

## Endeavour Launches Construction of Ity CIL Project Based on Optimization Study



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### ENDEAVOUR LAUNCHES CONSTRUCTION OF ITY CIL PROJECT BASED ON OPTIMIZATION STUDY

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#### HIGHLIGHTS

- Optimization Study significantly improves the previous Feasibility Study results (published in November 2016) and positions the Ity CIL Project as Endeavour's next long-life low-cost flagship asset
  - Long 14-year mine life based on current reserves which increased by 1.0Moz to 2.9Moz
  - Average annual production over the first 5 years increased by 42% to 235koz and AISC decreased by 3% to \$494/oz
  - Average annual production over the first 10 years increased by 51% to 204koz and AISC decreased by 2% to \$549/oz
  - Robust economics with after-tax NPV<sub>5%</sub> of \$710m, a 73% increase, based on a gold price of \$1,250/oz
- Ity CIL Project has entered the construction phase following Board approval
  - Endeavour's in-house construction team has begun to transition from Houndé to Ity and has commenced mobilisation to site
  - \$412 million initial capex, fully funded from existing sources of capital with the recent Revolving Credit Facility upsize
  - 20-month construction duration with the first gold pour expected for mid-2019

**Abidjan, September 20, 2017** - Endeavour Mining Corporation ("Endeavour") (the "Company") (TSX:EDV) (OTCQX:EDVMF) is pleased to announce that its Board of Directors has approved the construction decision for its Ity CIL project at its mine in Cote d'Ivoire following the robust results obtained from its Optimization Study.

The Ity CIL Project Feasibility and Optimization studies have been conducted to analyze the economic viability of constructing a straight forward gravity circuit/Carbon-In-Leach ("CIL") plant as an alternate processing route to the current heap leach process. Following the publication of the November 2016 Feasibility Study ("FS"), an Optimization Study ("OS") was prepared to better capture the value created from the recent exploration success which has led to increasing the plant name-plate design from 3.0Mtpa to 4.0Mtpa. In addition, several changes have been made to leverage construction and operating synergies between Ity, Agbaou and Houndé.

The production profile and economics have significantly improved, as summarized in Table 1 below:

**Table 1: Summary of 2016 CIL Feasibility Study vs. 2017 Optimization Study**

(On a 100% basis)	2017 OPTIMIZATION STUDY	2016 FEASIBILITY STUDY	VARIANCE (OS VS. FS)
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M&I Resources (inclusive of Reserves)	3.8Moz	2.3Moz	+65%
P&P Reserves	2.9Moz	1.9Moz	+53%
Average production (first 5 years)	235koz	165koz	+42%
Average AISC (first 5 years)	\$494/oz	\$507/oz	(3%)
<b>After-tax NPV<sub>5%</sub> based on \$1,250/oz</b>	<b>\$710m</b>	<b>\$411m</b>	<b>+73%</b>
After-tax IRR based on \$1,250/oz	40.3%	35.9%	+12%
After-tax IRR based on \$1,000/oz	23.2%	19.5%	+19%

Sébastien de Montessus, President & CEO, stated: "Today's study clearly positions Ity as our next flagship asset with robust project economics, a strong long-life production profile, and significant exploration upside. Its average annual production in the first five years of 235koz with AISC below \$500/oz and an after-tax IRR of +20% even at a low gold price of \$1,000 per ounce are proof of the compelling economics of the project."

With the upcoming first gold pour at Houndé and Ity CIL construction expected to be completed within 20-months, we remain on track to achieve our strategic milestones of becoming a +800,000 ounce per year gold producer with group AISC below \$800 per ounce and mine lives above 10 years by 2019."

Jeremy Langford, COO, added: "We have optimized the Ity CIL project by maximizing the construction and operational synergies between Agbaou, Houndé and Ity, and by leveraging the same designs, components, equipment and spare parts where possible from one project to the other, along with incorporating our extensive construction expertise. The construction team is excited to transition from Houndé to Ity and to continue to build on its construction track-record."

