

Technical Report Mineral Resource and Reserve Update for the Agbaou Gold Mine Côte d'Ivoire West Africa

Latitude 06°08'N, Longitude 05°11'W

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TABLE OF CONTENTS

Page

1.0	
1.0 1.1	SUMMARY
1.1 1.2	UWNERSHIP
1.3	GEOLOGY
1.4	Exploration
1.5	DATA
1.6	MINERAL RESOURCES
1.7	MINERAL RESERVES
1.8	MINING
1.9	METALLURGY AND PROCESS PLANT
1.10	INFRASTRUCTURE
1.11	Market Studies and Contracts
1.12	ENVIRONMENTAL AND SOCIAL
1.13	CAPITAL AND OPERATING COSTS
1.14	Conclusions7
1.15	RECOMMENDATIONS7
2.0	INTRODUCTION AND TERMS OF REFERENCE
3.0	RELIANCE ON OTHER EXPERTS9
4.0	PROPERTY DESCRIPTION AND LOCATION
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND
5.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY
5.0	PHYSIOGRAPHY
5.0 6.0	
	PHYSIOGRAPHY
	PHYSIOGRAPHY
6.0	PHYSIOGRAPHY
6.0 7.0	PHYSIOGRAPHY
6.0 7.0 7.1	PHYSIOGRAPHY
6.0 7.0 7.1 7.2	PHYSIOGRAPHY 13 HISTORY 16 GEOLOGICAL SETTING AND MINERALIZATION 19 REGIONAL GEOLOGY 19 LOCAL GEOLOGY 21
6.0 7.0 7.1 7.2 7.3	PHYSIOGRAPHY 13 HISTORY 16 GEOLOGICAL SETTING AND MINERALIZATION 19 REGIONAL GEOLOGY 19 LOCAL GEOLOGY 21 PROPERTY GEOLOGY 22
6.0 7.0 7.1 7.2 7.3	PHYSIOGRAPHY 13 HISTORY 16 GEOLOGICAL SETTING AND MINERALIZATION 19 REGIONAL GEOLOGY 19 LOCAL GEOLOGY 21 PROPERTY GEOLOGY 22
6.0 7.0 7.1 7.2 7.3 7.4	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23
 6.0 7.0 7.1 7.2 7.3 7.4 8.0 	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25
 6.0 7.0 7.1 7.2 7.3 7.4 8.0 	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25EXPLORATION25DRILLING29
 6.0 7.0 7.1 7.2 7.3 7.4 8.0 9.0 	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25EXPLORATION25
6.0 7.0 7.1 7.2 7.3 7.4 8.0 9.0 10.0	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25EXPLORATION25DRILLING29
6.0 7.0 7.1 7.2 7.3 7.4 8.0 9.0 10.0 10.1	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25EXPLORATION25DRILLING29COLLAR SURVEYS30
6.0 7.0 7.1 7.2 7.3 7.4 8.0 9.0 10.0 10.1 10.2	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25EXPLORATION25DRILLING29COLLAR SURVEYS30DOWNHOLE SURVEYS30
6.0 7.0 7.1 7.2 7.3 7.4 8.0 9.0 10.0 10.1 10.2 10.3	PHYSIOGRAPHY13HISTORY16GEOLOGICAL SETTING AND MINERALIZATION19REGIONAL GEOLOGY19LOCAL GEOLOGY21PROPERTY GEOLOGY22MINERALIZATION23DEPOSIT TYPES25EXPLORATION25DRILLING29COLLAR SURVEYS30LOGGING31



10.7	Dri	ILLING ORIENTATION	32
10.8	Age	BAOU DEPOSITS	
10).8.1	Agbaou North	
10).8.2	Agbaou South	
10).8.3	Agbaou West	
10).8.4	Agbaou Satellites	
11.0	SAMP	PLE PREPARATION, ANALYSES AND SECURITY	39
11.1	San	MPLING METHODS	
11	L.1.1	Trench and Pit Sampling	
11	l.1.2	Reverse Circulation Drill Sampling	
11	L.1.3	Diamond Drill Sampling	
11.2	SAN	MPLE RECOVERY	39
11.3	SAN	MPLE QUALITY	39
11.4	San	MPLE PREPARATION AND ANALYSES	
11.5	QU/	ALITY CONTROL AND ASSURANCE	
11	l.5.1	Endeavour Field Duplicates	
11	L.5.2	Endeavour Standards	
11	L.5.3	Endeavour Blanks	
12.0	DATA	VERIFICATION	44
13.0		RAL PROCESSING AND METALLURGICAL TESTING	
13.1		LK DENSITY	
13.2		TALLURGICAL TESTING	
	3.2.1	Metallurgical Sampling	
	3.2.2	Head Analysis	
	3.2.3	Gravity Recoverable Gold	
	3.2.4	High Shear Reactors Testwork	
	3.2.5	Oxygenation Testwork	
	3.2.6	Composite Leach Kinetic Results by Percentage Solids	
	3.2.7	Preg-Robbing Testwork	
	3.2.8	Variability Preg-Robbing Testwork	
13	3.2.9	Thickening and Rheology Testwork	51
14.0		RAL RESOURCE ESTIMATES	
14.1		ΤΑ	
14.2	-	POGRAPHY AND WEATHERING SURFACES	
14.3		DLOGICAL MODELLING	
14.4			
14.5		ITISTICAL ANALYSIS	
14.6		ADE CAPPING	
14.7		RIOGRAPHY	
14.8		ADE INTERPOLATION	
14.9	-	ADE INTERPOLATION VALIDATION	
14.10		NERAL RESOURCE CONSTRAINTS	
14.11	l Mir	NERAL RESOURCE CLASSIFICATION	



14.12	MINERAL RESOURCE STATEMENT	60
15.0 N	IINERAL RESERVE ESTIMATES	62
15.1	RESOURCE MODEL OPTIMIZATION	
15.2	PIT OPTIMIZATION AND DESIGN	
15.2		
15.2	6	
15.3	Mineral Reserve Statement	
16.0 N	1INING METHODS	
16.1	GEOTECHNICAL PARAMETERS	
16.2	Hydrology Parameters	-
16.3	MINING OPERATIONS	
16.3		
16.3	.2 Agbaou Mine Production Schedule	75
17.0 R	ECOVERY METHODS	78
17.1	Crushing and Ore Stockpiling	
17.2	MILLING AND CLASSIFICATION	79
17.3	GRAVITY CONCENTRATION	
17.4	CARBON IN LEACH	
17.5	TAILINGS	81
17.6	ACID WASH AND ELUTION	81
17.7	CARBON REGENERATION	82
17.8	ELECTROWINNING AND GOLD RECOVERY	82
17.9	Consumables	82
17.10	Oxygen and Air Supply	83
17.11	Process Water	83
17.12	RAW WATER SUPPLY	84
17.13	POTABLE WATER SUPPLY	84
		05
18.1		
18.2	PROCESS PLANT	
18.3		
18.4	TAILINGS STORAGE FACILITY	
18.5	Power	
18.6		
18.7	SUB-CONTRACTORS FACILITIES	
18.9		
18.10		
18.11	SECURITY	
18.12		
18.13	Personnel	8/
19.0 N	IARKET STUDIES AND CONTRACTS	88
19.1	Markets	88



19.2	CONTRACTS	88
20.0	ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY	
	IMPACT	89
21.0	CAPITAL AND OPERATING COSTS	90
21.1	CAPITAL EXPENDITURES	
22.0	ECONOMIC ANALYSIS	90
23.0	ADJACENT PROPERTIES	91
24.0	OTHER RELEVANT DATA AND INFORMATION	92
25.0	INTERPRETATION AND CONCLUSIONS	93
25.0 25.1	Risk Assessment	
25.1	Risk Assessment	93 93
25.1 25.2	RISK ASSESSMENT CONCLUSIONS	
25.1 25.2 26.0	RISK ASSESSMENT CONCLUSIONS	
25.1 25.2 26.0 26.1	RISK ASSESSMENT CONCLUSIONS	
25.1 25.2 26.0 26.1 26.2	RISK ASSESSMENT CONCLUSIONS RECOMMENDATIONS OPERATIONS METALLURGICAL TESTWORK	



LIST OF TABLES

		Page
Table 1-1	Agbaou Mineral Resources 0.5 g/t Cut-Off as of December 31, 2014	4
Table 1-2	2014 Reserve Key Modifying Parameters	4
Table 1-3	Agbaou Mineral Reserves as of December 31, 2014	5
Table 2-1	List of Authors, Professional Designations and Report Sections	8
Table 2-2	List of Abbreviations	9
Table 4-1	Geographic Coordinates of the Agbaou Exploitation Permit	
Table 6-1	Historic Resource Estimation – Agbaou Deposits (Goldivoire, 1999)	
Table 6-2	Historic Resource Estimation – Agbaou Deposits (DRD, 2000)	
Table 6-3	Historic Resource Estimation – Agbaou Deposits (Coffey, 2008)	17
Table 6-4	Historic Resource Estimation – Agbaou Deposits (SRK, 2012)	
Table 6-5	Agbaou – Historic Gold Production	
Table 7-1	Agbaou Mineral Deposit Known Dimensions and Orientations	24
Table 9-1	Summary of Contractors and Consultants	25
Table 10-1	Summary of Drilling at Agbaou	
Table 10-2	Summary of Drilling Recoveries at Agbaou	
Table 10-3	Agbaou Mineralization and Drilling Orientation by Zone	
Table 11-1	Summary of Assay Laboratories by Campaign	40
Table 11-2	Summary Statistics for Field Duplicate Agbaou Samples (After SRK)	
Table 11-3	Summary Statistics for Agbaou CRM's (After SRK)	
Table 11-4	Summary Statistics for Agbaou Blanks (After SRK)	
Table 13-1	Bulk Density Determination Sampling by Weathering Profile	45
Table 13-2	Head Assays	
Table 13-3	Gravity Gold Recovery	
Table 13-4	Effect of Sparging Air / Oxygen on Gold Extraction	
Table 13-5	Effect of Preg-Robbing	
Table 13-6	Variability Preg-Robbing Results Summary	50
Table 13-7	Thickening and Rheology Results	51
Table 13-8	Variability Leach Results on Middles and Tails	
Table 13-9	Optimum Leach Parameters	
Table 14-1	Agbaou Drilling Compilation by Method and Deposit	53
Table 14-2	Modelled Grade Shells by Deposit	



Table 14-3	High Grade Cuts and Summary Statistics	56
Table 14-4	Variogram Model Parameters	
Table 14-5	Parent Block Size	
Table 14-6	Interpolation Parameters	
Table 14-7	Agbaou Resource 0.5 g/t Cut-Off by Weathering	60
Table 14-8	Agbaou Resource 0.5 g/t Cut-Off	61
Table 15-1	Pit Optimization Parameters	63
Table 15-2	Whittle Pit-by-Pit Optimization Results	65
Table 15-3	Waste Dump Design Parameters	
Table 15-4	Estimated Reserves at Agbaou by Weathering	
Table 15-5	Estimated Reserves at Agbaou as of December 31 st , 2014	70
Table 16-1	Geotechnical Parameters, North and South Pits	72
Table 16-2	BCM Mining Fleet	75
Table 16-3	Agbaou Summary LOM2015 Production Schedule	76
Table 21-2	2014 Cash Operating Costs	
Table 26-1	Agbaou Exploration Program 2015	

LIST OF FIGURES

Page

Figure 4-1	Location Map, Agbaou, Côte d'Ivoire, West Africa10
Figure 4-2	Agbaou Exploitation Permit11
Figure 4-3	Agbaou Exploitation Permit, Open Pits, Mine Infrastructure, Mineral Resource and Reserve Areas11
Figure 5-1	Road Access
Figure 5-2	Agbaou Site Infrastructure
Figure 7-1	West African Geology19
Figure 7-2	Ivorian Geology
Figure 7-3	Agbaou Permit Geology and Structures
Figure 7-4	Drill Core Sample of Mottled Quartz Vein in Fresh Rock
Figure 7-5	Mineral Deposit Distribution within the Agbaou Mine Permit
Figure 9-1	Agbaou Soil Geochemistry Coverage, Gold in Soils
Figure 9-2	Agbaou Geophysical Coverage, Magnetics – Vertical Gradient
Figure 9-3	Agbaou Ground Geophysical Coverage, IP – Resistivity



Figure 10-1	Agbaou RC and Diamond Drill Hole Collars	29
Figure 10-2	Agbaou North Drill Plan	
Figure 10-3	Agbaou North Type Section	
Figure 10-4	Agbaou South Drill Plan	
Figure 10-5	Agbaou South Type Section	
Figure 10-6	Agbaou West Drill Plan	35
Figure 10-7	Agbaou West Type Section	35
Figure 10-8	Agbaou North Satellite (P1) Drill Plan	
Figure 10-9	Agbaou P4 Satellite Drill Plan	
Figure 10-10	Agbaou P5 Satellite Drill Plan	
Figure 10-11	Agbaou P6 Satellite Drill Plan	
Figure 10-12	Agbaou P2 Satellite Drill Plan	
Figure 11-1	Agbaou QAQC – Standard Tracking	41
Figure 11-2	Agbaou QAQC – Blank Tracking	
Figure 11-3	Agbaou QAQC – Duplicate Tracking	
Figure 12-1	Comparison of Original Agbaou Assays and Umpire Assays	45
Figure 13-1	Metallurgical Testwork Flowsheet	47
Figure 14-1	North, South Pit and Satellite Zones Wireframe Models	54
Figure 14-2	Resource Pit Shell and Wireframe Models	54
Figure 15-1	Whittle Pit-by-Pit Optimization Results	64
Figure 15-2	Pit Shell #21 with Measured and Indicated Ore	66
Figure 15-3	LOM Design, Whittle Shell Pits	67
Figure 15-4	Mine Layout and Waste Dump Locations	68
Figure 16-1	Isometric 3D Model View of North and South Pits, Facing Northeast	74
Figure 16-2	Ore and Waste Tonnes and Strip Ratio	76
Figure 16-3	Ore Tonnes Mined and Gold Grade	76
Figure 16-4	Ore Tonnes Mined and Gold Mined/Recovered	77
Figure 17-1	Agbaou Mill Flowsheet	78
Figure 23-1	Agbaou Exploration Permit Soil Geochemistry Coverage, Gold in Soils	91
Figure 23-2	Bonikro Mine Location Map	92
Figure 26-1	2015 Exploration Drill Program	95



1.0 SUMMARY

The purpose of the following report is to update the mineral resources and mineral reserves currently identified on Endeavour Mining Corporation's ("Endeavour") Agbaou Gold Mine ("Agbaou"). The report was prepared for Endeavour by Mr. Adriaan Roux, (Pr.Sci.Nat.), SACNASP, Chief Operating Officer for Endeavour, Mr. K. Kirk Woodman, P.Geo, General Manager of Exploration for Endeavour, Mr. Kevin Harris, CPG, Group Resources Manager for Endeavour and Mr. Michael Alyoshin, CP (Min) MAusIMM, Chief Mining Engineer, Strategic Projects for Endeavour. The authors are qualified persons ("QP") by virtue of their experience, education and professional standing relative to the portions of the reports for which they are responsible.

Agbaou is located in southern Côte d'Ivoire approximately 200 kilometres north of Abidjan, the economic capital of the country. The permit, which comprises the mine area, is centred on 06° 08' north latitude and 05° 11' west longitude and is reached by tarred and secondary gravel roads. The mine is within 10km of the national electrical power grid. Endeavour operates the producing Agbaou gold mine and mill which was commissioned in the fourth quarter of 2013.

1.1 OWNERSHIP

The Agbaou exploitation permit, which covers an area of 334km², was granted to Etruscan Resources Cote d'Ivoire SARL ("ERCI") by Decree no. 2012-766 on August 1, 2012. A transfer was then granted to the newly formed Agbaou Gold Operations SA ("AGO"), which is held 85% by Endeavour Resources Inc. (Cayman) and 15% by the Ivorian Government (10% directly and 5% through Société pour le Dévelopment Minier de la Côte d'Ivoire ("SODEMI"), the national mining agency).

1.2 HISTORY

Alluvial gold has been known for some time in the Agbaou area. Gold mineralization in bedrock was first reported during the late 1980's followed by extensive exploration conducted between 1988 and 1994, while the ground was held by a joint-venture between BHP Minerals and SODEMI. Between 1996 and 2000 the property was held by Goldivoire S.A.R.L. which undertook exploration that confirmed and further defined BHP's previous results. The government of Côte d'Ivoire withdrew the Agbaou permit on November 27, 2003, after Goldivoire failed to meet required expenditures. The Ministry of Mines and Energy for Côte d'Ivoire subsequently granted the Agbaou exploration permit to ERCI.

After obtaining the project in 2003, ERCI drilled an additional 179 drillholes and conducted various studies. The combination of this information with the historic information formed the basis for a Feasibility Study in 2009. Following this, ERCI continued with an infill and exploration drilling programme from 2010 to 2011 by drilling an additional 85 holes (7,063m), which required the re-estimation of the mineral resources.

Subsequent to the formation of AGO, during 2013 and 2014, two drill campaigns have been completed which included drilling an additional 310 holes (28,331m) and further defined additional mineral resources at Agbaou.

1.3 GEOLOGY

The Agbaou area is underlain by rocks of the Archean-Proterozoic Man Shield which forms the southern half of the larger West African Craton. The shear-zone hosted gold mineralization of the Agbaou deposit occurs within a sheared volcano-sedimentary succession that was subjected to



lower green-schist facies metamorphism, forming the Birimian age Oumé-Fetekro Greenstone Belt, surrounded by granodioritic intrusions.

Gold occurs in a mesothermal auriferous sulphide (pyrite + pyrrhotite) assemblage associated with quartz veins. The quartz veins are characterized by a wide range of quartz-vein types, brecciation, boudinage, sericitic and carbonate alteration, however, the mineralized quartz veins have a very distinctive texture that has been described as "mottled". These veins are easily identifiable in the drill intersections and pit mapping.

1.4 EXPLORATION

ERCI's evaluation of the Agbaou area began in 2003 following the acquisition of the Agbaou permit. Exploration has been carried out under the supervision of technically qualified personnel applying standard industry approaches. Geochemical data quality has routinely been assessed as part of ongoing exploration procedures. All data acquired meets or exceeds industry standards and all exploration work has been carried out by, or supervised by technical personnel of the operator. Consultants and contractors have been engaged by ERCI for various activities including; sample collection, drilling and assaying.

ERCI conducted detailed and regional soil geochemical surveys which identified the gold mineralization at areas known as Agbaou, Agbaou South, Zehiri and Niafouta. A total of 876 pits and 4 trenches were dug to explore the laterite resource but these results were not used in the resource estimation. A total of 1,208 holes (diamond and reverse circulation) were drilled at Agbaou, by ERCI and previous operators totalling 110,198m.

Geochemical data, used in conjunction with the available geophysical surveys and geological mapping, has been effective in the delineation of significant gold mineralization targets within the mine areas. This methodology continues to provide drill targets.

1.5 DATA

Only limited sample preparation was done on site and this pertains mainly to the cutting of core samples and the splitting of percussion drilling chips with riffle-splitters. All crushing and sample pulverization was completed by independent commercial laboratories following standard industry practice. The samples of the most recent campaigns were submitted to the Bureau Veritas Mineral Laboratory Côte d'Ivoire, in Abidjan for gold analyses using the fire-assay method with an atomic-absorption finish. An auditable chain of custody was established for the sample handling, data reporting and database capture.

The reliability of the gold assay results was based on a well designed and implemented quality assurance and quality control protocol that includes the analysis of blind blanks, duplicates and certified reference materials. In addition, selected samples were submitted to umpire laboratories. The apparent coarse nature of the gold results in a relatively high variability in the field duplicate set. The laboratory returned very good results for the certified reference materials and blanks.

The variation in results of the duplicate pulp samples submitted to the SGS laboratory in Ghana and to the accredited SGS Laboratory in Canada indicates poor but acceptable replication at the umpire laboratories, mainly the result of the coarse nature of the gold.

The authors believe the current quality systems in place at Agbaou to monitor the precision and accuracy of the sampling and assaying is adequate and that the laboratory returned acceptable results for use in resource estimation.



1.6 MINERAL RESOURCES

Agbaou is an operating gold mine. The mineral resource models supporting the current mineral reserves estimates for Agbaou were updated in 2014 by Endeavour personnel. Since 2012 eight new resource areas, North Satellite, MPN, WP, P2-7, P4-5-6, Beta, Gama and SW were the focus of drill programs and internal resource estimates.

Gold grade interpolation has been completed using a combination of Ordinary Kriging ("OK") and Inverse Distance ("ID") methods for the satellite areas. The North and South Pit deposits were estimated by Multiple Indicator Kriging ("MIK") by SRK in 2013 and the only change for this update was for mining depletion.

Endeavour prepared the mineral resource estimate by conventional block modeling techniques, using 92,431 metres of assayed intervals from 1,019 drill holes that were within the modeled area. Grade shells were defined using a threshold assay of 0.50g/t Au as the lower limit for inclusion within the grade shell. Individual blocks within the block model were sized to approximate the size of the selective mining unit.

Samples were composited to standard two-metre lengths, starting from the top of the mineralized zone wireframe for each hole. Statistical analysis was employed to define high-grade outlier gold assays, and all composites inside the grade shells were capped at between 8 and 40g/t Au. The capping procedure reduced the average grade of the composites by 7%.

Grades were interpolated into individual blocks using OK, MIK or ID³. The dimensions of the search ellipsoids were based on geostatistical analysis, and grades were interpolated in three passes, with increased search radii for each successive pass.

Endeavour validated the estimation quality of the Agbaou model by using summary statistics, checking for global estimation bias, drift analysis and by visual inspection of composites and estimated grades on vertical and horizontal sections.

In order to determine the quantities of material offering "reasonable prospects for economic extraction" by an open pit, Endeavour used a USD1,600/oz Au optimized pit and reasonable mining assumptions to evaluate the proportions of the block model (Measured, Indicated and Inferred blocks) that could be "reasonably expected" to be mined from an open pit.

The mineral resources are defined within an optimal pit shell generated using the following parameters:

- overall pit slope of approximately 30 to 50 degrees;
- commodity price of USD1,600/oz Au;
- average process recovery of 93%;
- average process cost of USD27/t, and;
- refinery, selling and royalty costs of 4% of sell price.

The resource model was updated for the mineralized zones with new drilling information (P1, P2, P4, P5, P6, WP, MPN, SW, Gama, Beta) in December 2014. The resource model for all the other zones was not changed from the August 2013 SRK update except for depletion due to mining, as at December 31, 2014.

The most recent resource interpolation for Agbaou was completed by Endeavour effective December 31, 2014. A summary of the interpolated resources at 0.5 g/t cut-off is provided in Table 1-1.



	Resources (including reserves)											
Deposit	Measured			In	Indicated		Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
North/South	2,572	2.9	239	6,207	2.7	536	8,779	2.8	775	491	1.9	30
Laterite				1,617	1.0	53	1,617	1.0	53	373	0.7	8
Flat				60	0.7	1	60	0.7	1	23	0.5	0
MPN				299	2.5	24	299	2.5	24	27	2.4	2
P1				9	1.9	1	9	1.9	1	6	0.7	0
P2				132	1.9	8	132	1.9	8	20	2.0	1
P4				129	3.3	14	129	3.3	14	12	3.0	1
P5				439	2.9	40	439	2.9	40	78	2.5	6
P6				234	3.0	22	234	3.0	22	47	2.2	3
WP				1,490	2.0	95	1,490	2.0	95	187	1.8	11
Beta				96	3.0	9	96	3.0	9	139	4.6	21
Gama				311	4.7	47	311	4.7	47	471	3.4	52
SW				35	2.7	3	35	2.7	3	207	2.9	19
Stockpile	304	1.7	16				304	1.7	16			
Total	2,875	2.8	255	11,058	2.4	854	13,933	2.5	1,109	2,081	2.3	154

Table 1-1 Agbaou Mineral Resources 0.5 g/t Cut-Off as of December 31, 2014

The mineral reserves have been estimated in accordance with Canadian National Instrument 43-101 "Standards of Disclosure for Mineral Projects" ("NI 43-101") of August 2011 and "Definition Standards for Mineral Resources and Mineral Reserves" adopted by the CIM Council on May 2014.

1.7 MINERAL RESERVES

Agbaou mineral reserve estimates as of December 31, 2014 stated in this report are based on the mineral resources reported above and updated by Endeavour personnel under the supervision of Mr. Alyoshin.

The key modifying parameters upon which the end 2014 mineral reserve estimates were made are summarized in Table 1-2.

Applied Modifying Parameters	End 2014
New optimization	Yes
Gold Price	USD1,350/oz
Royalty	4%
Total Process cost USD/t milled	23.9-30.6
Process recovery	91-96%
Mining cost	Mining contractor rates
Mining Dilution	14%
Mining loss	5%
Pit slopes	30-50 degrees
G&A cost USD/t milled	6.4-8.3
Mining in-situ Au Cut-off Grade	0.7-0.9g/t

Table 1-2 2014 Reserve Key Modifying Parameters

Based on the updated Measured and Indicated mineral resources for the various mineral deposits at Agbaou, the Proven and Probable mineral reserves for the open pit operations, using a gold price of USD1,350/oz, as of December 31, 2014 are estimated to be 11.53Mt at a grade of 2.5g/t containing



926,000oz of gold. This includes 304kt of ROM pad ore stockpile at a grade of 1.7g/t Au containing 16,000oz of gold (Table 1-3).

Deposit	Proven			Probable			Proven and Probable		
Deposit	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
North	1,867	3.0	178	5,501	2.4	427	7,368	2.6	605
South	558	2.3	42	1,190	2.3	87	1,748	2.3	128
West	-	-	-	2,109	2.6	176	2,109	2.6	176
In-Situ Total	2,425	2.8	220	8,800	2.4	690	11,225	2.5	910
Stockpile	304	1.7	16	-	-	-	304	1.7	16
Grand Total	2,729	2.7	236	8,800	2.4	690	11,529	2.5	926

Table 1-3Agbaou Mineral Reserves as of December 31, 2014

This reserve estimate has been estimated and reported in accordance with NI 43-101, "Standards of Disclosure for Mineral Projects" of August 2011 and based on CIM "Definition Standards for Mineral Resources and Mineral Reserves" adopted by the CIM Council on May 2014.

1.8 MINING

The Agbaou mine commenced operations in the third quarter of 2013 with open pit mining and gravity/CIL processing facilities. During the 2014 mining operations at Agbaou concentrated on the Main and South Pits from which a total of 19.56Mt of material were mined to deliver 2.74Mt of ore at an average grade of 1.97g/t Au containing 173,500oz to the ROM pad.

Agbaou involves a conventional open pit, selective mining exploitation method, employing a mining contractor – BCM International Ltd. ("BCM").

1.9 METALLURGY AND PROCESS PLANT

In 2007, comminution and recovery metallurgical testwork was performed by Mintek in South Africa on ore samples from the Agbaou deposits. The results were used in the initial feasibility study to develop the process flowsheet. Additional testwork including; specific gravity, gravity recoverable gold, high shear reactor, oxygenation, composite leach kinetics, preg-robbing variability, variability leach, thickening, rheology and viscosity testwork was undertaken in 2011 by Orway Mineral Consultants ("OMC") in order to make recommendations for a suitable comminution circuit to treat the Agbaou ore.

The Agbaou processing plant uses the conventional gravity/carbon in leach ("CIL") gold recovery process. The comminution circuit of the process plant is comprised of a primary jaw crusher, followed by SAG and ball mills. A dedicated gravity circuit consisting of a concentrator, intensive cyanidation package and an electrowinning cell recovers free gold from a portion of the milled product.

The rest of the milled product is processed in the CIL circuit where gold contained in the ore is leached and adsorbed onto activated carbon. The CIL tails slurry undergoes cyanide destruction prior to disposal in the tailings dam. Loaded carbon is acid washed and rinsed prior to elution. The electrolyte leaving the Anglo American Research Laboratory elution circuit undergoes electrowinning where gold sludge is produced. The sludge is dewatered using a pot filter and dried in a drying oven ahead of smelting. Fluxes are added to the dried gold sludge and the mixture placed in the smelting furnace. After smelting the furnace crucible contents are poured into cascading moulds. The gold bars are cleaned, sampled, labelled and prepared for shipping.



1.10 INFRASTRUCTURE

The site is connected to the national electrical grid by a 15km, 91 kV electrical transmission line and substation at site.

Water supply is 71% from recycled process water and 29% from the water storage dam and/or from boreholes.

There are 578 personnel on-site, of whom 362 are contractors and 216 AGO employees. The total work force is 91% Ivorian and almost 25% of work force is from local (impacted) villages. Accommodations for senior and junior staff members are provided by a camp located 2.7km from the plant which is capable of housing 128 persons.

1.11 MARKET STUDIES AND CONTRACTS

Gold output from Agbaou is in the form of doré bars which are shipped to Europe for refining by Metalor, the contract refiner.

A number of operational duties have been contracted out to suppliers, most notably BCM as the mining contractor, SGS operates the onsite laboratory and All Terrain Services caters and manages the senior staff camp.

The various contracts were awarded following a competitive bidding process, prices are within the industry range and comparable to other operations in Côte d'Ivoire or West Africa.

1.12 ENVIRONMENTAL AND SOCIAL

An Environmental Impact Assessment ("EIA") was undertaken from December 2007 to July 2008 to investigate the local environmental and social situation existing prior to the development of the mine and to determine the likely positive and negative impacts of mine operations at Agbaou. The timing, extent, intensity and cumulative effects of these impacts were investigated. The EIA identifies the necessary management measures required to mitigate the identified impacts. These form the basis of the Environmental Management Plan and the Relocation Action Plan.

