 10m wide stope a 10m pillar should be left; for a 5m wide stope a 5m pillar would be left. Pillars would be positioned into lower grade areas where possible.</p> <p>Using this geometry then the ore left in a pillar between 2 stopes 10m wide represents 14% of the total ore available. Where there are 3 stopes, requiring 2 pillars be left, it represents 18% of the ore. This increases to 20% if there is 4 stopes adjoining each other. This loss is moderated somewhat by placing pillars in low grade areas and there will be some single stopes with no ore lost to pillars.</p> <p>With narrower stopes the ore lost in pillars is reduced; using the previous examples, for the 2 adjoining stopes the pillar represents 8% of the ore, for 3 stopes the pillars represent 10%. For this study an average 85% stope recovery is assumed, this allows for some loss due to pillars and some loss during actual stoping.</p> <p>The loss of ore to pillars could be significantly reduced with the use of fill that would support the wall, such fill would need to have some compressive and shear strength and some cohesion.</p> <p>Level designs will comprise the following:</p> <ul style="list-style-type: none"><li>• Main level access excavated 5.5m wide and 5.5m high with an arched profile. These will generally be perpendicular to the strike of the ore lodes and at least 25m long to avoid</li></ul>
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		<p>the influence of the stopes affecting the decline. They will connect the declines to the footwall drives.</p> <ul style="list-style-type: none"> <li>• Footwall drives will also be excavated 5.5m wide and 5.5m high with an arched profile to allow the flexibility of driving trucks along the Level. Footwall drives will connect to the main return airways and stope crosscuts. There should be a minimum of 16.5m between the footwall and any stopes. Each intersection should be cable bolted to secure the backs.</li> <li>• Cross cuts and ore drives will be designed to fit the long hole drills and loaders. Minimum height for a long hole drill to use ST68 tubes, is 4.3m, thus the nominal height of the ore drives is 4.5m high and 5m wide to allow a large loader to be utilised efficiently in the stopes.</li> <li>• Stockpiles for storing stope ore ready for truck loading will be placed every 150m along the footwall drive. Where a cross cut can be utilised as a stockpile they will.</li> <li>• A sump placed in the Main Level access will be linked to the lower Levels via a drain hole. All development on the Level will be at a gradient of 1:100 as it moves away from the sump. This will allow for drainage back to the sump without creating too much disparity in the mrl of the Level.</li> </ul>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>• <i>The metallurgical process proposed and the appropriateness of that process to the style of mineralization.</i></li> <li>• <i>Whether the metallurgical process is well-tested technology or novel in nature.</i></li> <li>• <i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the</i></li> </ul>	<p>Minelogix Pty Ltd reviewed the current ore treatment plant at Bibiani, the results of test work completed and developed the most effective processing system that achieves good recovery. Minelogix looked at two production rate options 1Mtpa and 1.5Mtpa, there is a step change between these production rates which requires changes to the processing plant configuration. To match mine ore production the processing rate of 1Mtpa was selected.</p> <p>Gold is predominantly fine and occurs along edges or cracks in pyrite and arsenopyrite sulphide minerals. The process design produces a sulphide concentrate by flotation at a primary grind size of P<sub>80</sub> 106µm. Concentrate is fine ground to P<sub>80</sub> 25µm prior to cyanidation. The flotation tails are also cyanide leached. Gold recovery is via carbon in leach.</p> <p>Key process design parameters are provided below:</p> <ul style="list-style-type: none"> <li>• Ore is primary crushed to a P<sub>80</sub> of 120mm to the reclaim stockpile.</li> </ul>