#### SUMMARY OF KEY CHANGES FROM PREVIOUS FEASIBILITY STUDY

The Ity CIL Project Optimization Study has been managed by Endeavour's in house development team and independently prepared by Lycopodium Minerals Pty Ltd ("Lycopodium") with the support of six globally recognized engineering firms, with the key operational and financial results summarized in the table below:

**Table 2: Detailed Summary of 2016 CIL Feasibility Study vs. 2017 Optimization Study**

	2017 OPTIMIZATION STUDY	2016 FEASIBILITY STUDY	VARIANCE (OS VS. FS)
<b>LIFE OF MINE PRODUCTION</b>			
Strip ratio, w:o	1.9	2.1	(10%)
Tonnes of ore processed, Mt	57.0Mt	41.0Mt	+39%
Grade processed, Au g/t	1.57 g/t	1.42 g/t	+10%
Gold content processed, Moz	2.87 Moz	1.88 Moz	+53%
LOM Average Gold recovery, %	86%	83%	+3%
Gold production, Moz	2.47 Moz	1.56 Moz	+58%
Mine life, years	14.3 years	13.7 years	+4%
Average annual gold production, koz	173 Koz	114 Koz	+52%
Cash costs, \$/oz	\$554	\$528	+5%
AISC, \$/oz	\$580	\$603	(4%)

**AVERAGE FOR YEARS 1 TO 5:**

Gold production, kozpa	235 koz	165 koz	+42%
Cash costs, \$/oz	\$472/oz	\$446/oz	+6%
AISC, \$/oz	\$494/oz	\$507/oz	(3%)

**AVERAGE FOR YEARS 1 TO 10:**

Gold production, kozpa	204 koz	135 koz	+51%
Cash costs, \$/oz	\$523/oz	\$488/oz	+7%
AISC, \$/oz	\$549/oz	\$559/oz	(2%)

**CAPITAL COST**

Initial capital cost, \$m	\$412m	\$307m	+34%
- of which equipment lease, \$m	\$61m	\$25m	+160%
Upfront capital cost, \$m	\$351m	\$282m	+24%

**ECONOMICS (BASED ON \$1,250/OZ)**

After-tax IRR	40%	36%	+12%
After-tax NPV ( 0% discount rate)	\$990m	\$607m	+63%
After-tax NPV ( 5% discount rate)	\$710m	\$411m	+73%
Payback period	1.8 years	2.1 years	(17%)

The key changes made in the Optimization Study include:

- CIL process plant increased from 3Mtpa to 4Mtpa to better capture the value created from the recent exploration success which has discovered the Bakatouo deposit and increased resources at notably Daapleu and Mont/Ity Flat.
- Simplified and optimized the process plant design to maximize the replication of the Houndé design, where applicable, to capture working capital inventory synergies.
- Improved recoveries based on additional metallurgical testwork, namely on the Daapleu primary material.
- Addition of a diverter/flop-gate system which allows the Ball Mill to run independently during periods when the SAG mill is shut down. This operability allows the plant to maximize utilization and effectively ensure process milling all year round.
- Addition of a 26MW full back up power station, identical to that installed at the Houndé project.
- Optimized upfront capital cost and sequenced overall build time with a higher percentage of "Self-Perform" works.
- Optimized the site layout, which allows the current heap leach operation to run independently of the CIL project. As such, the construction of the CIL project is not expected to impact the heap leach operation.

**RESERVES INCREASED BY 1.0Moz, UP 53%**

The updated Mineral Reserve estimates were undertaken by Snowden Mining industry Consultants (Snowden). Changes from the previously reported Mineral Reserves are largely due to revised and updated Mineral Resource estimates on the Daapleu, Ity and Bakatouo deposits and revised operating costs largely associated with revised processing capabilities from a 3 Mtpa facility to a 4 Mtpa treatment facility.

Compared to the 2016 Feasibility Study reserves, a total of 1.0Moz were added, with the main increases coming from the discovery of Bakatouo (+532koz), and additional resource to reserve conversion at Mont Ity/Ity Flat (+211koz), Teckraie/Verse Ouest (+187koz), and at Daapleu (+79koz) following additional

drilling, as shown in the table below. The Colline Sud deposit is expected to be mined during the heap leach phase and therefore has been excluded from CIL Mineral Reserves.