The Agbaou mine has a dedicated Safety, Occupational Health and Environment department which operates under the guidance of a set of principles which define the regulatory and corporate governance commitments of the Agbaou mine in respect of the manner in which it conducts its business.

1.13 CAPITAL AND OPERATING COSTS

Capital expenditures for 2015 are limited to USD5.0M for a tailings storage facility lift and USD2.5M for miscellaneous items. Estimated capital expenditures over the next five years include a secondary crusher in 2016 of between USD12M to USD13M and a TSF lift in 2017-2018 of between USD8M to USD10M. This does not include capitalized stripping or miscellaneous minor capital requirements.

The 2014 cash operating costs for Agbaou was USD523/oz of gold sold, which includes all mining, treatment and general and administrative costs, and excludes depreciation, amortization, sustaining capital, royalties and corporate general and administration costs.



1.14 CONCLUSIONS

Agbaou is a successfully operating gold mine that started commercial production in January 2014 and is projected to continue until 2021 based on currently available mineral reserves.

The exploration database for Agbaou is reliable for the purpose of resource estimation. The mineral resources and mineral reserves have been updated to 31 December, 2014. A total of 11.5 million tonnes of ore will be mined at an overall strip ratio of 11 to 1.

Grade control reconciliation has confirmed the mineral resources and mineral reserves as previously stated for Agbaou. The results of this update to the mineral resource and mineral reserve evaluation confirm the continued economic viability of exploiting the Agbaou Gold Deposit.

The current LOM production schedule has 11.5 million tonnes of ore at an average grade of 2.5g/t containing a total of 926,000oz of gold.

In 2014, Agbaou produced 146,757oz at an all-in sustaining cost ("AISC") of USD621/oz. The 2015 production is estimated to be 150,000 to 155,000oz at an AISC estimated in the range of USD690 to USD740/oz produced and includes all mining, treatment, general and administrative costs, sustaining capital and royalties which are incurred at the mine site. The mine level AISC costs exclude depreciation, amortization and corporate general and administrative costs.

1.15 RECOMMENDATIONS

A follow-up exploration program consisting of several components is recommended on the Agbaou Exploitation Permit. The main objective is to establish additional mineral reserves for Agbaou and thereby extend the mine life. The total exploration budget to complete all of the required work on the mine permit area is estimated to be USD4.6M for 2015. The proposed work program includes 7,500m of core and 22,500m of RC drilling in approximately 250 holes testing eight target areas.

This is an annual exploration program and as an operating mine there will be a further phase of exploration in the following year based on results from the 2015 program.



2.0 INTRODUCTION AND TERMS OF REFERENCE

Endeavour, through wholly owned subsidiaries, holds an 85% interest in Agbaou located in southern Côte d'Ivoire, West Africa. Agbaou commenced commercial production in 2014.

The purpose of this report is to update the mineral resources and reserves currently identified on Agbaou.

This report was prepared for Endeavour by Mr. Adriaan Roux, (Pr.Sci.Nat.), SACNASP, Chief Operating Officer for Endeavour, Mr. K. Kirk Woodman, P.Geo, General Manager of Exploration for Endeavour, Mr. Kevin Harris, CPG, Group Resources Manager for Endeavour and Mr. Michael Alyoshin, CP (Min) MAusIMM, Chief Mining Engineer, Strategic Projects for Endeavour. The authors are qualified persons ("QP") by virtue of their experience, education and professional standing relative to the portions of the reports for which they are responsible. The QP professional designations and sections of the report that they are responsible for are listed in Table 2-1. The individual QP certificates are provided at the end of this report. None of the authors are independent of Endeavour.

Author	Designation	Sections	Site Visits
Adriaan Roux	(Pr.Sci.Nat.), SACNASP	13, 17-22	Numerous visits between 2011 and 2013, most recently October 21 to 23, 2014
K. Kirk Woodman	P.Geo.	1-12, 23-27	Numerous visits between 2005 and 2013, most recently July 31 to August 7, 2014
Kevin Harris	CPG	14	September 28 to October 1, 2014
Michael Alyoshin	CP (Min) MAusIMM	15, 16	Numerous visits between 2012 and 2013, most recently September 2 to 10, 2014

Table 2-1	List of Authors.	Professional Des	ignations and Re	port Sections
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The main sources of information and data contained in this report or used in its preparation include:

- Agbaou Gold Mine, Côte d'Ivoire, NI 43-101 Technical Report, dated May 2012, prepared by SRK Consulting, SENET and Knight Piesold Consulting;
- Feasibility Study Report on the Agbaou Gold Project, Côte d'Ivoire, West Africa, dated November 2008, prepared by MDM Engineering;
- Report on Pit Slope Design Recommendations, Agbaou Project, Ivory Coast, dated September 2008, prepared by Golder Associates Inc.;
- Environmental Impact Statement and Environmental Management Plan, dated December 2008, prepared by African Mining Consultants;
- Hydrogeological Bankable Feasibility Study, Report 5344/10/01, dated August 2008, prepared by Knight Piesold Consulting;
- Communition Testwork of Drillcore Samples from Agbaou Deposit (Côte d'Ivoire), dated October 2007, prepared by Mintek;
- Agbaou production data; and
- Results of exploration drilling completed on the Agbaou Permit.

A complete list of references is provided in Section 27.



A full listing of abbreviations used in this report is provided in Table 2-2 below.

Abbreviation	Description	Abbreviation	Description
USD	US dollars	Μ	Million
а	Years	m	Metres
Au	Gold	cfa	African Financial Community Franc
bcm	Bulk cubic metres	MIK	Multiple indicator kriging
CDN	Canadian dollars	mm	Millimetre
cm	Centimetre	N (Y)	Northing
E (X)	Easting	ОК	Ordinary Kriging
G	Billion	oz	Troy ounce
g	Gram	ppb	Parts per billion
g/t	Grams per tonne of gold	ppm	Parts per million
ha	Hectare	QA	Quality assurance
ID	Inverse distance	QC	Quality control
JV	Joint venture	RAB	Rotary air blast
k	Thousand	RC	Reverse-circulation
kg	Kilogram	RQD	Rock quality designation
km	Kilometre	SG	Specific gravity
4 km ²	Square kilometre	Т	Tons
LOM	Life of Mine	t	Metric tonnes

Table 2-2List of Abbreviations

The coordinate system used on most maps included in this report is Universal Transverse Mercator ("UTM"), WGS 84 datum in zone 30N.

3.0 RELIANCE ON OTHER EXPERTS

The authors of this report have relied on other experts for the information on legal title, permitting, geotechnical, environmental and social issues associated with Agbaou.

A summary of the legal title and permitting information was prepared by Ms. Nathalie Bernard, Legal Counsel of Endeavour. Copies of the mine permit documents are held in Endeavour's Abidjan office and at the Agbaou Mine. The permit was issued by the Ivorian Ministry of Mines. The authors of this report did not verify the legality of these permits or any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties, but have relied on an opinion entitled dated August 20, 2010, from Theodore Hoegah of Hoegah & Etté, Avocats Associés.

The assessment of data pertaining to the geotechnical sections relies heavily on information provided by Golder Associates in the report titled *"Report on Pit Slope Design Recommendations, Agbaou Project, Ivory Coast"* (September 2008), which has not been independently verified by the authors.

The original environmental impact assessment studies for Agbaou (December 2008) have been prepared by African Mining Consultants ("AMC"). AMC was responsible for both local coordination and collection of most baseline data and information. The assessment of data pertaining to this discipline relies heavily on information provided in these reports, which has not been independently verified by the authors.



4.0 PROPERTY DESCRIPTION AND LOCATION

The Agbaou Property consists of one Exploitation Permit situated in the Sud Bandama region of south-central Côte d'Ivoire. The mine is located 35km northeast of Divo, the regional capital and approximately 200km northwest of the port city of Abidjan, the commercial capital of the country. The permit is centered on latitude 06° 08' North and longitude 05° 11' West (Figure 4-1).



Figure 4-1 Location Map, Agbaou, Côte d'Ivoire, West Africa

The Agbaou Exploitation Permit (permit no. 37) covers an area of 334km², and was granted to Etruscan Resources Cote d'Ivoire SARL ("ERCI") by Decree no. 2012-766 on August 1, 2012 and is valid for 10 years with renewals available based on remaining mine life. A transfer was then granted under Arrêté no. 028/MMPE/DGMG/DDM from ERCI to the newly formed Agbaou Gold Operations SA. AGO is held 84.8% by Endeavour Resources Inc. (Cayman), 0.2% by Endeavour Resources Inc qualifying directors, and the remaining 15% is held by the Ivorian Government.

Table 4-1 lists the co-ordinates and Figure 4-2 shows the concession outlines of the Agbaou Exploitation Permit.

Permit	Point	Latitude North	Longitude West
	-	06 [°] 06' 24"	05° 15' 53"
	=	06 [°] 08' 54"	05 [°] 14' 07"
	Ξ	06 [°] 13' 40"	05 [°] 14' 07"
Aghaou	IV	06 [°] 13' 40"	05 [°] 08' 07"
Agbaou	V	06 [°] 12' 08"	05 [°] 05' 48"
	VI	06 [°] 08' 00"	05 [°] 08' 45"
	VII	05° 59' 40"	05 [°] 08' 45"
	VIII	05 [°] 59' 40"	05 [°] 15' 53"

Table 4-1 Geographic Coordinates of the Agbaou Exploitation Permit



Figure 4-2 Agbaou Exploitation Permit



The current reported resource and reserve areas within the Agbaou exploitation permit are located with the relative location of existing mine infrastructure in Figure 4-3.

Figure 4-3 Agbaou Exploitation Permit, Open Pits, Mine Infrastructure, Mineral Resource and Reserve Areas





The government of Côte d'Ivoire receives a 10% free-carried interest in AGO, the operating company created to exploit the Agbaou deposit, with an additional 5% free carried interest held by SODEMI. SODEMI also has the right to acquire an additional 10% working interest. The proceeds of production are subject to a net smelter return staggered royalty depending on Au price levied by the Ivorian government and payable within 60 days from the date of signing the weighing and packing statement.

An environmental and social impact assessment ("ESIA") has been undertaken from December 2007 to July 2008 to investigate the local environmental and social situation existing prior to the development of the mine and to determine the likely positive and negative impacts of the project. The timing, extent, intensity and cumulative effects of these impacts have also been investigated.

The ESIA reported prior to the mine start-up;

The potential negative environmental and social impacts of the mine include: land clearing that will result in the loss of natural habitat for local flora and fauna; displaced local subsistence agriculture; contamination and degradation of soils through exposure and land clearance; contamination and degradation of surface waters through industrial spills; siltation and flow modifications to local streams will impact aquatic life; dewatering activities around open pits will impact local groundwater levels; degradation of local air quality resulting from increased vehicle presence, increased noise associated with mining and processing; increased traffic volumes; mine blasting in open pits may generate vibrations that could negatively impact local infrastructure; potential for acid mine drainage; increased prevalence of HIV and AIDS through the changes in the demography of the local populations, possible conflicts between immigrants and local communities for mine jobs; relocation of the affected communities in the mine area to Agbahou Village may lead to economic upheaval, hardships and tensions between the relocated population and their host communities. The loss of agricultural land in the project area is expected to impact on 76 farmers whom will require compensation.

Other significant factors and risks that may affect access, title, or the right or ability to perform work on the property include the recent political unrest in Côte d'Ivoire. Endeavour management continues to believe that the Ivorian political situation will not have a significant impact on the longterm of the mine or the recoverability of its investments in the Agbaou property.

Endeavour currently has all required permits for exploitation of the current mineral resources and mineral reserves of Agbaou.



5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Yamoussoukro is the political capital of Côte d'Ivoire; however the coastal city of Abidjan is the economic capital. Abidjan is serviced from Europe by Air France (direct flights from Paris seven times a week) and Brussels Airlines (direct flights from Brussels six times a week). In addition, the neighbouring countries are accessible by regularly scheduled air services as well as via a network of roads.

Access to Agbaou is gained by driving some 200 kilometres northwest of Abidjan, via highways A3 and A2, to the town of Divo, the regional capital. From Divo a paved secondary road is taken for 25 kilometres to the village of Didokro and from there 12 kilometres of gravel road to the Agbahou village (Figure 5-1).



Figure 5-1 Road Access

A network of bush roads provides vehicle access within the Agbaou Exploitation Permit during the dry season. Portions of the property are not easily accessible during the wet seasons due to the inundation of the roads and a lack of bridges over seasonal water courses.

Divo is the nearest town to the Agbaou site and has a population of approximately 130,000 (est.).

The Sud Bandama region is located within the southern tropical zone, which runs inland from the coastline, and is characterized by three seasons; warm and dry (November to March), hot and dry (March to May) and hot and wet (June to October). The average temperature range in the region is between 21 and 33°C.



The precipitation estimate was taken from data at Gagnoa, about 80 kilometres west of the Agbaou permit area, where data indicates there are two, distinct wet seasons March to June, and September to November. June is the wettest month where rainfall can reach 300mm and the average annual rainfall is estimated at between 950 and 1900mm per annum (Michelin Map).

Agbaou operates year round.

The population of Côte d'Ivoire is estimated in 2014 to be almost 23 million people comprised of the following principle ethnic groups (1998): Akan (42%), Voltaiques or Gur (18%), Northern Mandes (17%), Krous (11%), and Southern Mandes (10%). With a per capita GDP per capita of USD1,600 (2006 estimate), by West African standards Côte d'Ivoire is well off, but is still rated among the poorest countries in the world. Life expectancy at birth is 49 years and the adult literacy rate is 51% (CIA – The World Factbook). There are a large number of human resources and services available to mining companies exploring for gold in this country.

Côte d'Ivoire's total annual power generation is 5.7 billion kWh (CIA–The World Factbook, 2010 estimate), with an even split of power being generated from fossil fuels and hydroelectric sources. The national electrical grid runs along the main road that connects the town of Divo to Didoko. A secondary, high voltage electrical line branches off the national grid at Didoko and runs to the village of Agbahou and beyond.

The Ivorian mining industry is active and has been expanding as new mines are opened. There are an increasing number of semiskilled local mining personnel available. Experienced mine workers and professionals are available from neighbouring countries (i.e. Mali and Ghana).

There is no landline telephone service to the area, but there is adequate cell service for the mine. A satellite system providing access to internet and voice communications has been installed for the plant and administration offices.

Facilities and infrastructure at Agbaou (Figure 5-2) consists of:

- Three open pits operated during 2014 (North, South and North Satellite), two waste rock dumps and a fleet of mobile mining equipment;
- Mining workshops with internal offices, change house, wash bay, refueling station (external contract), tire change, and explosives storage.
- Potable water piped from the process plant;
- A 1.6Mt/a design, but currently operating at 2.2Mt/a processing soft oxide ore, gold ore processing plant and associated tailing storage facility;
- Maintenance shop and warehouse;
- An assay laboratory;
- Administration buildings;
- A medical clinic;
- A diesel generating station for back-up site electrical power;
- A camp complete with kitchen and catering facilities for 200 people; and
- Security building and personnel.







The tailings storage facility ("TSF") was located considering the general topography, water course locations, the required size of the TSF based on capacity requirements and the general geology of the site. The TSF does not incorporate an HDPE liner as the process plant includes a cyanide destruction facility. Since seepage through the basin and dams foundations needs to be controlled, several key elements have been incorporated into the design. All design considerations of the tailing storage facility have been based on meeting or exceeding the agreed design criteria which comply with World Bank Standards, Côte d'Ivoire and other international standards.

The general topography of Côte d'Ivoire is undulating and vegetation in the south of the country consists of very dense forest. The Agbaou permit lies within the drainage basin of the Bandama River, one of the four major rivers in Côte d'Ivoire at an elevation between 130 and 420 metres above sea level. Like most of this part of West Africa, laterite and saprolite are very well developed with outcrops of fresh rock, virtually non-existent.

Vegetation in the southern half of Côte d'Ivoire is characterized as tropical rainforest.



Land use consists of commercial production of cocoa beans, coffee, timber, cotton, bananas, pineapples and palm oil. Arable land comprises less than 10% while permanent crops account for an additional 11%. Domestic animals consist of sheep, goats or cattle (CIA–The World Factbook). Locally timber, cocoa beans and coffee are the most important commodities.

Surface rights are sufficient for all current mining and milling operations, exploration activities, and for all required mine facilities.

6.0 HISTORY

Alluvial gold has been known and exploited by local "orpailleur" for some time. Gold mineralization, in bedrock, was first reported in the Agbaou area during the late 1980's, while the ground was held by a joint-venture between Broken Hill Proprietary Company Limited ("BHP") and Société pour le Développement Minier de la Côte d'Ivoire ("SODEMI"). The joint-venture controlled the ground between 1988 and 1994 and significant exploration was undertaken during this period including; regional and detailed soil sampling, pit sampling, ground geophysics and a program of eight diamond drill-holes (1,680 metres). Based on this work BHP outlined an unclassified resource of 125,000 ounces but recommended no further work.

Between 1996 and 2000 the property was held by Goldivoire S.A.R.L. ("Goldivoire") an Australian -Ivoirian owned company controlled by Jandera Resources NL (88.4%) which was a wholly owned subsidiary of Diversified Mineral Resources NL ("DMR"). DMR was subsequently taken over by Hargraves Resources NL ("Hargraves") in mid-1999. Hargraves, without access to the results of the BHP work, undertook an exploration program that included semi-regional soil sampling, pit sampling, 36 Rotary-Air-Blast ("RAB") drill-holes (1,682 metres) and a program of 203 RC drill-holes (22,149 metres) 25 with a diamond tail (1,535 metres).

Hargraves was acquired by Durban Roodeport Deep, Limited ("DRD") in December of 1999 and they commissioned a resource-estimation through Resource Service Group ("RSG") in 2000. RSG reported a total resource at a 1 g/t cut-off of 12.2 million tonnes at an in-situ grade of 2.2 g/t for 847,000 ounces of gold. This is an historical resource estimation which has been replaced by the current resource and reserve estimations reported in this document.

Internal difficulties within DRD subsequently resulted in funds not being available for Goldivoire to complete further work on the permit. As a result the government of Côte d'Ivoire withdrew the Agbaou permit. On November 27, 2003 following the completion of a bidding process the Ministry of Mines and Energy for Côte d'Ivoire granted the Agbaou exploration permit to Etruscan Resources Côte d'Ivoire (Decree Number 2003-464).

A number of resource estimations have been completed on the Agbaou Gold deposit since 1998.

The initial grade estimate carried out by RSG in July 1998 was based on the initial BHP drilling plus 42 reverse-circulation ("RC") drillholes completed by Goldivoire. An inverse distance squared ("ID²") method was used and resulted in un-classified, gold mineralisation totalling 6.2Mt at a grade of 2.8g/t for 564,000oz being outlined based on a 1g/t lower cut-off grade. This is a historic resource estimation which does not conform to current standards and has been replaced by the current resource and reserve estimations reported in this document.



A second grade estimate was carried out by RSG, on behalf of Goldivoire, in February 1999 and included an additional 106 RC drillholes (some with diamond tails). Multiple indicator kriging ("MIK") was used and resulted in an Indicated mineral resource totalling 2.5Mt at a grade of 2.9g/t for 237koz, based on a 1.0g/t lower cut-off grade (Table 6-1). This is a historic resource estimate which is not compliant with CIM Definition Standards or NI43-101 requirements and has been replaced by the current resource and reserve estimations reported in this document.

	Resources						
Lower Cut-off Grade (g/t)	Indicated			Inferred			
Grade (g/t)	kt	Au (g/t)	kozs	kt	Au (g/t)	kozs	
0.5	3,750	2.2	265	11,232	1.7	614	
0.8	2,984	2.6	249	8,381	2.1	565	
1	2,538	2.9	237	6,966	2.3	515	
1.5	1,857	3.5	209	4,666	2.9	435	

Table 6-1 Historic Resource Estimation – Agbaou Deposits (Goldivoire, 1999)

DRD commissioned an MIK resource estimate through RSG in 2000 which reported an Indicated mineral resource (1g/t lower cut-off) of 9.7Mt, at an in-situ grade of 2.1g/t for 654koz (Table 6-2). This is a historic resource estimate which has been replaced by the current resource and reserve estimations reported in this document.

Table 6-2 Historic Resource Estimation – Agbaou Deposits (DRD, 2000)

	Resources					
Lower Cut-off Grade (g/t)			Inferred			
Grade (g/t)	kt	Au (g/t)	kozs	kt	Au (g/t)	kozs
0.5	18,224	1.5	879	5,214	1.5	251
0.8	12,233	1.9	747	3,340	2.0	215
1	9,684	2.1	654	2,562	2.3	189
1.5	5,950	2.7	517	1,540	3.0	149

In 2008, following the acquisition of the Agbaou Gold Deposit by Etruscan, Coffey Mining revised the mineral resource in support of the feasibility study. A combination of MIK and Ordinary Kriging ("OK") reported an Indicated mineral resource of 10.5Mt at an in-situ grade of 2.6g/t for 871koz, at a 1g/t lower cut-off (Table 6-3). This is a historic resource estimate which has been replaced by the current resource and reserve estimations reported in this document.

 Table 6-3
 Historic Resource Estimation – Agbaou Deposits (Coffey, 2008)

		ves)					
Lower Cutoff Grade (g/t)	Indicated			Inferred			
Grade (g/t)	kt	Au (g/t)	kozs	kt	Au (g/t)	kozs	
0.5	16,590	1.9	1015	5,072	1.7	272	
0.8	12,697	2.3	935	3,526	2.1	240	
1	10,489	2.6	871	2,754	2.5	218	
1.5	6,807	3.3	727	1,682	3.3	176	

A mineral reserves estimate was performed at this time by MDM Engineering International Ltd. ("MDM") which reported a Probable mineral reserve of 7.4Mt at a gold grade of 2.4g/t for 566koz



(Dodd, et.al., 2008) using a gold price of USD750 per ounce. This is an historic reserve estimate which has been replaced by the current reserve estimation reported in this document.

Following an in-fill drill program, Endeavour contracted SRK Consulting South Africa (Pty) Ltd. ("SRK") to complete an update of the mineral resource estimate using MIK (Table 6-4). This is an historic resource estimate which has been replaced by the current resource and reserve estimations reported in this document.

Lower Cut-		Resources (including reserves)							
off Grade	Measured			Grade Measured Indicated			Inferred		
(g/t)	kt	Au (g/t)	kozs	kt	Au (g/t)	kozs	kt	Au (g/t)	kozs
0.5	6,262	2.2	438	8,708	2.6	719	1,473	1.5	73
0.8	4,570	2.7	403	6,981	3.0	683	996	2.0	63
1	3,797	3.1	381	6,114	3.3	658	770	2.3	57
1.6	2,414	4.2	325	4,266	4.2	581	370	3.4	40

 Table 6-4
 Historic Resource Estimation – Agbaou Deposits (SRK, 2012)

Most recently the mineral resource and mineral reserve estimates for the Agbaou deposits were updated and a number of satellite deposits were added by Endeavour as of December 31, 2013. The mineral resource were reported as Measured of 3.2Mt at a grade of 2.9g/t for 307koz, Indicated of 11.7Mt at a grade of 2.1g/t for 793koz and Inferred of 2.2Mt at a grade of 2.3g/t for 165koz. This is a historic resource estimate which has been replaced by the current resource estimation reported in this document.

Mineral reserves were also reported at this time by Endeavour, a Proven mineral reserve of 3.1Mt at a grade of 2.8g/t for 279koz and a Probable mineral reserve of 8.3Mt at a grade of 2.2g/t for 601koz. This is a historic reserve estimate which has been replaced by the current reserve estimation reported in this document.

Commercial production was achieved at Agbaou effective January 27, 2014. Initial gold production, as of December 31, 2014, and the 2014 production is listed in Table 6-5.

Table 6-5 Agbaou – Historic Gold Production

Production Year	Ore Milled (kt)	Gold Produced (oz)
2013	261	6,132
2014	2,241	146,757

Between 2009 and 2010 Endeavour purchased Etruscan and Etruscan's name was changed to Endeavour Resources Inc. For the purpose of this report, all work completed by either Etruscan or Endeavour is collectively referred to as Endeavour.



7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

Côte d'Ivoire is underlain by the Archean-Proterozoic Leo-Man Shield which forms the southern half of the larger West African craton (Figure 7-1). The Leo-Man Shield is further subdivided into the older (Archean) Kenema-Man domain, along the western border with Liberia and Guinea, and the younger (Birimian) Baoule-Mossi domain (Bessoles, 1977).



Figure 7-1 West African Geology

Archean and Birimian terranes are poorly outcropped in West Africa and the knowledge of their geological evolution is relatively limited.

There are several hypotheses of evolution and one of them distinguishes two cycles within the Birimian; an early and a late cycle of sedimentation, each followed by an orogenic period of folding and metamorphism (*"Eburnean 1" and "Eburnean 2"*) between 2.19 and 2.08 Ga. The initial phase (*Eburnean 1*) saw the accumulation of volcanic and volcanoclastic rocks intruded by early granitoid intrusions. Gold deposits formed during this period are typically syngenetic and associated with carbonaceous schists, exhalites and stratiform sulphide occurrences, and of the quartz-vein type.

During the later cycle (*Eburnean 2*), after a brief period of uplift and erosion, intra-montane basins were filled with sediments forming the thick series of arenaceous, and to a lesser extent argillaceous sediments; the Tarkwaian Series. Economically important conglomerates and quartzites, termed the Banket Group in Ghana, comprise the basal portion of the series.



The effect of the Eburnean Orogeny on the Birimian Supergroup is best described from studies undertaken in Ghana by Blenkinsop *et al.* (1984), Eisenlohr (1989), and Eisenlohr & Hirdes (1992). During the Eburnean Orogeny, a protracted event initially formed a regionally penetrative foliation (S1) which was followed by formation of high strain shear zones (S2) along basin/belt contacts. Stress analysis suggests the direction of maximum compression was sub-horizontal in a NW-SE direction and minimum compressive stress was vertical. The metamorphic grade of the greenstone belts ranges from lower greenschist to amphibolite facies, depending on the distance from the enveloping granitoids. The resulting tight isoclinal folding (foliation regionally oriented NNE-SSW) is regionally well developed and resulted in formation of the NE-SW trending greenstone belts bounded by granite-gneiss terrains.

Extensive recent weathering has produced large areas of laterite over the region, which effectively masks the underlying geology of these areas. As a result of the deep weathering, outcrop is rare and even when it occurs is often difficult to characterize.



7.2 LOCAL GEOLOGY

Côte d'Ivoire is almost completely underlain by Precambrian rocks of the Leo-Man shield (Figure 7-2). The north-south trending Sassandra Fault marks the boundary between the Archean Kenema-Man domain, along the western country border and the Birimian Baoule-Mossi domain.



Figure 7-2 Ivorian Geology

Rocks of the Birimian Baoule-Mossi domain consist of NE-SW trending, subparallel greenstone belts and intervening granitoids. Stratigraphy of the Birimian in Côte d'Ivoire is mainly comprised of tholeiitic basalts, calcalkaline andesites, dacitic-pyroclastites and lavas. These volcanic rocks were intruded by weakly foliated, discordant granodioritic and tonalitic batholiths. The Birimian sedimentary suites are predominantly flysch-type turbidites composed of greywacke, reworked tuffs and other volcano-sedimentary formations, all metamorphosed into greenschist facies with locally higher grades, the result of contact metamorphism.



7.3 PROPERTY GEOLOGY

The Agbaou Exploitation Permit is underlain by rocks of the Oumé-Fetekro greenstone belt, which is comprised dominantly of deformed, mafic volcanics metamorphosed to greenschist facies (Figure 7-3). The greenstone belt is folded into an antiform and the Agbaou deposit lies near the hinge of the fold, on the eastern limb (Eisenlohr, 1998). Bedding, foliation and the dominant vein-set are oriented along the strike of the fold (roughly northeast/southwest) and dip to the southeast, at a moderate to steep attitude.



Figure 7-3 Agbaou Permit Geology and Structures



7.4 MINERALIZATION

Mineralization at Agbaou can be broadly separated into two categories: laterite cap (generally >0.5g/t Au) and primary (free gold and sulphide hosted). The laterite cap, which covers the entire deposit area, is of variable thickness (1 to 5m) and represents secondary (re-mobilized) mineralization. The primary mineralization is associated with a system of gold bearing quartz-veins hosted by tightly folded Birimian-age sedimentary and volcanic rocks. The quartz veins can occur within either meta-volcanic or meta-sedimentary rocks, but the host rock is typically strongly sheared. The primary mineralized envelope is broad (60 to 100m), consisting of a number (up to seven zones in Agbaou Main) of mineralized zones that generally follow the limb of the regional fold. Particulate gold mineralization is located within quartz veins and along wall rock-quartz vein boundaries.

The mineralized quartz veins at Agbaou have a visually distinctive texture that has been described as "mottled" (Figure 7-4). Gold mineralization is also associated with variable amounts of sulphides, mainly pyrrhotite and pyrite. These veins are easily identifiable in the diamond drilling core intersections from the fresh rock below the saprolite/fresh rock boundary.



Figure 7-4 Drill Core Sample of Mottled Quartz Vein in Fresh Rock

The deposits, identified to date at Agbaou, superficially appear to be relatively straight forward. The deposits are aligned along a northeast trending, steeply southeast dipping structure that marks the axial plane of the large-scale, regional fold. The known dimensions and orientations of the mineral deposits are described in Table 7-1 and Figure 7-5.



