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Company Announcements Office
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ASX Code: EXG

Upgrade of Gold Resource at Excelsior Deposit

Highlights:

- **Gold resource ounces in the Excelsior deposit increased by 15% at a discovery cost of less than \$5 per resource ounce**
- **Improved resource confidence with substantial upgrade to Measured Resource classification**
- **Excelsior Measured, Indicated and Inferred Resources total:**
456,100 ounces – 11.06 million tonnes @ 1.28g/t Au (at 0.6g/t cut-off)
- **New resource model prepared for mine optimization and pit design as part of Pre-Feasibility Study.**
- **Metallurgical test results confirm mineralisation is free milling and demonstrates high gravity and leach recoveries with rapid leach kinetics.**

Western Australian gold explorer Excelsior Gold Limited (ASX:EXG) is pleased to advise that resource modelling on the Excelsior deposit has been completed in preparation for mining studies as part of the Pre-Feasibility Study into a multiple pit mining operation at the Kalgoorlie North Gold Project.

The resource upgrade incorporates information from a drilling program completed in January 2012 which comprised eight reverse circulation holes and one diamond drill hole for a total of 1,582.4 metres of drilling. This drilling was predominately in the northern portion of the mineralised shear targeting mineralisation beneath the conceptual open pit design where little drilling had been conducted previously.

The new resource provides a highly refined block model based on improved geological interpretation and confidence in grade continuity. This increase in confidence is reflected in the upgrade of the resource classifications to include a **Measured** resource containing **232,200 ounces of gold**, at 0.6g/t Au lower cut-off, and combined **Measured** and **Indicated** categories making up **78% (357,100ozs)** of the total resource.

Excelsior **Measured, Indicated** and **Inferred resources** have increased by 51,000ozs to: -

11.06 million tonnes @ 1.28g/t Au containing **456,100 ounces** at 0.6g/t Au lower cut-off.

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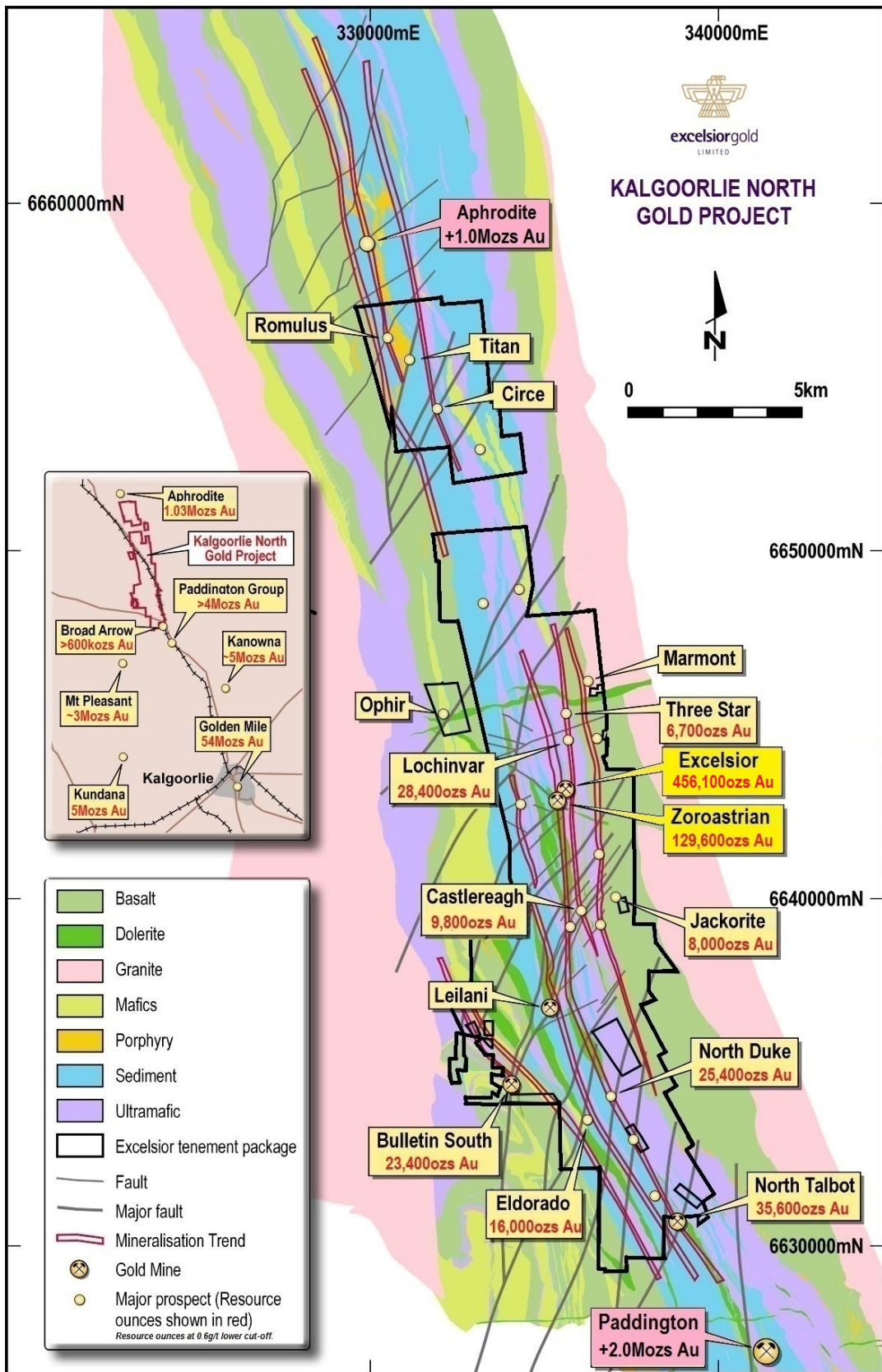


