

ASX RELEASE 30th MAY 2016

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# **Lavra Project Permit Approved**

Lavra is a high grade gold project within 10km of Cleveland's Premier Mine

## **Highlights**

- Installation Licence approved, allowing activity to commence on site, with first ore from open pit mining at the Lavra project expected to be processed within 3 weeks;
- Lavra is within 10km of Cleveland's fully operational process plant at Premier Gold Mine,
   with existing roads linking the projects;
- Initial "trial mining" is planned over mineralisation averaging 14.4 g/t, projecting very favourable cash flow and very low cash costs;
- Previous artisanal mining extracted circa 300,000 ounces of gold from a small open pit and multiple underground workings adjoining Cleveland's planned open pit operation;
- Lavra has significant growth potential as it has only been drill tested to around 40m depth. Resource extension drilling is re-commencing on site this week.

Cleveland Mining Company Ltd (ASX: CDG) is pleased to announce that it has been granted the Environmental Permit (Installation Licence or LI) required to commence mining related activities at the Company's O Capitão, Lavra project. The licence approval commences a schedule of works that will allow ore to be fed into the Premier plant within 3 weeks. The project is part of the Cleveland Premier Joint Venture in Brazil.

Lavra will initially be mined as a limited "trial mine" to gain further understanding of both the mineralisation and the extent of artisanal workings in the area. The planned open pit operations adjoin an historic artisanal open pit excavation which also has a number of underground shafts. Whilst drilling has proved the continuity and high grade nature of the mineralised unit, the Company is unable to quantify the extent to which the unit has been depleted by underground mining activities. The ore that has initially been planned for extraction over the coming months has a modelled average grade of 14.4g/t in situ. Local records indicate that between 6,000-12,000 artisanal miners extracted circa 300,000 Ozs of gold from the site approximately 30 years ago. Mining operations ceased due to disease outbreak within the artisanal mining camp. To date, Lavra has only been drill tested to around 40m depth, though Garimpeiro (artisanal) Miners report to the Company that they have extracted mineralised material from as deep as 120m. Circumstantial evidence indicates that mineralisation continues to occur below 120m.



Cleveland Mining's Managing Director Mr David Mendelawitz said "We have been looking forward to the commencement of mining at Lavra since arriving on site over 6 years ago."

Mr Mendelawitz explained "though we cannot confirm exactly what has been depleted from the orebody, drilling shows that the unit is both very cohesive and high grade. We will be hauling ore on existing roads to our process plant and are very confident that Lavra has the potential to be one of the lowest cost operations in the world. We look forward to not only the revenue that Lavra can possibly provide, but also expanding the resource as we get to know the mineralised unit and extent of artisanal workings more thoroughly. To date, we have not drill tested mineralisation to depth and have only drill tested in the order of 10% of the surface extent of the potential structure, though that will change rapidly as we expect to commence extensional drilling in the next few days as part of the resource expansion program."

Please see Appendix 1 below for further details on the Lavra Project.

#### **ENDS**

#### **Further Information:**

**Investors:** 

David Mendelawitz, Managing Director Cleveland Mining Company Limited (ASX: CDG)

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#### **Forward-looking Statements**

Forward-looking statements can be identified by the use of terminology such as 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believe', 'expect', 'may', 'should', 'will', 'continue' or similar words. These statements discuss future expectations concerning the results of operations or financial condition, or provide other forward looking statements. They are not guarantees or predictions of future performance, and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this ASX update. Readers are cautioned not to put undue reliance on forward looking statements

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

The information in this report that relates to Exploration Results is based on information reviewed by David Mendelawitz, who is a Fellow of the AusIMM. Mr Mendelawitz has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Mendelawitz consents to the inclusion of the matters based on his information in the form and context in which it appears. Mr Mendelawitz is employed by Cleveland Mining Company Ltd.



## Appendix 1 -Background

Lavra is a gold project located in Goias State, Brazil, where the price of gold in the local currency (Real) is currently trading at near historic highs. Brazil has low mining costs, due to the large skilled labour pool, devaluation of the currency and abundance of hydro-electricity.

Lavra shares the same greenstone belt and mineral corridor as AngloGold Ashanti's Serra Grande gold deposits (+7 million Ozs Au identified and circa 4 million Ozs Au mined) and is approximately 10km northwest from the company owned Premier gold processing plant. The plant is accessible along excellent roads suitable for ore haulage. So far, only approximately 10% of the prospective geology has been explored at Lavra. Consequently, there remains significant upside for the discovery of additional Resources within the remaining 90% of the project.

Work to date has defined an Inferred Resource of **134** kt @ **11.14** g/t Au for **48** kOz, where the Resource remains open in all directions and has yet to be tested to any significant depth. This has clearly justified further investigation of potential at Lavra, hence the impetus to collect and mill bulk samples from the defined Resource.