Deposit Name	Length (m)	Width* of Zone (m)	Depth Extent (m)	Strike	Dip degrees
North	1,200	85-100	300	NNE	-55
South	600	50-60	225	NNE	-45
West	500	20-30	100	NNE	-35
North Satellite (P1)	300	25-35	100	NE	-55
P4	400	15-25	50	NNE	-60
Р5	200	8-12	50	NNE	-45
P6	500	12-16	50	NNE	-50
P2	600	12-16	75	NE	-45
P7	300	8-10	50	NE	-45

Table 7-1 Agbaou Mineral Deposit Known Dimensions and Orientations

*Width is the aggregate width of the domains.

Figure 7-5 Mineral Deposit Distribution within the Agbaou Mine Permit





8.0 DEPOSIT TYPES

At Agbaou, the target deposit type being explored for is the mesothermal auriferous sulphide (pyrite \pm pyrrhotite) and quartz vein style mineralization. The gold mineralization within Agbaou deposit is hosted within a specific quartz vein type that occurs along a broad area and can be characterized by a wide range of quartz-vein types, brecciation, boudinage, sericitic and carbonate alteration.

The lateritic cover is generally between five and ten metres thick with a very well developed weathering profile is over much of the area.

Current exploration program planning is based on testing soil geochemical anomalies.

9.0 EXPLORATION

Endeavour's evaluation of the Agbaou project area began in 2003 following the award of the Agbaou Exploration Permit to ERCI.

Exploration has been carried out under the supervision of technically qualified personnel applying standard industry approaches. Geochemical data quality has routinely been assessed as part of ongoing exploration procedures. All data acquired meets or exceeds industry standards. All exploration work has been carried out by, or supervised by technical personnel of the operator (BHP, Goldivoire and Etruscan). Consultants and contractors have been engaged by Endeavour for various activities including; geophysical surveys, structural mapping, drilling, and assaying. Table 9-1 summarizes the contractors and consultants engaged in the Endeavour managed exploration programmes.

Activity	Consultant	Location
Airborne Geophysics	Geodass (Pty) Ltd.	Gauteng, SA
Ground Geophysics	Societe Nouvelle de Geophysique	Abidjan, Cl
Geophysical Interpretation	Robert Gillick & Associates Ltd.	Northbay, Canada
Geology	Taiga Consultants Ltd.	Calgary, Canada
Petrography	P. M. Nude	Accra, Ghana
Analytical Laboratories	Bureau Veritas Intertek	Abidjan, Cl Tarkwa, Ghana
Reverse-Circulation Drilling	Foraco Burkina Faso Drillex International (Foramin) Global Exploration Services SARL Geodrill Limited	Abidian, CI Abidjan, CI London, UK Accra, Ghana
Diamond Drilling	Boart Longyear Inc. Drillex International (Foramin) Geodrill Limited	Accra, Ghana Abidjan, Cl Accra, Ghana
Down-Hole Wireline Logging	Terratec	Heitersheim, Germany
Database Review and Resource Estimation	RSG Global (now Coffey) SRK Consulting (South Africa) Inc.	Perth, Australia Johannesburg, SA
Geotechnical	Golder Associates Inc. SRK Consulting (South Africa) Inc.	Atlanta, USA Johannesburg, SA
TSF Design	Knight Piésold (Pty) Ltd.	Perth, Australia
Reserve Determination	MDM Ferroman SENET	Johannesburg, SA Gauteng, SA

Table 9-1Summary of Contractors and Consultants



Geochemical data, used in conjunction with the available geophysical survey and geological mapping, has been effective in the delineation of significant gold mineralization targets within the project area. Whilst the high order geochemical anomalies have been trenched and drilled, potential exists to identify additional gold mineralization either proximal to the currently defined deposits, by additional drilling of known mineralized structures both along strike and down dip/plunge, or by follow up exploration of lower order geochemical anomalies.

Endeavour conducted detailed (5,911 samples) and regional (1,831 samples) soil geochemical surveys which identified the gold mineralization at Agbaou, Agbaou Sud, Zehiri and Niafouta (Figure 9-1).







In 1999, Goldivoire contracted Geodass (Pty) Ltd. to complete an airborne magnetic and radiometric data survey which covered the Agbaou permit and beyond. The survey was conducted along flight lines (135 degrees) spaced at 200m, with a tie-line spacing of 2km and a nominal height of 75m. The data was then processed by Southern Geoscience Consultants Pty Ltd. And grid files produced (Figure 9-2).



Figure 9-2 Agbaou Geophysical Coverage, Magnetics – Vertical Gradient



During 2012 Société Nouvelle de Géophysique completed an orientation survey over the known deposits at Agbaou for Endeavour. The survey included 27 line-km of ground magnetics, 27 line-km of gradient Induced Polarization ("IP") and 15 line-km of dipole-dipole IP. The survey had a line spacing of 200m, orientated at 125 degrees, and with sampling intervals of 25m (Figure 9-3).



Figure 9-3 Agbaou Ground Geophysical Coverage, IP – Resistivity

The currently defined Mineral Resources coincide with the areas where the best mineralization was detected in soil samples. However, recent sterilization drilling has indicated that the potential exists to discover more mineralization outside the currently modeled areas, and also in those areas not explored during the soil surveys.


10.0 DRILLING

Drilling targets in the license area were identified during the soil surveys and were confirmed by pitting and trenching. These targets were subsequently subjected to a systematic drilling program, decreasing the between hole spacing following the identification of the mineralized zones (Figure 10-1). A summary of drilling and sampling at Agbaou is provided in Table 10-1. The drilling methods used are RC, diamond drill coring, and a combination referred to as diamond tails, where the upper part of the hole is drilled by RC and thereafter by diamond drilling.



Figure 10-1 Agbaou RC and Diamond Drill Hole Collars

A small amount of rotary-air-blast ("RAB") drilling was used as an exploration and condemnation tool but due to the likelihood of down-hole contamination has not been used in Resource estimation and is not discussed in this section.



Company		Drill						
	Campaign	Contractor	Туре	Number of Holes	Metres			
ВНР	1988-94	-	Diamond	8	1,680			
Goldivoire	1997-99	-	RC	175	20,537			
Goldivoire	1997-99	-	Diamond	25	1,535			
	2005	Foraco	RC	42	4,572			
Etruscan		FOIACO	Diamond	13	649			
	2006-07	Boart Longyear	Diamond	166	22,409			
	2011-12	Foramin	RC	85	7,062			
	2011-12	Global	RC	384	23,423			
Endeavour	2013	Geodrill	RC	113	9,781			
	2013	Geodrin	Diamond	8	783			
	2014	Geodrill	RC	189	17,767			
Total				1,208	110,198			

Table 10-1Summary of Drilling at Agbaou

*Diamond includes core-tails of RC holes

10.1 COLLAR SURVEYS

Collar surveys were originally completed using an Ashtech (THALES) differential global positioning system ("DGPS") and co-ordinates reported in WGS84, UTM Zone 30 North. In order to improve the accuracy all drill collars have subsequently been independently surveyed by Envitech using total-station survey techniques. Envitech conducted a traverse from the nearest control point (RGIR 13) to the Agbaou camp base station. The control point was provided by the National Cartography Center, and is located in Tiassale some 105km south-east of Agbaou. The base station was used to set up two field stations within the limits of the deposit, ST1 and ST2, from which all survey points were measured. A LEICA total station instrument, with an accuracy of 2mm – 5mm, was used by Envitech.

Both UTM and local grid co-ordinates were recorded. When the previous DGPS coordinates are compared to total station survey data, some substantial differences are noted. This results in differences of -9.7m to +8.2m in the easting and northing and +12m to +22.3m in the elevation.

In August 2012 an airborne LIDAR survey was conducted to provide an accurate topographic survey of Agbaou and surrounds for mine planning and construction. Historical drill holes that had not been re-located during the most recent survey work were levelled to this topographic surface.

All drilling since 2012 has been surveyed by the Agbaou survey team using a combination of a Leica GS15 DGPS and TS15 total-station survey system.

10.2 DOWNHOLE SURVEYS

All drillholes completed by ERCI were down-hole surveyed using either a Terratec or a Flexit© down-hole instrument at a minimum of every 30m and measured relative to magnetic North. These measurements have been converted from magnetic to UTM Zone 30 North values. The factor used to convert between the two grids is -6 degrees. No significant deviation of the holes is evident in plan or section although a very unusual path has been captured in the database for one of the holes drilled during an earlier campaign namely Drillhole ARC016D.



The recent RC holes drilled by AGO were down-hole surveyed using a Reflex[©] down-hole survey instrument, the initial test at 12m and tests at a minimum of every 30m thereafter, measured relative to magnetic North. No significant hole deviation is evident in plan or section.

10.3 LOGGING

The most important geological factors from the Agbaou deposits, identified to date, include; host rock, silicification, quartz-veining and sulphide content. Endeavour has strived to standardize geologist's logging of these features by implementing standardized coding. Logging is performed on paper log-sheets and put in place data entry and monitoring procedures to minimize data problems. Mr. Woodman has worked closely on all exploration drill-programs carried out on the projects since 2003 and has reviewed the logging procedures and reviewed the database.

All diamond drill core has been photographed and the photos are maintained with the geological database.

All historical diamond drill core from resource areas has been re-logged using Endeavour coding.

10.4 DIAMOND DRILL CORE

All diamond drill core from the Agbaou deposits was sampled by splitting/cutting the core and sampling half of the material. The remaining half is stored at the secured core yards at the Agbaou exploration camp.

Diamond drill holes were typically started using HQ bits (inside diameter of 96mm) and reduced to NQ bits (inside diameter of 76mm) once competent rock was encountered, normally between 80 and 100 metres down-hole depth.

10.5 SAMPLE RECOVERY

The sample recovery of the drilling completed prior to Endeavour involvement is not recorded in the database.

During drilling that was managed by Endeavour the recovery has been routinely calculated and entered into the database, with the average core recovery for the Endeavour diamond-drilling being near 95% and RC recoveries estimated near 79% (Table 10-2). Acceptable recovery has been achieved for all programmes of drilling completed.



Company	Drill					
Company	Campaign	Contractor	Туре	Average Recovery (%)		
BHP	1988-94	-	Diamond	NA		
Goldivoire	1997-99	-	RC	NA		
Goldivoire	1997-99	-	Diamond	NA		
	2005	Foraco	RC	80		
Etruscan	2005	FUIACO	Diamond	90		
	2006-07	Boart Longyear	Diamond	95		
	2011-12	Foramin	RC	70		
	2011-12	Global	RC	80		
Endeavour	2013	Geodrill	RC	57		
	2013	Geodrill	Diamond	87		
	2014	Geodrill	RC	70		

Table 10-2Summary of Drilling Recoveries at Agbaou

*Diamond includes core-tails of RC holes

10.6 DRILLING RESULTS

A significant quantity of drilling has been completed and, as such, it is not practical to include a listing of all significant drilling intersects. The Agbaou deposits have been subject to extensive resource studies, as discussed in subsequent sections of this report, and therefore no listing of significant intersections is provided.

10.7 DRILLING ORIENTATION

The drilling at Agbaou has generally been targeted normal to the plane of the principal, mineralized orientation ensuring the optimum angle of intersection (Table 10-3). Scissor holes, drilled back in the opposite sense, have also been completed on each deposit to ensure the proper orientation.

Domain	Ν	Vineralization	Drilling		
	Strike	Dip	Azimuth	Dip	
North	NNE-SSW	Moderate to Steep E	$300^{\circ} \& 120^{\circ}$	-50° to -60°	
South	NNE-SSW	Shallow to Moderate E	300°	-50° to -60°	
West	NE-SW	Shallow to Moderate E	300°	-50° to -60°	
North Satellite	NE-SW	Moderate to Steep E	300°	-55°	
MPN	NNE-SSW	Moderate to Steep E	300°	-55°	
P2-7	NE-SW	Shallow to Moderate E	300°	-55°	
P4-5-6	NE-SW	Shallow to Moderate E	300°	-55°	

 Table 10-3
 Agbaou Mineralization and Drilling Orientation by Zone

In public disclosure the drill-hole intercepts are reported as core length and also true thickness of the mineralized interval when the relationship to the orientation of the drill hole is known. The significant intervals and corresponding true widths for the 2013 drilling are provided in Appendix A to accompany the disclosure.

In general the nominal drill hole spacing varies between 20m to 40m by 30m within resource areas. Drill hole spacing studies were completed as part of the resource classification studies on several deposits.



10.8 AGBAOU DEPOSITS

As pits are opened up and geological mapping precedes the understanding of the geology advances significantly, however, the overall geological models developed during the exploration phase continue to be relevant.

10.8.1 Agbaou North

Figure 10-2 Agbaou North Drill Plan



Figure 10-3 Agbaou North Type Section





10.8.2 Agbaou South

Figure 10-4 Agbaou South Drill Plan



Figure 10-5 Agbaou South Type Section





10.8.3 Agbaou West

Figure 10-6 Agbaou West Drill Plan



Figure 10-7 Agbaou West Type Section





10.8.4 Agbaou Satellites

During the most recent stages of exploration a number of satellite deposits have been identified and continue to be explored. The style of mineralization and orientation are similar to the deposits described above.







Figure 10-9 Agbaou P4 Satellite Drill Plan



Figure 10-10 Agbaou P5 Satellite Drill Plan





Figure 10-11 Agbaou P6 Satellite Drill Plan



Figure 10-12 Agbaou P2 Satellite Drill Plan





11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 SAMPLING METHODS

11.1.1 Trench and Pit Sampling

Trenching and pitting were used to confirm the soil geochemical anomalies, but since the data does not meet the quality requirements for inclusion in the resources, this data was not considered any further for estimation purposes.

11.1.2 Reverse Circulation Drill Sampling

Samples were collected over 1m intervals in a large plastic bag directly from the cyclone. The entire sample was weighed then split in a three-tier riffle splitter to get down to approximately 2kg. The splitter and boxes were cleaned with compressed air between samples. If the sample was wet, the entire sample was placed in a large rice bag and allowed to dry in the sun before the sample was weighed and split down.

At the drill rig, the geotechnician recorded the sample number; weight of the total sample, if water was present, and the geologist logged a number of characteristics of the cuttings on a log sheet. Beside the drill, an A3 size chip-board was completed by gluing powder and washed-chips from each sample interval. Alternatively a sub-sample of chips was placed in partitioned chip trays.

The approximately 2kg sub-samples were placed in plastic bags and sealed with a numbered sample tag enclosed. A second 2kg sub-sample was split off and retained, on-site, as a reference sample.

11.1.3 Diamond Drill Sampling

For diamond drilling, the core was placed into treated, wooden core-boxes at the drill site by the contract drillers. The drillers also placed wooden blocks, indicating the meterage, into the core boxes at the end of each run (normally every 3m).

Geologists and geotechnicians collected measurements of all geotechnical details, core recovery, geological logging and photographs. Typically sampling is broken at geological contacts with samples ranging in length from 0.5 to 1.5 metres but where possible samples were routinely collected over 1m intervals. Care is taken to consistently collect assay-samples from one side of the core.

Each core box was labelled with aluminum tape indicating the hole number, box number, and the hole length at the beginning and end of the core contained within the box. The labelled core boxes were stored under cover in steel racks in the core facility.

11.2 SAMPLE RECOVERY

Sample recovery for RC drilling was noted as very good and averages approximately 23.3kg per metre drilled. Bulk sample weights have been systematically recorded for each metre drilled.

Sample recovery in diamond drill holes was very good although recoveries for core from the moderate to highly weathered saprolite and highly fractured and brecciated zones returned poor recoveries. Endeavour utilized HQ drilling to minimize the core loss in the weathered zones.

11.3 SAMPLE QUALITY

The sampling techniques for the BHP, Goldivoire and Endeavour drilling programs are considered, by the authors, to be representative and suitable for resource estimation and mine planning studies.



Logging quality for all the drilling programs is considered, by the authors, to be consistent with industry standards and suitable for resource estimation and mine planning studies.

11.4 SAMPLE PREPARATION AND ANALYSES

Samples were collected in the field (trench, RC) or collected in the core logging area (diamond drilling), bagged immediately in plastic-sample bags, labelled with the sample number on the outside of the bag and stapled shut with a sample tag inside. Samples were stored at the exploration camp until such time as a sufficient number of samples had been collected to send to the assay laboratory. Samples were delivered directly to the laboratory by Endeavour personnel or received directly by laboratory staff at the exploration camp.

After the samples were delivered to the laboratory (Table 11-1), all further sample preparation and analysis were conducted by laboratory personnel who were independent of Endeavour. No employee, officer, director or associate of Endeavour was involved in sample preparation or analysis after submission to the laboratory.

Company	Campaign	Laboratory	Assay Type	Detection Limit
BHP	1988-94	BHP Internal / SGS Ghana / SODEMI	Fire Assay	0.05 ppm / 1ppb
Goldivoire	1997-99	SGS Ghana / ITS Ghana	Fire Assay	0.01 ppm
ERCI	2005	Transworld Ghana	Fire Assay	0.01 ppm
ERCI	2006-07	Transworld Ghana	Fire Assay	0.01 ppm
ERCI	2010-11	Bureau Veritas Côte d'Ivoire	Fire Assay	0.01 ppm
ERCI	2012	Bureau Veritas Côte d'Ivoire	Fire Assay	0.01 ppm
AGO	2014	Bureau Veritas Côte d'Ivoire	Fire Assay	0.01 ppm

Table 11-1 Summary of Assay Laboratories by Campaign

Endeavour consistently employed a rigorous quality control and assurance ("QA/QC") program comprising regular insertion of field duplicates, blanks and a suite of commercial reference samples. QA/QC results were monitored on a batch by batch basis and any batch with more than two sample failures was re-assayed.

SGS, Transworld and Bureau Veritas are all internationally recognized laboratories. The local laboratories are operated as subsidiaries of the parent company and are subject to internal quality control programs and protocols in accordance with the operating practices of the parent laboratory. Bureau Veritas is in the process of becoming certified.



11.5 QUALITY CONTROL AND ASSURANCE

A number of quality assurance and quality control procedures were rigorously implemented to monitor the accuracy and precision of the analytical and assay data received from all laboratories during the exploration programs. Each and every sample was assigned an individual sample number. In addition to the QA/QC procedures put in place by the assay laboratory a rigorous QA/QC routine was in place for all exploration completed by, or on behalf of Endeavour. The procedures in place include:

- Standards (independently submitted commercial reference standards);
- Blanks (previously assayed material returning less than detection assays);
- Field duplicates (second sample collected in the field from the same source); and
- Umpire assaying (second assay of prepared pulp at a second internationally accredited laboratory).

Commercially available standards were purchased from Rocklabs and one was inserted in every batch of 20 consecutive sample numbers. In the field, one blank sample (<5ppb) was included in every batch of 20 samples. As well, a single sample, from every 20, was a field duplicate. Duplicate RC samples were generated making a second 2kg split at the rig, core samples were randomly divided into two samples from one assay interval.

Results from the quality control samples were monitored as assay batches were received and where results were outside acceptable limits the entire batch was re-assayed. Examples of the control charts for the standards (Figure 11-1), blanks (Figure 11-2), RC field duplicates (Figure 11-3) are provided as follows:



Figure 11-1 Agbaou QAQC – Standard Tracking



Figure 11-2 Agbaou QAQC – Blank Tracking



Figure 11-3 Agbaou QAQC – Duplicate Tracking



Pass/Fail thresholds for standards are derived directly from the statistical analysis for each standard provided by Rocklabs and are continually updated based on incoming results. A blank is deemed to



have failed if the assay reports higher than 0.05g/t gold. The threshold for duplicate failures is determined based on two calculations;

- The absolute difference between the original and duplicate assays exceeds 0.1g/t Au.
- The relative difference between the original and duplicate assays exceeds 35%. Relative difference is defined as the absolute difference between the two assays, divided by their arithmetic mean value.

11.5.1 Endeavour Field Duplicates

During recent drilling campaigns at Agbaou, coarse material duplicate samples were submitted to the BV laboratory as blind field duplicates. SRK (2012) reviewed the results reported and found a significant scatter between individual duplicate samples but an overall similarity and no significant bias. In order to explore the scatter the following subsets of data were investigated:

- The dataset without obvious outliers;
- The dataset without the outliers and without samples that returned gold contents of less than 0.1 g/t gold.

The results of these repeated investigations are summarised in Table 11-1. In this table the error, as measured by the Root Mean Square Error Percentage ("RMSE %"), is an indication of the scatter and decreases with each successive exclusion.

Table 11-2 Summary Statistics for Field Duplicate Agbaou Samples (After SRK)

Data Subset	Number of Samples	Mean for Primary Samples	Mean for Duplicate Samples	Error RMSE%
Full dataset	205	0.87	0.88	73%
Less Outliers	203	0.82	0.81	65%
< 0.1g/t	75	2.08	2.08	41%

11.5.2 Endeavour Standards

Samples of six Certified Reference Materials ("CRM's") were added as blind samples by Endeavour to the batches of samples submitted to the BV Laboratory during the 2010-11 campaign. The results of the analyses of these CRM's are summarised in Table 11-2.

Table 11-3Summary Statistics for Agbaou CRM's (After SRK)

Standard	Certified Value	Number of Analyses	Minimum	Maximum	Mean	% Difference	Number Outside Range	% Out
OxA71	0.085	6	0.07	0.08	0.08	11.76	0	0
OxF68	0.805	52	0.77	0.84	0.80	0.00	0	0
OxI54	1.868	37	1.74	1.97	1.83	1.61	0	0
OxI67	1.817	35	1.77	1.89	1.84	1.10	0	0
OxJ67	2.366	32	2.19	2.46	2.36	0.42	0	0
OxK79	3.532	34	3.50	3.62	3.57	1.13	0	0

As can be expected the analytical error is significantly larger for the low grade CRM (OxA71) although the results are still acceptable. This provides additional support for the decision in Section 11.5.1 above to consider only coarse field duplicates with grades in excess of 0.1g/t gold. The very



good results obtained for the other CRM's provides confidence in the BV Laboratory although they are not accredited in terms of ISO 17025.

11.5.3 Endeavour Blanks

Endeavour submitted blank material to the BV Laboratory as part of the QAQC protocol. Following the recommendation by Coffey (2008) certified blank material was also inserted in the sample batches. The results of the analyses of the blank material are summarized in Table 11-3.

Material	Number of Analyses	Minimum	Maximum	Mean	Number >0.05 g/t Au	%
Field Blank	212	0.005	0.12	0.007	1	0.5
Blank 34B	11	0.005	0.005	0.005	0	0

Table 11-4 Summary Statistics for Agbaou Blanks (After SRK)

Only one incident of potential contamination was reported (0.5% of blanks submitted) and this sample returned a value of 0.12g/t. The field blank in SRK's opinion provides a better indication of contamination during the milling stage and are therefore a better indication of between sample contaminations than the certified blank material (Wanless, et.al., 2012). The data is therefore accepted as no significant contamination was detected.

The data collected by BHP, Goldivoire and Endeavour was conducted in a professional manner by experienced geoscientists following industry standards and protocols.

The authors believe current sampling methods, sample preparation procedures, analytical techniques and sample security measures are considered appropriate and sufficient to meet current accepted industry standards.

12.0 DATA VERIFICATION

As the Qualified Person on Exploration for Etruscan and now Endeavour, Mr. Woodman, P. Geo. was responsible for monitoring all QA/QC programs for Agbaou since 2005 and has verified the data on an ongoing basis and completed periodic laboratory inspections.

Following the completion of the 2011-12 drill campaign and receipt of all assays a number of representative drill intervals are selected, representing between 1 to 3% of the total assays, for assay at a third party laboratory. The intervals selected generally contain a range of assays, from unmineralized material through high-grade samples.

Umpire assays completed at SGS Ghana in 2011 and SGS Lakefield in 2012 correlated very well with the original assays given the course nature of the gold at Agbaou (Figure 12-1).





Figure 12-1 Comparison of Original Agbaou Assays and Umpire Assays

The authors believe data reliability for surveying, hole-logging data, sample collection and assaying is considered to be high based on the QA/QC protocols and procedures, including; umpire assaying, down-hole surveys and data tracking via digital database, consistently used by Endeavour personnel make the data adequate for Mineral Resource and Mineral Reserve estimation.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Agbaou mill has a design capacity to treat approximately 1.6Mt/a but is currently processing up to 2.2Mt/a of softer oxide ore. The plant recovers gold by crushing, grinding, gravity concentration, cyanide leaching, adsorption onto carbon, desorption, electrowinning and smelting to produce doré bars.

13.1 BULK DENSITY

A total of 654 bulk density determinations have been collected from the Agbaou deposit (Table 13-1). A total of 277 determinations have been completed by TWL Laboratories, 363 were completed by Endeavour (of these, some have been also determined by TWL) and 48 were completed prior to ERCI's involvement. Only determinations completed since ERCI's involvement are considered.

Weathering Zone	Number of Measurements	Average Value
Laterite	19	2.10
Saprolite	247	1.66
Saprock	127	2.00
Bedrock	207	2.65

 Table 13-1
 Bulk Density Determination Sampling by Weathering Profile



The procedure used by both Endeavour and TWL is detailed below and is based on the Archimedes Principle as follows:

- 10cm billet of clean core is weighed (note the core is not oven dried prior to bulk density determination);
- Core is immersed in paraffin wax then reweighed to establish weight of the wax;
- Core is then suspended and weighed in water to determine the volume;
- The Bulk Density is then calculated using the equation: Bulk Density core = [Mass core] / [(Mass air – Mass water) – (Mass wax / 0.99)].

Coffey (2008) recommended that the core should be oven dried to a maximum of 60°C for a 6 hour period prior to bulk density determination. Endeavour is of the opinion that the difference in density between the air dried and oven dried samples would not be significant.

The TWL/Endeavour methodology represents an industry standard approach with a high level of consistency noted within and between the datasets. Bulk density determinations have been conducted in accordance with industry standard procedures and the authors believe the bulk density determination methods are appropriate and sufficient to meet current accepted industry standards.

13.2 METALLURGICAL TESTING

The most recent metallurgical and comminution testwork was performed by Patterson & Cooke Consulting Engineers, Pty. Ltd. ("P&C") and Maelgwyn Mineral Services Africa ("MMS") on Agbaou samples from the Main and South deposits in 2011. Prior to this, Mintek tested Agbaou samples in 2008.

The results from the initial feasibility study were reviewed and a metallurgical test program was designed whose results would support the process flowsheet selection (Figure 13-1). Various laboratories and or vendors were selected to carry out these tests, namely:

- MMS Aachen (high shear reactor-HSR) testwork, gravity and leach tests, cyanide detox testwork;
- Knelson Africa Gravity (GRG) testwork;
- P&C Thickening and rheology testwork and viscosity modifier tests, and;
- Orway Mineral Consultants Interpretation of comminution results, design and modelling of the comminution circuit.



Figure 13-1 Metallurgical Testwork Flowsheet



13.2.1 Metallurgical Sampling

A full suite of samples were collected for metallurgical and comminution testwork to cover a range of weathering and grade profiles.

13.2.2 Head Analysis

Full elemental analysis was conducted on the saprolite and bedrock composites. A summary showing Au, Ag, As assays and the specific gravity ("SG").



Table 13-2Head Assays

		Saprolite			Bedrock			
	Au(g/t)	Ag (ppm)	As(ppm)	SG	Au(g/t)	Ag (ppm)	As(%)	SG
Composite	2.36	<1	111	2.79	2.99	<1	0.02	2.85
Variability								
Max	3.65	<1	347	2.85	2.57	<1	0.02	2.99
Min	1.71	<1	39	2.75	1.62	<1	0.01	2.77
Average	2.61	<1	148	2.80	2.08	<1	0.02	2.89
P85	3.14	<1	186	2.85	2.45	<1	0.02	2.98

13.2.3 Gravity Recoverable Gold

Gravity Recoverable Gold ("GRG") tests were conducted and plant GRG recoveries were predicted as shown in the Table 13-3.

		Saprolite	Bedrock
	GRG	44.1	31.1
Lab Results	Mass pull (%)	0.73	0.85
Results	Conc grade (g/t Au)	127.1	90.7
GRG	GRG (%) – Predicted Plant	30	20
Modelling	Mass pull (%)	0.02 to 0.03	0.02 to 0.03

13.2.4 High Shear Reactors Testwork

High Shear Reactors ("HSR") testwork was conducted to evaluate the following potential benefits; lower leach residence time, improve gold recovery and reduce reagent consumptions. Results of the testwork indicate using a HSR does improve the initial leach kinetics. Although it should be noted that after 20hrs, leach results with and without HSR were similar to conventional leaching.

Even though the HSR had the benefits as indicated above, it was not included in the design because oxygenation test results indicated that sparging oxygen gives comparable gold extraction.

13.2.5 Oxygenation Testwork

Leach tests were performed to assess the use of oxygen or air for improved gold recovery and included the following tests:

- Without air or oxygen sparging as a base case;
- With air sparging, and;
- With oxygen sparging.

The effect of air and oxygen on gold extraction results showed that oxygen sparging produced the best gold extraction and was therefore used in the process design (Table 13-4). The tests indicated that sparging oxygen gives the better gold extraction and requires less capital outlay in comparison with HSR and would therefore be the preferred method for oxygen introduction.



Table 13-4	Effect of Sparging Air / Oxygen on Gold Extraction	
------------	--	--

		Saproli	te		Bedroo	:k
	Gold Extraction	DO Level	Final Residue Value	Gold Extraction	DO Level	Final Residue Value
	%	mg/l	g/t Au	%	mg/l	g/t Au
No Air/Oxygen Sparging	93.08	10	0.08	89.06	7	0.29
With Air Sparging	95.03	10	0.06	90.79	8	0.25
With Oxygen Sparging	97.14	20	0.04	92.86	19	0.20

13.2.6 Composite Leach Kinetic Results by Percentage Solids

Saprolite and bedrock leach kinetic tests were performed at time intervals between 2hrs and 48hrs at the following percentage solids weight to weight ("w/w") to assess the leach kinetics of saprolite and bedrock ores types:

- 30% (saprolite only);
- 35% (saprolite only);
- 40%, and;
- 45%.