	<p><i>corresponding metallurgical recovery factors applied.</i></p> <ul style="list-style-type: none"> <li>• <i>Any assumptions or allowances made for deleterious elements.</i></li> <li>• <i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole.</i></li> <li>• <i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></li> </ul>	<ul style="list-style-type: none"> <li>• 1.0Mtpa milling circuit consists of the existing SAG mill operation in single stage closed circuit, producing a product size of P<sub>80</sub> 106µm, operating with a specific pinion power of 23.3kWh/t.</li> <li>• Flash flotation is used in the grinding circuit with a target mass pull of 2% with respect to the feed tonnage.</li> <li>• Scavenger flotation with a nominal 32 minutes residence time, together with the flash flotation concentrate, recovers a total combined concentrate with recoveries of 93% gold, 98% sulphides and 60% of the organic carbon, into a concentrate mass which is 10% of new feed. Tank cells are chosen for optimal cost and performance.</li> <li>• Concentrate is reground from f80 106µm to P<sub>80</sub> 25µm in the existing Metprotech stirred mill. The concentrate is pre-cycloned at 25µm overflow P<sub>80</sub>, with the cyclone underflow milled in open circuit at 19.8kWh/t specific power to produce a product of P<sub>80</sub> 25µm. 3mm ceramic grinding media is used in the stirred mill.</li> <li>• Concentrate and tailings are thickened to 65% solids maximising retention of non-cyanide containing water to the milling/flotation circuits.</li> <li>• Concentrate is leached in a carbon in leach (CIL) circuit with 12 hours residence time. Concentrate leach tail joins the flotation tail in a CIL circuit with 24 hours residence time. Total concentrate leach residence time is therefore 36 hours.</li> <li>• Carbon is stripped at the rate of 10t and 15t per week respectively to recover precious metals.</li> <li>• TSF decant return water is used to dilute the leach feed densities to 45% and 50% for the concentrate and tailings respectively. Remaining decant water is cyanide detoxified using the SMBS/Air process. Detoxified process water is recycled to the Process Water Dam, with excess water discharged.</li> </ul> <p>New plant and equipment is proposed for the following areas:</p> <ul style="list-style-type: none"> <li>• Primary classification</li> <li>• Scavenger flotation and associated equipment</li> <li>• Regrind classification</li> <li>• Concentrate thickening</li> <li>• Concentrate and tails leach tanks and associated equipment</li> </ul> <p>The following areas and plant equipment are refurbished and reused:</p> <ul style="list-style-type: none"> <li>• Primary crusher and associated equipment</li> </ul>
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		<ul style="list-style-type: none"> <li>• Reclaim bin and associated</li> <li>• SAG and associated equipment</li> <li>• One Skim-air flotation machine</li> <li>• Metprotech Stirred Regrind Mill</li> <li>• Tailings thickener</li> <li>• One leach tank (for cyanide detoxification)</li> <li>• Carbon elution, regeneration and gold room</li> <li>• Reagents and services</li> <li>• Tails Storage Facility</li> </ul> <p>Primary crushing occurs on a day shift only basis delivering crushed ore to the reclaim stockpile. Stockpiled crushed ore is reclaimed by Front End Loader (FEL) and fed into the milling circuit via the reclaim bin.</p> <p>The milling circuit consists of single stage closed SAG mill. Mill discharge is classified by new 400mm hydrocyclones. A portion of the cyclone U/F, typically 65-75% and minimum 50%, is fed to the Skim-air flash flotation cell for initial sulphide recovery. Cyclone underflow and Skim-air tailings recycle back to the mill.</p> <p>Cyclone overflow (P<sub>80</sub> of 106µm) is screened to remove trash prior to scavenger flotation. Scavenger flotation (5 x 30m<sup>3</sup> Tank Cells (TC) and 6 x 30m<sup>3</sup> TC) and Skim-air concentrates report to the fine grinding circuit. Scavenger tailings report to the modified tailings thickener.</p> <p>Concentrate is pre-cycloned in new 150mm cyclones. Cyclone overflow reports with regrind mill product to the concentrate thickener. Cyclone underflow is fed to the Metprotech stirred mill for regrinding to a P<sub>80</sub> of 25µm.</p> <p>Concentrate thickener underflow is pumped to the new concentrate leach circuit consisting of three tanks. Concentrate leach tailings report to flotation tailings leach feed together with the Flotation Tailings. Final tailings from the new flotation tailings leach circuit (4 and 6 tanks) are pumped to the TSF. Carbon is advanced through the flotation tail leach circuit and onto the concentrate leach circuit before being removed for elution.</p> <p>Carbon elution is by the AARL process in the original Lycopodium circuit.</p>
<i>Environmental</i>	<ul style="list-style-type: none"> <li>• <i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterization and the consideration of</i></li> </ul>	<p>The Bibiani Gold Mine will operate in accordance with the Environmental Protection Agency Act 1994 (Act490).</p> <p>There is sufficient existing documented base line data from previous Environmental Studies which included the whole of the lease area. In addition to this MGBL has continued to conduct</p>



*potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*

environmental monitoring while the mine has been on care and maintenance, this data can be added to the data from previous EIS to strengthen the baseline data.

