

ASX Announcement | 29 April 2025

## Pantanillo Gold Project

### Metallurgical Review and Update

#### HIGHLIGHTS

- Flagship completes a review of previous metallurgical testwork at the Pantanillo Gold Project.
- Pantanillo hosts 47.4Mt @ 0.69g/t Au for 1.05Moz Au – QFE<sup>1</sup> of mineralisation.
- Pantanillo column leach testwork shows high and rapid gold recovery for oxide mineralisation.
- Gold recoveries for oxides up to 85.5%, and oxide composites of 80% after 25 days.
- Pantanillo recoveries very encouraging, peer group oxide Au recoveries typically 50% -70%.
- Results support coarser crush and dump leach particle size test work before pilot testwork starts.
- Fenix ore reserve grade of 0.48g/t Au with 75% Au recovery from dump leach.
- Based on Fenix dump leach recovery, successful testwork on Pantanillo mineralisation may position Flagship for significant CAPEX/OPEX savings if Au recoveries are maintained.

(1) The qualifying foreign estimates (QFE) are not reported in accordance with the JORC Code (2012). The Competent Person has not done sufficient work to classify the qualifying foreign estimates in accordance with the JORC Code (2012) and it is uncertain that following evaluation and/or further exploration work that the foreign estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.

#### Flagship Minerals' Managing Director, Paul Lock, commented:

*"The Pantanillo Gold Project positions Flagship well, hosting a qualifying foreign estimate of 47.4Mt @ 0.69g/t Au for 1.05Moz Au that is amenable to open cut mining and heap leach processing, the project provides Flagship a material gold inventory and, as per this release, the project is reasonably advanced with positive metallurgy. Flagship is focusing on the oxide mineralisation at Pantanillo as this can position Flagship for a low Capex entry into gold production and high margins through low Opex. The metallurgy to date is very encouraging with recoveries for oxides up to 85.5% and oxide composites of 80% after only 25 days leaching. Further, the oxide mineralisation at Pantanillo resembles that of RIO2's Fenix gold project ~40km to the north. As discussed herein RIO2 has chosen to forgo crushing and move to dump leach, while still maintains recoveries of 75%, which are very strong in the context of the peer group. This is a matter of simple economics, the cost of crushing equipment and crushing is more than the present value of the increased gold recoveries. For Flagship, Fenix provides a very good ready reckoner of Pantanillo's potential.*

*Further, what attracts us to oxides and heap leach is the simplicity. Heap leach operations in their simplest form are drill, blast, load and truck operations, thereafter stacking run of mine or crushed material on a leach pad and irrigating with a leach solution to dissolve the gold (or copper). At the end of the mine life the exhausted heap on the leach pad is easy to manage. With oxide leach there is no tailing facilities, and both water and energy consumption is low.*

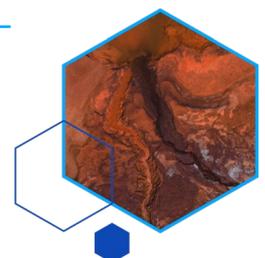
*In essence heap leach operations are simple and efficient and are typically high margin enterprises, and some of the largest gold miners run heap leach operations, for example Barrick (Veladero - 0.68g/t AuEq), Kinross (Fort Knox - 0.34 g/t AuEq; Bald Mountain - 0.42 g/t AuEq; Round Mountain - 0.78 g/t AuEq), Newmont (Cripple Creek - 0.45 g/t AuEq), Eldorado (Kisladag - 0.78 g/t AuEq) and SSR (Marigold - 0.45 g/t Au) (see footnote 2 on page 2)".*