The testwork indicated the following optimum leach conditions for saprolite and bedrock:

- Saprolite 24hrs leach time at 40% solids;
- Bedrock 32hrs leach time at 42% solids. (42% was selected for design purposes as it is easily achievable with densifying cyclones)

13.2.7 Preg-Robbing Testwork

Preg-robbing tests were performed using leach rate tests with and without carbon addition on the saprolite composite and bedrock composite samples. The results indicate significant preg-robbing tendencies for both the saprolite and bedrock ore (Table 13-5). The effect of pre-robbing was performed using rate tests with and without carbon addition at the following leach times; 2hrs, 4hrs, 6hrs, 8hrs and 24hrs.

		Saprolite		Bedrock				
Time		Au Dissolution (%)		Au Dissolution (%)				
	With Carbon	Without Carbon	Preg- Robbing	With Carbon	Without Carbon	Preg- Robbing		
2hrs	55.16	27.04	28.12	58.70	42.78	15.92		
4hrs	76.34	65.00	11.34	63.77	51.86	11.91		
6hrs	81.41	69.62	11.79	69.70	62.61	7.09		
8hrs	84.75	72.84	11.91	76.59	70.99	5.60		
24hrs	92.47	75.32	17.15	91.36	78.82	12.55		
Average		•	16.06			10.61		

Table 13-5Effect of Preg-Robbing

The results indicated that the preg-robbers were most active during the initial stages of leach with 28.12% and 15.92% gold lost to preg-robbers in the first two hours for the saprolite and bedrock ores respectively. Due to the high preg-robbing tendency of the ore, a CIL circuit was selected in the



process design and cyanide detox was included to minimize cyanide contact with the gold prior to activated carbon being present.

Current operations have demonstrated that with the high activity of the activated carbon in leach, preg robbing has not been an issue.

13.2.8 Variability Preg-Robbing Testwork

Since preg-robbing test on the composite samples indicated that the bedrock and saprolite ores contain high pre-robbers, variability preg-robbing tests were conducted on the variability samples to identify if the preg-robing tendency is across the entire ore body. The variability preg-robbing tests were performed at a residence time of 2hrs since the initial rate tests indicated that the preg-robbers are most active in the first 2hrs.

Table 13-6 includes the variability preg-robbing results on the saprolite and bedrock ore and the results indicate the following:

- Preg-robbing on the variability saprolite samples ranged from 8.45% to 26.72% with an average of 17.28%;
- Preg-robbing on the variability bedrock samples ranged from 17.25% to 34.55% with an average of 25.02%.

	•		Au Dis	solution (%)	Preg-robbing
			With carbon	Without carbon	(%)
	Var 1	North	62.83	28.28	34.55
	Var 2	North	44.30	24.87	19.43
	Var 3	North	47.61	18.74	28.87
Bedrock	Var 4	North	37.94	20.69	17.25
	Min				17.25
	Max				34.55
	Average				25.02
	Var 1	South	70.82	48.00	22.82
	Var 2	South	58.02	39.41	18.62
	Var 3	South	55.59	41.52	14.07
	Var 4	South	65.25	56.79	8.45
	Var 5	North	58.42	44.86	13.56
Saprolite	Var 6	North	81.90	61.20	20.70
	Var 7	North	53.88	27.17	26.72
	Var 8	North	73.14	59.81	13.33
	Min			•	8.45
	Max				26.72
	Average				17.28

Table 13-6 Variability Preg-Robbing Results Summary

The results confirmed the presence of preg-robbers and showed that the preg-robbing tendency of the ore is variable in nature.



13.2.9 **Thickening and Rheology Testwork**

Thickening testwork conducted on the saprolite and bedrock ore indicated that both post leach slurries can be effectively thickened. However for the bedrock slurry, when raw water was used to dilute the slurry, the ionic strength changed causing poor settling properties and higher flocculant consumptions. When the ionic strength was altered back to the original values as received from leach, the settling properties and flocculant consumptions improved. This indicates that the bedrock ore is sensitive to changes in ionic strength i.e. pH (Table 13-7).

	Units	Saprolite	Bedrock
Solid SG		2.78	2.90
Flocculation Type		Magnafloc 6260	Magnafloc 6261
Dosing Concentration	%	0.025	0.025
Flocculation Dosage Rate	g/t	40	40*
Feed slurry Solid Concentration	% m/m	3	7.5
Critical Solids Flux Rate	t/(m².h)	0.2	0.3
Estimated U/F Solids Concentration	% m/m	40"	60
*This is provided the slurry is in a coagulated state price	or to the flocculation	stage.	•

Table 13-7 Thickening and Rheology Results

[#]The saprolite compacted to a 52% (m/m) solid concentration after a period of 24hrs picket racking

During the initial feasibility study, it was observed on Saprolite ore that viscosity issues may be encountered. In order to possibly increase cyclone overflow densities to higher values, viscosity modifier testwork was conducted. Viscosity tests were conducted on the saprolite ore at natural and at an elevated pH of 10.5 at various percentage solids. It was found that the yield stress at natural and at pH 10.5 was similar.

Viscosity modifiers Antiprex D and DP 725 were investigated to assess if they could reduce the viscosity issues. The results showed that viscosity modifiers did reduce the viscosity of the saprolite slurry and at this stage was not included as part of the design as insufficient tests were performed. In addition to this, the tests were performed on the milled product only and not on the thickener underflow.

Tests were conducted at varied concentrations of the viscosity modifier. From the tests, the following optimum viscosity additions were selected:

- 0.3ml of Antiprex D per litre of slurry which translates to 354ml per tonne of dry ore.
- 0.9ml of DP 725 per litre of slurry which translates to 1,063ml per tonne of dry ore.

Variability leach tests were performed at optimum conditions to determine the dissolutions and reagent consumptions. This was then compared to the optimum results to determine the ore's variability and it was observed that the ore was not highly variable (Table 13-8).



	Variability Leach on Midds & Tails											
		Sapro	lite	Bedrock								
	Final Residue	Au Dissolution	Reagent Consumptions		Final Residue	Au Dissolution	Reagent Consumptions					
	Solid (g/t Au)	%	Cyanide (kg/t)	Lime (kg/t)	Solid (g/t Au)	%	Cyanide (kg/t)	Lime (kg/t)				
Max	0.12	95.75	0.40	4.86	0.18	93.64	0.21	1.68				
Min	0.05	89.06	0.16	2.11	0.09	89.70	0.14	1.03				
Ave	0.08	92.42	0.26	2.81	0.13	91.94	0.16	1.31				
Pas	0.10	93.53	0.33	3.23	0.16	93,53	0.18	1.50				

Table 13-8 Variability Leach Results on Middles and Tails

Selected leach parameters were varied to obtain optimum conditions for the design of the leach circuit. Table 13-9 is a summary of the optimum leach parameters selected.

Table 13-9 Optimum Leach Parameters

	Optimum Leach Cond	itions
	Saprolite	Bedrock
Cyanide Addition	0.7kg/t	0.7kg/t
Residence Time	24hrs with oxygen sparging	24hrs with oxygen sparging
pH	10.50	10.50
Solids (% m/m)	40	42

Current operations have demonstrated that high viscosity is not a problem and no viscosity modifier is required.

13.3 MINERAL PROCESSING

The Agbaou plant is designed to recover gold from a variably weathered orebody at a total treatment rate of between 1.3 and 1.6 million tonnes per annum. Current operations have attained 2.2 million tonnes per annum in saprolite ore. The average feed grade for Agbaou over the life of the mine is expected to be 2.4g/t.

Engineering firm SENET designed the plant as part of the feasibility study.

Testwork conducted by a number of laboratories confirmed the ore is amenable to grinding and gravity concentration, followed by conventional cyanide leaching of the gravity tailings and the circuit is designed accordingly.

During the mine life the Agbaou plant will receive ore from the Main, South and West pits as well as the recently defined satellite pits.

The Agbaou processing plant uses the conventional gravity/CIL gold recovery process, similar to various facilities in operation in West Africa and consists of single stage primary crushing operation, SAG milling, ball milling, gravity concentration and cyanidation by CIL. An Anglo American Research Laboratory elution circuit is utilized for recovery of gold from loaded carbon.

The Agbaou mill design flowsheet is provided in Figure 17-1 of this report.



14.0 MINERAL RESOURCE ESTIMATES

The grade control reconciliation to mineral resource models support the current mineral resource and mineral reserve estimates for the North, North Satellite and South deposits were most recently updated by SRK and SENET in 2012 as part of the Agbaou Feasibility Study prepared for Endeavour. The mineral resource models for the remaining deposits were most recently updated internally by Endeavour in 2014. The mineral resource interpolations were documented in the Agbaou Feasibility Study Update. Since 2012 significant exploration was conducted on the Agbaou satellite deposits.

14.1 DATA

The database used during the resource interpolation includes 193 core holes and 931 RC holes (Table 14-1).

Donosit	BH	IP/Goldivo	ire		Endeavour	
Deposit	Metres	Metres DDH RC I		Metres	DDH	RC
North	16,358	5	95	32,274	66	199
South	5,822	2	40	12,813	66	32
West	1,612	0	20	8,440	25	90
North Satellite	0	0	0	8,015	7	106
MPN	0	0	0	1,693	4	20
P2-7	864	0	9	9,581	9	135
P4-5-6	0	0	0	11,855	9	185
Total	24,656	7	164	84,671	186	767

Table 14-1 Agbaou Drilling Compilation by Method and Deposit

14.2 TOPOGRAPHY AND WEATHERING SURFACES

The topographic triangulation was generated from the 2012 LIDAR topographic survey which covers the full extension of the area used for modeling. The mine areas in the North, South and North Satellite areas were updated from the December 31, 2014 mine survey.

The drilling database contains information on the weathering classification of the rocks and surfaces were created to represent the bottom of saprolite and saprock units by extracting the bottom coordinates of the last occurrences logged for these units and visually checked the spatial distribution of these points.

14.3 GEOLOGICAL MODELLING

Three-dimensional solid bodies representing the extent of the gold mineralization were constructed for each auriferous zone, based on sectional and level plan interpretations (Figure 14-1 and Figure 14-2). The modelling resulted in the creation of a number of wireframes based on the gold mineralization (Table 14-2). All logged geological data including lithology, quartz-veining, sulphide content, alteration, etc., have been used when constructing the grade shells where possible.





Figure 14-1 North, South Pit and Satellite Zones Wireframe Models

Figure 14-2 Resource Pit Shell and Wireframe Models





Deposit	Grade Shells
North	1 thru 7,9,10
South	1 thru 4,9
West	51 thru 61
North Satellite - P1	69 thru 72
MPN	21 thru 24
P4-5-6	27 thru 42,49
P2-7, NP Flat	300,73 thru 78
Beta	79 thru 91
Gama	43 thru 48
SW	62 thru 65,95 thru 98
Laterite	11

Table 14-2 Modelled Grade Shells by Deposit

Grade shells were produced based on a gold threshold at a 0.5 g/t cut-off. Intercepts below this threshold would occasionally be included to account for geologic continuity. Minimum widths of the interpretations were 1 to 2m depending on continuity and grade of the mineralization.

Based on logging information, a number of sub-domain surfaces were used to subdivide the gold mineralization based on density, mining and properties of each of the rock types were created. The sets of surfaces that were modeled included: two surfaces defining the boundaries between oxidation levels of the sulphide minerals (oxidized, transition and fresh) and three surfaces defining the boundaries between intensity of weathering (laterite, saprolite, saprock and bedrock).

The sectional interpretations along all drill lines were linked to form a solid wireframe envelope. Wireframes were typically extended half the distance between drillhole lines where the drilling terminated along strike, or where the mineralization was interpreted to terminate. Plan views at stepped elevations were used to verify the interpretation of the mineralized zones.

Mineralization has also been modelled in the laterite that overlies most of the project. The mineralization is not limited to the sub-crop position of the primary mineralized zones; however the tenor of the laterite mineralization above the primary mineralization is generally enhanced. The laterite unit was modelled as a whole, without grade selectivity.

14.4 ASSAY COMPOSITING

Gold assay data from the Agbaou deposits were composited to 2m lengths and used to interpolate gold grades into a block model. The 2m size was selected as a compromise between the Selective Mining Unit ("SMU") scale, and the minimum interpreted grade shell widths of 1 to 2m. All missing data and intervals less than 1m length were excluded from the compositing process. RC, diamond core and trench data were considered for the study.

Composited data were extracted for each domain and basic statistics were analyzed.

14.5 STATISTICAL ANALYSIS

Statistical analysis has been undertaken for each of the evaluated deposits based on composites generated from available exploration data, coded by the weathering and oxidation profiles, and



grade shells. The statistical investigations included descriptive and distribution analyses, assessment of outliers and indicator statistics.

Typical of gold deposits, the grade distributions for the composite data are positively skewed, with the coefficient of variation ("CV") for several envelopes being moderate to high, indicating the need for substantial adjustment of the mean grade and/or restriction of high grades in some domains.

14.6 GRADE CAPPING

Assessment of the high grade composites was completed to determine a series of high grade cuts or caps. These cuts were determined for each deposit and applied to the composites (Table 14-3).

Currela		ι	Jncut				Сар	ped			
Grade Shell	No.	Mean	Std. Dev.	CV	HG Cap	No. Cut	Mean	Std. Dev.	CV	Metal Loss	
North and	North and South										
1	1243	2.9	5.01	1.73	30	6	2.81	4.3	1.53	-2.9%	
2	1097	2.05	4.21	2.05	28	5	1.99	3.48	1.75	-3.1%	
3	175	1.33	2.52	1.9	15	1	1.27	2.06	1.62	-4.4%	
4	342	1	1.84	1.84	8	6	0.95	1.56	1.64	-4.7%	
5	151	5.89	12.17	2.07	40	3	5.41	9.71	1.8	-8.2%	
6	134	4.74	9.52	2.01	25	7	4.07	6.23	1.53	14.1%	
7	324	1.61	3.15	1.96	15	6	1.52	2.67	1.75	-5.1%	
9	291	1.05	1.89	1.81	15	2	1.03	1.74	1.69	-1.4%	
10	118	2.15	4.44	2.06	25	2	2.09	4.09	1.96	-2.8%	
11	2828	0.52	3.44	6.63	20	3	0.45	1.08	2.42	14.3%	
West											
51 to 61	578	1.53	2.21	1.44	10	8	1.49	1.94	1.31	-4.9%	
North Sate	ellite (P	L)									
69 to 72	324	2.52	6.64	2.24	13	10	2.03	3.09	1.52	-5.8%	
MPN					-	-	-				
21 to 24	318	2.9	8.79	3.02	15	9	2.32	3.46	1.49	-8.0%	
P4-5-6											
41 to 45	419	2.99	4.67	1.56	10	12	2.69	2.59	0.96	-9.1%	
P2											
73 to 78	216	2.19	4.7	2.15	10	8	1.48	2.17	1.47	-5.0%	
Beta											
79 to 91	82	9.31	10.74	1.15	15	11	4.92	4.46	0.91	-23.6%	
Gama											
43 to 48	88	5.32	10.56	1.98	10	7	4.18	3.6	0.86	-23.5%	
SW											
65 to 65 95 to 98	141	2.23	2.13	0.95	10	3	2.22	2.01	0.94	-0.5%	

 Table 14-3
 High Grade Cuts and Summary Statistics



14.7 VARIOGRAPHY

Grade and indicator variography was generated for the gold composites generated for the North, South, West, North Pit Satellite, P4-5-6 and P2-7. The variography was based on the composited data with high grade cuts applied prior to the variogram generation.

Grade and indicator variograms were generated for zones 1 and 2 have a large number of composites and along with the laterite zone (zone 11) are the best informed zones. Zones such as 4, 7 and 9 also have a significant number of composites, while Zone 3, 5, and 6 have too few samples to be able to characterise the grade population adequately. For poorly informed zones, the semi-variogram models from better informed zones, which showed the most similar grade characteristic, were used but with a semi-variogram model scaled to the variance of the data within each zone.

Table 14-4 lists the variogram parameters.

	F	Rotation				Str	ucture 1			Stru	ucture 2		Structure 3			
Domain				Nugget C0	I	Range (r	n)		I	Range (r	n)			Range (m	ı)	Sill
	z	Y	x		Strike	Dip	Down Hole	Sill C1	Strike	Dip	Down Hole	Sill C1	Strike	Dip	Down Hole	C1
North and South	North and South															
1	40	45	0	6.72	22	22	4	9.14	112	112	15	9.19				
2	30	45	0	5.14	7	7	5	8.21	30	30	28	2.27	242	242	242	2.11
3	40	45	0	2.99	50	50	12	3.34	0	0	0	0.00				
4	40	45	0	1.40	22	22	4	1.40	112	112	15	0.58				
5	40	45	0	14.41	22	22	4	104.69	112	112	15	27.92				
6	30	45	0	33.10	22	22	4	12.90	112	112	15	43.95				
7	30	45	0	3.50	7	7	5	4.88	30	30	28	1.53	242	242	242	1.18
9	30	45	0	1.86	78	78	25	1.42	4	4	52460	0.29				
10	30	45	0	5.82	7	7	5	1.66	30	30	28	12.02	242	242	242	2.32
11	30	0	0	0.08	48	48	7	0.12	265	370	19	0.11	0.04	1180	980	600
66 thru 68	55	30	0	20.22	5	5	7	12.82	26	26	12	4.95				
West				-												
51 thru 61	150	-40	0	1.00	40	40	5	4.40								
North Satellite (P1)															
69 thru 72	258	39	54	1.30	40	40	6	7.81								
MPN																
21 thru 24	120	-55	0	1.00	40	40	10	5.50								
P4-5-6																
30,39,40	57	30	0	2.00	30	30	10	8.00								
32 thru 38	225	8	30	1.20	40	40	10	2.57								
31	150	-55	0	3.10	40	40	10	3.00								
41,42	270	50	75	1.04	40	40	10	7.94								
43,44	120	-32	0	2.00	40	40	5	8.00								
P7]							
72 thru 78	151	-43	15	0.52	40	40	7	4.60								

Table 14-4Variogram Model Parameters



14.8 GRADE INTERPOLATION

Three dimensional block-models were generated for deposits to enable grade estimation via a combination of MIK, OK grade interpolations and inverse distance methods. The block model block size, in each case, was selected to represent the available data, the data characteristics (variability as defined by variography) and current mining practices (Table 14-5).

Table 14-5 Parent Block Size

		Parent Block	(
Deposit	E	N	RL
	(m)	(m)	(m)
North	2.5	5	2.5
South	2.5	5	2.5
West	2.5	5	2.5
North	2.5	5	2.5
MPN	2.5	5	2.5
P4-5-6	2.5	5	2.5
P2-7	2.5	5	2.5
Gama	2.5	5	2.5
SW	2.5	5	2.5
Beta	2.5	5	2.5

Block model development was completed in Datamine by SRK in the North, South and West Pit resources and the satellite areas were modeled in-house using Surpac software package for each deposit. Mineralized domain and weathering domain coding was established in the block model, based on the modelled wireframe constraints. In addition, sufficient variables were created to enable recording of the results from MIK, selective mining estimates, estimation statistics, density stratification, and resource classification.

Gold grade interpolation has been completed using a combination of MIK, OK and ID methods. Grade interpolation within the grade shells was completed in 1 to 3 passes (Table 14-6).

Grade			Axis		Min	Max	Max
Shell	Pass	Major	Semi-Major	Minor	Number	Number	Composite
Shell		(m)	(m) (m)		Composite	Composite	per Hole
	1	45	45	15	24	32	6
North	2	60	60	22.5	18	32	6
	3	100	100	50	8	32	6
	1	40	40	15	24	32	6
South	2	60	60	22.5	18	32	6
	3	100	100	50	8	32	6
Satellites	1	40	40	10	5	25	3
Satellites	2	80	80	10	3	25	3

 Table 14-6
 Interpolation Parameters



14.9 GRADE INTERPOLATION VALIDATION

Visual and statistical checks were completed on each generated resource model to ensure the model was robust. The statistical checks and visual validation completed during validation of the Agbaou deposits include the following;

- Comparison of the kriging (whole grade estimate) versus the mean of the composite dataset, including weighting where appropriate to account for data clustering.
- A comparison of the grade estimate against a theoretical change-of-support analysis generated via the discrete Gaussian change-of-support.
- Visual checks of cross sections and plans.

14.10 MINERAL RESOURCE CONSTRAINTS

The mineral resources are defined within an optimal pit shell generated using the following parameters:

- overall pit slope of approximately 35 degrees;
- commodity price of USD1,600/oz Au;
- average process recovery of 92%;
- average process cost of USD12/t and royalties;
- refinery and selling cost of USD60/oz of Au sold (4% of sell price), and;
- 0.5 g/t cut-off.

The resource model was updated for the ore zones with new drilling information (P1, P2, P4, P5, P6, WP, MPN, Beta, Gama and SW) in December 2014. The resource model for all the other zones was not changed from the August 2013 SRK update except for depletion due to mining, as of December 31, 2014.

14.11 MINERAL RESOURCE CLASSIFICATION

The Mineral Resources have been classified according to the "CIM Definition Standards - For Mineral Resources and Mineral Reserves" (May, 2014) as a combination of Measured, Indicated, and Inferred mineral resources based on the confidence level.

Confidence levels were determined for the North, South, West and Satellite deposits based on a number of key criteria including; drilling, logging, and sampling techniques, QAQC results, density of drill data and the continuity of the geometry and grade in each of the various grade shells.



14.12 MINERAL RESOURCE STATEMENT

Endeavour reviewed and reconciled the current mineral resources for Agbaou with an effective date of December 31, 2014. A summary of the mineral resources at a cut-off of 0.5g/t for all of the deposits is provided in Tables 14-7 and 14-8.

	Mineral Resources (including reserves)												
Deposit	Measured			Indicated			Measured & Indicated			Inferred			
	kt	g/t	kozs	kt	g/t	kozs	kt	g/t	kozs	kt	g/t	kozs	
Oxide													
North/South	1,834	2.78	164.2	1,789	2.32	133.2	3,623	2.55	297.4	83	1.57	4.2	
Laterite				1,617	1.01	52.6	1,617	1.01	52.6	373	0.66	7.9	
Flat				60	0.71	1.4	60	0.71	1.4	23	0.54	0.4	
MPN				281	2.50	22.6	281	2.50	22.6	21	2.48	1.7	
P1				9	1.92	0.6	9	1.92	0.6	6	0.74	0.1	
P2				132	1.91	8.1	132	1.91	8.1	20	1.96	1.2	
P4				90	3.56	10.2	90	3.56	10.2	11	2.97	1.1	
P5				380	2.77	33.9	380	2.77	33.9	70	2.27	5.1	
P6				215	2.98	20.7	215	2.98	20.7	42	2.09	2.8	
WP				1,083	1.82	63.2	1,083	1.82	63.2	119	1.12	4.3	
Beta				83	2.94	7.9	83	2.94	7.9	107	4.53	15.6	
Gama				95	3.78	11.5	95	3.78	11.5	35	3.94	4.4	
SW				33	2.73	2.9	33	2.73	2.9	173	3.07	17.0	
Sub-Total	1,834	2.78	164.2	5,868	1.95	368.8	7,702	2.15	532.9	1,080	1.89	65.7	
Transition													
North/South	343	3.65	40.1	547	2.42	42.5	890	2.89	82.7	11	2.40	0.8	
MPN				2	3.44	0.2	2	3.44	0.2	0	2.77	0.0	
P4				32	3.00	3.0	32	3.00	3.0	1	3.74	0.1	
P5				34	3.05	3.3	34	3.05	3.3	5	3.78	0.6	
P6				7	3.18	0.7	7	3.18	0.7	1	2.79	0.1	
WP				176	1.66	9.4	176	1.66	9.4	17	1.14	0.6	
Beta				4	3.25	0.4	4	3.25	0.4	11	3.58	1.2	
Gama				9	4.01	1.2	9	4.01	1.2	9	2.81	0.8	
SW				1	2.85	0.1	1	2.85	0.1	23	1.84	1.4	
Sub-Total	343	3.65	40.1	812	2.33	60.9	1,154	2.72	101.1	78	2.27	5.7	
Fresh													
North/South	395	2.70	34.2	3,871	2.90	360.5	4.266	2.88	394.7	398	1.94	24.8	
MPN				16	2.83	1.4	16	2.83	1.4	6	0.79	0.2	
P4				8	1.78	0.4	8	1.78	0.4			-	
P5	1			25	4.03	3.3	25	4.03	3.3	3	5.37	0.5	
P6	1			12	2.64	1.0	12	2.64	1.0	5	3.05	0.5	
WP				231	3.04	22.6	231	3.04	22.6	51	3.60	5.9	
Beta	1			8	3.08	0.8	8	3.08	0.8	21	3.10	2.1	
Gama	1			207	5.15	34.3	207	5.15	34.3	427	3.38	46.4	
SW				0	3.32	0.0	0	3.32	0.0	11	2.05	0.8	
Sub-Total	395	2.70	34.2	4,378	3.01	424.4	4,773	2.99	458.6	923	2.73	81.1	

Table 14-7Agbaou Resource 0.5 g/t Cut-Off by Weathering



	Resources (including reserves)													
Deposit	Measured			Indicated			Measured & Indicated			Inferred				
	kt	g/t	kozs	kt	g/t	kozs	kt	g/t	kozs	kt	g/t	kozs		
North/South	2,572	2.89	238.5	6,207	2.69	536.3	8,779	2.75	774.8	491	1.89	29.8		
Laterite				1,617	1.01	52.6	1,617	1.01	52.6	373	0.66	7.9		
Flat				60	0.71	1.4	60	0.71	1.4	23	0.54	0.4		
MPN				299	2.52	24.3	299	2.52	24.3	27	2.39	2.1		
P1				9	1.92	0.6	9	1.92	0.6	6	0.74	0.1		
P2				132	1.91	8.1	132	1.91	8.1	20	1.96	1.2		
P4				129	3.32	13.7	129	3.32	13.7	12	2.99	1.1		
Р5				439	2.87	40.4	439	2.87	40.4	78	2.50	6.3		
P6				234	2.97	22.4	234	2.97	22.4	47	2.20	3.3		
WP				1,490	1.99	95.2	1,490	1.99	95.2	187	1.79	10.8		
Beta				96	2.97	9.1	96	2.97	9.1	139	4.58	20.5		
Gama				311	4.70	47.0	311	4.70	47.0	471	3.41	51.6		
SW				35	2.74	3.0	35	2.74	3.0	207	2.88	19.2		
Stockpile	304	1.65	16.1				304	1.65	16.1					
Total	2,875	2.8	254.7	11,058	2.40	854.1	13,933	2.48	1,108.8	2,081	2.31	154.3		

Table 14-8Agbaou Resource 0.5 g/t Cut-Off

The above mineral resource estimate has been determined and reported in accordance with Canadian National Instrument 43-101 "Standards of Disclosure for Mineral Projects" of June 30, 2011 and based on CIM Definition Standards for Mineral Resources and Mineral Reserves adopted by the CIM Council on May 10, 2014. Furthermore, the reserve classifications are also consistent with the "Australasian Code for Reporting of Mineral Resources and Ore Reserves" of December 2012 ("JORC Code") as prepared by the Joint Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia ("JORC").



15.0 MINERAL RESERVE ESTIMATES

The mineral reserve estimate effective December 31, 2014 is based on the mineral resources reported above and after consideration of the modifying parameters as described below.

In 2014 mining operations at Agbaou concentrated on the 1st Phase (Starters) of Main and South Pits from which a total of 19.56Mt of material were mined to deliver 2.74Mt of ore at an average grade of 1.97g/t containing 173,500oz of gold to the ROM pad.

The Agbaou mining operations were and continue to be carried out safely and efficiently. Mining recovery and dilution within the operating pits and the mine to mill and feasibility to grade control reconciliations were well managed and are in line with expectations.

15.1 RESOURCE MODEL OPTIMIZATION

Due to ongoing exploration drilling and consequent updates of resource models as well as geotechnical parameter optimization, the Agbaou resource model gets re-estimated and pit optimization is completed on a regular basis.

Overall, the technical modifying parameters remained reasonably similar to those used in the Agbaou Feasibility Study but there were minor refinements as described below.

The principal variations in technical modifying parameters were:

- Mining dilution was revised from 5% to 14% to reflect the mineralization distribution characteristics as reflected in recent grade control drilling and modeling work, and;
- Mining recovery was revised from 97% to 95% to reflect the equipment size and practical, achievable ore/waste discrimination.

On the costing side the principal variations to the modifying parameters were:

- Total processing costs for oxides have been revised from USD20.13 per tonne to USD23.94 per tonne to reflect realized energy, reagent and grinding media consumption patterns and prices and engineering maintenance costs in 2014;
- Total processing costs for transition have been revised from USD21.96 per tonne to USD29.02 per tonne to reflect realized energy, reagent and grinding media consumption patterns and prices and engineering maintenance costs in 2014;
- Total processing costs for fresh have been revised from USD23.10 per tonne to USD30.63 per tonne to reflect realized energy, reagent and grinding media consumption patterns and prices and engineering maintenance costs in 2014, and;
- The gold price has been increased from USD1200 per ounce to USD1350 per ounce for pit optimization purposes.

Grade control costs are based on a RC drilling rate of USD19 per meter and assaying cost of USD9.5 per assay.



