



August 30, 2011

# High-grade results at satellite deposits to help underpin resource-reserve upgrade

*More strong evidence that two key deposits will form one super pit*

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Noble Mineral Resources (ASX: NMG) is pleased to advise that it has received a host of high-grade results from further drilling at Strauss-Walsh, a key satellite deposits at its Bibiani Gold Project in Ghana.

Based on results received to date for Strauss-Walsh, Aheman, Grasshopper and Big Mug, Noble has set a resource target of a minimum of three years production to be sourced from these satellite deposits.

The results from the Strauss and Walsh deposits and the area between them, which will provide the initial primary ore for the refurbished plant at Bibiani, support the belief that they will join to form one super pit.

They will also be used to help calculate a maiden reserve estimate for the satellite deposits, which are completely excluded from the current estimate. This figure will then form part of an upgraded inventory at Bibiani, where resources to the 13th level of 23 currently stand at 1.98 million ounces and include 790,000oz in reserves, in October.

Strauss sits northeast of Walsh with 400m between the existing pits. The total length from the north of Strauss to the south of Walsh is 1.35km.

The latest intersections to the south of Strauss include:

- **2m at 47.19gpt from 134m**
- **2m at 3.69gpt from 86m**
- **2m at 28.68gpt from 65m**
- **1m at 21.6gpt from 108m**

Drilling at Walsh returned hits including

- **3m at 18.07gpt from 114m**
- **3m at 4.15gpt from 82m**

Noble considers the results to be important because they are derived from drilling in four areas not previously considered prospective:

- away from the main lodes to the south of Walsh past the main lode,
- under the old Walsh pit to the north of the largest mineralised zone,
- well to the north-east of Walsh in the “gap” area and
- at the south end of the Strauss pit workings.

The deposits have so far been drilled to 180m from surface at Strauss and at Walsh, but only to 130m in the “gap”. They remain open at depth and to the south-west and while the mineralised zones narrow with depth, there appears to be a trend of increasing grade.

The drilling and modelling of the Strauss-Walsh deposits is nearing completion. Walsh drilling is complete and most assays have been returned. Many of the composite sample submissions have also been returned for the “gap”. Drilling at Strauss will be completed shortly.

In light of very encouraging results returned from the “gap”, a decision has been made to infill this area with sufficient drilling to provide full feasibility data densities. This will enable Noble to announce a resource that can be converted to reserve status with no further drilling. This update is expected in October this year.

### **Big Mug infill and Big Mug-Main Pit remodel**

The Big Mug pit is north of the Main Pit with the mineralisation essentially an extension of the mineralisation in the north end of the Main Pit.

The mineralisation at Big Mug appears to be economic and Noble has commenced drilling to reduce the space between intercepts in the area. This is to determine the accuracy of the current interpretation and enable the calculation of an updated resource estimate. This resource represents a critical part of the start-up mine plan, especially in years two to three.

The structural report from Tect Consulting/Tetra Tech has provided Noble with substantiation for a re-interpretation of the model search parameters used at this end of the Main Pit, which combined with results from the new drilling will enable the re-optimisation of the current design.

In addition, the current elevated gold price has allowed a significant change in the cut-off for the grade control which has prompted Noble to commence the process of sampling the overlying dump material to ascertain if low-grade mill feed can be recovered.



## **Elizabeth**

Elizabeth lies to the north and east of the Main Pit between Big Mug and Walsh. It has always been a priority target but as a direct consequence of the structural geology investigations it has leapfrogged several other areas of interest in priority with a comprehensive drilling programme of 22 RC holes now underway.

The first holes were drilled at a site of illegal mining activity which occurred in the first quarter of this year and where a 68g/t Au hand specimen from a quartz reef vein was recovered. This vein is directly along strike from the soil anomaly in the most mineralised orientation in the Main Pit, but interestingly falls outside the soil anomaly to the north-east.

The main target at Elizabeth is where the main Pit fault exits the pit and crosses two of the oblique structures that are so important in the mineralisation system at Bibiani. These interferences between the oblique NE-SW main shear orientation and the ENE-WSW cross structures are the areas of dilation in the deep-crustal Bibiani shear system that have enabled the deposition of large amounts of gold in the main pit. This area is also where the soil anomaly has been delineated.

## **South Hill**

South Hill lies to the south of the highway at the south end of the Main Pit area and was mined as a small oxide pit in the early years of last decade. It is only partially backfilled and there is significant mineralisation showing in the model as remaining beneath and to the south of the old pit. Data close to surface stops not far south of the pit however, due to the presence of company housing.