The proposed Underground Project would not affect the following resources and resource uses

- Flora and Fauna.
- Land Use.
- Soil.
- Visual Resources.
- Cultural and Heritage Resources.

Work is ongoing to optimise the mining operation and environmental management by way of:

- drilling
- mineralogical assay of drill core
- routine testing of rock for acid generating properties
- sequence, rate and design optimization of the underground development, ramps and waste rock dump landform.

The outcomes of this work are part of a continuing improvement programme and contribute to the waste rock dump management plan, annual reporting and consultation- committee meetings with government and community representatives.

Tailings storage for the life of mine is forecast to be impounded over the existing footprint area approved in the Environmental & Social Impact Study. Progressive raising of the tailings impoundments will occur to contain life-of-mine storage capacity. Routine progress on the monitoring is reported to government and at stakeholder meetings in concert with routine inspections by the Government.

All activities to be embarked on by MGBL have been classified into three main phases namely:

- Development or constructional phase;
- Operational Phase; and
- Closure Phase.

The Bibiani Project is in a mature phase of its operating life. Its environmental management is permitted by an Environmental Authority and supported by an Environmental Management Plan (EMP).

MGBL will develop a provisional EMP which shall apply to activities during the first 18 months of construction and operation of the Underground Project. After 18 months following permit issuance,



		<p>in accordance with the Environmental Assessment Regulations (L.I. 1652), the Company would review and update the EMP and address activities to be conducted during the subsequent three years of operation.</p> <p>The EMP would be updated every three years thereafter throughout the life of the Project or in response to significant amendments or modifications to the Project.</p> <p>The proposed Underground Project would not result in additional new land disturbance beyond that addressed in the Noble EIS.</p> <p>On completion of the underground mining, reclamation activities would re-establish vegetation and stabilize disturbed areas near the portals as well as other areas as contained in the costed reclamation plan in the Noble EIS.</p> <p>MGBL would compile and submit an Annual Environmental Report (AER) which would both satisfy the legislative requirements and internal corporation standards.</p> <p>The AER would include information and discussion on the follow topics:</p> <ul style="list-style-type: none"> <li>• Environmental Policy objectives, strategies and targets (achievements and failures).</li> <li>• Environmental activities for the year under review.</li> <li>• Environmental problems encountered (accidents records and other major events) during the year and their management.</li> <li>• Monitoring results against national and international quality standards</li> </ul> <p>It is expected that any relevant approvals will be obtained for the underground mine.</p>
<p><i>Infrastructure</i></p>	<ul style="list-style-type: none"> <li>• <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></li> </ul>	<p>Noble Mining Ghana Limited (NMGL) commenced mining of satellite open pits to the north-east of the Main Pit in 2010. In 2012 work was commenced on expanding the processing plant to a capacity of 3 million tonnes per annum (Mtpa). Although significant construction work was carried out on the processing plant it remained incomplete and further work is required on parts of the processing circuit and the primary crushing circuit before it is fully operational.</p> <p>The Bibiani mineral concessions lie approximately 80km south west of the Ashanti capital, Kumasi. The principal and most practical access to the mine is from the east, along the Kumasi – Bibiani – Sefwi Bekwai highway. The Kumasi airport can be accessed from Accra by a 45 minute flight using various national airlines.</p>