Figure 1. Kalgoorlie North Gold Project – Tenements, Resource Targets and Neighbouring Significant Gold Deposits

(previously announced resource ounces @ 0.6g/t Au lower cut highlighted in red)

Previous work on Excelsior gold deposit in the central part of the Kalgoorlie North tenements has demonstrated that the broad mineralised shear has potential to host large tonnage open pit resources and possibly deeper resources amenable to bulk underground mining. A conceptual mining study centred on the Excelsior Deposit conducted by Auralia Mining Consulting Pty Ltd in September 2011 indicated the potential for large open pit development of the deposit as well as opportunities to mine other satellite deposits in close proximity to Excelsior (*refer to EXG ASX announcement 21 September 2011*).

The Excelsior deposit now hosts resources of 456,100ozs of gold and six other satellite deposits within a four kilometre radius of Excelsior contain an additional 96,200ozs (1.54Mt @ 1.95g/t Au, at 0.6g/t Au cut-off) of resources potentially amenable to open pit mining. These deposits are the focus of current pre-feasibility mining studies.

Reverse circulation and diamond drilling commenced in November 2011 and completed in January 2012 tested the potential to expand the conceptual Excelsior pit beyond the initial 680 metre length and vertical depth of 175 metres particularly in the north where previous shallow drilling had limited the depth of the pit optimisations and the resultant conceptual design.

The January 2012 program included 1,582 metres of reverse circulation and diamond drilling in nine holes. A further three reverse circulation drill holes for 640m and 348 metres of HQ2 diamond drilling in two holes were completed to collect metallurgical samples for detailed leaching and comminution test-work.

The resource drilling data was incorporated into a new and significantly refined resource model for the Excelsior deposit based on gold mineralisation interpreted and wire-framed at a nominal 0.6g/t Au lower cut-off with high grades cut to 40.0g/t Au. Resources established at various grade off cuts are summarised in *Table 1*.

EXCELSIOR RESOURCES	MEASURED			INDICATED			INFERRED			TOTAL RESOURCES		
	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)
CUT-OFF												
0.3g/t Au	5,600	1.32	238.7	4,100	1.05	137.4	4,300	1.00	123.7	14,000	1.11	499.8
0.6g/t Au	5,200	1.40	232.2	3,200	1.20	124.9	2,700	1.16	99.0	11,100	1.28	456.1
1.0g/t Au	3,700	1.63	192.9	1,700	1.58	84.9	1,300	1.57	65.6	6,700	1.60	343.4
1.5g/t Au	1,700	2.10	114.1	600	2.27	42.3	500	2.21	33.2	2,700	2.15	189.6

NOTE: - Round errors may occur

Table 1: Excelsior Resource Summary

A large proportion of the resource increase is in the northern part of the resource area and offers potential to drive the pit optimisation deeper in this area with a possible increase in overall pit size.

The Company believes that the results of the conceptual mine design study at Excelsior and the success of the recent drilling to target and expand resources in the area are highly encouraging for potential expansion of the conceptual pit dimensions.

Metallurgical Testing Program

Preliminary comminution and leach test-work results recently received from the metallurgical program being conducted as part of the pre-feasibility study demonstrates that the Excelsior primary mineralisation is highly amenable to a conventional crush, grind, gravity recovery, CIP treatment route.