South Hill is a priority target for the start-up mine plan with the lack of infill drill data is being rectified with the advantages of modern innovations in noise suppression which allows drilling in the vicinity of housing. Noble is now confident that the mineralisation will continue to the south along structure towards the previously mined Russel pit well to the south.

Pads have been prepared with drilling due to start shortly. Close to the Main Pit there also appears to be a laterite cap several metres thick developed over the orebody, another potential source of early mill feed.

## **Stope13 West Lode Delineation**

The Stope 13 West Lode drilling target was also generated by the structural geology report commissioned and conducted in June. Drilling here will resume with at least eight diamond drill holes to be drilled from a purpose-built ramp constructed on the west wall of the pit once the rig has completed geo-technical drilling for the new surface pits being planned. Underground drilling on this target, whilst slow, has intersected structures that appear mineralised and this is a very encouraging sign for the target.

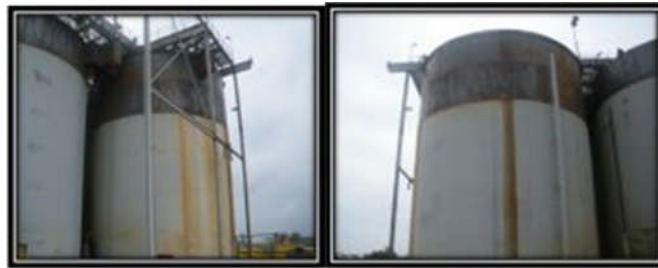


### **New Laboratory**

The site for the new Performance Laboratories Ltd laboratory has been cleared and laid out, the water supply line completed and the gas line prepared. Infrastructure items such as the LPG storage tanks have been ordered. The first of the equipment is to arrive this month and construction of the layout of the lab will start. Selection of key operations management is well advanced.

### **Process Plant**

The refurbishment of the Process Plant continues apace with the CIL tank refurbishment 75% complete.



The new Gyratory Crusher foundations have now been poured with double shift acceleration in place for main walls with the civil contractor.





The new design mill relining system is due for installation September with the new crusher motors delivered to site. First fill reagents and consumables are being delivered in preparation for commissioning. The installation of a new state of the art security system has also commenced. The Tailings Storage Facility Stage 1 & 2 wall raise designs are now complete with the construction tender ready pending final EPA Permit approval.

### **Mining**

The Company's mining team have commenced training of staff in preparation for commencement of operations utilising recently purchased mobile equipment.



### **Community Relations**

In conjunction with the Environmental Protection Agency, the much awaited Public Hearing for the grant of the final EPA approval to recommence mining operations was successfully completed. The event was witnessed by a high turnout of about 1,000 people comprising District Chief Executive of Bibiani-Anhwiaso-Bekwai District Assembly, The District Co-ordinating Director, National Co-ordinator of the School Feeding Programme, chiefs, staff, members from the town and the catchment areas around and other Government officials were all present.



**Authorised by:**

**Wayne Norris**  
*Managing Director*



#### **Competent Person's Statement**

The information in this announcement that relates to Mineral Resource and Ore Reserve estimates is based on information compiled by Mr Phillip Schiemer (BSc (Hons), Geology and Geophysics), who is a Corporate Member of the Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Geoscientists. Mr Schiemer is employed by Noble Mineral Resources Ltd, and has sufficient experience which is relevant to the style of mineralisation being reported herein as Mineral Resources, Ore Reserves and Exploration Results to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Schiemer consents to the inclusion in this announcement of the matters based on his information in the form and content in which it appears.

#### ***About Noble Mineral Resources Limited***

**Noble Mineral Resources Limited** listed on the Australian Stock Exchange on 26<sup>th</sup> June 2008 with a focus on exploring for large-scale gold deposits in the world-class Ashanti Gold Belt in Ghana, West Africa.

In November 2009, the Company entered into an agreement for the acquisition of the **Bibiani Gold Mine**, a project located in the Sefwi-Bibiani Gold Belt in Ghana, host to over 30 Million Ounces of gold. On July 20<sup>th</sup> 2010 the final Share Transfer Form was executed to consummate the purchase.