The key modifying parameters upon which the 2014 mineral reserve estimates were made are summarized in Table 15-1.

Parameter	Oxide	Transition	Fuesh			
Description	Units	Oxide	Transition	Fresh		
Process Recovery	%	96%	92.3%	91.4%		
Process Plant Throughput	Mtpa	2.2	1.34	1.34		
Gold Price	USD/oz	1,350	1,350	1,350		
Royalty	%	4.00%	4.00%	4.00%		
Refining / Trans / Insurance	USD/oz	6.19	6.19	6.19		
Effective Revenue Price	USD/oz	1,290	1,290	1,290		
Effective Revenue Price	USD/g	41.47	41.47	41.47		
Mining Cost	USD/t mined	BC	BCM contract rates			
Incremental Mining Cost - Depth	USD/t mined/bench	BCM contract rates				
Dewatering/crusher/supervision	USD/t ore milled	5.05	5.81	6.07		
Processing Cost	USD/t ore milled	10.09	13.09	13.98		
Site G&A Cost	USD/t ore milled	8.8	10.12	10.58		
Total 'Process' Cost	USD/t ore milled	23.94	29.02	30.63		
Plant Cut-off Grade	g/t	0.6	0.8	0.8		
Overall Pit Slope	Degrees	30	45	50		
Mining Dilution	Percent	14	14	14		
Mining Loss	Percent	5	5	5		
Mining in-situ Cut-off Grade	g/t	0.7	0.9	0.9		

Table 15-1Pit Optimization Parameters

15.2 PIT OPTIMIZATION AND DESIGN

The open pit optimization analysis was carried out for a wide range of gold prices, from a low of USD810/oz to a maximum of USD1863/oz in increments of 0.02 of base case (revenue factor 1, steps of USD27/oz). Such variance allows the determination of the starter pit shell for further NPV improvement (when necessary and applicable).

The resource models were exported from Surpac to Whittle/Gemcom Four-X where the open pit optimization calculations were performed. Only Measured and Indicated mineral resources were taken into consideration. The Inferred mineralized material has not been used as a revenue source in the optimization.

The Whittle/Gemcom Four-X Analyzer software provides guidance to the potential economic final pit geometries. Whittle 4X compares the estimated value of individual mining blocks at the pit boundary versus the cost for waste stripping. It establishes the pit walls where the ore revenue and waste stripping cost balance for maximum net revenue. The sequence of the pit shell increments is sorted from the economically best (the inner smallest shell viable for the lowest commodity price) to the economically worst (the outer largest pit shell is available for the highest commodity price).

Whittle Four-X provides indicative cash flows for three mining sequences called "best case", "worst case" and "specified case" scenarios, using time discounting of cash flows. In the best case, the optimum pit shells are mined bench by bench in increments from inner to the outer shell, resulting



in a higher discounted cash flow ("DCF") due to lower stripping ratios and/or higher grades in the early years of mine life. The worst case scenario is based on mining the whole pit outline bench by bench as a single pit, hence resulting in a lower DCF as a result of usually high stripping requirements in the early years of the operation. In the "specified case" scenario the user is able to set up the mining sequence, practical from a minimal mining width point of view, which often delivers outcomes similar or just slightly below of "best case" scenario. Ordinarily, after the selection of the ultimate pit, several practical mining stages are designed and sequenced when developing a final production schedule. The average discounted cash flows are calculated for each pit shell (mean of the worst and best cases) in order to emulate a practical mining sequence. The selected optimum pit shell is then engineered to generate practical pit designs that incorporate the design slope angles, access ramps and haul roads for operating open pits. The ore and waste tonnages in the practical pits are then estimated and scheduled to determine the ore production and resulting waste stripping requirements.

The results of the Agbaou optimization are shown in Table 15-2, Figure 15-1 and 15-2.



Figure 15-1 Whittle Pit-by-Pit Optimization Results


	Revenue	Au price	Total	Ore	Strip	Max	Min	Au	Au
Pit	Factor	USD/oz	МТ	Mt	Ratio	Bench	Bench	kozs	Grade
1	0.6	810	50.4	6.6	6.7	83	39	629	2.98
2	0.62	837	51.6	6.8	6.6	83	38	641	2.94
3	0.64	864	54.2	7.1	6.6	83	38	662	2.89
4	0.66	891	57.7	7.6	6.6	83	37	690	2.83
5	0.68	918	66.0	8.2	7.0	83	30	742	2.81
6	0.7	945	69.0	8.6	7.0	83	29	766	2.77
7	0.72	972	72.0	8.9	7.1	83	27	787	2.74
8	0.74	999	73.0	9.2	6.9	83	27	798	2.7
9	0.76	1,026	74.7	9.4	6.9	83	26	812	2.67
10	0.78	1,053	77.3	9.8	6.9	83	26	829	2.64
11	0.8	1,080	78.3	10.0	6.9	83	26	838	2.62
12	0.82	1,107	82.2	10.4	6.9	83	26	859	2.58
13	0.84	1,134	89.4	10.9	7.2	83	24	900	2.56
14	0.86	1,161	93.2	11.3	7.3	83	22	920	2.54
15	0.88	1,188	95.9	11.6	7.3	83	22	937	2.51
16	0.9	1,215	97.5	11.8	7.3	83	22	946	2.49
17	0.92	1,242	97.9	12.0	7.2	83	22	951	2.46
18	0.94	1,269	100.0	12.2	7.2	83	22	962	2.45
19	0.96	1,296	103.2	12.5	7.2	83	22	979	2.42
20	0.98	1,323	105.5	12.9	7.2	83	22	994	2.39
21	1	1,350	124.9	14.4	7.7	83	9	1090	2.35
22	1.02	1,377	126.2	14.6	7.6	83	9	1098	2.34
23	1.04	1,404	127.7	14.9	7.6	83	9	1109	2.31
24	1.06	1,431	130.4	15.2	7.6	83	8	1122	2.3
25	1.08	1,458	133.5	15.5	7.6	83	8	1137	2.28
26	1.1	1,485	134.7	15.7	7.6	83	7	1144	2.27
27	1.12	1,512	135.5	15.9	7.6	83	7	1149	2.25
28	1.14	1,539	138.7	16.1	7.6	83	6	1162	2.24
29	1.16	1,566	142.0	16.4	7.7	83	6	1174	2.23
30	1.18	1,593	143.3	16.5	7.7	83	6	1180	2.22
31	1.2	1,620	145.0	16.7	7.7	83	6	1186	2.22
32	1.22	1,647	148.8	16.9	7.8	83	6	1198	2.21
33	1.24	1,674	149.9	17.0	7.8	83	5	1203	2.21
34	1.26	1,701	151.3	17.1	7.9	83	5	1208	2.2
35	1.28	1,728	154.2	17.3	7.9	83	5	1217	2.19
36	1.3	1,755	154.8	17.3	7.9	83	5	1219	2.19

Whittle Pit-by-Pit Optimization Results Table 15-2





Figure 15-2 Pit Shell #21 with Measured and Indicated Ore

The shell, for subsequent pit designs and scheduling, was selected to balance mine-life against costs. A longer mine-life provides for more undiscounted cash flow, but it also results in higher stripping ratios and hence higher costs, and vice versa.

The maximum undiscounted cash flow was used as the indicator for the optimum pit also because discounted cash flow ("DCF") essentially penalizes higher grade blocks which are scheduled to be mined towards the end of the mine life. Generally optimum shells selected by discounted cash flow are smaller than those selected by undiscounted cash flow.

After the optimal pit shell was identified, a set of scheduling optimizations was conducted aiming defining the mining sequence that delivers the highest net present value ("NPV"). The practical mine design, mining schedule and year-by-year cash flow analysis were based on the mining sequence with Pit 2 as a starter pit and Pit 21 as a final pit (scenario with one pushback), as this sequence provides best NPV without compromising minimal mining width required for efficient work of mining equipment currently engaged in operation.



15.2.1 Pit Design

The practical pit design was prepared using the optimized pit shell as template. Surpac software was used to prepare the practical LOM designs, and to incorporate the haul roads and ramps together with the appropriate inter-ramp slope angles. In total, 10 pits were designed (Figure 15-3).

Figure 15-3 LOM Design, Whittle Shell Pits



The open pit design criteria were:

- Bench height, berm width and bench face angle were designed according to geotechnical recommendations of Golder Associates depending on lithology.
- Haul road width of 22m including safety berms providing sufficient room for two-way traffic for the 777D (90t) capacity haul trucks fleet that are currently used on site. This width was considered based on manufacturer recommendations. The recommendations indicate a minimum of 3.5m truck widths for two-way traffic and 3.0 to 4.0m passing width with 3.0m width for the safety windrow. The resulting road width is 22m with wider flat switchbacks. Minor ramps at the lower elevations of the pits have been reduced in width where traffic density will be lower.
- A haul road gradient of 10% has been used throughout.

A minimum mining width of 30m has been assumed for all pits. This width suits the backhoe excavator loading method and the Caterpillar 777D turning circle of 28.4m.



15.2.2 Waste Dumps

The waste dumps have been designed to Western Australian standards and the parameters used are summarised in Table 15-3 and located in Figure 15-4.

Table 15-3	Waste Dump Design Parameters
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Dump	Bench Face	Overall Slope	Berm Width	Bench Height	Dump Height	Capacity	Area
	deg	deg	m	m	m	Mm ³	ha
WD1	35	19	12	10	90	18	67
WD2	35	19	12	10	61	5	34
WD3	35	19	12	10	71	23	61
WD4	35	19	12	10	52	42	172

Figure 15-4 Mine Layout and Waste Dump Locations



The waste dump capacities have been based on a swell factor of 25%. No allowance for any in-pit or exhausted pit backfilling has been made.

The waste dump positions have been determined by taking into account geologically prospective ground, the existing drainage patterns, waste haulage profiles and the space and infrastructure issues required for the planned operations.



15.3 MINERAL RESERVE STATEMENT

A summary of the mineral reserves is provided in Tables 15-4 and 15-5.

Denesit	Weathering		Proven		Probable			Total		
Deposit	Туре	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
	Oxide	1,377	2.75	121.8	2,222	1.96	140.0	3,599	2.26	261.8
North Pit, MPN, P2	Transition	248	4.06	32.4	347	2.58	28.8	595	3.19	61.1
North Pit, WPN, PZ	Fresh	243	3.06	23.9	2,932	2.74	258.5	3,174	2.77	282.4
	Sub-total	1,867	2.97	178.0	5,501	2.42	427.3	7,368	2.56	605.3
	Oxide	408	2.34	30.7	562	2.04	36.8	971	2.16	67.6
South Pit	Transition	63	2.28	4.6	114	2.40	8.8	178	2.36	13.5
South Pit	Fresh	86	2.27	6.3	422	2.67	36.3	508	2.60	42.5
	Sub-total	558	2.32	41.6	1,099	2.32	81.9	1,657	2.32	123.6
	Oxide	0	0.00	0.0	883	1.93	54.8	883	1.93	54.8
WP	Transition	0	0.00	0.0	134	1.74	7.5	134	1.74	7.5
WP	Fresh	0	0.00	0.0	199	2.87	18.3	199	2.87	18.3
	Sub-total	0	0.00	0.0	1,216	2.06	80.6	1,216	2.06	80.6
	Oxide	0	0.00	0.0	127	3.07	12.5	127	3.07	12.5
CAMA DE	Transition	0	0.00	0.0	10	3.54	1.1	10	3.54	1.1
GAMA, P5	Fresh	0	0.00	0.0	179	5.12	29.4	179	5.12	29.4
	Sub-total	0	0.00	0.0	315	4.24	43.0	315	4.24	43.0
	Oxide	0	0.00	0.0	350	2.56	28.9	350	2.56	28.9
WP2	Transition	0	0.00	0.0	13	3.30	1.4	13	3.30	1.4
VVP2	Fresh	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
	Sub-total	0	0.00	0.0	364	2.59	30.3	364	2.59	30.3
	Oxide	0	0.00	0.0	94	3.14	9.5	94	3.14	9.5
P4	Transition	0	0.00	0.0	33	2.58	2.7	33	2.58	2.7
F4	Fresh	0	0.00	0.0	3	2.75	0.2	3	2.75	0.2
	Sub-total	0	0.00	0.0	129	2.99	12.4	129	2.99	12.4
	Oxide	0	0.00	0.0	61	3.94	7.7	61	3.94	7.7
P6	Transition	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
PO	Fresh	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
	Sub-total	0	0.00	0.0	61	3.94	7.7	61	3.94	7.7
	Oxide	0	0.00	0.0	91	1.67	4.9	91	1.67	4.9
BETA	Transition	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
DETA	Fresh	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
	Sub-total	0	0.00	0.0	91	1.67	4.9	91	1.67	4.9
	Oxide	0	0.00	0.0	24	2.43	1.9	24	2.43	1.9
sw	Transition	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
344	Fresh	0	0.00	0.0	0	0.00	0.0	0	0.00	0.0
	Sub-total	0	0.00	0.0	24	2.43	1.9	24	2.43	1.9
	Oxide	1,785	2.66	152.6	4,415	2.09	297.0	6,201	2.26	449.6
Total	Transition	311	3.70	37.0	651	2.40	50.3	962	2.82	87.3
TOTAL	Fresh	329	2.85	30.2	3,734	2.86	342.7	4,062	2.86	372.9
	Total	2,425	2.82	219.7	8,800	2.44	690.1	11,225	2.52	909.7

 Table 15-4
 Estimated Reserves at Agbaou by Weathering



Denesit		Proven		F	robable	e	Proven	and Pro	bable
Deposit	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
North	1,867	3.0	178	5,501	2.4	427	7,368	2.6	605
South	558	2.3	42	1,190	2.3	87	1,748	2.3	128
West	-	-	-	2,109	2.6	176	2,109	2.6	176
In-Situ Total	2,425	2.8	220	8,800	2.4	690	11,225	2.5	910
Stockpile	304	1.7	16	-	-	-	304	1.7	16
Grand Total	2,729	2.69	236	8,800	2.44	690	11,529	2.50	926

Table 15-5 Estimated Reserves at Agbaou as of December 31st, 2014

The above mineral reserve estimate has been determined and reported in accordance with Canadian National Instrument 43-101 "Standards of Disclosure for Mineral Projects" of June 30, 2011 and based on "CIM Definition Standards for Mineral Resources and Mineral Reserves" adopted by the CIM Council on May 10, 2014. Furthermore, the reserve classifications are also consistent with the "Australasian Code for Reporting of Mineral Resources and Ore Reserves" of December 2012 as prepared by the JORC.

The reserve classifications for both reporting systems are essentially the same, with only minor semantic differences in the naming conventions. Reserves are called "Ore Reserves" under the JORC Code and "Mineral Reserves" under the CIM standards. "Proved Reserves" under the JORC code are called "Proven Reserves" under the CIM Standards.

16.0 MINING METHODS

Contractor-based mining was the preferred option for Agbaou and BCM was the selected mining contractor. BCM is responsible for the site preparation (including removal of vegetation) haul road construction, excavation and haulage of ore to the Run of Mine ("ROM") pad and waste to the waste dumps, oversize breakage and equipment maintenance.

The mining operations are based on the use of hydraulic excavators and haul truck fleet engaged in conventional open pit mining techniques. The excavators load the free-dug or blasted material into the haul trucks, with the ore being transported to the processing area and the waste to the designated local waste dumps. Access roads will be developed as required for access into new areas. Where necessary, the main arterial roads outside of the pits, will be constructed to a minimum 30m width, including berms and drainage areas.

Topsoil in mining areas will be recovered during the pit preparation phase and stockpiled for future use with progressive waste dumps and possible pit rehabilitation.

The majority of the gold mineralized material will be transported to the ROM area, and discharged directly into the feed hopper.

All of the waste material from the excavation area will be hauled to the external waste dump, adjacent to the operational pits. The total waste to be moved is about 120Mt, which approximates to 65 million bank cubic metres and 82 million loose cubic metres of dumping volume for a bulk/swell factor of 25%.

The in-situ materials in hard and semi-hard rock will require drilling and blasting to assist fragmentation and subsequent loading. The oxide portion of the ore body is free digging or may be in need of light blasting in certain areas.



16.1 GEOTECHNICAL PARAMETERS

A review of the slope design was done by Golder Associates ("Golder') in February, 2014 and SRK (Ghana) in December, 2014 to compare the feasibility report geotechnical investigation with the current mining practice. The pit slope design reports are well written and comprehensive, with a reasonable discussion of assumptions, expected failure modes, sensitivity analyses, water management issues, and pit slope controlling factors. In saprolite material the following assumptions were made:

- Vertical bench separation is assumed to be 10m. In cases, where the 'relict' structures within the saprolite show the potential for planar failure, then the vertical bench separation could be limited to 5m high;
- The bench face angle(s) will be cut as steeply as possible to maximize water run-off and reduce the potential for erosion. In addition, wide berms would be used to retain any possible failure debris from the bench faces (or batters);
- Agbaou is located in an area of heavy seasonal rainfall and, consequently high water runoff and the potential for erosion is an important consideration for slope stability in the saprolite, and;
- Excavation will be primarily mechanical with the use of dozers or excavators.

Taking the above into consideration, it is recommended that within the saprolite the bench face (or batter) angles be at 70°, with a 6m bench width and 10m bench height.

For fresh slightly weathered to fresh rock, structural data and material properties reported in the Golder 2008 were used to assess the structural fabric of the Agbaou rock units and to review the pits. Kinematic analyses were conducted for investigating structurally controlled failure in rock slopes, i.e., planar, wedge and toppling failures. Limit-equilibrium stability of overall slopes was also considered. The various analyses led to the bench and slope parameters provided in the Table 16-1.



		Production	Vertical Bench				
State of Rock Weathering	Bench Face Angle	Bench Height (m)	Separation (m)	Berm Width (m)	Inter-ramp Angle		
		IORTHWEST (FO	DOTWALL)				
Saprolites & Saprock	70°	10 (5)	10	6	46.1°		
Slightly Weathered to Fresh Rock	60°	10 (5)	10	5	36.0°		
Main Pit – SOUTHEAST (HANGING WALL), NORTHEAST & SOUTHWEST (ENDWALLS)							
Saprolites & Saprock	70°	10 (5)	10	6	46.1°		
Slightly Weathered to Fresh	85°	10 (5)	10	7.8	49.1°		
Rock							
Rock Recommended Slope Configura	tions for Main S	outh Pit					
	tions for Main S Bench Face Angle	outh Pit Production Bench Height (m)	Vertical Bench Separation (m)	Berm Width (m)	Inter-ramp Angle		
Recommended Slope Configura	Bench Face Angle	Production Bench	Bench Separation (m)				
Recommended Slope Configura	Bench Face Angle	Production Bench Height (m)	Bench Separation (m)				
Recommended Slope Configura State of Rock Weathering	Bench Face Angle Main Pit – N	Production Bench Height (m) IORTHWEST (FC	Bench Separation (m) DOTWALL)	(m)	Angle		
Recommended Slope Configura State of Rock Weathering Saprolites & Saprock Slightly Weathered to Fresh	Bench Face Angle Main Pit – N 70° 55°	Production Bench Height (m) IORTHWEST (FC 10 (5) 10 (5)	Bench Separation (m) DOTWALL) 10 10	(m) 6 5	Angle 46.1° 39.8°		
Recommended Slope Configura State of Rock Weathering Saprolites & Saprock Slightly Weathered to Fresh Rock	Bench Face Angle Main Pit – N 70° 55°	Production Bench Height (m) IORTHWEST (FC 10 (5) 10 (5)	Bench Separation (m) DOTWALL) 10 10	(m) 6 5	Angle 46.1° 39.8°		

Table 16-1 Geotechnical Parameters, North and South Pits

If 10m lifts are used at Agbaou, there is a potential to steepen the inter-ramp angles in the fresh rock through double benching. If double benching is applied then the recommended berm widths and the resulting inter-ramp angles for the pit sectors are as follow:

- Hanging Walls and End Walls of all pits: berm width = 12 m, inter-ramp angle = 55.5°;
- Footwall of the Main Pit and West Pits: berm width = 8 m, inter-ramp angle = 49.1°, and;
- Footwall of the Main South Pit: berm width = 7.5 m, inter-ramp angle = 46.4°.

Having commenced in-pit geological and geotechnical mapping, significant new data is being gathered and a better understanding of the structural integrity of the geology is being developed. The increased data will be incorporated into modelling and pit design work.

After completion, all pit designs in Surpac STR/DTM format were forwarded to Golder and sign-off was obtained.



16.2 HYDROLOGY PARAMETERS

The current mine planning/schedule information indicates that the open pits will reach a maximum depth of 150m to 175m deep at the end of the life of mine. The maximum inflow to the proposed open pits is expected to be approximately 27l/s. However, it should be noted that significantly increased inflows could be encountered during mining owing to the presence of previously unmapped structural features which may be water bearing.

As a result of the groundwater conditions present on site, open pit dewatering is recommended through the use of sub-horizontal gravity drainage boreholes (drains) drilled into the walls of the pit in areas where seepage is observed. These drains are recommended to be 50m in length and drilled at an upward angle of $\pm 5^{\circ}$ perpendicular to the pit wall in every stage of the pit at 20–30m apart. The first 15-20m of each hole should be cased with plain PVC casing to prevent collapse. The drains can be drilled by the blasting rig thus decreasing the cost of drilling and could be even more effective for the dewatering of vertical/sub-vertical faults. Water drained from these boreholes will be collected in sumps at the base of the pit and be pumped out using a centrifugal pump.

In the event that dewatering through the use of drains is not effective, or inflow rates are higher than expected, it is recommended that a number of dewatering boreholes are drilled along structural features which have been shown to contribute to inflow. This can reduce the groundwater inflow to the pits by intersecting the flows before they reach the walls. Groundwater abstracted from the open pits is contained in a lined sump for dust suppression in the pit or discharged to the raw water supply dam to avoid release to the environment. In the second instance, the extracted groundwater augments the process water supply to some degree, although it is not sufficient to meet all of the process water requirements.

Dewatering of the open pits will affect the groundwater quantity by lowering the water table elevation and this influence has to be monitored so that there is minimal or no impact on nearby boreholes and surface water (such as dams and base flow in streams). Groundwater quality should also be monitored to control any impact of mining activities such as leakage from the TSF, WRD, the discharged water, and the storage and handling of chemicals, such as reagents and fuels.

If a significant groundwater quantity and/or quality impact is detected outside of the site boundary and this impact results in significant de-watering of the water supply boreholes of adjacent landowners, provision should be made to provide alternative water supplies to affected parties. This is likely to consist mainly of the drilling of deeper boreholes in order to provide alternative water supplies.



16.3 MINING OPERATIONS

Mining operations, currently focused on the Main Pit, South Pit and recently the North Satellite Pit (Figure 16-1), are being undertaken by the mining Contractor, BCM.



Figure 16-1 Isometric 3D Model View of North and South Pits, Facing Northeast

Mining is performed on 10m high benches, with material excavated in four discrete flitches, each nominally of 2.5m height.

The use of RC grade control drilling, on a 5m x 10m pattern with 2m sample intervals and interpretation/modeling of the results by mine geologists is the primary method of grade control used for ore delineation. Investigations are ongoing with regards to optimizing sample length and drill pattern to ensure appropriate statistical methodologies are utilized to minimize dilution and maximize ore extraction.

Ore zones are drilled sufficiently to cover the expected zone plus some overlap to ensure sufficient drilling is planned. Drilling quantities are estimated by equating to approximately 120% of the expected ore zones and are grade control drilled. All RC holes are assumed to be drilled at a 50° angle.



16.3.1 Contract Mining

The main mine production equipment that BCM selected for Agbaou is outlined in Table 16-2.

Table 16-2 BCM Mining Fleet

Equipment	Brand	Туре	Current Fleet
	CAT	773E	2
Haul Trucks	CAT	777D	12
	CAT	777F	5
	Liebherr	9350	2
Excavators	Komatsu	PC1250-8	2
	Komatsu	PC210-LC	1
Dezers	CAT	D9R	4
Dozers	TIGER	590B	1
Graders	CAT	14H	1
Graders	CAT	14M	2
	CAT	966G	2
Loaders		966F	1
	CAT	988H	2
Water Trucks	CAT	773B	1
	CAT	777D	2
Others	RR18	Roller Self Powered	1

16.3.2 Agbaou Mine Production Schedule

The mine production schedule was based on the pit designs as described above.

The scheduling periods adopted for the mine production schedule comprises of years.

The mine production schedule was developed using the manual scheduling technique. Scheduling was carried out on a bench by bench basis for all the pit designs following the most practical approach.

The following constraints were set as a target for the mine production schedule:

- Ore processing rate, Oxides 2.2Mtpa
- Ore processing rate, Transition/Fresh 1.34Mtpa
- Maximum total material movement 25Mtpa

The Life of Mine produces an average of 140,000oz of Au per year from Year 2015 to Year 2020 and reduces to 50,000oz in Year 2021.

The average total material movement is approximately 20Mtpa, with a maximum mining rate of 25Mtpa in Year 2017 and a minimum annualized mining rate of 4Mtpa in Year 2021.

Table 16-3, Figures 16-2 to 16-4 summarizes the Life of Mine schedule that has been developed for Agbaou for the Year 2015.



Year	Waste	Ore	Strip	Gold Grade	Gold Mined	Gold Poured
fear	kt	kt	Ratio	g/t	oz	oz
2015	19,444	2,356	8.3	2.27	171,591	153,860
2016	21,039	1,926	10.9	2.47	153,093	153,573
2017	23,669	1,705	13.9	2.12	116,365	120,963
2018	21,195	1,487	14.3	3.27	156,130	134,311
2019	15,044	1,354	11.1	2.65	115,200	99,795
2020	17,195	1,852	9.3	2.49	148,542	100,280
2021	3,550	545	6.5	2.79	48,927	96,157

 Table 16-3
 Agbaou Summary LOM2015 Production Schedule

Figure 16-2 Ore and Waste Tonnes and Strip Ratio
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Figure 16-3 Ore Tonnes Mined and Gold Grade







Figure 16-4 Ore Tonnes Mined and Gold Mined/Recovered



17.0 RECOVERY METHODS

Metallurgical testwork results and industry norms, where necessary, were used to define the process design criteria for Agbaou. The process plant is designed to treat either 1.6Mt per annum of saprolite ore or 1.34Mt of bedrock ore, or a combination of the two ore types if required. The plant is currently processing up to 2.2Mt per annum of softer oxide ore.

The proposed process design criteria consist of crushing, ore stockpiling, milling and classification, gravity and in-line leach reactor ("ILR"), CIL, cyanide detoxification, tailings disposal, acid wash, elution, electrowinning and gold room, carbon regeneration, consumables, oxygen and air services; and water services (Figure 17-1).



Figure 17-1 Agbaou Mill Flowsheet

17.1 CRUSHING AND ORE STOCKPILING

The crushing plant will treat both saprolite and bedrock ore at a rate of approximately 300 wet tonnes per hour to deliver a product size of 100% passing 150mm through a primary jaw crushing circuit. Design availability is for 80% utilization for the crushing circuit.

ROM ore is trucked and either placed on the ROM pad or tipped directly into a 200 tonne ROM bin fitted with a 1000mm x 800mm inclined static grizzly to scalp off any oversize material. Ore is transferred from the bin by a mechanical apron feeder that discharges crusher feed onto a vibrating grizzly feeder with 120mm spacing. The vibrating grizzly feed undersize material is pre-scalped to provide cushioning and conveyor belt protection from the oversize material which is discharged into and through a single toggle Jaw Crusher that reduces the ore size to 100% passing 150mm. The



crushed product and the scalped undersize product is then conveyed to a 45t live capacity surge bin, with a rill overflow stockpile feed system incorporated into the design. The crushing rate is nominally adjusted to run inline via process control with the SAG mill feed rate set-point. An emergency feed stockpile of approximately 12,500t is maintained for emergency feed to supply the grinding circuit for planned and crushing circuit breakdown maintenance requirements. Emergency crushed ore feed is reclaimed from the stockpile using a suitably sized Front End Loader to maintain SAG mill feed rate set-points.

17.2 MILLING AND CLASSIFICATION

The milling circuit is comprised of a primary SAG mill with a grate discharge operating in open circuit with a re-grind overflow ball mill that is capable of treating approximately 250 dry tonnes per hour ("dtph") of saprolite ore and approximately 182dtph of bedrock ore. The SAG mill operates in open circuit while the ball mill runs in closed circuit receiving 100% of the cyclone underflow product from the classifying cyclone cluster.

Crushed ore reclaimed from the surge bin and is conveyed to the SAG mill. Dilution water is added to the SAG mill to achieve the required 50% w/w solids density for saprolite material and 70% for bedrock in the SAG mill discharge for optimum grinding efficiency. The mill feed dilution water is added and controlled as a ratio of the SAG mill solids feed rate. The ratio control constant can be adjusted from the relevant SCADA[®] screen to account for varying mill feed rate and ore moistures.

The 5.1m diameter x 5.5m long SAG mill installed with a rubber composite lining is driven by with a 2500kW motor and has a grate discharge. The mill is designed to operate at 75% critical speed but the operational speed can be varied to optimize grinding efficiency and maximize the life of the installed lining system for the differing ore types. The ball load is approximately 9% by volume, while the total SAG mill load is 25%.

Hydrated Lime is added to the SAG mill feed conveyor via a screw feeder to maintain pH set points in the CIL circuit. The SAG mill slurry passes through a polyurethane panel fitted trommel where undersize material discharges into a common hopper. The slurry is delivered to the cyclone cluster, where fine material (cyclone over-flow) 80% passing 75 micron is transferred to the CIL circuit and coarse material (cyclone underflow) is gravitated to a 4.5m x 6.9m long overflow EGL 2.5kw ball mill for re-grind.