**Table 3: CIL Project Reserves Comparison**

Deposits on a 100% basis	Optimization Study Reserves, as at September 1, 2017			Feasibility Study Reserves, as at October 1, 2016			Variance (koz)
	Tonnage (Mt)	Grade (Au g/t)	Content (Au koz)	Tonnage (Mt)	Grade (Au g/t)	Content (Au koz)	
<b>Open Pits</b>							
Bakatouo	6.9	2.40	532	-	-	-	<b>+532</b>
Colline Sud	-	-	-	-	-	-	-
Daapleu	18.4	1.72	1,015	19.3	1.51	936	<b>+79</b>
Mont Ity / Ity Flat	7.4	2.03	479	3.8	2.19	268	<b>+211</b>
Gbeitouo	2.5	1.37	111	2.6	1.35	112	<b>(1)</b>
Walter	1.2	1.07	41	1.9	1.22	73	<b>(32)</b>
Zia NE	6.2	1.06	210	4.8	1.24	192	<b>+18</b>
<b>Sub-total</b>	<b>42.5</b>	<b>1.75</b>	<b>2,390</b>	<b>32.4</b>	<b>1.52</b>	<b>1,580</b>	<b>+810</b>
<b>Existing Stockpiles</b>							
Aires	5.8	1.09	202	5.8	1.09	202	-
Teckraie/ Verse Ouest	8.7	1.02	284	2.8	1.07	97	<b>+187</b>
<b>Sub-total</b>	<b>14.5</b>	<b>1.05</b>	<b>486</b>	<b>8.6</b>	<b>1.08</b>	<b>300</b>	<b>+186</b>
<b>Total</b>	<b>57.0</b>	<b>1.57</b>	<b>2,876</b>	<b>41.0</b>	<b>1.42</b>	<b>1,880</b>	<b>+996</b>

Mineral Reserve estimates follow the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") definitions standards for mineral resources and reserves and have been completed in accordance with the Standards of Disclosure for Mineral Projects as defined by National Instrument 43-101. Notes are provided in Section "About the Mineral Reserve and Resources" of this Press Release, with effective date September 1, 2017. Full details on the 2016 Feasibility Study Reserves are available in the Company's published press release dated November 10, 2016.

#### **INDICATED RESOURCE INCREASED BY 1.5Moz**

The updated Indicated and Inferred Mineral Resource estimates were undertaken by Cube Consulting (Cube), and incorporate all validated RC, DC and AC drilling completed at the Ity CIL Project up to May 1, 2017.

There is a total of 10 deposit areas included in the updated Mineral Resource for the Ity CIL Project including four in situ gold deposits that have been or are currently in production, comprising Mont Ity, Ity Flat, ZiaNE and Walter, plus three near-mine in situ deposits comprising Gbeitouo, Daapleu, Colline Sud and Bakatouo, and two rock waste dumps at Teckraie and Verse Ouest and a discontinued heap leach pad Aires.

Compared to the resource inventory used to build the 2016 Feasibility Study, a total of 1.5Moz of Indicated Resources were added, with the main increases coming from the discovery of Bakatouo (+704koz), and additional Indicated resources outlined at Daapleu (+384koz), Mont Ity / Ity Flat (+189koz), and Verse Ouest (+187koz), as shown in the table below.

**Table 4: Resource Comparison**

Deposits on a 100% basis	2017 OPTIMIZATION STUDY INVENTORY						2016 FEASIBILITY STUDY INVENTORY					
	Indicated Resources			Inferred Resources			Indicated Resources			Inferred Resources		
	Tonna ge (Mt)	Grad e (Au g/t)	Conte nt (Au koz)	Tonna ge (Mt)	Grad e (Au g/t)	Conte nt (Au koz)	Tonna ge (Mt)	Grad e (Au g/t)	Conte nt (Au koz)	Tonna ge (Mt)	Grad e (Au g/t)	Conte nt (Au koz)
<b>Open Pits</b>												
Daapleu	28.1	1.50	1,349	0.7	0.92	22	19.9	1.51	965	4.3	1.15	160
Mont lty / Flat	10.1	2.20	716	9.7	1.40	436	7.5	2.19	527	11.1	1.92	684
Gbeitou o	2.9	1.35	124	0.3	1.48	13	2.9	1.35	124	0.3	1.48	13
Walter	1.6	1.23	65	0.6	1.35	26	2.1	1.21	81	0.7	1.32	28
Zia NE	6.7	1.28	274	4.0	1.40	178	7.7	1.31	325	4.0	1.39	179
Bakatou o	10.2	2.14	704	0.6	2.27	44	-	-	-	-	-	-
Colline Sud	1.0	2.14	66	0.4	2.11	28	-	-	-	-	-	-
<b>Sub- total</b>	<b>60.6</b>	<b>1.69</b>	<b>3,298</b>	<b>16.3</b>	<b>1.43</b>	<b>747</b>	<b>40.1</b>	<b>1.57</b>	<b>2,022</b>	<b>20.4</b>	<b>1.62</b>	<b>1,064</b>
<b>Existing Stockpil es</b>												
Aires	5.8	1.09	202	0.2	0.78	6	5.8	1.09	202	0.2	0.78	6
Teckraie	2.8	1.07	97	0.1	0.55	2	2.8	1.07	97	0.1	0.55	2
Verse Ouest	5.9	0.99	187	2.3	0.50	37	-	-	-	8.4	0.85	230
<b>Sub- total</b>	<b>14.5</b>	<b>1.04</b>	<b>486</b>	<b>2.6</b>	<b>0.54</b>	<b>45</b>	<b>8.6</b>	<b>1.08</b>	<b>300</b>	<b>8.7</b>	<b>0.85</b>	<b>238</b>
<b>Total</b>	<b>75.1</b>	<b>1.57</b>	<b>3,784</b>	<b>18.9</b>	<b>1.30</b>	<b>792</b>	<b>48.7</b>	<b>1.48</b>	<b>2,322</b>	<b>29.1</b>	<b>1.39</b>	<b>1,302</b>