Noble's other primary gold concessions are Exploration Licences at **Cape Three Points, Brotet** and **Tumentu**, which cover some 141.3km<sup>2</sup> and all are located within the world-class Ashanti Gold Belt in south western Ghana. Ghana is the second largest gold producer in Africa and is the 10<sup>th</sup> largest gold producing nation in the world, with annual production of approximately 2.9 Million Ounces. Noble's ongoing focus will be to expand the drilling program at Bibiani to target new shallow resources near the Bibiani Mine and adjacent tenements while still progressing the **Cape Three Points, Brotet and Tumentu** Concessions within the Southern extension of the Ashanti Gold Belt. Initial exploration at Cape Three Points will be targeted towards the **Satin Mine Project** and the **Morrison Project**, both of which lie in an area of historic underground gold exploration. Noble believes that there is significant potential for the delineation of additional high-grade gold mineralisation relating to the down-plunge and strike extension to these zones. When added to the potential now available at Bibiani it will place Noble in a strong position to achieve its goal in building Australia's next major gold mining house.

The Company recognises the **Bibiani, Cape Three Points, Brotet** and **Tumentu** Concessions are relatively under explored, highly prospective projects and aims to rapidly redefine JORC-compliant resources for development.

**ASX Code: NMG**

[www.nobleminres.com.au](http://www.nobleminres.com.au)

Appendix 1 – Proved and Probable Ore Reserves as at June 2011

Bibiani Open Pit Detailed Design Cutback Proved and Probable Ore Reserves – June 2011												
	Oxide			Fresh			Fill			Total		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
	Mt	G/t	Mozs	Mt	G/t	Mozs	Mt	G/t	Mozs	Mt	G/t	Mozs
Proved	-	-	-	5.02	2.17	0.349	-	-	-	5.02	2.16	0.349
Probable	0.36	1.34	0.016	6.28	2.02	0.407	0.34	1.73	0.019	6.98	1.97	0.441
<b>Total</b>	<b>0.36</b>	<b>1.34</b>	<b>0.016</b>	<b>11.30</b>	<b>2.08</b>	<b>0.756</b>	<b>0.34</b>	<b>1.73</b>	<b>0.019</b>	<b>12.00</b>	<b>2.05</b>	<b>0.790</b>
<i>Derived from Measured and Indicated Mineral Resources using a cut-off grade of 0.6g/t</i>												

Appendix 2 – March 2010 JORC Mineral Resource Estimate

	<b>TONNAGE</b>	<b>GRADE</b>	<b>METAL</b>	<b>CONT'D GOLD</b>
	Tonnes (million)	(Au g/t)	(tonnes Au)	Ounces (million)
Measured	6.56	2.05	13.44	0.43
Indicated	13.37	1.77	23.66	0.76
Inferred	13.06	1.89	24.61	0.79
<b>Total</b>	<b>32.98</b>	<b>1.87</b>	<b>61.70</b>	<b>1.98</b>



ASX ANNOUNCEMENTS CONT'D...

These are from the Strauss(ST)and Walsh(WA) areas.