Discharge from the ball mill also passes through a polyurethane lined trommel where underflow (ball mill discharge) also passes into the common discharge hopper. Combined slurry is diluted with process water to a solids density of 54% for saprolite and 61% for bedrock, and pumped to a cyclone cluster for re-classification. The cyclone cluster classifies the slurry to produce an overflow of 80% passing 75µm at 40% for saprolite and 43% for bedrock that gravitates onto a vibrating trash screen for removal of any trash material prior to the slurry entering the CIL circuit.

A portion of the cyclone underflow, at a solids density of 70% for both saprolite and bedrock, is routed to the gravity circuit for recovery of coarse gold by a Knelson Concentrator, before being treated by a batch system intensive cyanidation circuit.

17.3 GRAVITY CONCENTRATION

A portion of the cyclone underflow feed stream reports onto a gravity scalping screen to remove the +2.5mm coarse material. Dilution water will be added to the scalping screen feed box to decrease the concentrator feed solids density to 55% for saprolite ore and 50% for bedrock ore. The screen oversize returns to the ball mill feed stream to be re-ground and re-classified while the screen



undersize is fed to a gravity concentrator to recover the free gold. Concentrator tails gravitate back to the common mill discharge sump.

The leaching of gravity concentrates is a batch recovery and treat process using an ILR. The leach solution is prepared by first adding caustic to water for pH adjustment and then sodium cyanide to a 2% concentration. The leaching of gold is effected by circulating the 2% cyanide solution through a rotating reactor drum. Oxygen is added to the circulating leach solution during the step process stage to increase the gold leaching rate.

At the end of the leach cycle, which ranges between 14–16hrs, the drum is stopped and the solution gravitates to the ILR sump. The solution in the sump is pumped into a solution storage tank where it is clarified by adding flocculant. The clarified pregnant eluant solution is then pumped to a dedicated gravity pregnant eluate tank. Wash water is added to the drum to wash entrained solution from the solids and allowed to clarify in the solution tank before also being pumped to the gravity pregnant eluate tank.

The pregnant eluate in the gravity pregnant tank is re-circulated through a dedicated electrowinning cell for the recovery of gold. Loaded cathodes are periodically removed from the electrowinning cell where the gold sludge is pressure washed off the stainless steel cathodes using highpressure guerney. Gold sludge is decanted, vacuum filtered and transferred to a calcining oven for drying prior to fluxing and Smelting for bullion production.

17.4 CARBON IN LEACH

The screened leach feed slurry (cyclone overflow) is sampled for metallurgical accounting before gravitating into the CIL tanks, where pressure swing absorption oxygen plant ("PSA") (Enriched) oxygen is added down-shaft on the tank agitators to increase the gold leaching rate.

Sodium cyanide solution NACN is added via a ring main to the CIL tanks to ensure optimal contact with gold particles in the slurry stream and to maximize solid gold recovery.

The CIL circuit consists of six tanks, each with a live volume of 2000m³, resulting in a total retention time of 25.6 hours for saprolite ore and 36.8 hours for bedrock ore. Each of the six CIL tanks are equipped with dual impeller agitators to keep the slurry and carbon particles in suspension during the leach process.

Sodium cyanide solution is automatically dosed into the first CIL tank. Alternate manual addition points are installed in the CIL circuit to provide flexibility when tanks need to be bypassed for maintenance activities or to be used in the event cyanide concentrations are determined to be low.

Each CIL tank is fitted with one inter-stage wedge wire cylindrical screen, which prevents the migration of carbon during slurry transfer. The pumping action of the internal impeller mechanism of the inter-stage screens drives the flow of slurry from one CIL tank to another.

Regenerated, eluted or virgin carbon is added to the last CIL tank. Recessed impeller vertical spindle pumps are installed in the CIL tanks to periodically transfer carbon upstream from CIL tank 6 to CIL tank 1. Loaded carbon in CIL tank 1 is periodically pumped onto a vibrating loaded carbon screen for downstream acid washing and elution purposes. The slurry is returned to CIL tank 1. High pressure water is sprayed on the screen to ensure that clean carbon reports as screen oversize to the acid wash column. The tails slurry leaving the last CIL tank gravitates to a carbon safety screen where carbon is recovered as oversize and slurry reports to the cyanide detoxification circuit.



17.5 TAILINGS

The CIL tails slurry is screened to recover any carbon that escapes from the CIL. The screen oversize (carbon) gravitates to a basket that is periodically lifted and emptied into the last CIL tank. The screen undersize gravitates to the detox feed splitter box which feeds the slurry to the first of two detox tanks operating in series. If required, one tank can be online with the other bypassed. Each detox tank has a live volume of 500m³, thus resulting in a total residence time of 2 hours in the detox circuit.

Sodium metabisulphite, copper sulphate and PSA (enriched) oxygen are added to the circuit to produce sulphur dioxide, copper catalyst and oxygen, respectively. The free cyanide and/or weakly bound metal cyanide complexes present in the tailings slurry are oxidized to the less toxic cyanate (OCN⁻) according to the reaction:

$$CN^{-}WAD + SO_2 + O_2 + H_2O = OCN^{-} + H_2SO_4$$

Lime slurry is added into the circuit to neutralise the generated sulphuric acid, and thus maintain the pH within a range of 8 to 10.

The detoxified slurry exiting the second detox tank overflows into a final tails sump. The tailings discharge slurry is sampled from the discharge piping on a continuous basis to ensure the detoxified tails slurry being pumped to the tailings dam is within the weak acid dissociated cyanide ("WAD") cyanide set point of 50ppm.

17.6 ACID WASH AND ELUTION

Loaded carbon recovered from CIL tank 1 is discharged from the loaded carbon screen into a dedicated acid wash column. The acid wash column is sized to accommodate 6 tonnes of loaded carbon. During the acid wash cycle dilute hydrochloric acid solution (3% HCl) is circulated from the acid wash tank through the acid wash column. The solution exiting the column returns to the acid wash tank via the external strainers that prevent any carryover of carbon from the column to the acid wash tank.

Following acid washing, the acid wash pump is stopped and the contents of the acid wash column are rinsed with raw water to remove the residual acid from the loaded carbon. The rinse effluent exiting the acid wash column is directed to the tailings slurry stream into the cyanide detox circuit for disposal into the tailings storage facility. The Rinsed, acid washed (clean) carbon is hydraulically transferred to the elution column.

The elution of gold from loaded carbon is done using the Split Anglo American Research Laboratories method ("AARL"). Firstly the carbon in the elution column is pre-heated, then split eluate from the previous strip is pumped from the split eluate tank via the recovery and primary heat exchangers into the elution column with cyanide and caustic solution to give a 3% caustic, 2% cyanide by volume solution. The loaded carbon is treated at temperature with the caustic and cyanide solution to release the gold adsorbed onto the carbon, further recovery of gold is achieved by rinsing the heated carbon bed with a number of bed volumes of quality filtered raw water, resulting in the stripping (desorption) of gold from the carbon into a pregnant solution.

The pregnant solution discharges from the elution column into a dedicated pregnant eluate tank for recirculation and recovery of gold onto stainless steel cathodes in the electro-winning circuit.

Each elution cycle runs for a period of 6.5 hours, and the heating cycle is in operation for approximately 4.5 hours of that cycle. At the end of each elution cycle, stripped (barren) carbon is



hydraulically transferred to the feed hopper for reactivation of the carbon in the regeneration circuit.

17.7 CARBON REGENERATION

Upon completion of the elution cycle, the carbon batch is hydraulically transferred to the feed hopper of the regeneration kiln or, on occasion to the CIL circuit. Barren carbon is thermally regenerated in an electric kiln to remove organic contaminants and to maintain the activity of the carbon. Regenerated carbon is subsequently transferred to the last CIL tank.

17.8 ELECTROWINNING AND GOLD RECOVERY

The pregnant eluate from the elution column is directed to fill the pregnant tank. When the electrowinning circuit is available, the pregnant solution is re-circulated through the CIL electro-winning cell.

Sludging type stainless steel mesh cathodes are utilized to electro-win gold from the pregnant eluate solution. Gold is deposited as a loosely adhering fine sludge onto the surface of stainless steel knitted mesh cathodes. Once an electro-winning cycle is complete i.e. the gold grade of the solution (barren eluate) has reduced to a stipulated level (<10ppm and below), the spent electrolyte is then pumped to CIL circuit to minimize new reagent addition (as the solution has a high pH and cyanide value from the elution process and also contains gold).

The loaded cathodes are periodically raised, pressure washed with a guerny, to remove the gold sludge from the cathodes and sludge is decanted to a vacuum filter to de-water and advance to the calcine step before once again being fluxed and smelted to produce bullion.

A fume extraction fan collects potentially poisonous and explosive gases that evolve from the cells during electro-winning and discharges through the gold room roof.

When the dried sludge has cooled down, fluxes are added in determined proportions and the mixture is poured into a smelting crucible which is, in turn, placed in an electrically heated smelting furnace operated between 1150°C and 1300°C.

At the end of smelting, the furnace crucible contents are poured into cascading moulds mounted on a trolley. The bullion collects in the bullion bar moulds while slag flows and collects in slag moulds. When both phases cool and solidify the glassy slag phase is easily broken away from the metallic phase, leaving a relatively pure gold bar.

When the gold bars have cooled down, they are quenched for further cooling, cleaned with a needle gun to remove any traces of adhering slag. Then they are sampled, labeled, weighed and stored in a safe prior to dispatch to the refinery.

17.9 CONSUMABLES

There are facilities for the storage, mixing if required and distribution of the following consumables: grinding media, sodium cyanide, caustic soda, hydrochloric acid, hydrated lime activated carbon, sodium metabisulphite ("SMBS") and copper sulphate.

Reagents that are added as solution are mixed in dedicated mixing tanks and transferred to storage/holding tanks. Some of the reagents, for example cyanide are supplied in one tonne bulk-bags that are lifted by a dedicated area gantry crane and discharged using a bag breaker in a dedicated mixing cubicle. Each reagent mixing station includes a bag breaker, agitated mixing tank,



and a storage/holding tank (and agitator if required), which are delivered to required circuits via dedicated dosing pumps.

Grinding media of sizes 100mm and 65mm are used in the SAG and ball mills, respectively. For ease of transportation, grinding media are delivered in drums (200L) and stored. Grinding media balls are charged to the mills using a bottom discharge kibble.

Sodium cyanide is delivered to site in 1 tonne sealed bulki bags, packed into wooden crates to minimize any possible cyanide spillage during transportation. The dissolution of sodium cyanide briquettes takes place in a covered cyanide make-up tank. This tank has, a bag breaking cubicle to ensure cyanide dust particles are contained as the bulki is lowered, and a lower mechanically agitated mixing tank.

Hydrated lime is pneumatically offloaded from delivery trucks into a storage silo installed above the SAG mill feed conveyor (CV-02). The bottom cone of the silo has a mechanical screw feeder installed with a variable speed drive to control the feed rate relative to the CIL tank set point conveyor. The lime silo is equipped with a vibrator, in order to enhance the discharge, and a filter is installed at the top of the silo to contain lime dust during pneumatic transfer.

Strong, 33% hydrochloric acid is delivered in 1000l intermediate bulk containers and offloaded using a drum pump to adjacent to the mixing/storage tank. Acid is dosed as required to points of use in the acid wash process.

Caustic soda is delivered to site in 25kg bags packed into wooden pallets. During caustic make-up, an operator manually lifts one 25kg bag at a time from the platform to the bag cutter table and caustic pearls are discharged into the caustic tank to be mixed with raw water to form a 20% w/w caustic solution.

SMBS powder is delivered to site in 1 tonne bulk bags and dissolution takes place in a dedicated mixing tank where the solid SMBS powder is agitated with raw water then transferred to a dosing tank for addition to the cyanide detoxification circuit as required.

Copper sulphate crystals are delivered to site in 50kg bags.

High activity carbon is provided in 500kg bulk-bags and added to the CIL circuit as required.

17.10 OXYGEN AND AIR SUPPLY

Two pressure swing adsorbtion units are installed to supply enriched oxygen (96% volume/volume) as required to the Leach/CIL and detoxification circuits.

Plant air is supplied by two air compressors, one duty and one standby. There are installed to deliver 1400Nm³/h of compressed air to the plant and 300Nm³/h of instrument air to meet a plant demand of 700kpa. Plant air is filtered and stored in a receiver, from where it is distributed to the areas in the plant for general usage. Instrument air is distributed to all instruments throughout the plant.

17.11 PROCESS WATER

Return water from the tailings storage facility and a top-up stream from the raw water tank constitute process water and are stored in a process water pond located close to the processing plant. A pair of duty/standby low-pressure pumps transfers process water from the pond to the grinding circuit and the gravity scalping screen for dilution. A pair of duty/standby high-pressure pumps supplies spray and hosing water throughout the plant.



17.12 RAW WATER SUPPLY

Rain run-off and a bore field make up the raw water supply. A 1000m³ raw water tank, situated in the plant, is used to store and provide raw water to the plant. The bottom part of the tank is dedicated storage facility for the fire water. The fire water system consists of an electric jockey pump to maintain the desired pressure in the fire reticulation system, an electric fire water supply pump and a diesel driven standby pump that starts automatically when a power failure occurs.

17.13 POTABLE WATER SUPPLY

Potable water is supplied from the raw water pond, which is treated through a filtration and sterilization system before being stored in a dedicated potable water tank. Potable water supply pumps for the plant, the various drinking water and ablution facilities throughout the plant and offices, and all safety showers on site.



18.0 INFRASTRUCTURE

18.1 MINING FACILITIES

The following mining facilities are located in proximity to the Agbaou Gold Plant:

- Mining administration building;
- Main workshop and repair facilities, to maintain the fleet of haul trucks and major mining equipment, complete with admin buildings alongside;
- Tyre repair and replacement bay;
- Mining equipment re-fuelling centre;
- Explosive storage, located away from the main facilities;
- Change house and security office;
- Messing facility for mining personnel is provided in a separate building.

18.2 PROCESS PLANT

The processing plant and administration facilities consist of the following:

- Plant administration buildings such as the security office, change house, workshop, main administration offices, medical facility, assay laboratory and warehouses;
- Water services inclusive of raw water abstraction, potable water, fire water, sewerage treatment and disposal;
- Tailings storage facility;
- Communications;
- Security;
- Power supply and distribution.

18.3 WATER

Water is supplied from the water storage dam located at the back of the TSF (Figure 5-2).

Potable is produced at the plant from delivered raw water. This water is passed through a filtering and sterilization system to clarify and kill off biological organisms before it is stored for distribution to the plant.

Both the camp and plant sites for Agbaou have a totally independent sewage treatment facility capable of handling the waterborne waste generated by about 200 persons per site. Each of the sewerage treatment plants is contained in a 15m x 15m fenced off area and is capable of producing final effluent discharge into the environment.

18.4 TAILINGS STORAGE FACILITY

The TSF was designed to meet or exceed World Bank Standards and other international standards and is located directly north of the plant site. The topography drains to the east and is enclosed by hills located on the southwest and northeast corners of the TSF.

The TSF was designed to be constructed in three phases. The initial phase is sized to provide capacity for roughly two years of the saprolite ore feed while maintaining a supernatant pond capacity of 150,000m³ after approximately 1.4 years and 1.5 metres of freeboard plus spillway capacity. The succeeding phases (Phase 2 and Phase 3) provide the capacity for the remainder of the LOM when the ore feed is from bedrock.



18.5 POWER

The electrical power is supplied from the Ivorian national grid.

The power supply includes the following:

- Dedicated 15km OHL feed from Hire substation to Agbaou;
- New 90/11kV 20MVA Transformer at Agbaou substation;
- Reactive energy compensation 5 steps 2.4MVAR a maximum of 18.63MW can be achieved compared to the available 13.48MW.

Standby power is supplied by one 2275kVA CAT SR5 generator which supplies a total of 1820kW of prime power at PF of 0.8 for the shutdown of plant during a power outage and to sustain all critical loads for the full duration of the power outage if required.

18.6 ACCESS

Plant access roads were constructed on laterite base and are maintained and upgraded on an as required basis. The haul roads are constructed on a similar base but are wider and covered by waste rock. The construction of the haul roads and ROM pad was in the mining contractor's scope of work.

18.7 SUB-CONTRACTORS FACILITIES

A comprehensively equipped laboratory is located at the plant to cater for the process control, metallurgical accounting, mine assay and environmental monitoring. Equipment was supplied and is maintained by SGS, the contractor managing the laboratory.

Fuel and oil storage is supplied under contract by TOTAL, facilities include two 200m³ horizontal tanks, fuel service area for both light and heavy vehicles (including high capacity filling pumps) a covered area for storage of lubricant and offices for the contractor staff.

18.8 FIRE PROTECTION

An electric and diesel powered fire water pumping system is used in the event of a fire. The diesel pump will be used in the event of a fire where electrical supply is unavailable. A jockey pump maintains the pressure in the fire water header during normal plant operation. An alarm sounds at the plant site for low system pressure.

The fire water system consists of a fire water distribution system with hydrants located within the plant site and ancillary building areas. Hose cabinets are placed at the fire hydrant locations and the system supplemented with portable fire extinguishers placed within the process facilities.

18.9 COMMUNICATIONS

The area is under coverage of more than one cell phone company and a standalone VSAT system allows Internet and voice transmissions that are carried on the same signal using Voice over IP ("VOIP") protocol.

Mine mobile communications are done via handheld mobile radio sets, with a base station located near the centre of operations.

18.10 TRANSPORT

The site vehicle fleet of pick-ups is used for the transport of materials and personnel to and from Abidjan and between the mine site and camp.



Contracted buses provide transportation to work for personnel living in the nearby villages and Abidjan.

18.11 SECURITY

The main entrance security office is located on the Main Site access road. All visitors to the mine complex report to this security gate for authorization prior to entry. Personal protection equipment ("PPE") is available for issue from this point if required.

The entire Agbaou plant site is encompassed by a 2.5m x 75mm x 75mm diamond mesh wire fence. Plant access is via gates located on access roads to the site. Additional fencing is provided for further safety and security within process plant areas, such as ponds, power plant, fuel storage, gold room area, transformers and substations.

A closed circuit television system is installed in the plant overseeing the mill, cyclones, concentrator and gold room to monitor activities.

18.12 ACCOMMODATION

The accommodation camp is located on a hill top approximately 2.7km northwest of the plant to house senior and junior staff members. Staff accommodation consists of the following pre-fabricated modular buildings:

- Four, one-bedroom block building for senior managers;
- 18 studio block buildings accommodating middle management;
- Red Sea container units comprising two single rooms with ensuite bathroom and air conditioner;
- Kitchen and camp dining room;
- An entertainment area consisting of a bar and TV room;
- Gym;
- Laundry;
- Potable water plant;
- Sewage disposal plant.

The camp can accommodate 128 persons.

18.13 PERSONNEL

Although nationals from Côte d'Ivoire fill operation and management positions within the company, some selected posts requiring specific skills or experience not available within Côte d'Ivoire have been filled by expatriates. In addition to performing their job function, expatriate personnel are expected to transfer knowledge and expertise to develop the capabilities of their national staff.

The workforce is under the control of a General Manager who is supported by seven line managers.

The mine employs a total of approximately 578 persons on its books and approximately 362 contractors.



19.0 MARKET STUDIES AND CONTRACTS

19.1 MARKETS

Gold output from the Agbaou Mine operation is in the form of doré bars containing approximately 92% gold and 4.5% silver, the balance being copper and other minor metals. Silver credits are received from the refiner.

The doré is shipped to Europe for refining. Metalor is the contract refiner and they retain Brinks Company to transport the bullion from Agbaou to their facilities. Responsibility for the gold changes hands at the gold room gate.

Based on typical refining charges, the breakdown of costs is set out below:

٠	Refinery Charge	USD0.43/oz gold (USD0.40/oz doré)
٠	Transport, Handling & Insurance	USD5.62/oz gold
٠	Customs clearance & airport vaulting	USD0.21/oz gold
٠	Total	USD6.27/oz gold.

Penalties are applied in the refining contract for any impurities but these are rare occurrences and the penalties are not excessive, the main impact being on the delay in final payment due to extended refining periods.

The current refining contract is valid until the end of 2015.

19.2 CONTRACTS

As of December 31, 2014, the main contractors involved with the mine are:

•	Mining load and haul :	BCM
•	Fuel supply:	Total Côte d'Ivoire
•	Contract security staff:	G4S
٠	Catering and camp management:	All Terrain Services
•	Onsite Laboratory	SGS
•	Contract personnel transport:	Local contractor from Abidjan
•	Refining:	Metalor.

The various contracts were awarded following a competitive bidding process, prices are within the industry range and comparable to other operations in Côte d'Ivoire or West Africa.



20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

An Environmental Impact Assessment ("EIA") and an Environmental Management Plan ("EMP") was conducted for Agbaou by African Mining Consultants ("AMC") in 2008 (AMC, 2008). The report was compiled in line with applicable international standards and in accordance with Côte d'Ivoire legislation.

The EIA covered the social and local environment prior to mine development and the potential impacts, positive and negative, the mine would have on the environment.

Some of the potential positive impacts include, but are not limited to:

- Creation of approximately 300 jobs;
- Local infrastructure development and increased standard of living;
- Economic growth in local areas and Côte d'Ivoire through the service construction and manufacturing sectors;
- Increased national income through taxes, royalties and fees;
- Training and essential skills to increase the contingent of local employees;
- Social development projects.

Some of the potential negative impacts include, but are not limited to:

- Land clearing of approximately 410ha and the resultant loss of natural habitats of the affected flora and fauna;
- Changes to natural drainage patterns;
- Contamination of soils, surface water and ground water;
- Localized lowering of the ground water levels;
- Degradation of local air quality through dust generation and vehicle fumes;
- Increased noise in the local;
- Increased traffic volumes and the potential safety implications of this on local communities;
- Generation of acid mine drainage;
- Increase in HIV and AIDS prevalence;
- Increased immigration into the area could lead to conflicts resulting from competition for jobs and resources;
- Loss of agricultural land and the subsequent loss of financial security for the affected farmers.

The EIA identifies the necessary management measures required to mitigate the identified environmental and social impacts. These form part of the EMP. In addition a Relocation Action Plan ("RAP") was developed along with the budget to cover the relocation costs of the affected communities.



21.0 CAPITAL AND OPERATING COSTS

21.1 CAPITAL EXPENDITURES

Capital expenditures for 2015 are limited to USD5.0M for a tailings storage facility lift and USD2.5M for miscellaneous items. Estimated capital expenditures over the next five years are:

- TSF Lift in 2017-2018 USD8M to 10M
- Secondary Crusher in 2016 USD12M to 13M

This does not include capitalized stripping or miscellaneous minor capital requirements.

21.2 OPERATING COSTS

The 2014 cash operating costs for Agbaou are presented in Table 21-2 and include all mining, treatment and general and administrative costs, which are incurred at the mine site. The cash operating costs exclude depreciation, amortization, sustaining capital, royalties and corporate general and administration costs.

Table 21-2 2014 Cash Operating Costs

Item	Cost [MUSD]	Unit Cost [USD/t]
Mining Costs (including re-handle)	46.4	2.6/t mined
Processing and Maintenance Costs	17.2	7.7/t milled
On Site General and Administration Costs	8.6	3.8/t milled
Inventory Adjustments	3.0	
Total (2014)	75.2	

The cash operating costs for 2014 were USD523/oz of gold sold.

In 2014, Agbaou mine produced 146,757oz at a mine level AISC of USD621/oz. The 2015 production is estimated to be 150,000 to 155,000oz at an AISC estimated in the range of USD690 to USD740/oz produced and includes all mining, treatment, general and administrative costs, sustaining capital and royalties which are incurred at the mine site. The mine level AISC costs exclude depreciation, amortization and corporate general and administrative costs.

22.0 ECONOMIC ANALYSIS

Endeavour Mining is a producing issuer, as defined by NI 43-101 and Agbaou is currently in production.



23.0 ADJACENT PROPERTIES

Endeavour holds the Agbaou exploration permit which is contiguous with the exploitation permit (Figure 23-1). The exploration permit is currently at a grassroots stage of exploration with only soil geochemistry completed, however, targets have been identified which warrant additional exploration and work is ongoing. There are currently no mineral resources or mineral reserves identified on the Agbaou Exploration Permit.



Figure 23-1 Agbaou Exploration Permit Soil Geochemistry Coverage, Gold in Soils

Newcrest Mining Limited's Bonikro Mine is located approximately 30km north-west of Agbaou (Figure 23-2). Commercial production at Bonikro commenced in August 2008. Newcrest acquired Lihir in 2010 which held 90% of the shares in Equigold Mines CI SA (which in turn holds a 100% interest in the Bonikro gold mine) and the Ivorian Government holds the remaining 10% interest (Hart, et.al., 2009).



Figure 23-2 Bonikro Mine Location Map



The geology of the Bonikro deposit is dominated by a granitic-porphyry that has a strike length of at least 600m and a width of up to 300m. The porphyry intrudes a sequence of basalts that have been metamorphosed to greenschist facies. The contact between the two lithologies is characterized by strong foliation and tectonic mélange. Mineralization is associated with shears developed within both the basalt and the porphyry, while stockwork veining is almost exclusively confined to the porphyry. The veins are variably sulphidic, being dominated by minor pyrite and subordinate pyrrhotite (Hart, et.al., 2009).

The Bonikro mill, is a gravity/CIL gold extraction plant with a 7,500 tonne per day capacity.

Current Mineral Reserves at Bonikro for the open pit operations as of December 31, 2013 were reported to be 5.7Mt at a grade of 0.7g/t containing 128,000oz Au of Proven and 27Mt at a grade of 1.6g/t containing 1,389,000oz Au of Probable (Newcrest Website, August 2013).

The author has been unable to verify further details of the Bonikro information and this information is not indicative of the mineralization at Agbaou.

24.0 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information which have been developed in producing this report on the Agbaou deposits are detailed in the previous sections.



25.0 INTERPRETATION AND CONCLUSIONS

25.1 RISK ASSESSMENT

The principal assessed risk to Agbaou has been the political risk to the mining operation. This was considered high because political influences in the country could stop the mining operation.

Côte d'Ivoire has experienced a period of political unrest over the past few years and specifically between 2010 and 2011 following the presidential election when Laurent Gbagbo refused to hand over power after losing the election. The situation in Côte d'Ivoire has returned to normality under the government of Alassane Ouattara, with order and governmental functions being well maintained. The next elections are scheduled to take place in November 2015.

25.2 CONCLUSIONS

Mineral Resources and Mineral Reserves

- In the opinion of the authors, the exploration database for Agbaou is reliable for the purpose of resource estimation;
- Recent drilling on the Agbaou satellite deposits has allowed for addition of new resources and reserves not considered in earlier technical reports; and
- Mineral Resources and Mineral Reserves have been classified according to the "CIM Definition Standards for Mineral Resources and Mineral Reserves" (May, 2014).

For reporting, the authors tabulated the Mineral Resources within pit shells optimized using a gold price of USD1,600 per ounce of gold, Mineral Reserves are based on a gold price of USD1,350 per ounce of gold and other reserve estimation assumptions.

<u>Mining</u>

- Agbaou mine commenced open pit mining operations in 2013;
- BCM is the mining contractor at Agbaou;
- Based on current mineral reserves and mine planning, the Agbaou LOM production schedule extends from 2015 through to 2021, with a total of 859Koz of gold being produced during this period; and
- The risks to the Agbaou Mine LOM plan and operations are currently considered to be low, with outcomes being sensitive to negative commercial trends that might develop in respect of the gold price and the impact of inflationary effects on power, fuels, labour and spare components because of the global economic situation. Recent fuel prices and foreign exchange rates have positively impacted the cash cost for the mine.

Processing

• Agbaou mine commenced operations in 2013 with CIL processing facilities and during 2014 a total of 146,757 ounces of gold had been recovered from 2.5Mt of ore.

Production and All-In Sustaining Costs

In 2014, Agbaou mine produced 146,757oz at an AISC of USD621/oz. The 2015 production is estimated to be 150,000 to 155,000oz at an AISC estimated in the range of USD690 to USD740/oz produced and includes all mining, treatment, general and administrative costs, sustaining capital and royalties which are incurred at the mine site. The AISC costs exclude depreciation, amortization and corporate general and administrative costs.



Health and Safety

- To ensure the health and safety of all workers, and due to the remoteness, a doctor forms part of the site service and the medical clinic. First aid facilities on site are sufficient to deal with emergency treatment and stabilization before transport; and
- Increasing the work standards of the plant operators and maintenance staff is ongoing through the implementation of improved training programs.

26.0 **RECOMMENDATIONS**

26.1 OPERATIONS

In 2015 the key objectives for Agbaou are:

- To operate on a "Zero Harm" safety and environmental tolerance basis;
- To develop the skills base of Agbaou employees;
- To continue to improve productivities and reduce operating costs;
- To exceed LOM budget expectations year on year;
- To extend the life and increase the asset value of the Agbaou mine and the company's other mineral assets through a process of development and re-engineering and the addition of additional ore reserves from exploration of its land holdings; and
- To achieve the above objectives in a socially responsible manner.

26.2 METALLURGICAL TESTWORK

The following additional testwork is recommended to confirm the assumptions made in the design:

- Secondary crusher testwork will be done to ensure optimized design to maximize plant capacity before treatment of bedrock material;
- Thickener testwork may be required for treatment of hard rock.