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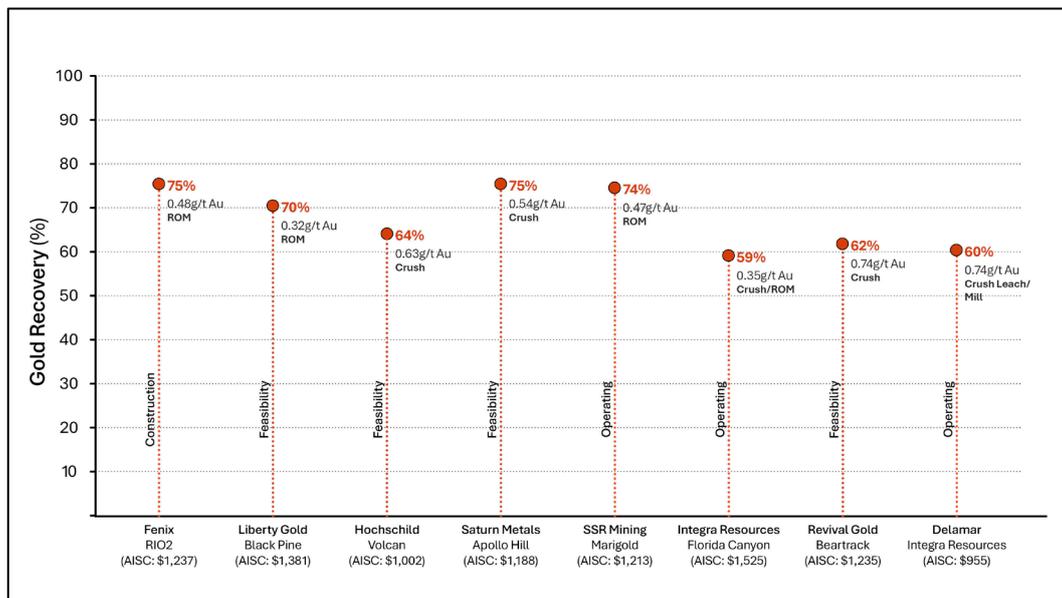
**Flagship Minerals Limited** (ASX: FLG) (“Flagship”, “FLG” or “Company”) has completed a review of previous metallurgical testwork on the Pantanillo deposit within its 100% held Pantanillo Gold Project hosting 47.4Mt @ 0.69g/t Au for 1.05Moz Au QFE of mineralisation<sup>1</sup>, located in the Maricunga Gold Belt in northern Chile.

Metallurgical test work is a core component of the Company’s work plan to advance the Pantanillo project towards production.

**A review of previous testwork confirms that high gold recoveries were achieved through cyanidation of crushed material. This includes gold recovery of 85.5% from column leach testwork on oxide material, and 80% from column leach testwork on oxide composite after 25 days and 83.5% after 188 days.**

Appendix 1 provides summary results of this testwork, which was completed by previous operators. These data are sourced from NI 43-101 reports lodged by previous operators, see Appendix 1 for relevant References and Appendix 2 JORC Code Table 1.

The metallurgical testwork indicates that gold is cyanide soluble particularly in the oxide zone and is assumed to be recoverable under heap leach conditions. In column leach testwork at a particle size of 100% <38mm, gold recoveries of >80% were achieved, derisking and facilitating Flagship’s next phase of leaching testwork. The testwork results for Pantanillo are very encouraging when considered in the context of the results achieved by RIO2 for its Fenix project ~40km to the north and other heap leach gold projects as outlined in Figure 1 below:



**Figure 1: Heap Leach Project Peer Comparison<sup>2</sup>**

Flagship will conduct confirmatory heap leach testwork for input into future financial modelling and to guide ongoing optimisation testwork. The program will partly focus on particle size v Au recovery v time and will assess the potential of ‘dump leaching’. In a heap leach operation dump leaching refers to the leaching of blasted Run

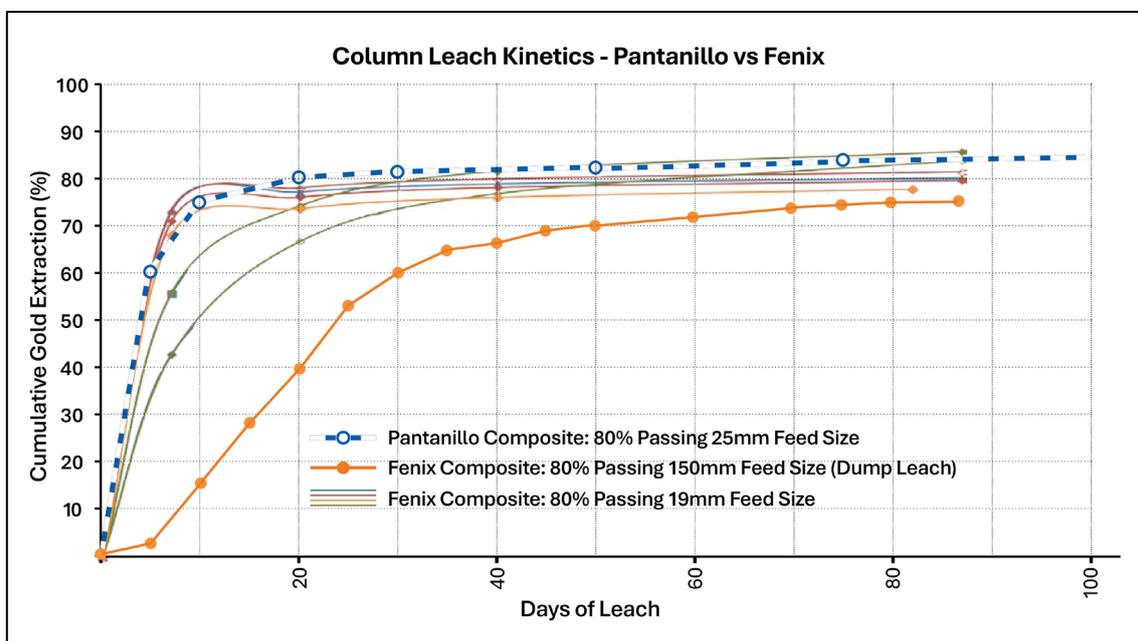
<sup>1</sup> Flagship Minerals has an option to purchase 100% of the Pantanillo Gold Project. See Flagships ASX release dated 14 April 2025 and titled “Pantanillo Gold Project -Advanced Large Scale Oxide Gold Project - Maricunga Gold Belt, Chile - Binding Option Agreement to Purchase 100%”.