The metallurgical characterisation test-work currently in progress at ALS Ammtec has shown that: -

- Excelsior oxide, transitional and primary mineralisation have low to moderate work indices and do not exhibit excessive crushing and grinding power requirements or abrasion issues. (comminution test-work to date).
- Excelsior mineralisation is free milling and readily amenable to conventional gold processing demonstrating high recovery and rapid leaching.
 - **Leach recoveries in excess of 90% within 12 hours.**
 - **High gravity recoverable gold content in excess of 50% for primary mineralisation.**

Further metallurgical test-work pending includes gravity recoverable gold and extended leach results for Excelsior oxide/transitional mineralisation and metallurgical optimisation test-work to examine gold recovery grind sensitivity, reagent consumptions and optimal process route and operating parameters.

The Excelsior Shear Zone is one of five defined NNW trending shears within the Kalgoorlie North tenements (refer *Figure 1*, page 2) and to date this shear and the neighbouring Zoroastrian deposit have been the major focus of the Company's drilling activities. Excelsior Gold believes that this central project area, which already has demonstrated a gold endowment of in excess of 700,000 ounces in current resources and past production, has the potential to host very significant resources which could sustain long term open pit and underground mining operations.

Total Project Resources are summarised in *Table 2* and have increased to

15.10 million tonnes @ 1.58g/t Au containing **766,000 ounces** at various lower cut-off grades

The current pre-feasibility study into a multiple open pit mining operation centred on the Excelsior and satellite deposits is progressing with further resource definition and geotechnical drilling being conducted and mining and infrastructure engineering studies well advanced.

KALGOORLIE NORTH RESOURCES		MEASURED			INDICATED			INFERRED			TOTAL RESOURCES		
Deposit	Cut-Off (g/t Au)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)
Excelsior	0.6	5,200	1.40	232.2	3,200	1.20	124.9	2,700	1.16	99.0	11,100	1.28	456.1
Zoroastrian (U/G)	3.0				166	7.8	41.6	288	6.4	59.3	454	6.91	100.9
Satellite Resources (within 4km radius of Excelsior)													
Zoroastrian (O/P)	0.6							472	1.9	28.8	472	1.9	28.8
Lochinvar	0.6				448	1.74	25.1	60	1.7	3.3	508	1.74	28.4
Three Star	0.6							92	2.26	6.7	92	2.26	6.7
Ellen Pearce	0.6							35	1.75	2.0	35	1.75	2.0
Navan	0.6							76	1.61	3.9	76	1.61	3.9
Jackorite	1.0							53	4.68	8.0	53	4.68	8.0
Castlereagh	0.6				194	1.48	9.2	13	1.29	0.5	207	1.47	9.8
Nerrin Nerrin	0.6							94	2.85	8.6	94	2.85	8.6
Total Satellite Resources					642	1.66	34.3	895	2.15	61.2	1537	1.95	96.2
Other Resources (greater than 4km from Excelsior)													
Big Blow South	5.0							28	9.13	8.4	28	9.13	8.4
Eldorado	0.6							252	1.97	16.0	252	1.97	16.0
North Talbot	0.6							662	1.67	35.6	662	1.67	35.6
North Duke	0.6							706	1.12	25.4	706	1.12	25.4
Bulletin South	0.6							363	2.01	23.4	363	2.01	23.4
Windanya	1.0							42	3.00	4.0	42	3.00	4.0
Total Other Resources								2,053	1.71	112.8	2,053	1.71	112.7
TOTAL		5,200	1.40	232.2	4,000	1.55	200.8	5,900	1.75	332.9	15,100	1.58	766.0

Table 2: Kalgoorlie North Gold Project – Resource Inventory (April 2012)

Competent Person Statement:

Information in this announcement that relates to Mineral Resource and exploration results is based on information compiled by Mr David Potter of Excelsior Gold Limited. Mr Potter is a Member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking, to qualify as Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Potter consents to the inclusion in the document of the information in the form and context in which it appears.

Disclaimer

The conceptual mining study was carried out by Mr. Daniel Tuffin of Auralia Mining Consulting Pty Ltd and is based on the Indicated and Inferred JORC Resources. The subsequent material inventory resulting from this work does not constitute or imply Minable Reserves. The estimates and beliefs applied in undertaking the conceptual mining study, either stated or implied, by the company and its consultants are based on a number of assumptions that involve known and unknown risks and uncertainties which may result in future outcomes that may significantly differ to any expressed or implied estimates or projections derived from the conceptual studies. Given the level of study, any data resulting from the conceptual study refers solely to potential and does not guarantee that future work will result in the determination of Minable Reserves



Figure 2 Kalgoorlie North – Central Resource Area Geological Plan

EXCELSIOR RESOURCE MODELLING METHODOLOGY AND PARAMETERS

The Excelsior gold deposit is hosted within a sequence of ultramafic/sedimentary schists that are interpreted to have been deformed by tight upright folding and subsequent sinistral shearing within the Excelsior shear zone. The Excelsior shear is one of five major NNW trending structures that control gold mineralisation over 26 kilometres of strike within Excelsior Gold's tenement package.