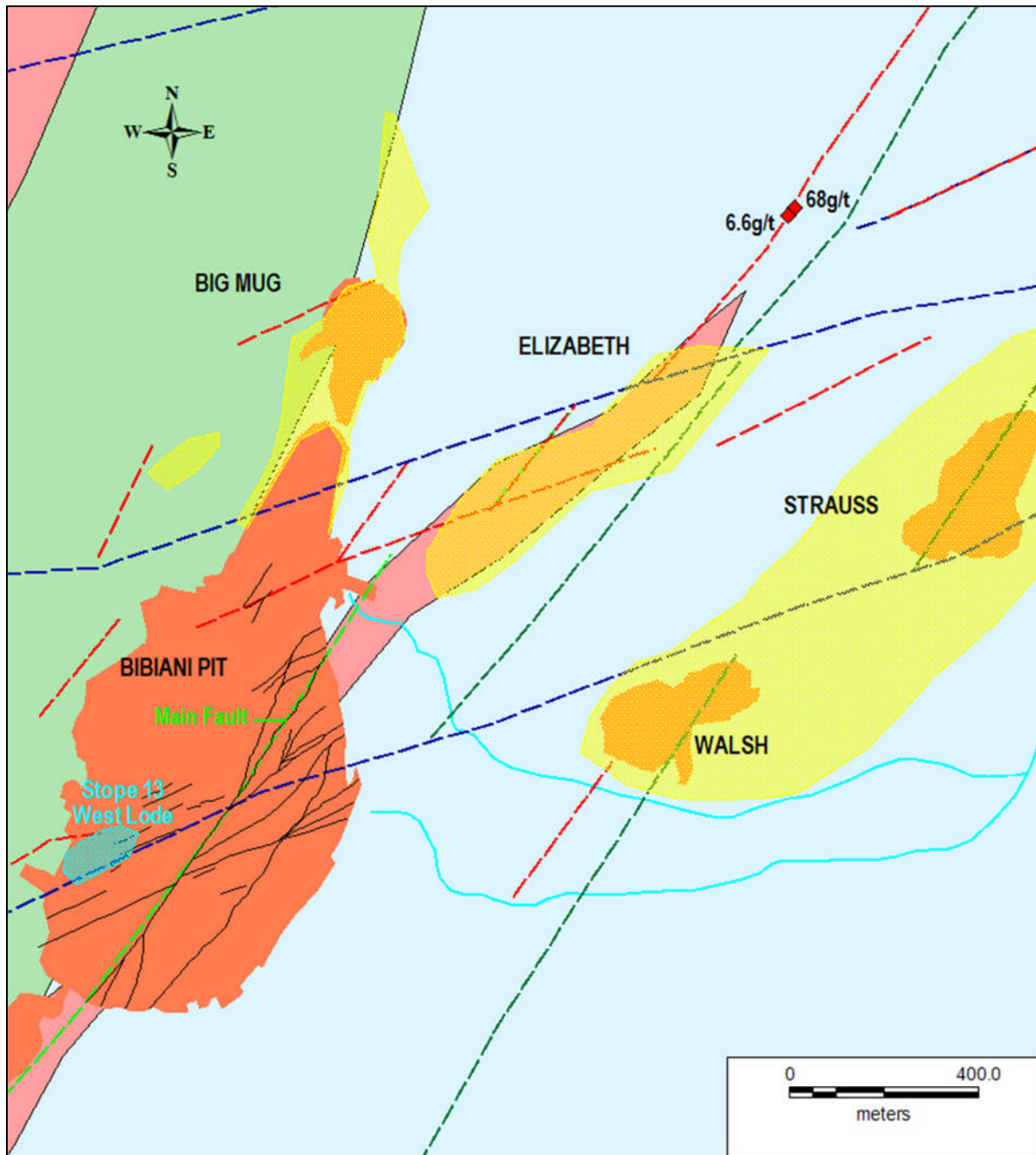
The MP10\_002 results are from underground diamond drilling into the main lode from the 9 level, at -45° into an area where the lode is essentially vertical. This was to test the consistency of the lode system and proved successful. The hole is below the current model and is unlikely to add to an open pit reserve, but demonstrates that the 1.98 Million Ounces in the current model does not represent the complete endowment of gold at Bibiani.