***Resource estimated to the Indicated status, as such no Measured Resources available.*** Mineral Resource estimates follow the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") definitions standards for mineral resources and reserves and have been completed in accordance with the Standards of Disclosure for Mineral Projects as defined by National Instrument 43-101. Notes are provided in Section "About the Mineral Reserve and Resources" of this Press Release, with effective date

September 1, 2017. Full details on the 2016 Feasibility Study Inventory are available in the Company's published press release dated November 10, 2016.

## **MINING OPERATIONS, PROCESSING, AND METALLURGY**

### **MINING AND PROCESSING STRATEGY**

A number of schedules were completed to test the impact of limiting stockpile size and it was found that there was limited benefit to allowing for large stockpiles. As such, the mining sequence and stockpile management has improved in the Optimized Study compared to the Feasibility Study. Whereas previously the mining period was 9 years followed by the processing of stockpiled low-grade ore for another 5 years, the current mine plan is based on 12 years of mining followed by the processing of stockpiled low-grade ore for another 2 years.

A combination of strategic pit staging and stockpiling allows gold production to be brought forward, with about 1.2 Moz mined in the first 5 years from commissioning and 1.5 Moz in the last 10 years. The overall grade profile declines gradually over the life of mine as higher grade deposits such as Bakatouo, Daapleu and Mont Ity / Flat are mined upfront.

#### **Mining Operations**

The mine planning, resource and cost estimation for the Feasibility Study is based on an owner-operated mining operation using 90-tonne haul trucks and a maximum mining movement of 16Mt per year with a vertical advance of approximately 40 metres per year. The Company sees these figures as conservative in nature due to the annual rainfall at the Ity project. Mining is scheduled to commence three months before the start of the processing plant to pre-strip the pits and stockpile ore. The mining fleet contract has been awarded to Komatsu to benefit from synergies relating to minimizing spare parts inventory and maintenance costs, as both Houndé and Karma have a similar fleet.

**Table 5: Mine Plan**

	<b>Total</b>	<b>Y-1</b>	<b>Y-2</b>	<b>Y-3</b>	<b>Y-4</b>	<b>Y-5</b>	<b>Y-6</b>	<b>Y-7</b>	<b>Y-8</b>	<b>Y-9</b>	<b>Y-10</b>	<b>Y-11</b>	<b>Y-12</b>
Total material moved, Mt	167	15.6	16.0	16.0	16.0	16.0	16.0	13.8	12.7	15.9	13.6	10.1	5.1
Total ore mined, Mt	57	4.6	5.8	5.9	4.7	4.8	5.1	4.3	3.8	5.4	5.9	4.9	1.9
Stripping ratio, w:o	1.9	2.4	1.8	1.7	2.4	2.3	2.1	2.2	2.3	1.9	1.3	1.1	1.7
Grade mined, g/t Au	1.57	1.70	2.05	1.78	1.87	1.65	1.88	1.20	1.37	1.38	1.30	1.12	1.08
<b>Contained gold mined, koz</b>	<b>2,883</b>	<b>250</b>	<b>380</b>	<b>340</b>	<b>284</b>	<b>256</b>	<b>310</b>	<b>166</b>	<b>168</b>	<b>241</b>	<b>246</b>	<b>176</b>	<b>66</b>