		<p>Road access to the Bibiani mine gate from Kumasi is excellent. Bibiani receives electrical power from the national grid. There are two fresh water dams on the mine property. The mine is serviced by two well equipped coastal ports, Tema which lies just to the east of Accra and Takoradi which lies in the western half of the country.</p> <p>Supporting infrastructure for the historic open pits has included upgrading of the site, refurbishment of administration buildings, plant site buildings and accommodation for housing expatriate and senior national staff. This infrastructure will also be used by the underground operations, with additional allowance made in the study for underground specific infrastructure on surface, such as primary ventilation fan installations, additional work shops and offices and change rooms for underground workers.</p> <p>The project owns and maintains numerous generator sets to supplement grid power when necessary.</p>																								
<p>Costs</p>	<ul style="list-style-type: none"> <li>• <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></li> <li>• <i>The methodology used to estimate operating costs.</i></li> <li>• <i>Allowances made for the content of deleterious elements.</i></li> <li>• <i>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.</i></li> <li>• <i>The source of exchange rates used in the study.</i></li> </ul>	<p>Mining costs were estimated to <math>\pm 25\%</math> accuracy, typical of a Pre Feasibility Study cost model. The study assumes key capital items such as ventilation fans, power supply and offices and workshops will be purchased by MGBL and mobile equipment and mining plant will be purchased by the mining contractor and amortized over the operational lifespan of the items.</p> <p>Mine operating costs are calculated from first-principles using fixed and variable components and assume contractor mining. Allowances were made for regional efficiencies, supervision and training. Current processing and administration costs were applied. The average mining cost (including decline development, raises and contractor margin) is \$35/t. Owner's infrastructure capital costs are estimated to be \$161M.</p> <p>No deleterious elements are expected.</p> <table border="1" data-bbox="1048 1166 2033 1455"> <thead> <tr> <th>Description</th> <th>Total Spend</th> <th>Capital \$/t milled</th> <th>Capital \$/Oz</th> </tr> </thead> <tbody> <tr> <td>UG Mining Equip</td> <td>28.9</td> <td>5.39</td> <td>51.49</td> </tr> <tr> <td>UG Aux Equipment &amp; Infrastructure</td> <td>15.3</td> <td>2.86</td> <td>27.31</td> </tr> <tr> <td>Processing Plant Start Up</td> <td>25.2</td> <td>4.70</td> <td>44.89</td> </tr> <tr> <td>G &amp; A Start Up</td> <td>2.5</td> <td>0.47</td> <td>4.46</td> </tr> <tr> <td>UG Capital development</td> <td>81.3</td> <td>15.17</td> <td>132.94</td> </tr> </tbody> </table>	Description	Total Spend	Capital \$/t milled	Capital \$/Oz	UG Mining Equip	28.9	5.39	51.49	UG Aux Equipment & Infrastructure	15.3	2.86	27.31	Processing Plant Start Up	25.2	4.70	44.89	G & A Start Up	2.5	0.47	4.46	UG Capital development	81.3	15.17	132.94
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<p>Market assessment</p>	<ul style="list-style-type: none"> <li>• The demand, supply and stock situation for the particular commodity, consumption</li> </ul>	<p>There is a transparent quoted market for the sale of gold.</p>																																								



	<p>trends and factors likely to affect supply and demand into the future.</p> <ul style="list-style-type: none"> <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>	<p>The mine life of the project and processing forecasts are based on Life Of Mine Plans to a PFS standard.</p> <p>The Project will produce uniform “good delivery” dore bars of varying purity in the onsite gold smelting facility as the final stage of the ore processing. On marketing and further refining by a third party, by-product credits such as recovered silver from the dore bars will be paid to MGBL.</p> <p>No industrial minerals are considered here.</p>
Economic	<ul style="list-style-type: none"> <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>	<p>A variety of gold price points and discount rates were used to assess the robustness of the project, likely payback periods, the breakeven point and the projected internal rate of return.</p> <p>The feasibility into the restart of the Bibiani project generates positive pre-tax revenue (10% discount rate) and with a positive pre-tax IRR of 17%. The mine life is estimated to be for 5.5 years.</p> <p>In the estimate, a gold price of US\$1,150 per ounce was assumed.</p>
Social	<ul style="list-style-type: none"> <li>• The status of agreements with key stakeholders and matters leading to social license to operate.</li> </ul>	<p>The community of Bibiani contains over 15,000 people, and the communities surrounding the Bibiani mine have a population of approximately 7,500 and consist of ten communities.</p> <p>MGBL respects the history, culture and the values of its host communities. MGBL’s operations will adapt to take cognizance of historic sites with cultural, religious, and heritage significance. This step will reduce actual or potential harm to sites. Important heritage sites include Amponsah Shrine, Mensin Stream Shrine, Adzenkye cemetery and Old Admin cemetery.</p> <p>As part of its corporate social responsibility, MGBL has assisted the communities in diverse ways over the past years in the provision of portable water, sponsorship package for Gold Stars, provision of transport – community bus, health, education, community project, donation and assistance, employment, etc. When mining and processing operations recommence at Bibiani, MGBL would continue to work with the local communities with the focus based around the follow areas;</p> <ul style="list-style-type: none"> <li>• Education and training: with an emphasis on helping to make future generations job ready.</li> <li>• Health: assisting communities to educate and control the incidence of disease and illness.</li> </ul>