Within the resource area, 313 reverse circulation and diamond drill holes totalling 29847.08 metres of drilling have been completed within an area of 860m (north) x 400m (east) down to a maximum depth of 280m below surface. The majority of this drilling is spaced on a nominal 20m x 25m (or closer) grid pattern with the remainder at a maximum spacing of approximately 40m x 40m.

The resource model was based on a 3D geological model with gold mineralisation wireframes digitised at a nominal lower cut of 0.6g/t Au with a final composite grade greater than 0.6g/t Au. A total of 21 different mineralisation wireframes were constructed over 850m of strike down to a maximum depth of 280m below surface. The total volume of these wireframes was 6.92million bank cubic metres.

The blank model was built to allow for future pit optimisations based on the following block parameters. Sub-blocking was done on 2 x 10 x 10 for grade calculation and then re-blocked

	MINIMUM	MAXIMUM	SPACING	NO. OF BLOCKS
Easting	335400	335950	5	111
Northing	6642800	6644000	5	221
Level (RL)	0	435	2.5	175

Table 3: Empty Block Model Dimensions

The blocks were filled with bulk density data based on interpreted weathering horizons, data collected by EXG and historical specific data collected by previous owners during mining of the existing Excelsior pit. The density data assigned was oxide = 2.0t/m³, transitional = 2.45t/m³, fresh = 2.75t/m³.

A total of 10,527 one metre composited gold assay results were used in the estimation. Over 95% of gold grades were obtained using a standard fire assay extraction with an AAS or ICP-MS analysis except for some of the most recent drilling conduct by Excelsior Gold which was done using an accelerated 4 hour Leach Well on a 400g sample with analysis by Flame Atomic Absorption.

Geostatistical analysis and variography were conducted on various sample populations and the final data set to help assess the appropriate estimation technique and to ascertain Krigging parameters.

A number of different estimation techniques including Indicator Krigging, Ordinary Krigging and Inverse Weighted were conducted. Multiple runs were made for each technique adjusting the various parameters to assess the most appropriate technique and parameters. From this work the final block estimation was undertaken using an ordinary krigged method.

Statistical and visual analysis of the final calculated block model gold grades and distribution was undertaken to ensure the estimation parameters used produced estimated grades that best honoured the available data. Variable ellipsoids and krigging parameters were used for different wireframes. For the main lodes the following was used.

NOMINAL CLASSIFICATION	Y	X	Z	MINIMUM NUMBER OF HOLES	MINIMUM NUMBER OF POINTS	MINIMUM AVERAGE DISTANCE	MINIMUM COUNT PER HOLE	MAXIMUM COUNT PER HOLE
<i>Measured</i>	60	60	8	4	12	50	4	16
<i>Indicated</i>	80	80	12	4	12	70	4	12
<i>Inferred</i>	120	120	16	2	8	100	2	8

Table 4: Nominal Classification Based On Search Distance and Sample Constraints

Excelsior follows the JORC classification system with final individual block classification assigned by visually taking into account the following factors and adjusting classification based on:

- Drill spacing and orientation
- Average distance to fill individual blocks
- Number of holes and points used to fill the block
- Classification of surrounding blocks
- Lode position and confidence in interpretation and continuity.
- Usage of historical data
- Unclassified could only become inferred.

Excelsior did not previously classify any resources that made use of historical data as Measured due to varying QAQC data. Those blocks that were nominally classified as Measured were automatically reclassified as Indicated. Further, Excelsior does not classify any resources that are based on historical data as Indicated unless this has been confirmed by drilling undertaken by the company. Those blocks that were nominally classified as Measured/Indicated where confirmation drilling has not been undertaken are automatically reclassified as Inferred.

Based on the density of EXG reverse circulation and diamond drilling and further validation work the company is now in the position to announce a measured category at the Excelsior deposit

Before re-classification approximately 38% of the modelled blocks were classified as Measured 25% Indicated, 26% as Inferred and 11% as unclassified. After re-classification approximately 33% of the modelled blocks were classified as Measured 32% Indicated, 32% as Inferred and 3% as unclassified.