An area known as the Saddle Area, located between the proposed bulk sampling pits (Inferred Resources), was excluded from the Resource estimation and not optimised for bulk sampling simply through lack of information. Drilling the Saddle Area has the potential to further define and refine the Exploration Targets. This drilling program is anticipated to infer another 47 to 94 kt of ore @ 6 to 11 g/t Au, for approximately 9 to 33 kOz.

#### **Location & Geology**

Lavra is a gold project located in Goias State, Brazil.



Figure 1, Lavra is a gold project located in Brazil



The project is located on highly prospective tenure, with a history of both rewarding artisanal mining and a high rate of success in the limited modern exploration undertaken so far. The project is approximately 10km northwest from the company owned milling facilities at Premier and is accessible via well maintained roads quite suitable for ore haulage.



Figure 2, Lavra, 10km from the Premier Processing Plant

Lavra shares the same greenstone belt and mineral corridor as AngloGold Ashanti's giant Serra Grande gold deposits (7 million Ozs Au identified and circa 4 million Ozs Au mined) as shown on Figure 3.

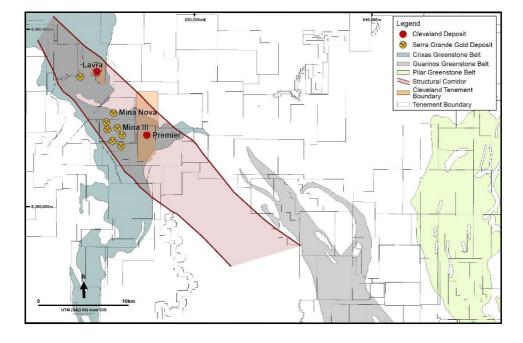


Figure 3, Lavra, location and geology.



Lavra is covered by granted tenement 862.740/2011 that is 100% owned by Cleveland Premier JV. Regulatory permission for the conversion of the tenement into a mining lease is in progress but existing tenure is quite sufficient to permit bulk sampling to the order of 44,000t which the company intends to commence imminently.

Gold mineralisation at Lavra is located on a 310° oriented structural corridor near the juncture of cross-cutting oblique structures.

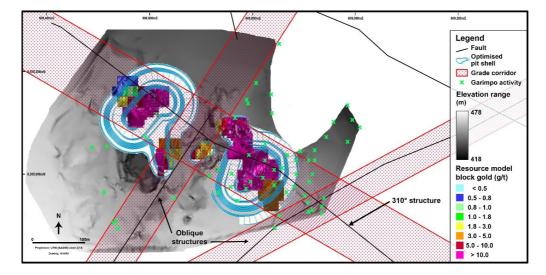


Figure 4, Lavra mineralised corridors with Resource blocks and proposed pits.

Mineralisation is associated with quartz - sulphide veins and various percentages of pyrrhotite, arsenopyrite, chalcopyrite, galena and sphalerite. Visible gold is observed within the quartz - sulphide veins.



Figure 5, Lavra quartz – sulphide veining



## History

Until recently there has been confused ownership of Lavra, and this, together with garimpeiro (Brazilian artisanal miners) activities, has stopped major companies from modernising the project. Cleveland has overcome these barriers and will shortly commence mining and processing ore into gold Dore through its Premier gold milling facility.

Artisanal mining at Lavra continued into the 1980s at which time approximately 6,000 garimpeiros extracted circa 300,000 ounces of gold by hand according to local accounts. Garimpeiro mining ceased when the town they had established was abandoned as a result of an outbreak of yellow fever. Workings were flooded with the departure of garimpeiros. Garimpo mining (diggings by garimpeiros) is now illegal in Brazil.



Figure 6, Garimpeiros previously at work but now departed and workings flooded.

#### **Exploration Summary**

Modern work conducted at Lavra by Cleveland Mining and preceding tenement holders includes geological mapping, sampling, drilling, desktop studies, Resource modelling and estimation and bulk sampling pit optimisation.

A JORC compliant Resource has been defined.

Lavra gold intersections include those reported in Table 1.

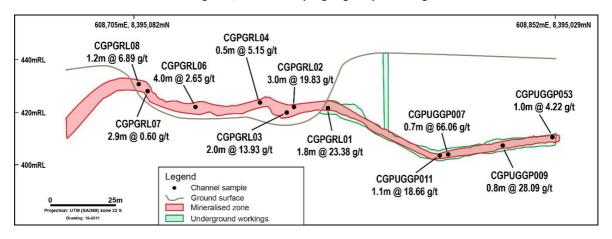
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Table 1, Lavra significant gold intersections