#### **Processing Operations**

Following updated resource and reserve estimates, the key change to the design basis is an increase in throughput from 3 Mtpa feed to 4 Mtpa feed based on a blend of primary and oxide ore with a conventional primary crushing followed by SAG and Ball milling circuit (SABC) with recycle pebble crusher, gravity circuit and conventional CIL (Carbon-In-Leach) plant. Soluble copper from the Bakatouo asset is blended with the low copper Daapleu ore into the plant process schedule until depletion of Bakatouo. A maximum process plant feed limit of 200ppm cyanide soluble copper constraint has been set, to manage cyanide consumption within the CIL plant and detoxification circuit.

The process plant will notably be composed of a single stage primary crushing to produce a crushed product size of 80% passing (P80 of 166 mm) and a two stage SAG (with pebble crusher recycle)/ Ball milling in closed circuit with hydrocyclones to produce a P80 grind size of 75 micrometers. A gravity

concentrator and Intensive Leach Reactor (ILR) have been included in the design as per the FS. The CIL circuit comprises eight CIL tanks (up from six in the FS) containing carbon for gold and silver adsorption with oxygen sparged from two 25 tonne PSA Oxygen plants and a 18 tonne split Anglo (AARL) elution circuit. Electrowinning and induction furnace smelting completes the gold doré production process. A cyanide detoxification and arsenic removal circuit is included in the process facility design, for treatment of process residue before discharge to the fully lined 57Mt Tailings Storage Facility (TSF), located adjacent to the processing facility. Feed water for the processing facility will come from various sources such as pit dewatering bores, the Cavally River for (make-up) and decant return from the TSF.

**Table 6: Processing Schedule**

	Total	Y-1	Y-2	Y-3	Y-4	Y-5	Y-6	Y-7	Y-8	Y-9	Y-10	Y-11	Y-12	Y-13	Y-14
Ore processed, Mt	57.2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Grade processed, g/t Au	1.57	2.26	2.32	2.21	1.87	1.99	1.80	1.37	1.57	1.84	1.32	1.45	0.98	0.72	0.53
Recovery rate, %	86%	86%	84%	84%	88%	87%	87%	85%	80%	80%	93%	90%	90%	84%	86%
<b>Recovered gold, koz</b>	<b>2,467</b>	250	250	238	212	223	201	151	161	189	159	167	113	77	59

### Metallurgy

The overall life of mine recovery rate increased from 83% in the Feasibility Study to 86% in the Optimized Study due to the addition of high-recovery Bakatou oxide and fresh ore, Mont lty ore and better recovery on Daapleu Sulphides following additional testwork.

**Table 7: Gold Recovery Rate by Deposit**

	Bakatou Oxides/Fresh	Bakatou Transition	Daapleu Sulphides	Daapleu Oxides	Gbeitou	Mont lty/Flat	Walter	Zia NE	Stockpiles	Total
LOM Tonnage, Mt	6.07	0.8	7.8	10.6	2.5	7.4	1.2	6.2	14.5	57.0
% of LOM Tonnage	11%	1%	14%	19%	4%	13%	2%	11%	25%	100%
Gold Grade, g/t Au	2.28	3.29	2.41	1.21	1.37	2.03	1.08	1.06	1.04	1.57
Gold Recovery rate, %	<b>95/97%</b>	<b>84%</b>	<b>66%</b>	<b>85%</b>	<b>88%</b>	<b>89%</b>	<b>96%</b>	<b>97%</b>	<b>92%</b>	<b>86%</b>

For the economic model, payable silver in the doré ingots has been estimated on a conservative ratio of 2 to 1. A detailed investigation of the metallurgical response of the Bakatou deposit was undertaken. Most samples showed high gold extractions but soluble copper levels were also high, particularly in the transition ore. As such, Endeavour has elected to blend in the soluble copper ore constraining it to 200ppm per feed blend. The Daapleu Primary ore can be considered refractory, with elevated Arsenic

levels in the fresh ore, however it has negligible copper. Further detailed testwork has shown improvements, allowing the reported recovery for the higher Arsenic fresh material to increase to from 60% in the Feasibility Study to 66% in the Optimization Study.