26.3 EXPLORATION AND RESOURCE DELINEATION

A phased follow-up exploration program consisting of several components is recommended on the Agbaou Exploitation Permit. This program is designed to maximize the opportunity to discover new zones of gold mineralization and to expand the potential of the known deposits for the minimum exploration expenditures in the shortest time frame. The total exploration budget to complete all of the required work is estimated to be USD4.6M in 2015.

With the accumulation of additional data, priorities among the anomalies will change and, in keeping with good exploration practice, the emphasis will be placed on the best of the emerging targets.

The bulk of this expenditure is allocated to drilling; the planned 2015 program includes 7,500m of diamond and 22,500m of RC drilling (Table 26-1 and Figure 26-1). The principal objective is to increase mineral resources and reserves in order to extend the Agbaou mine life.



Table 26-1 Agbaou Exploration Program 2015

Method	Description	Cost (USD)
Diamond Drilling	7,500 m	1,500,000
RC Drilling	22,500 m	1,700,000
Sample Analyses	Fire Assay, Bottle rolls, Multi-element analyses	500,000
Consumables	Fuel and Supplies	500,000
Land Compensation		300,000
Salaries		100,000
Total		4,600,000







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28.0 DATE AND SIGNATURE PAGE

The undersigned prepared this Technical Report, titled *"Technical Report, Mineral Resource and Reserve Update for the Agbaou Gold Mine Côte d'Ivoire West Africa"*, with an effective date of December 31 2014, in support of the public disclosure of technical aspects of the Agbaou Gold Mine owned by Endeavour Mining Corporation. The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 (NI 43-101) of the Canadian Securities Administrators.

Signed,

(signed) Adriaan Roux, (Pr.Sci.Nat.), SACNASP	March 26, 2015
(signed) K. Kirk Woodman, P.Geo.	March 26, 2015
(signed) Kevin Harris, CPG	March 26, 2015
(signed) Michael Alyoshin, CP (MIN) MAUSIMM	March 26, 2015



CERTIFICATE OF QUALIFIED PERSON

I, Adriaan Roux, do hereby certify that;

1. I am a South African citizen, currently residing at YB 15, Augusto Neto Road, Airport Residential Area, Accra, Ghana.

2. I am the Chief Operating Officer of Endeavour Mining Corporation ("Endeavour").

3. I am a Metallurgical Professional Scientist registered with the South African council for Natural Scientific Professions, and have practiced my Profession for over 38 years on a continuous basis. I am also a member of the Mine Metallurgical Managers Association of SA.

4. I graduated with a National Diploma in Extractive Metallurgy from the University of Johannesburg in 1980, and have been employed over the years at Anglo American Gold and Uranium division, De Beers Consolidated, Anglogold Ashanti, Adamus Resources and Endeavour. I previously held Technical Directorships of NUFCOR (the Nuclear Fuels Corporation of SA, and Navachab Gold Mine in Namibia.

5. I have read the definition of "Qualified Person" in National Instrument 43-101 ("National Instrument") and certify that given my studies, my membership in a professional association (within the meaning given to this term in the National Instrument) and my past relevant professional experience, I can be considered as a "Qualified Person" within the meaning of said National Instrument.

6. I am a co-author of the technical report entitled "Technical Report, Mineral Resource and Reserve Update for the Agbaou Gold Mine Côte d'Ivoire West Africa", dated effective December 31st, 2014 (the "Technical Report"). I am responsible for Sections 13 and 17 to 22 of the Technical Report.

7. I have been involved with the project from post-feasibility through the entire construction period and I most recently visited the mine site on April 23rd and October 21st thru 23rd 2014.

8. As of the date hereof and to the best of my knowledge, information and belief, the Technical Report contains all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

9. Pursuant to the requirements of Section 1.4 of the National Instrument, I cannot be considered independent from Endeavour since I hold shares and stock options of Endeavour and I have been employed by a wholly owned subsidiary of Endeavour since December 2011.

10. I have read the National Instrument, Form 43-101F1 and Companion Policy 43-101 CP and I hereby certify that the sections of the Technical Report I am responsible for were prepared in compliance with the requirements thereof.

Dated at (Accra, Ghana), this 26th day of March, 2015.

Respectfully Submitted,

(Signed) Adriaan Roux Adriaan Roux, (Pr.Sci.Nat.), SACNASP


CERTIFICATE OF QUALIFIED PERSON

- I, K. Kirk Woodman, do hereby certify that;
 - 1. I am a Canadian citizen and reside at 199 Beaverbank Crossroad, Lower Sackville, Nova Scotia, Canada.
 - 2. I am the General Manager of Exploration for Endeavour Mining Corporation ("Endeavour").
 - 3. I am a Professional Geologist licensed by the Association of Engineers and Geoscientists of Newfoundland and Labrador and have practiced my profession on a continuous basis for more than 25 years. I am a member of the Prospectors and Developers Association.
 - 4. I graduated with a Bachelor of Science degree in Geology from Acadia University in 1985. I have been employed with the Exploration Divisions of several mining firms including Kidd Creek Mines Ltd., Falconbridge, Western Mining Corporation and as a consulting geologist with D. R. Duncan & Associates Ltd.
 - 5. I have read the definition of "Qualified Person" in National Instrument 43-101 ("National Instrument") and certify that given my studies, my membership in a professional association (within the meaning given to this term in the National Instrument) and my past relevant professional experience, I can be considered as a "Qualified Person" within the meaning of said National Instrument.
 - 6. I am a co-author of the technical report entitled "Technical Report, Mineral Resource and Reserve Update for the Agbaou Gold Mine Côte d'Ivoire West Africa", dated effective December 31st, 2014 (the "Technical Report"). I am responsible for Sections 1 to 12 and 23 to 27 of the Technical Report.
 - 7. I have visited the Agbaou Exploitation Permit on numerous occasions and have been responsible for planning and monitoring all exploration since 2005. My most recent visit was on August 1st thru 7th, 2014.
 - 8. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contain all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
 - 9. Pursuant to the requirements of Section 1.4 of the National Instrument, I cannot be considered independent from Endeavour since I hold shares and stock options of Endeavour and I have been employed by a wholly owned subsidiary of Endeavour since January 2011.
 - 10. I have read the National Instrument, Form 43-101F1 and Companion Policy 43-101 CP and I hereby certify that the sections of the Technical Report I am responsible for were prepared in compliance with the requirements thereof.

Dated at (Vancouver, British Columbia), this 26th day of March, 2015.

Respectfully Submitted,

(Signed) K. Kirk Woodman K. Kirk Woodman, P.Geo.



CERTIFICATE OF QUALIFIED PERSON

I, Kevin Harris, do hereby certify that;

1. I am an American citizen and currently reside at YB15, Augusto Neto Road, Airport Residential, Accra, Ghana.

2. I am the Group Resource Manager for Endeavour Mining Corporation ("Endeavour") and the qualified person overseeing Endeavour's resource development programs.

3. I am a Certified Professional Geologist (CPG) member of the American Institute of Professional Geologists – Membership No. CPG-11639. I am also a Professional Member of the Society for Mining, Metallurgy and Exploration (SME) – Membership No.4125330.

4. I graduated with a Bachelor of Science degree in Geological Engineering from the South Dakota School of Mines and Technology in Rapid City, South Dakota, USA in 1980, and a Master's Degree of Science in Geology in 1991 from the same university. I have worked as a Geologist, Mining Engineer, Mining Manager and Resource Manager, since graduation and have over 25 years' experience in the mining industry. My relevant experience includes work at Goldcorp, Forbes and Manhattan, Crocodile Gold, Avion Gold, Amax Gold and Endeavour.

5. I have read the definition of "Qualified Person" in National Instrument 43-101 ("National Instrument") and certify that given my studies, my membership in a professional association (within the meaning given to this term in the National Instrument) and my past relevant professional experience, I can be considered as a "Qualified Person" within the meaning of said National Instrument.

6. I am a co-author of the technical report entitled "Technical Report, Mineral Resource and Reserve Update for the Agbaou Gold Mine Côte d'Ivoire West Africa", dated effective December 31st, 2014 (the "Technical Report"). I am responsible for Section 14 of the Technical Report.

7. I am responsible for resource estimation at the Agbaou mine and most recently visited site on November 25th thru 28th 2014 and reviewed all information relevant to this reserve update.

8. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the section of the Technical Report I am responsible for contains all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

9. Pursuant to the standard set out in Section 1.5 of the National Instrument, I cannot be considered independent from Endeavour since I hold shares and stock options of Endeavour and I have been employed by a wholly owned subsidiary of Endeavour since November 2013.

10. I have read the National Instrument, Form 43-101F1 and Companion Policy 43-101 CP and I hereby certify that the section of the Technical Report I am responsible for was prepared in compliance with the requirements thereof.

Dated at (Accra, Ghana), this 26th day of March, 2015.

Respectfully Submitted,

(Signed) Kevin Harris Kevin Harris, CPG



CERTIFICATE OF QUALIFIED PERSON

I, Michael Alyoshin, do hereby certify that;

1. I am an Israeli citizen and reside at Nof Zion 7, Jerusalem, Israel.

2. I am the Chief Mining Engineer, Strategic Projects for Endeavour Mining Corporation ("Endeavour").

3. I am a Mining Engineer, Chartered Professional (Mining) with the Australasian Institute of Mining and Metallurgy and have practiced my profession on a continuous basis for more than 15 years.

4. I graduated with a Master of Engineering degree (Hons) in Mining from Ukrainian Academy of Engineering in 1999. I have been employed by several mining firms including Lev Leviev Group of Companies, ArcelorMittal and Adamus Resources.

5. I have read the definition of "Qualified Person" in National Instrument 43-101 ("National Instrument") and certify that given my studies, my membership in a professional association (within the meaning given to this term in the National Instrument) and my past relevant professional experience, I can be considered as a "Qualified Person" within the meaning of said National Instrument.

6. I am a co-author of the technical report entitled "Technical Report, Mineral Resource and Reserve Update for the Agbaou Gold Mine Côte d'Ivoire West Africa", dated effective December 31st, 2014 (the "Technical Report"). I am responsible for Sections 15 and 16 of the Technical Report.

7. I am responsible for reserve estimation at the Agbaou mine and most recently visited site on November 25th thru 28th, 2014 and reviewed all information relevant to this reserve update.

8. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contain all the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

9. Pursuant to the standard set out in Section 1.5 of the National Instrument, I cannot be considered independent from Endeavour since I hold shares and stock options of Endeavour and I have been employed by a wholly owned subsidiary of Endeavour since February 2012.

10. I have read the National Instrument, Form 43-101F1 and Companion Policy 43-101 CP and I hereby certify that the sections of the Technical Report I am responsible for were prepared in compliance with the requirements thereof.

Dated at (Agbaou, Côte d'Ivoire), this 26th day of March, 2015.

Respectfully Submitted,

(Signed) Michael Alyoshin Michael Alyoshin, CP (MIN) MAUSIMM



Appendix A Recent Drill Intersection Highlights



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
			2	013 Drilling				
P2	AGBRC1615	253349	674006	29	33	4.0	3.4	2.9
	including			29	30	1.0	0.9	4.6
P2	AGBRC1616	253371	673993	24	27	3.0	2.6	1.2
	including			25	26	1.0	0.9	2.5
	and			39	42	3.0	2.6	1.6
P2	AGBRC1617	253395	673979	92	105	13.0	11.1	5.7
	including			94	98	4.0	3.4	17.7
P2	AGBRC1618	253408	673947	99	107	8.0	6.8	1.2
	including			100	101	1.0	0.9	4.5
P2	AGBRC1619	253336	673943	44	53	9.0	7.7	1.3
	including			44	45	1.0	0.9	8.3
P2	AGBRC1620			102	103	1.0	0.9	1.8
	and			130	134	4.0	3.4	2.8
	including			131	132	1.0	0.9	5.3
Р5	AGBRC1621	253476	675125	0	1	1.0	0.9	2.5
	AGBRC1622	253503	675106	No Significant N	1ineralizat	ion		
P1	AGBRC1623	254339	674447	0	23	23.0	19.6	1.3
	including			11	16	5.0	4.3	3.3
P1	AGBRC1624	254358	674436	24	27	3.0	2.6	7.8
	including			24	25	1.0	0.9	18.7
	and			31	39	8.0	6.8	4.4
	including			32	35	3.0	2.6	9.8
	and			47	48	1.0	0.9	4.0
P1	AGBRC1625	254381	674422	44	45	1.0	0.9	2.0
	and			51	55	4.0	3.4	1.0
	and			60	63	3.0	2.6	2.6
	including			62	63	1.0	0.9	3.3
	and			67	72	5.0	4.3	1.2
	including			71	72	1.0	0.9	3.3
P1	AGBRC1626	254362	674478	31	32	1.0	0.9	2.3
P1	AGBRC1627	254378	674468	32	33	1.0	0.9	2.1
P1	AGBRC1628	254402	674453	56	66	10.0	8.5	2.6
	including			63	65	2.0	1.7	8.0
P1	AGBRC1629	254428	674438	80	101	21.0	17.9	5.6
	including			86	87	1.0	0.9	36.4
	including			95	97	2.0	1.7	18.8
	and			114	119	5.0	4.3	2.5
	including			116	117	1.0	0.9	9.2
P1	AGBRC1630	254294	674424	2	14	12.0	10.2	1.3
	and			23	24	1.0	0.9	1.9
P1	AGBRC1631	254318	674410	3	38	35.0	29.8	7.1
	including			34	36	2.0	1.7	52.1
P1	AGBRC1632	254341	674396	25	36	11.0	9.4	17.3



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
	including			29	30	1.0	0.9	+100
	and			40	46	6.0	5.1	1.3
	and			75	94	19.0	16.2	1.6
	including			85	86	1.0	0.9	11.0
P2	AGBRC1633	253518	674010	93	96	3.0	2.6	1.4
	including			95	96	1.0	0.9	2.9
P2	AGBRC1634	253541	673994	137	140	3.0	2.6	2.0
	including			137	138	1.0	0.9	3.1
P2	AGBRC1635	253308	673919	36	38	2.0	1.7	2.7
	including			37	38	1.0	0.9	4.2
	and			58	74	16.0	13.6	5.6
	including			66	68	2.0	1.7	34.4
	and			77	89	12.0	10.2	1.4
	including			86	88	2.0	1.7	6.0
P5	AGBRC1636	253148	674998	54	58	4.0	3.4	0.7
P5	AGBRC1637	253183	674978	25	27	2.0	1.7	5.4
	including			25	26	1.0	0.9	9.9
	and			37	39	2.0	1.7	2.0
P5	AGBRC1638	253253	674916	42	49	7.0	6.0	3.5
	including			45	47	2.0	1.7	8.6
P5	AGBRC1639	253280	674898	18	23	5.0	4.3	3.9
	including			19	21	2.0	1.7	6.8
	and			32	35	3.0	2.6	1.2
	including			33	34	1.0	0.9	3.0
	and			70	82	12.0	10.2	4.0
	including			72	77	5.0	4.3	6.7
P5	AGBRC1640	253142	675076	11	16	5.0	4.3	0.9
P2	AGBDD1641	253355	673893	109.6	116	6.4	5.4	1.5
	including			109.6	110.5	0.9	0.8	4.0
	and			136.8	138.1	1.3	1.1	1.9
P2	AGBDD1642	253430	673934	132	133	1.0	0.9	4.3
P4	AGBDD1643	253062	675193	16.7	18	1.3	1.1	1.2
	and			71	72	1.0	0.9	9.5
P6	AGBDD1644	253365	674901	44	47	3.0	2.6	2.1
	including			45	46	1.0	0.9	3.9
	and			72.2	75.2	3.0	2.6	3.9
	including			73	75.2	2.2	1.9	5.1
	and			125	137	12.0	10.2	4.1
	including			127	128	1.0	0.9	13.5
P6	AGBDD1645	253204	674999	No Significant M	1ineralizat	ion		
MPN	AGBRC1646	254071	674732	2	13	11.0	9.4	1.2
	including			11	13	2.0	1.7	4.4
MPN	AGBRC1647	254095	674716	23	26	3.0	2.6	1.5
	and			29	32	3.0	2.6	7.2



				_	_		True	Au
Deposit	Hole	Easting	Northing	From	То	Length	Width	Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
	including			29	30	1.0	0.9	16.2
MPN	AGBRC1648	253954	674791	13	14	1.0	0.9	17.5
P5	AGBRC1649	253169	675057	17	22	5.0	4.3	0.8
P4	AGBRC1650	252960	675198	45	71	26.0	22.1	6.6
	including			49	50	1.0	0.9	100.0
P4	AGBRC1651	252986	675182	67	75	8.0	6.8	3.0
	including			72	73	1.0	0.9	10.1
P4	AGBRC1652	252906	675203	25	30	5.0	4.3	5.6
	including			27	29	2.0	1.7	9.1
P4	AGBRC1653	252938	675186	52	53	1.0	0.9	11.3
P4	AGBRC1654	252907	675166	No Significant N		ion		
P4	AGBRC1655	252809	675128	7	8	1.0	0.9	3.4
P4	AGBRC1656	252833	675113	No Significant N	1ineralizat			
P4	AGBRC1657	252916	675108	61	65	4.0	3.4	1.8
P4	AGBRC1658	252940	675095	72	74	2.0	1.7	1.6
P5	AGBRC1659	253064	674923	24	25	1.0	0.9	1.3
	and			31	35	4.0	3.4	1.9
	including			34	35	1.0	0.9	3.4
P5	AGBRC1660	253093	674908	45	48	3.0	2.6	1.8
	including			46	47	1.0	0.9	4.2
	and			59	60	1.0	0.9	5.4
P5	AGBRC1661	253097	674872	53	54	1.0	0.9	1.7
P5	AGBRC1662	253050	674902	29	32	3.0	2.6	0.7
P5	AGBRC1663	253037	674869	21	23	2.0	1.7	0.9
P5	AGBRC1664	253063	674855	49	52	3.0	2.6	1.8
	including			51	52	1.0	0.9	3.4
	and			68	72	4.0	3.4	3.3
	including			69	70	1.0	0.9	8.2
P5	AGBRC1665	253040	674824	35	37	2.0	1.7	1.3
WP	AGBRC1666	253064	674807	23	24	1.0	0.9	2.0
				76	77	1.0	0.9	1.3
				79	80	1.0	0.9	1.2
				87	95	8.0	6.8	4.7
				90	92	2.0	1.7	9.9
WP	AGBRC1667	253004	674737	0	2	2.0	1.7	1.2
	and			16	17	1.0	0.9	1.5
WP	AGBRC1668	253038	674715	0	6	6.0	5.1	0.9
	including			4	5	1.0	0.9	3.2
	and			29	32	3.0	2.6	1.1
	and			65	66	1.0	0.9	47.3
WP	AGBRC1669	252990	674696	0	3	3.0	2.6	1.2
	and		-	35	37	2.0	1.7	1.2
	and			58	61	3.0	2.6	1.5
	and			76	77	1.0	0.9	2.8



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
WP	AGBRC1670	253036	674671	47	54	7.0	6.0	1.7
	including			48	49	1.0	0.9	6.7
WP	AGBRC1671	252941	674678	18	22	4.0	3.4	0.5
P4	AGBRC1672	253010	675297	12	13	1.0	0.9	0.9
P4	AGBRC1673	253040	675285	No Significant M	1ineralizat	tion		
P5	AGBRC1674	253357	675194	4	6	2.0	1.7	1.3
P6	AGBRC1675	254095	674672	44	52	8.0	6.8	1.8
	including			49	51	2.0	1.7	4.1
	and			66	71	5.0	4.3	2.2
	including			66	68	2.0	1.7	4.8
P6	AGBRC1676	253329	675111	14	15	1.0	0.9	1.2
	and			34	37	3.0	2.6	1.2
	and			54	55	1.0	0.9	21.0
P6	AGBRC1677	253365	675082	No Significant M	1ineralizat	tion		
P5	AGBRCDD1678	253418	675218	68	73	5.0	4.3	2.5
	including			68	70	2.0	1.7	3.2
P6	AGBRC1679	253383	675048	No Significant N	1ineralizat	tion		
P6	AGBRC1680	253409	675032	40	42	2.0	1.7	4.3
	including			40	41	1.0	0.9	8.2
P6	AGBRC1681	253035	675243	No Significant N	1ineralizat	tion		
P6	AGBRC1682	253327	675000	18	21	3.0	2.6	1.7
	including			19	20	1.0	0.9	3.5
P6	AGBRC1683	253352	674985	62	66	4.0	3.4	5.0
	including			62	63	1.0	0.9	18.6
P6	AGBRC1684	253203	675041	20	25	5.0	4.3	3.1
	including			23	25	2.0	1.7	6.2
WP	AGBRC1685	252973	674661	0	10	10.0	8.5	1.3
	including			1	2	1.0	0.9	7.4
	and			46	47	1.0	0.9	2.2
WP	AGBRC1686	252906	674659	0	9	9.0	7.7	1.4
	including			7	9	2.0	1.7	4.4
	and			48	49	1.0	0.9	1.6
WP	AGBRC1687	252931	674646	15	24	9.0	7.7	2.7
	including			19	22	3.0	2.6	5.1
	and			45	55	10.0	8.5	1.2
	including			53	54	1.0	0.9	4.6
	and			80	102	22.0	18.7	0.7
	including	0.50-5-6		99	100	1.0	0.9	1.4
WP	AGBRC1688	252754	675088	No Significant M				
WP	AGBRC1689	252798	675061	No Significant M				
WP	AGBRC1690	252881	675009	16	20	4.0	3.4	1.4
	including			16	18	2.0	1.7	2.4
	and			30	36	6.0	5.1	1.3
	including			30	31	1.0	0.9	3.8



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade	
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)	
WP	AGBRC1691	252255	674478	62	63	1.0	0.9	1.7	
WP	AGBRC1692	252283	674462	59	66	7.0	6.0	2.4	
	including			60	62	2.0	1.7	6.1	
	and			68	72	4.0	3.4	2.2	
	including			71	72	1.0	0.9	4.2	
	and			74	78	4.0	3.4	4.1	
	including			74	76	2.0	1.7	5.2	
WP	AGBRC1693	252310	674446	63	71	8.0	6.8	0.5	
	and			69	70	1.0	0.9	1.5	
WP	AGBRC1694	252250	674520	42	52	10.0	8.5	2.8	
	including			45	47	2.0	1.7	7.3	
WP	AGBRC1695	252279	674512	51	57	6.0	5.1	4.1	
	including			52	55	3.0	2.6	6.7	
	and			71	74	3.0	2.6	5.0	
	including			71	73	2.0	1.7	7.4	
WP	AGBRC1696	252476	674386	41	44	3.0	2.6	1.0	
	including			43	44	1.0	0.9	2.0	
WP	AGBRC1697	252498	674373	70	71	1.0	0.9	0.6	
WP	AGBRC1698	252554	674391	73	78	5.0	4.3	1.0	
	including			74	76	2.0	1.7	1.8	
WP	AGBRC1699	252582	674370	91	96	5.0	4.3	7.6	
	including			93	95	2.0	1.7	15.5	
	and			111	114	3.0	2.6	1.9	
WP	AGBRC1700	252579	674443	66	70	4.0	3.4	0.7	
	and			76	78	2.0	1.7	1.1	
P4	AGBRC1701	252776	675108	No Significant N		ion			
P4	AGBRC1702	252809	675092	3	5	2.0	1.7	7.6	
	including			4	5	1.0	0.9	11.7	
WP	AGBRC1703	252682	674584	41	66	25.0	21.3	3.4	
	including			59	60	1.0	0.9	13.1	
P5	AGBRC1704	253381	675291	11	20	9.0	7.7	6.3	
	including			16	17	1.0	0.9	32.3	
P5	AGBRC1705	253406	675276	24	28	4.0	3.4	3.8	
	including			27	28	1.0	0.9	8.4	
	and			60	62	2.0	1.7	3.2	
P5	AGBRC1706	253387	675177	22	23	1.0	0.9	2.7	
	and			48	58	10.0	8.5	2.2	
D.4	including	252025	675007	53	55	2.0	1.7	4.6	
P4	AGBRC1707	253035	675327						
P4	AGBRC1708	253066	675354						
P4	AGBRC1709	253093	675338				4.2		
MPN	AGBRC1710	254102	674924	25	30	5.0	4.3	1.4	
	including	252602	674420	29	30	1.0	0.9	2.8	
WP	AGBRC1711	252602	674430	86	93	7.0	6.0	2.6	



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
	including			86	87	1.0	0.9	6.7
WP	AGBRC1712	252675	674433	69	77	8.0	6.8	1.7
	including			75	76	1.0	0.9	5.3
	and			106	111	5.0	4.3	4.4
	including			108	110	2.0	1.7	7.7
WP	AGBRC1713	252238	674439	93	97	4.0	3.4	0.6
WP	AGBRC1714	252213	674454	No Significant M	1ineralizat	tion		
MPN	AGBRC1715	254136	674903	27	29	2.0	1.7	1.6
	and			34	40	6.0	5.1	2.0
	including			36	37	1.0	0.9	8.2
	and			58	59	1.0	0.9	1.2
	and			70	72	2.0	1.7	1.0
MPN	AGBRC1716	254060	674852	0	6	6.0	5.1	0.5
	and			29	36	7.0	6.0	3.2
	including			32	35	3.0	2.6	4.5
MPN	AGBRC1717	254094	674832	70	74	4.0	3.4	1.6
	including			70	71	1.0	0.9	3.2
MPN	AGBRC1718	254128	674795	1	5	4.0	3.4	2.5
	including			3	4	1.0	0.9	6.1
MPN	AGBRC1719	254161	674778	19	24	5.0	4.3	5.9
	including			21	23	2.0	1.7	13.0
	and			31	35	4.0	3.4	3.1
	including			32	34	2.0	1.7	4.9
MPN	AGBRC1720	254121	674753	16	18	2.0	1.7	16.6
	including			16	17	1.0	0.9	28.7
P2	AGBRC1721	253341	673986	20	23	3.0	2.6	1.0
	and			65	66	1.0	0.9	1.0
Р3	AGBRC1722	253653	673853	8	9	1.0	0.9	1.0
	and			52	53	1.0	0.9	1.4
Р3	AGBRC1723	253769	673750	38	42	4.0	3.4	1.7
SP	AGBRC1724	253796	673729	No Significant N	1ineralizat	tion		
SP	AGBRCDD1725	253776	673706	108	117.5	9.5	8.1	2.5
	including			109	113	4.0	3.4	4.2
	and			157	158	1.0	0.9	1.8
MPN	AGBRC1726	254153	674732	43	45	2.0	1.7	2.5
	including			43	44	1.0	0.9	3.3
MPN	AGBRC1727	253991	674773	44	46	2.0	1.7	1.3
	and			68	69	1.0	0.9	1.5
	and			77	78	1.0	0.9	1.0
P4	AGBRC1728	253392	674926	90	92	2.0	1.7	1.7
	including			90	91	1.0	0.9	2.9
	and			122	129	7.0	6.0	2.6
	including			124	126	2.0	1.7	6.5
P4	AGBRC1729	253338	674866	42	43	1.0	0.9	3.0



_				_	_		True	Au
Deposit	Hole	Easting	Northing	From	То	Length	Width	Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
	and			124	131	7.0	6.0	3.8
	including	252754	674650	128	130	2.0	1.7	7.3
WP	AGBRC1730	252751	674650	1	15	14.0	11.9	2.4
	including	252675	674647	7	8	1.0	0.9	7.3
WP	AGBRC1731	252675 252725	674647	No Significant N			0.0	1.4
WP	AGBRC1732	252725	674616	25 37	26 41	1.0	0.9	1.4 2.2
						4.0	3.4	
			2	49 014 Drilling	50	1.0	0.9	3.2
MPN	AGBRC1733	254143	- 674619	No Significant M	1ineralizat	ion		
MPN	AGBRC1734	254117	674681	49.0	54.0	5.0	4.3	3.9
	including	201117	071001	50.0	51.0	1.0	0.9	15.3
	and			58.0	61.0	3.0	2.6	1.4
	including			58.0	59.0	1.0	0.9	2.7
MPN	AGBRC1735	254145	674663	72.0	78.0	6.0	5.1	1.7
	including			73.0	74.0	1.0	0.9	5.5
P1	AGBRC1736	254276	674300	5.0	6.0	1.0	0.9	0.6
				44.0	45.0	1.0	0.9	0.6
				78.0	80.0	2.0	1.7	0.5
P1	AGBRC1737	254308	674278	No Significant M		ion		
MPN	AGBRC1738	254012	674744	2.0	4.0	2.0	1.7	1.0
	and			84.0	86.0	2.0	1.7	2.0
	including			84.0	85.0	1.0	0.9	3.8
	and			99.0	101.0	2.0	1.7	1.7
	including			99.0	100.0	1.0	0.9	2.9
MPN	AGBRC1739	254009	674842	0.0	14.0	14.0	11.9	0.9
	including			10.0	11.0	1.0	0.9	3.0
	and			43.0	46.0	3.0	2.6	0.7
MPN	AGBRC1740	254045	674818	47.0	51.0	4.0	3.4	2.9
	including			47.0	48.0	1.0	0.9	8.9
	and			64.0	65.0	1.0	0.9	4.5
MPN	AGBRC1741	253987	674806	19.0	23.0	4.0	3.4	1.4
	including			20.0	21.0	1.0	0.9	2.2
MPN	AGBRC1742	254012	674790	44.0	46.0	2.0	1.7	4.2
	including			45.0	46.0	1.0	0.9	5.5
	and			65.0	69.0	4.0	3.4	1.5
	including			66.0	67.0	1.0	0.9	3.3
MPN	AGBRC1743	254036	674777	65.0	67.0	2.0	1.7	1.2
MPN	AGBRC1744	254091	674747	0.0	11.0	11.0	9.4	1.7
	including			9.0	10.0	1.0	0.9	12.0
	and			15.0	18.0	3.0	2.6	3.4
	including		67.	15.0	16.0	1.0	0.9	5.9
MPN	AGBRC1745	254114	674734	20.0	30.0	10.0	8.5	5.0
	including			21.0	25.0	4.0	3.4	11.7