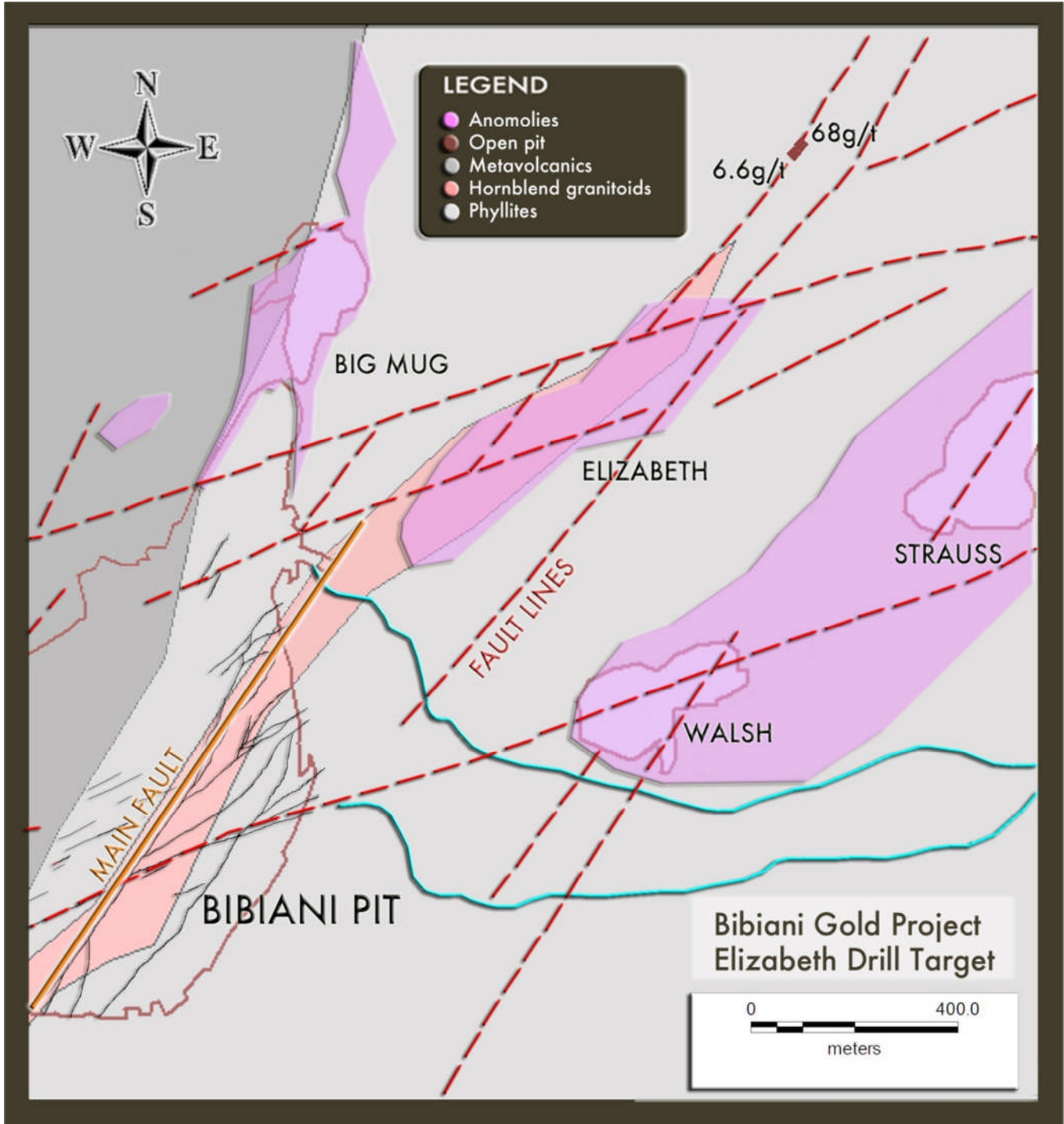
Interval	Au g/t	Hole	From	Area	Comments		
2m	<b>47.19</b>	ST11_025	134m	gap	These holes are drilled into the area between the pits well to the south of Strauss Pit one behind the other on the hill slope.		
2m	3.69	ST11_023	86m				
2m	1.09	ST11_025	81m				
1m	2.13	ST11_025	138m				
2m	<b>28.68</b>	ST11_065	65m	South Strauss	These holes are drilled at the south end of Strauss Pit and from the pit floor.		
1m	<b>21.60</b>	ST11_060	108m				
2m	<b>6.63</b>	ST11_065	99m				
2m	1.58	ST11_065	78m				
1m	1.28	ST11_054	15m				
1m	1.27	ST11_065	90m				
1m	1.01	ST11_054	8m				
1m	1.00	ST11_065	0m				
3m	<b>5.57</b>	WA11_056	126m			South Walsh	These holes are drilled at the south end of the deposit beyond the main zone of mineralisation.
1m	<b>14.91</b>	WA11_062	133m				
2m	<b>6.29</b>	WA11_007	79m				
4m	2.59	WA11_056	183m				
1m	6.94	WA11_061	28m				
4m	1.46	WA11_007	153m				
3m	1.52	WA11_061	113m				
1m	1.85	WA11_063	53m				
1m	1.09	WA11_062	92m				
3m	<b>18.07</b>	WA11_109	114m	incl. 1m@51.88g/t	These holes are drilled under Walsh pit from the previous mining contractor's yard. They infill areas lacking in definition and extend the high grade zone northeast		
3m	<b>4.15</b>	WA11_113	82m				
7m	1.71	WA11_112	76m				
2m	1.79	WA11_111	130m				
2m	1.27	WA11_113	76m				
1m	1.18	WA11_111	11m				
1m	1.12	WA11_111	135m				
<b>32.9m</b>	<b>2.05</b>	<b>MP10_002</b>	<b>49.6m</b>		MP10_002 is an underground hole drilled into the Main Pit lode from west to east from the 9 level, where the lode is essentially vertical. True width of the intersections is approximately 0.7x downhole width.		
<b>9.4m</b>	<b>3.48</b>	<b>MP10_002</b>	<b>52.6m</b>	(including)			
<b>15.1m</b>	<b>1.04</b>	<b>MP10_002</b>	<b>18.9m</b>				
<b>0.6m</b>	<b>7.77</b>	<b>MP10_002</b>	<b>22.9m</b>	(including)			

All assays are bottle roll cyanide leach on a 1kg charge and do not include any fire assays of non-Cn soluble residue. Analysis has been undertaken by Intertek Laboratories Ltd at their Tarkwa laboratory.

Bibiani Main Pit and surrounding prospects over geology. Note aeromagnetic interpretation and structural mapping of the Main Pit area itself, and grab samples northeast of Elizabeth.







Bibiani Main Pit and surrounding prospects. Note aeromagnetic interpretation and structural mapping of the Main Pit area itself and grab samples northeast of Elizabeth.