### Low Operating Costs

The operating cost estimates have been re-scoped based on most recent available cost information and based on a 4mtpa processing operation.

**Table 8: Life of Mine Operating Costs in US\$, estimated at ± 15% accuracy**

	2017 OPTIMIZATION STUDY	2016 FEASIBILITY STUDY	VARIANCE (OS VS. FS)
Open Pit Mining and Rehandling, \$/tonne moved	\$2.89/t	\$2.45/t	+18%
Processing, \$/t milled	\$11.96/t	\$10.56/t	+13%
G&A costs, \$/t milled	\$2.23/t	\$2.79/t	(20%)
<b>Operating Cost, \$/t milled</b>	<b>\$22.90/t</b>	<b>\$20.56/t</b>	<b>+11%</b>

Operating costs have been based on a delivered diesel price of \$1.00/L and are in line with current local pricing. Following the connection to the grid, electricity costs have been estimated based on \$0.1243/kWh.

### PROJECT CAPEX SUMMARY

The optimized and fully scoped upfront capital cost has been re-estimated to reflect the upgrade project scope at \$412 million, inclusive of \$49 million for the owner-mining fleet and \$34 million for contingencies, as summarised in the table below. The upfront capital is expected to be \$351 million as a \$61 million lease financing is expected to be put in place for the mining fleet and power station.

**Table 9: Initial Capital Cost Estimate Summary (US\$, ±15%)**

	2017 OPTIMIZATION STUDY	2016 FEASIBILITY STUDY
Treatment Plant	94	63
Reagents and Services	14	9
Infrastructure and Tailings	71	46
Mining (includes pre-striping and \$49m for equipment)	84	59
Construction Distributables	26	24
Management Costs	17	16
Owners Project Costs	66	59
Owners Operations Costs	5	4
<b>Sub-Total</b>	<b>378</b>	<b>282</b>
Contingency	34	26
<b>Total</b>	<b>412</b>	<b>307</b>

Capital costs include the construction of a 58 km, 91kv overhead power line, which connects to the national grid at Danane and terminates with a substation at Ity which will be owned by Côte d'Ivoire

Energie ("CIE"). A full 26MW full high speed diesel back-up power station provides 100% redundancy. The infrastructure in place will be improved with roads upgraded to an all-weather and free draining carriageway to provide access for the delivery of equipment, materials and services to the site. A new camp will be built approximately 1 kilometer north-west of the process plant and will provide accommodation for 200 employees, and provisions have been made to construct a suitable airstrip.

A Cavally River diversion will be installed to allow development of the Daapleu pit, with a second diversion upstream of the Walter pit. Pit protection bunds will also be installed and a bridge/culvert road structure from Daapleu over the Cavally River will also be built.

The proposed approach to project implementation is similar in nature to the current execution methodology of the Endeavour Project Services In-House team in that Endeavour will engage a suitably qualified Engineering, Procurement and Construction Management (EPCM) Engineer for design and construction management of the process plant and infrastructure, which will then be handed over to an Owner's operating team. Endeavour will self-perform the development of the mine infrastructure and provision of ongoing drill and blast and mine operating services under an Owner's mine technical team.

The schedule anticipates the project being completed within 20 months from EPCM award.

## PROJECT ECONOMICS

The results of the financial model show robust results. Applying a long term gold price of \$1,250/oz on a flat line basis from the commencement of production, the after-tax NPV<sub>5%</sub> is \$710 million, IRR is 40.3% and project payback period is 1.8 years.

**Table 10: Gold Price Sensitivity**

Gold Price (\$US/oz)	After-tax NPV (\$m)			After-tax IRR
	0%	5%	10%	
\$1,000/oz	520	343	221	23.2%
\$1,050/oz	613	416	280	26.7%
\$1,100/oz	707	489	339	30.2%
\$1,150/oz	801	563	399	33.6%
\$1,200/oz	896	636	458	36.9%
<b>\$1,250/oz</b>	<b>990</b>	<b>710</b>	<b>518</b>	<b>40.3%</b>
\$1,300/oz	1,072	773	569	43.1%
\$1,350/oz	1,166	847	629	46.4%
\$1,400/oz	1,260	920	688	49.6%

## PROJECT IS FULLY FUNDED

As shown in Figure 1 below, the Ity CIL Project is fully funded with significant headroom available based on liquidity and funding sources available which include cash and undrawn upsized Revolving Credit Facility ("RCF"), the future cash generation from existing operating mines the upcoming proceeds from the sale of the Nzema mine, potential Ity power station and equipment financing, and the upcoming La Mancha anti-dilution equity placement.