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
MPN	AGBRC1746	254168	674697	68.0	74.0	6.0	5.1	3.4
	including			69.0	70.0	1.0	0.9	8.6
MPN	AGBRC1747	254133	674746	No Significant N		ion		
MPN	AGBRC1748	254182	674782	38.0	39.0	1.0	0.9	2.0
MPN	AGBRC1749	254210	674764	51.0	55.0	4.0	3.4	1.3
	and			57.0	66.0	9.0	7.7	2.3
	including			58.0	60.0	2.0	1.7	6.3
MPN	AGBRC1750	254141	674808	No Significant N				
MPN	AGBRC1751	254066	674805	71.0	74.0	3.0	2.6	4.9
	including			71.0	72.0	1.0	0.9	8.1
	and	254147	C74754	76.0	78.0	2.0	1.7	7.5
MPN	AGBRC1752	254147	674754	No Significant N			1.2	2.0
MPN	AGBRC1753	254171	674740	46.0 47.0	51.0 48.0	5.0 1.0	4.3 0.9	3.8 13.2
MPN	including AGBRC1754	254191	674729	63.0	48.0	7.0	6.0	0.9
	including	234191	074729	64.0	65.0	1.0	0.0	1.9
	and			80.0	81.0	1.0	0.9	1.9
MPN	AGBRC1755	254039	674869	3.0	10.0	7.0	6.0	0.8
	including	23-1033	074005	7.0	8.0	1.0	0.9	1.9
	and			38.0	39.0	1.0	0.9	0.5
MPN	AGBRC1756	254077	674846	44.0	53.0	9.0	7.7	3.0
	including			47.0	50.0	3.0	2.6	6.0
MPN	AGBRC1757	254114	674824	88.0	90.0	2.0	1.7	3.8
	including			88.0	89.0	1.0	0.9	5.5
	and			95.0	99.0	4.0	3.4	1.2
	including			96.0	97.0	1.0	0.9	3.0
MPN	AGBRC1758	254090	674885	3.0	4.0	1.0	0.9	1.1
	and			17.0	20.0	3.0	2.6	1.8
	including			18.0	19.0	1.0	0.9	3.1
MPN	AGBRC1759	254120	674869	53.0	55.0	2.0	1.7	3.1
	and			64.0	70.0	6.0	5.1	4.8
	including			65.0	69.0	4.0	3.4	6.4
	and			74.0	75.0	1.0	0.9	1.8
MPN	AGBRC1760	254200	674819	0.0	5.0	5.0	4.3	0.8
WP	AGBRC1761	252453	674402	No Significant N				
WP	AGBRC1762	252523	674359	No Significant N				
WP	AGBRC1763	252517	674445	26.0	29.0	3.0	2.6	1.6
14/0	including	252552	674425	27.0	28.0	1.0	0.9	3.0
WP	AGBRC1764	252553	674425	56.0	60.0	4.0	3.4	0.8
WP	AGBRC1765	252589	674405	83.0	86.0	3.0	2.6	1.1
	and			91.0	99.0	8.0	6.8	1.6
	including			92.0	93.0	1.0	0.9	9.6
	including	252625	674205	108.0	109.0	1.0	0.9	2.4
WP	AGBRC1766	252625	674385	No Significant N	meralizat	.1011		



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
P6	AGBRC1767	253317	675088	23.0	25.0	2.0	1.7	1.8
	including			23.0	24.0	1.0	0.9	3.2
	and			55.0	58.0	3.0	2.6	2.4
	including			55.0	56.0	1.0	0.9	5.5
	and			62.0	64.0	2.0	1.7	2.1
P6	AGBRC1768	253282	675107	56.0	59.0	3.0	2.6	2.7
	including			56.0	58.0	2.0	1.7	3.8
P6	AGBRC1769	253298	675099	2.0	7.0	5.0	4.3	0.5
P6	AGBRC1770	253302	675010	No Significant Mineralization				
MPN	AGBRC1771	254223	674804	50.0	54.0	4.0	3.4	2.1
	including			51.0	52.0	1.0	0.9	4.9
	and			64.0	66.0	2.0	1.7	1.3
MPN	AGBRC1772	254116	674916	40.0	44.0	4.0	3.4	0.8
MPN	AGBRC1773	254156	674891	51.0	53.0	2.0	1.7	1.3
	and			61.0	66.0	5.0	4.3	1.2
	including			61.0	62.0	1.0	0.9	3.2
	and			77.0	83.0	6.0	5.1	1.0
	including			79.0	80.0	1.0	0.9	3.4
	and			97.0	101.0	4.0	3.4	1.5
	including			99.0	100.0	1.0	0.9	2.9
MPN	AGBRC1774	254084	674935	3.0	10.0	7.0	6.0	0.7
	including			3.0	4.0	1.0	0.9	2.1
	and			108.0	109.0	1.0	0.9	2.0
WP	AGBRC1775	252774	674477	10.0	12.0	2.0	1.7	1.2
	and			23.0	25.0	2.0	1.7	1.8
	including	252555	674524	24.0	25.0	1.0	0.9	3.1
WP	AGBRC1776	252555	674534	22.0	26.0	4.0	3.4	4.6
WP	including AGBRC1777	252591	674513	23.0 18.0	24.0 27.0	1.0 9.0	0.9 7.7	12.3 2.9
VVF	including	232391	074313	18.0	27.0	2.0	1.7	10.2
	and			41.0	48.0	7.0	6.0	10.2
WP	AGBRC1778	252633	674487	27.0	29.0	2.0	1.7	1.1
VVI	and	232033	074407	34.0	41.0	7.0	6.0	1.1
	and			45.0	46.0	1.0	0.0	1.6
	and			66.0	75.0	9.0	7.7	2.2
	including			69.0	72.0	3.0	2.6	5.6
	and			78.0	81.0	3.0	2.6	0.7
WP	AGBRC1779	252676	674465	43.0	47.0	4.0	3.4	1.5
· · ·	including			45.0	46.0	1.0	0.9	3.1
	and			94.0	98.0	4.0	3.4	1.6
	including			96.0	97.0	1.0	0.9	3.5
WP	AGBRC1780	252623	674415	79.0	83.0	4.0	3.4	1.8
	including			80.0	81.0	1.0	0.9	3.1



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
	and			100.0	109.0	9.0	7.7	3.0
	including			101.0	102.0	1.0	0.9	13.7
	and			117.0	120.0	3.0	2.6	0.9
P6	AGBRC1781	253325	674923	2.0	12.0	10.0	8.5	1.6
	including			8.0	9.0	1.0	0.9	6.2
	and			78.0	90.0	12.0	10.2	4.4
	including			80.0	88.0	8.0	6.8	5.9
P6	AGBRC1782	253371	674970	13.0	16.0	3.0	2.6	1.8
	and			60.0	63.0	3.0	2.6	1.8
	including			61.0	62.0	1.0	0.9	3.5
DC	and	252264	674040	81.0	84.0	3.0	2.6	2.8
P6	AGBRC1783	253361	674948	77.0	79.0 90.0	2.0	1.7	1.1
WP	AGBRC1784	253235	675017	85.0 11.0	90.0	5.0 1.0	4.3 0.9	1.4 1.7
P5	AGBRC1785	253233	675019	0.0	12.0	1.0	0.9	3.2
P6	AGBRC1785	253251	674943	12.0	29.0	1.0	14.5	3.2
10	including	255251	074545	21.0	23.0	2.0	14.5	15.1
P6	AGBRC1787	253300	674916	68.0	80.0	12.0	10.2	4.0
	including			69.0	73.0	4.0	3.4	6.4
	and			75.0	77.0	2.0	1.7	6.9
P6	AGBRC1788	253314	674855	38.0	40.0	2.0	1.7	1.0
P6	AGBRC1789	253352	674833	72.0	73.0	1.0	0.9	1.2
P6	AGBRC1790	253236	674857	67.0	71.0	4.0	3.4	1.0
P4	AGBRC1791	252798	675015	0.0	13.0	13.0	11.1	2.9
	including			8.0	12.0	4.0	3.4	6.4
	and			68.0	74.0	6.0	5.1	7.5
	including			72.0	73.0	1.0	0.9	13.4
P4	AGBRC1792	252834	674995	17.0	19.0	2.0	1.7	2.4
	including			18.0	19.0	1.0	0.9	3.9
	and			39.0	46.0	7.0	6.0	2.0
	including			44.0	45.0	1.0	0.9	4.6
	and			77.0	*84	7.0	6.0	32.5
D.4	including	252070	674075	79.0	80.0	1.0	0.9	177.4
P4	AGBRC1793	252870	674975	33.0	38.0	5.0	4.3	3.0
	including and			36.0 71.0	37.0 81.0	1.0 10.0	0.9 8.5	8.8 4.4
	including							
P4	AGBRC1794	252902	674957	74.0 28.0	78.0 30.0	4.0	3.4 1.7	10.4 5.3
14	including	232302	074337	28.0	29.0	1.0	0.9	7.9
	and	ļ		46.0	53.0	7.0	6.0	6.3
	including			47.0	49.0	2.0	1.7	9.0
	and			54.0	64.0	10.0	8.5	2.0
	including	L	L	58.0	61.0	3.0	2.6	4.5
WP	AGBRC1795	252939	674706	No Significant N				



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
WP	AGBRC1796	252988	674677	24.0	31.0	7.0	6.0	3.5
	including			24.0	25.0	1.0	0.9	8.2
	and			62.0	73.0	11.0	9.4	0.9
WP	AGBRC1797	253012	674665	3.0	4.0	1.0	0.9	1.3
	and			28.0	45.0	17.0	14.5	1.7
	including			40.0	42.0	2.0	1.7	6.7
	and			50.0	51.0	1.0	0.9	1.8
	and			60.0	62.0	2.0	1.7	6.4
	including			61.0	62.0	1.0	0.9	9.4
WP	AGBRC1798	252979	674747	No Significant N				
WP	AGBRC1799	253020	674725	6.0	17.0	11.0	9.4	1.1
P5	AGBRC1800	253012	674841	12.0	18.0	6.0	5.1	0.7
P4	AGBRC1801	253057	675238	No Significant N				
P4	AGBRC1802	253076	675228	No Significant N				
P4	AGBRC1803	253094	675219	No Significant N				
P2	AGBRC1804	253008	673699	47.0	53.0	6.0	5.1	3.5
	including			48.0	50.0	2.0	1.7	7.7
P2	AGBRC1805	253056	673675	34.0	37.0	3.0	2.6	1.1
	and			70.0	75.0	5.0	4.3	3.4
	including			72.0	74.0	2.0	1.7	7.5
P6	AGBRC1806	253416	675027	21.0	26.0	5.0	4.3	0.9
	and			48.0	54.0	6.0	5.1	3.3
	including			48.0	49.0	1.0	0.9	8.7
P6	AGBRC1807	253327	675137	No Significant N	lineralizat	tion		
P6	AGBRC1808	253356	675114	24.0	26.0	2.0	1.7	2.1
	including			24.0	25.0	1.0	0.9	3.4
	and			55.0	63.0	8.0	6.8	1.7
	including			57.0	59.0	2.0	1.7	3.7
P6	AGBRC1809	253398	675074	No Significant N	lineralizat			
P6	AGBRC1810	253420	675062	25.0	33.0	8.0	6.8	1.3
	including			26.0	27.0	1.0	0.9	6.4
WP	AGBRC1811	253034	674743	12.0	14.0	2.0	1.7	1.0
	and			16.0	17.0	1.0	0.9	2.4
P5	AGBRC1812	253091	674793	73.0	75.0	2.0	1.7	5.0
	including			73.0	74.0	1.0	0.9	9.4
P5	AGBRC1813	253088	674838	55.0	57.0	2.0	1.7	1.7
	and			71.0	72.0	1.0	0.9	4.5
	and			75.0	81.0	6.0	5.1	0.9
P5	AGBRC1814	253030	674943	No Significant N	lineralizat	tion		
P4	AGBRC1815	252845	675199	5.0	10.0	5.0	4.3	2.3
	including			7.0	8.0	1.0	0.9	8.7
P6	AGBRC1816	253175	674792	39.0	52.0	13.0	11.1	2.0
	including			49.0	51.0	2.0	1.7	7.2
	and			73.0	76.0	3.0	2.6	1.0



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
P6	AGBRC1817	253212	674771	69.0	72.0	3.0	2.6	1.5
	including			69.0	70.0	1.0	0.9	3.0
	and			75.0	78.0	3.0	2.6	0.8
P6	AGBRC1818	253241	674819	82.0	84.0	2.0	1.7	2.1
	and			88.0	91.0	3.0	2.6	6.4
	including			88.0	89.0	1.0	0.9	14.7
	and			95.0	96.0	1.0	0.9	2.3
P6	AGBRC1819	253202	674841	No Significant N				
MPN	AGBRC1820	254178	674925	No Significant N				
P6	AGBRC1821	253439	675046	55.0	56.0	1.0	0.9	9.6
P6	AGBRC1822	253370	675188	No Significant N				
P6	AGBRC1823	253403	675166	66.0	68.0	2.0	1.7	7.2
	including			67.0	68.0	1.0	0.9	10.5
	and			82.0	88.0 88.0	6.0	5.1	1.8 8.5
P6	including	253357	675253	87.0 12.0		1.0	0.9	0.6
P6	AGBRC1824 AGBRC1825	253357	675233	40.0	17.0 47.0	5.0 7.0	4.3 6.0	2.7
FU	including	233333	073235	40.0	47.0	1.0	0.0	6.4
	and			69.0	75.0	6.0	5.1	5.1
	including			69.0	73.0	3.0	2.6	9.1
	and			77.0	*78	1.0	0.9	1.7
P6	AGBRC1826	253433	675208	71.0	91.0	20.0	17.0	1.3
-	including			71.0	72.0	1.0	0.9	6.5
P6	AGBRC1827	253352	675297	No Significant M	lineralizat	ion		
P6	AGBRC1828	253429	675253	57.0	69.0	12.0	10.2	1.3
	including			66.0	68.0	2.0	1.7	4.1
	and			87.0	89.0	2.0	1.7	2.9
P6	AGBRC1829	253455	675239	84.0	91.0	7.0	6.0	5.0
	including			87.0	88.0	1.0	0.9	13.9
P6	AGBRC1830	253327	674901	30.0	44.0	14.0	11.9	2.6
	including			38.0	39.0	1.0	0.9	11.3
	and			105.0	111.0	6.0	5.1	4.1
	including			109.0	110.0	1.0	0.9	7.6
WP	AGBRC1831	254112	674967	4.0	7.0	3.0	2.6	2.3
	and		67.00.00	6.0	7.0	1.0	0.9	6.2
MPN	AGBRC1832	254145	674946	No Significant M				4 -
P6	AGBRC1833	253399	674954	102.0	104.0	2.0	1.7	1.5
P6	AGBRC1834	253430	674939	20.0	21.0	1.0	0.9	3.1
	and			77.0	84.0	7.0	6.0	2.2
DC	including	252460	674024	78.0	79.0	1.0	0.9	12.8 5.4
P6	AGBRC1835	253460	674924	13.0	16.0	3.0	2.6	
	including and			14.0 18.0	15.0 21.0	1.0 3.0	0.9 2.6	10.1
	including			20.0	21.0	3.0	0.9	4.8
	including			20.0	21.0	1.0	0.9	4.8



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade		
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)		
P6	AGBRC1836	253215	674976	61.0	64.0	3.0	2.6	0.8		
P2	AGBRC1837	252963	673680	1.0	78.0	77.0	65.5	8.6		
	including		0.0000	53.0	58.0	5.0	4.3	22.1		
P2	AGBRC1838	252862	673674	No Significant Mineralization						
P2	AGBRC1839	252905	673650	No Significant Mineralization						
P2	AGBRC1840	252949	673625	No Significant Mineralization						
P6	AGBRC1841	253371	675335	No Significant Mineralization						
P6	AGBRC1842	253401	675316	No Significant N	1ineralizat	ion				
P6	AGBRC1843	253432	675296	32.0	51.0	19.0	16.2	4.8		
	including			40.0	42.0	2.0	1.7	14.8		
	and			56.0	58.0	2.0	1.7	2.6		
P6	AGBRC1844	253466	675275	72.0	76.0	4.0	3.4	0.7		
	and			80.0	84.0	4.0	3.4	1.9		
	including	254474	675040	80.0	81.0	1.0	0.9	3.5		
MPN	AGBRC1845	254174	675019	No Significant M						
MPN	AGBRC1846	254209	675003	No Significant N						
MPN	AGBRC1847	254243	674987 674850	No Significant N	93.0		3.4	17		
MPN	AGBRC1848	254148	074850	89.0 96.0	93.0	4.0	4.3	1.7 1.9		
	and including			98.0	99.0	1.0	4.3 0.9	5.3		
P2	AGBRC1849	253189	673921	No Significant N			0.5	5.5		
P2	AGBRC1850	253216	673905	11.0	17.0	6.0	5.1	4.4		
	including			12.0	13.0	1.0	0.9	11.4		
P2	AGBRC1851	252924	673735	No Significant M						
P2	AGBRC1852	253011	673653	60.0	64.0	4.0	3.4	2.6		
	including			62.0	63.0	1.0	0.9	4.5		
	and			76.0	90.0	14.0	11.9	3.0		
	including			79.0	80.0	1.0	0.9	10.0		
	and			104.0	106.0	2.0	1.7	4.4		
	including			104.0	105.0	1.0	0.9	6.8		
P2	AGBRC1853	253033	673640	85.0	89.0	4.0	3.4	2.4		
	including			86.0	88.0	2.0	1.7	4.1		
	and			105.0	108.0	3.0	2.6	3.8		
	including			106.0	107.0	1.0	0.9	8.1		
	and			115.0	120.0 117.0	5.0	4.3	3.4		
P2	including AGBRC1854	252918	673712	116.0 0.0	27.0	1.0 27.0	0.9	7.6 7.2		
r2	including	227210	0/5/12	9.0	13.0	4.0	23.0 3.4	34.7		
P7	AGBRC1855	253185	673625	14.0	21.0	7.0	6.0	34.7		
	including	233103	0,3023	14.0	19.0	3.0	2.6	5.3		
	and			73.0	81.0	8.0	6.8	1.5		
	including			73.0	74.0	1.0	0.9	4.3		
	and			83.0	84.0	1.0	0.9	2.7		
P7	AGBRC1856	253234	673641	114.0	118.0	4.0	3.4	5.0		



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
Alea	including	(11)	(11)	116.0	117.0	1.0	0.9	13.9
	and			110.0	126.0	5.0	4.3	13.9
	including			121.0	120.0	1.0	0.9	4.9
	and			132.0	135.0	3.0	2.6	0.9
P7	AGBRC1856	253234	673641	156.0	158.0	2.0	1.7	3.0
	and			164.0	177.0	13.0	11.1	1.6
	including			171.0	173.0	2.0	1.7	6.4
P7	AGBRC1857	253145	673647	42.0	45.0	3.0	2.6	1.5
	including			43.0	44.0	1.0	0.9	3.9
P7	AGBRC1858	253260	673625	No Significant N	1ineralizat	tion		
P7	AGBRC1859	253237	673686	16.0	25.0	9.0	7.7	2.8
	including			22.0	24.0	2.0	1.7	7.0
P7	AGBRC1860	253262	673672	25.0	27.0	2.0	1.7	1.6
P2	AGBRC1861	253236	673893	No Significant N				
P2	AGBRC1862	253259	673881	No Significant N				
P2	AGBRC1863	253173	673897	No Significant N				
P2	AGBRC1864	253201	673885	No Significant N				
P2	AGBRC1865	253220	673868	No Significant N				
P2	AGBRC1866	253241	673855	13.0	15.0	2.0	1.7	1.6
P6	AGBRC1867	253179	674930	No Significant N	lineralizat	tion		
P6	AGBRC1868	253236	674895	44.0	51.0	7.0	6.0	3.1
	including			45.0	48.0	3.0	2.6	5.8
P6	AGBRC1869	253265	674881	71.0	79.0	8.0	6.8	4.6
	including			71.0	76.0	5.0	4.3	7.1
	and			94.0	97.0	3.0	2.6	1.2
	including			94.0	95.0	1.0	0.9	3.2
P5	AGBRC1870	253128	674920	67.0	72.0	5.0	4.3	1.5
	including		67.000	67.0	68.0	1.0	0.9	3.4
P6	AGBRC1871	253153	674906	19.0	20.0	1.0	0.9	1.8
DC	and	252470	674004	60.0	62.0	2.0	1.7	1.3
P6	AGBRC1872	253179	674891	7.0	17.0	10.0	8.5	2.5
	including			10.0	13.0	3.0	2.6	4.9
DC	and	252204	674976	91.0	93.0	2.0	1.7	1.2
P6	AGBRC1873	253204	674876	34.0	39.0	5.0	4.3	1.2
	including			35.0	36.0	1.0	0.9	4.4
D6	and AGBRC1874	253122	674888	59.0 73.0	61.0 74.0	2.0	1.7	1.1 1.8
P6 P6	AGBRC1874 AGBRC1875	253122	674888	14.0	19.0	1.0 5.0	0.9 4.3	1.8
FU	including	233200	074913	14.0	19.0	1.0	4.5 0.9	3.7
P6	AGBRC1876	253160	674866	6.0	9.0	3.0	2.6	0.9
P6	AGBRC1876	253100	674855	29.0	31.0	2.0	1.7	1.0
10	and	233121	0,4000	62.0	66.0	4.0	3.4	1.0
P6	AGBRC1878	253146	674843	44.0	47.0	4.0	2.6	0.8
P6	AGBRC1878	253140	674843	44.0	10.0	6.0	5.1	1.1
10	A000010/3	2331/4	074027	4.0	10.0	0.0	J.1	1.1



Deposit	Hole	Easting	Northing	From	То	Length	True Width	Au Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
	and			34.0	38.0	4.0	3.4	1.1
	and			69.0	74.0	5.0	4.3	1.2
	including			70.0	71.0	1.0	0.9	3.2
P6	AGBRC1880	253113	674823	No Significant M				
P6	AGBRC1881	253141	674808	6.0	15.0	9.0	7.7	2.0
	including			8.0	10.0	2.0	1.7	5.0
	and			21.0	23.0	2.0	1.7	1.2
	and			29.0	34.0	5.0	4.3	0.8
	and			56.0	59.0	3.0	2.6	1.3
DC	and	252400	674770	81.0	82.0	1.0	0.9	3.1
P6	AGBRC1882	253108	674779	9.0	10.0 13.0	1.0	0.9	3.3 1.6
	and and			12.0 49.0	51.0	1.0 2.0	0.9 1.7	1.0
	and			75.0	76.0	1.0	0.9	1.1
	and			87.0	90.0	3.0	2.6	3.4
	including			87.0	89.0	2.0	1.7	4.1
P6	AGBRC1883	253144	674762	31.0	33.0	2.0	1.7	2.2
	including		0	31.0	32.0	1.0	0.9	3.9
	and			38.0	39.0	1.0	0.9	2.1
P6	AGBRC1884	253180	674745	60.0	64.0	4.0	3.4	1.0
	and			74.0	78.0	4.0	3.4	2.4
	including			75.0	76.0	1.0	0.9	6.7
P6	AGBRC1885	253085	674756	90.0	96.0	6.0	5.1	2.0
	including			93.0	95.0	2.0	1.7	5.3
	and			99.0	102.0	3.0	2.6	1.8
P6	AGBRC1886	253130	674733	31.0	36.0	5.0	4.3	1.0
	including			33.0	34.0	1.0	0.9	3.3
	and			66.0	68.0	2.0	1.7	5.3
	including			67.0	68.0	1.0	0.9	7.2
P6	AGBRC1887	253060	674730	5.0	7.0	2.0	1.7	1.4
P5	AGBRC1888	253045	674710	7.0	10.0	3.0	2.6	1.1
P4	AGBRC1889	252724	675057	No Significant N				
P4	AGBRC1890	252762	675037	No Significant N			77	4.2
P4	AGBRC1891	252938	674936	51.0 51.0	60.0 54.0	9.0 3.0	7.7 2.6	4.2 11.9
	including and			64.0	54.0 72.0	3.0 8.0	2.6 6.8	2.6
l	including	l	l	64.0	66.0	2.0	1.7	9.5
P4	AGBRC1892	252733	675008	65.0	71.0	6.0	5.1	3.3
	including	232733	0,0000	66.0	67.0	1.0	0.9	5.6
P4	AGBRC1893	252765	674991	29.0	33.0	4.0	3.4	9.7
	including			30.0	32.0	2.0	1.7	17.8
	and			74.0	85.0	11.0	9.4	3.7
	including			74.0	78.0	4.0	3.4	7.1
P4	AGBRC1894	252797	674972	52.0	58.0	6.0	5.1	4.6



Deposit	Hole	Facting	Northing	From	То	Longth	True Width	Au Grade
Area	ID	Easting (m)	(m)	(m)	(m)	Length (m)	(m)	(g/t)
Alea	including	(11)	(11)	53.0	55.0	2.0	1.7	12.1
	and			81.0	90.0	9.0	7.7	4.2
	including			86.0	87.0	1.0	0.9	19.8
P4	AGBRC1895	252832	674953	71.0	72.0	1.0	0.9	1.5
	and		07.000	87.0	98.0	11.0	9.4	8.2
	including			88.0	89.0	1.0	0.9	21.1
P4	AGBRC1896	252869	674932	No Significant N	1ineralizat	ion		
P4	AGBRC1897	252902	674910	No Significant N	1ineralizat	tion		
WP	AGBRC1898	252603	674362	No Significant N	1ineralizat	ion		
WP	AGBRC1899	252996	674647	No Significant N	1ineralizat	tion		
WP	AGBRC1900	252955	674631	8.0	15.0	7.0	6.0	1.1
	and			18.0	19.0	1.0	0.9	3.4
	and			61.0	63.0	2.0	1.7	1.8
	and			72.0	73.0	1.0	0.9	2.4
WP	AGBRC1901	252935	674596	23.0	26.0	3.0	2.6	3.2
	including			24.0	25.0	1.0	0.9	7.9
	and			30.0	35.0	5.0	4.3	1.2
	and			55.0	58.0	3.0	2.6	1.7
	and			81.0	83.0	2.0	1.7	1.9
	and			84.0	90.0	6.0	5.1	3.3
WP	including AGBRC1902	252887	674567	88.0 21.0	90.0 25.0	2.0 4.0	1.7 3.4	7.9 1.3
VVP	and	252667	074507	49.0	51.0	2.0	5.4 1.7	1.3
	including			50.0	51.0	1.0	0.9	3.3
	and			93.0	101.0	8.0	6.8	1.7
	including			93.0	94.0	1.0	0.9	4.3
P4	AGBRC1903	252625	674909	77.0	81.0	4.0	3.4	4.3
	including			80.0	81.0	1.0	0.9	13.8
P4	AGBRC1904	252676	674881	58.0	59.0	1.0	0.9	2.8
	and			77.0	82.0	5.0	4.3	1.2
	and			87.0	93.0	6.0	5.1	2.5
	and			88.0	90.0	2.0	1.7	5.0
WP	AGBRC1905	252280	674603	No Significant N				
WP	AGBRC1906	252306	674590	No Significant N				
WP	AGBRC1907	252249	674570	No Significant N				
WP	AGBRC1908	252275	674555	No Significant N				
WP	AGBRC1909	252303	674538	19.0	22.0	3.0	2.6	1.4
	including			21.0	22.0	1.0	0.9	3.7
	and			25.0	35.0	10.0	8.5	1.1
	including	ļ		31.0	33.0	2.0	1.7	3.9
	and			46.0	50.0	4.0	3.4	4.4
	including	252404	674552	46.0	48.0	2.0	1.7	6.6
WP	AGBRC1910	252191	674552	No Significant N				
WP	AGBRC1911	252327	674575	No Significant N	imeralizat	.1011		



.				-	-		True	Au
Deposit	Hole	Easting	Northing	From	То	Length	Width	Grade
Area	ID	(m)	(m)	(m)	(m)	(m)	(m)	(g/t)
WP	AGBRC1912	252220	674537	48.0	51.0	3.0	2.6	1.0
WP	AGBRC1913	252339	674425	68.0	73.0	5.0	4.3	3.7
	including			70.0	73.0	3.0	2.6	5.7
FW	AGBRC1914	251936	674489	No Significant N	lineralizat	ion		
FW	AGBRC1915	251963	674475	6.0	7.0	1.0	0.9	5.2
	and			14.0	30.0	16.0	13.6	2.9
	including			25.0	27.0	2.0	1.7	5.7
	and			43.0	46.0	3.0	2.6	4.1
	including			43.0	44.0	1.0	0.9	9.9
FW	AGBRC1916	251990	674461	2.0	5.0	3.0	2.6	1.0
	and			40.0	41.0	1.0	0.9	1.9
	and			48.0	52.0	4.0	3.4	1.1
	and			113.0	114.0	1.0	0.9	2.8
FW	AGBRC1917	251905	674453	No Significant Mineralization				
FW	AGBRC1918	251952	674429	40.0	44.0	4.0	3.4	4.0
	including			40.0	42.0	2.0	1.7	7.0
	and			65.0	70.0	5.0	4.3	1.8
	including			66.0	67.0	1.0	0.9	5.1

* Indicates Mineralization at end of hole

Note: Significant Mineralization is defined as at least 2m at 1g/t