Significant Intercepts						Cleveland Mining Company Ltd		
Grid:	UTM SAD69	, Z22South						
Prospect:	Lavra							
Project:	CGP							
Hole Number	Northing	Easting	m RL	Grid Az.	Dip	Hole Depth	Intercept	
CGPDH00002	8395140.154	608567.203	446.9	148.58	-59.17	130.54	2.3m @ 28.01 ppm Au from 1m	
CGPDHMI02	8395370	608875	436	0	-90	128.3	3m @ 1.05 ppm Au from 76.15m	
CGPDHMI06	8395365	608925	430	0	-90	102.55	2.9m @ 14.88 ppm Au from 40.95m	
CGPGR00005	8395050	608643	442	180	-71	5	2m @ 5.88 ppm Au from 3m	
CGPGRL02	8395085	608770	443	0	-90	3	3m @ 19.83 ppm Au from 0m	
CGPGRL03	8395085	608765	441	0	-90	2	2m @ 13.93 ppm Au from 0m	
CGPGRL06	8395084	608730	445	0	-90	4	4m @ 2.65 ppm Au from 0m	
CGPGRL13	8395030	608615	439	0	-90	2	2m @ 23.97 ppm Au from 0m	
Notes: Minimum Intersection Length = 2m, Interval Top Cut = 99,999,999.00 ppm Au, Interval Bottom Cut = 1.00 ppm Au, Maximum Internal Dilution = 2m, Reporting Assays Greater than 100.00 ppm Au								

Figure 7, Channel sampling of garimpo workings.



### **Resources & Mining**

An Inferred Resource (1 g/t lower cut-off, 20 g/t Au top-cut) of 134 kt @ 11.14 g/t Au for 48 kOz has been defined by company geologists. The Resource remains open in all directions. Bulk sampling pits have been optimised over the Resource.

The benefits of bulk sampling at Lavra is that it should:

- generate immediate high grade mill feed,
- permit the unequivocal assessment of the extent of artisanal workings,
- assist with the expansion of the Lavra Resource, and

Glenn Simpson - Non-Executive Director

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 provide the Premier mill with Lavra specific ore batches as a means to optimise milling of Lavra ore

The Lavra Resource remains inferred at this stage largely because historical underground voids are unmapped and their extent unknown. We anticipate exposure resulting from the mining of the bulk sampling pits will aid mapping of garimpos, enhancing the certainty of the Resource estimation, and its potential for expansion.

As already mentioned, Resource expansion is expected in the light of bulk sampling pit exposure and further drilling. For example, there is potential mineralisation contained in the Saddle Area between the optimised pits as shown in Figure 8 by the broken green line.

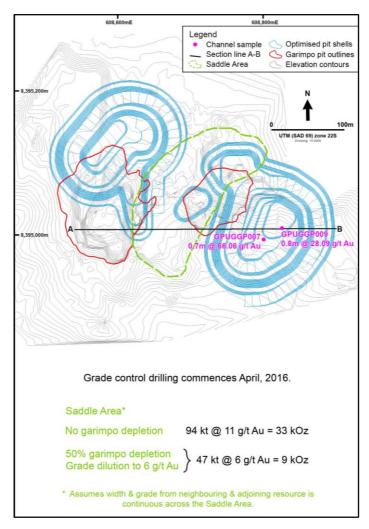


Figure 8, Outlines of Lavra bulk sampling pits and the Saddle Area.

The Saddle Area was excluded from the Resource estimation and bulk sampling pit optimisation due to a lack of information, but it is here that mapping and modelling indicates mineralisation is closest to ground surface thus offering the most favourable strip ratio. Assuming mineralisation remains

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intact and not affected by garimpos, and that grade and width of mineralisation across the Saddle Area is consistent with the grade and width of the adjoining Resource, then 94 kt @ 11 g/t Au for 33 kOz could be envisaged. In the more likely case that some mineralisation has been depleted by garimpeiros, even to the unlikely extent of half depletion together with grade dilution to 6 g/t Au, then 47 kt @ 6 g/t gold for approximately 9 kOz could remain and would still retain a favourable strip ratio.

There has so far been insufficient exploration over the Saddle Area to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. However, the company anticipates planned drilling, and mapping from the neighbouring bulk sample exposures will provide sufficient information for Resource estimation.

Figure 9 depicts a section that cuts between the optimised pits through where mineralisation is modelled to come within 10m of ground surface, referred to as the Saddle Area.

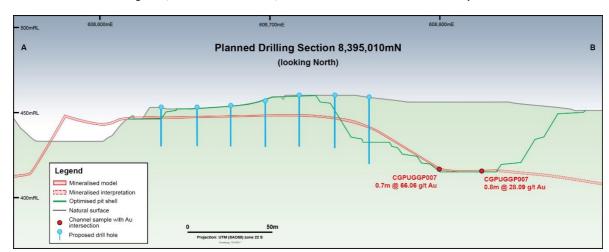


Figure 9, Section 8395010 mN, near surface mineralisation between pits.

At the western edge of the section is a garimpo pit, the focus of historic artisanal mining, and on the eastern side, some 200m across section, is the next reliable assay data: CGPUGGP007 that returned **0.7m @ 66.06 g/t Au** and CGPUGGP009, returning **0.8m @ 28.09 g/t Au**. Figure 8 shows the position of the section in plan view.

Also note that systematic, modern exploration covers only about 10% of prospective Lavra geology so there still remains a lot of upside for additional Resource discoveries across much of the project.