		<ul style="list-style-type: none"> <li>• Water: assisting communities to develop suitable sources of water for domestic use.</li> <li>• Business development and income diversification: helping local groups to develop sustainable business and develop business skills.</li> </ul> <p>Where ever practicable community assistance programs would be done in collaboration with local community groups and community leaders.</p> <p>Prior to re-establishment of the mining operations a Community Management Plan (CMP) will be drafted. The CMP will outline the operations strategy for working with the local communities, the processes to be followed, the levels of authority and importantly how communication and consultation with the local community groups will be maintained.</p> <p>Initially selected posts requiring specific skills or experience will most likely be filled by expatriates. In addition to performing their job function, expatriate personnel will be expected to transfer knowledge and expertise in order to develop the capabilities of their Ghanaian staff. In the longer term it is anticipated that Ghanaian nationals will fill most operating and management positions within the company.</p>
Other	<ul style="list-style-type: none"> <li>• <i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></li> <li>• <i>Any identified material naturally occurring risks.</i></li> <li>• <i>The status of material legal agreements and marketing arrangements.</i></li> <li>• <i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals.</i></li> </ul>	<p>High seasonal rain fall events present a risk for the underground operations. Further drilling and logging of drill holes are planned to confirm PFS assumptions for the underground project.</p> <p>The Project is owned by MGBL [RGD No. CS506392014 formerly CA-28,347 incorporated in Ghana], at present a wholly owned subsidiary of Resolute (Bibiani) Limited. Resolute (Bibiani) Limited is a 100% owned subsidiary of Resolute.</p> <p>When operations commence, at the direction of the Minerals Commission of Ghana in accordance with Section 43 (1) Act 703 Minerals and Mining Act, 2006, 10% of the shares in MGBL will be issued to the Republic of Ghana.</p> <p>While mining and environmental permits and approval were held by Noble they excluded underground mining and in some cases have expired or were cancelled when the operation was placed on care and maintenance or ownership changed.</p> <p>Prior to the project proceeding, environmental approval permits will be required from the Environmental Protection Agency (EPA) and Mining permit from Minerals Commission (MinCom).</p> <p>To achieve the Environmental Permit will require either an amendment to the existing Permit (best case) or apply and receive a new Permit. In the first case the Environmental Management Plan</p>



	<p><i>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.</i></p>	<p>(EMP) will need to be updated to include the underground operations and the reduced processing rate. Should a new Permit be required, an Environmental Impact Assessment (EIA) will be required. Experience in Ghana shows that obtaining these types of approvals can present a significant risk to the project schedule.</p> <p>Gaining the Mining Approval will require updating of the Project Management Plan and submission to MinCom for approval.</p>
<p><i>Classification</i></p>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> <li><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></li> </ul>	<p>Only Indicated Resources were converted to Probable Reserves.</p> <p>About 50% of the Ore Reserve metal is derived from Indicated Resource and classified as Probable Ore Reserve because important modifying factors are only at a PFS (<math>\pm 25\%</math>) level of confidence.</p> <p>The conversion of the Inferred Resources has the potential to significantly increase the mining inventory. The mining of this increased inventory would not require any additional capital development and would require limited sustaining capital investment.</p> <p>With the inclusion of the Inferred Resource the Stopesizor model gives a raw mining inventory of 9.2Mt at a grade of 4.5g/t. After deducting the areas not likely to be mined (mainly areas above the 6 Level and below the 15 Level) the inventory becomes 8.0Mt at 4.53g/t and after allowing for mining recovery and dilution (85% and 15% respectively) it becomes 7.8Mt at 3.94g/t.</p>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Ore Reserve estimates.</i></li> </ul>	<p>Snowden Mining Industry Consultants ("Snowden") completed the Bibiani Underground Scoping Study which was further updated to a Pre Feasibility level study by Resolute Mining and contractors.</p> <p>No other external audits of reserves were undertaken.</p>
<p><i>Discussion of relative accuracy/ confidence</i></p>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For</i></li> </ul>	<p>Treatment costs and recoveries are based on actual performance in the historic operations and provide a high level of confidence.</p>



*example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*

- *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*
- *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*
- *It is recognized 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.*

Resolute has extensive experience with similar underground operations at their Mt Wright operation in Australia. This experience was combined with industry average assumptions, where required, to provide a level of accuracy and confidence that falls well within in the  $\pm 25\%$  required for a Pre-Feasibility Study.

All the parameters assumed and adopted along with financial modelling and analysis have been subject to internal peer review.