**Figure 1: Funding Sources**

As was successfully implemented during the Houndé construction period, Endeavour will study the opportunity to put in place a short-term Gold Revenue Protection Strategy, consisting of Gold Option Contracts on only a portion of its production, to mitigating risk and increase the certainty of its upcoming free cash flow during its peak investment phase.

## **HEAP LEACH OPERATION**

It is envisaged that the heap leach operation will run during the construction period and that heap leach activities will cease once the CIL plant is commissioned. Endeavour will reassess the risk and opportunity of running both operations in parallel once the CIL project has been developed.

## **COMMUNITY AND SOCIAL RESPONSIBILITY ACTIONS**

Endeavour recognizes that an active CSR program is the foundation of long-term success and its social license to operate. Baseline studies for the ESIA from 2013 to 2016 have been completed and an ESIA report was published in March 2016 and a Resettlement Action Plan ("RAP") has been completed.

Three environmental permits have been granted covering the mining and process plant, Daapleu and Gbeitou exploitation and mining and surface infrastructure.

Full CSR team complement is now in place and working on establishing CSR best practices and reporting.

## **EXPLORATION POTENTIAL**

The Ity area has significant exploration potential with several deposits located within 5 kilometers of one another in addition to several exploration targets identified as per the blue dashed area in the Figure below. This area represents a small portion of the 80km corridor controlled by Endeavour.

*Figure 2: Ity Mine Area and Surrounding Exploration Targets*

## **ABOUT THE MINERAL RESERVES AND RESOURCES**

The in situ Mineral Resources, which include Daapleu, Mont Ity / Ity Flat, Bakatouo, Gbeitouo, Walter, Zia NE and Colline Sud, have been reported inside optimised pit shells and above a 0.5 g/t Au cut-off. Reporting within an optimised pit shell satisfies the requirement for the Mineral Resource to have reasonable prospects for future economic extraction. The pit optimisation assumes a US\$1,500/oz Au price.

The Mineral Resource for the rock dumps, which include the Teckraie and Verse Ouest Mineral Resources and also the Aires heap leach pad, have not been reported inside an optimised pit shell. These deposits have been built up above the existing topography and the associated shallow laterite located directly below, therefore satisfying the requirement for the Mineral Resource to have reasonable prospects for future economic extraction. The Teckraie and Verse Ouest rock dump Mineral Resources and Aires leach pad Mineral Resources have been reported above 0.0 g/t Au because there is unlikely to be any grade selectivity during mining. The underlying laterite Mineral Resources for each of the deposits has been reported above 0.5 g/t Au given the possibility for some mining selectivity. The Colline Sud deposit is expected to be mined during the heap leach phase and therefore has been excluded from CIL Mineral Reserves. All Mineral Resources are current as at April 30, 2017. Mineral resources which are not mineral reserves do not have demonstrated economic viability.

Reported tonnage and grade figures have been rounded from raw estimates to reflect the relative accuracy of the estimate. Minor variations may occur during the addition of rounded numbers.

The statistical analysis, geological modelling and resource estimation for Colline Sud were prepared by Kevin Harris, CPG. Mr. Harris is Endeavour Mining's Group Resource Manager and is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

The statistical analysis, geological modelling and resource estimation for Bakatouo, Mt Ity/Ity flat, Daapleu and Verse Ouest were prepared by Mark Zammit, CPG. Mr. Zammit is a principal consultant geologist with Cube Consulting Pty Ltd and is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

The statistical analysis, geological modelling and resource estimation for Bakatouo, Mt Ity/Ity flat, Daapleu, Gbeitouo, Walter, Zia NE. Aires and Verse Ouest were prepared by Mark Zammit, CPG. Mr. Zammit is a principal consultant geologist with Cube Consulting Pty Ltd and is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

The Qualified person for the Ity Mineral Reserve estimation is Mr Allan Earl AWASM FAusIMM. Mr. Earl is an executive consultant with Snowden Mining industry Consultants Pty Ltd and is a "Qualified Person" as defined by National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101").

A gold price of US\$1,250/oz was used in the pit optimizations for Mineral Reserves. The estimation of break-even cut-off grades are based on net revenue (gold price x process recovery) and the throughput (ore related) costs.

## **QUALIFIED PERSONS**

Jeremy Langford, Endeavour's Chief Operating Officer - Fellow of the Australasian Institute of Mining and Metallurgy - FAusIMM, is a Qualified Person under NI 43-101, and has reviewed and approved the operational analysis, operating and capital estimates, and other technical information in this news release.

## **CONFERENCE CALL AND LIVE WEBCAST FOR ITY CIL PROJECT**

Management will host a conference call and live webcast today at 9:30am Toronto time (EST) to discuss the results of the Ity CIL Project Optimization Study.

### **The conference call and live webcast are scheduled at:**

9:30am Toronto time

6:30am in Vancouver

9:30am in Toronto and New York

2:30pm in London

9:30pm in Hong Kong and Perth

### **The live webcast can be accessed through the following link:**

<https://edge.media-server.com/m6/p/44r6ckra>

### **Analysts and interested investors are also invited to participate and ask questions using the dial-in numbers below:**

International: +1646 254 3360

North American toll-free: 1877 280 2342

UK toll-free: 0800 279 4992

Confirmation code: **5815693**

The conference call and webcast will be available for playback on [Endeavour's website](#).

Click [here](#) to add Webcast reminder to Outlook Calendar

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## ABOUT ENDEAVOUR MINING CORPORATION

*Endeavour Mining is a TSX-listed intermediate gold producer, focused on developing a portfolio of high quality mines in the prolific West-African region, where it has established a solid operational and construction track record.*

*Endeavour is ideally positioned as the major pure West-African multi-operation gold mining company, operating 5 mines across Côte d'Ivoire (Agbaou and Ity), Burkina Faso (Karma), Mali (Tabakoto), and Ghana (Nzema). In 2017, it expects to produce between 500koz and 530koz at an AISC of US\$855 to US\$900/oz, following the full-year deconsolidation of the discontinued Nzema mine. Endeavour is currently building its Houndé project in Burkina Faso, which is expected to commence production in Q4-2017 and to become its flagship low-cost mine with an average annual production of 190koz at an AISC of US\$709/oz over an initial 10-year mine life, based on reserves. The development of the Houndé and Ity CIL projects are expected to lift Endeavour's group production to +900kozpa and decrease its average AISC to circa \$800/oz by 2019, while exploration aims to extend all mine lives to +10 years.*

### Corporate Office: 5 Young St, Kensington, London W8 5EH, UK

This news release contains "forward-looking statements" including but not limited to, statements with respect to Endeavour's plans and operating performance, the estimation of mineral reserves and resources, the timing and amount of estimated future production, costs of future production, future capital expenditures, and the success of exploration activities. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "expects", "expected", "budgeted", "forecasts", and "anticipates". Forward-looking statements, while based on management's best estimates and assumptions, are subject to risks and uncertainties that may cause actual results to be materially different from those expressed or implied by such forward-looking statements, including but not limited to: risks related to the successful integration of acquisitions; risks related to international operations; risks related to general economic conditions and credit availability, actual results of current exploration activities, unanticipated reclamation expenses; changes in project parameters as plans continue to be refined; fluctuations in prices of metals including gold; fluctuations in foreign currency exchange rates, increases in market prices of mining consumables, possible variations in ore reserves, grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accidents, labour disputes, title disputes, claims and limitations on insurance coverage and other risks of the mining industry; delays in

the completion of development or construction activities, changes in national and local government regulation of mining operations, tax rules and regulations, and political and economic developments in countries in which Endeavour operates. Although Endeavour has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Please refer to Endeavour's most recent Annual Information Form filed under its profile at [www.sedar.com](http://www.sedar.com) for further information respecting the risks affecting Endeavour and its business. AISC, all-in sustaining costs at the mine level, cash costs, operating EBITDA, all-in sustaining margin, free cash flow, net free cash flow, free cash flow per share, net debt, and adjusted earnings are non-GAAP financial performance measures with no standard meaning under IFRS, further discussed in the section Non-GAAP Measures in the most recently filed Management Discussion and Analysis.

### MINE PLAN

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