<sup>2</sup> Heap Leach Project Peer Comparison data drawn from RIO2’ Fenix and Hochschild’s Volcan 43-101 Feasibility studies, Saturn Metals’ PEA and the Liberty Gold Corporate Presentation dated April 2025. These documents can be found on the respective company websites. Au and AuEq grades of heap leach projects quoted in the Managing Directors comment were sourced from data compiled and quoted by Steven Therrien of 3L Capital in a webinar dated 23 April 2025 and titled “Stacking the Odds - How Heap Leaching Wins”.

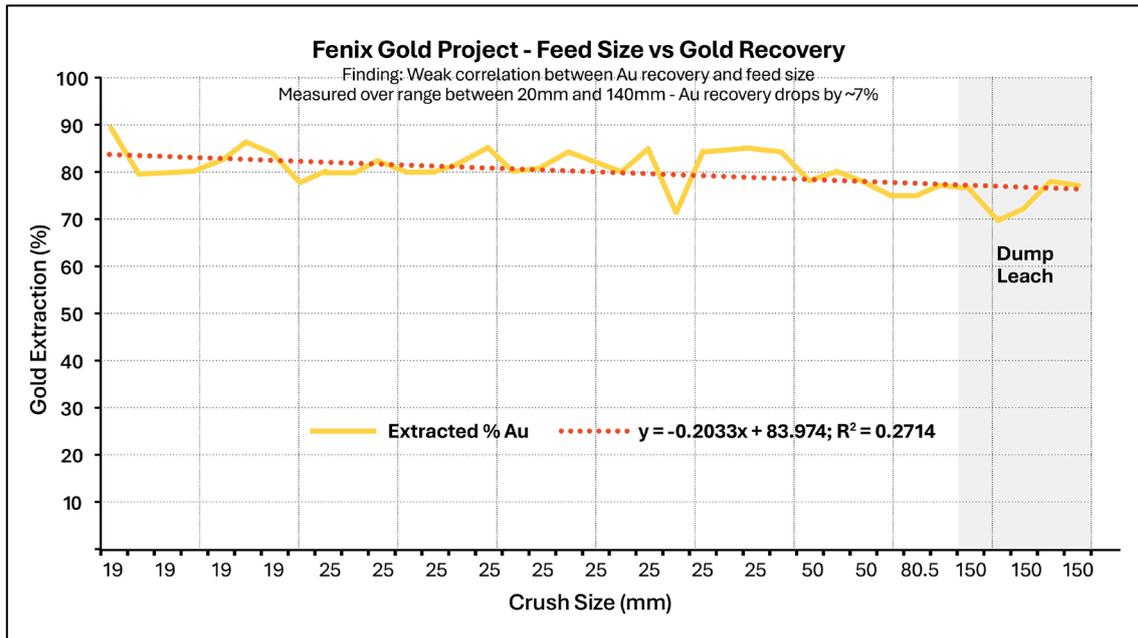
of Mine ‘ore’ delivered to the leach pad by truck, directly from the mine, removing the need for crushing, screening, stockpiling, conveying, agglomeration and rehandling for heap stacking, and hence materially reducing pre-production capital expenditure (Capex), sustaining capital expenditure and operating costs (Opex). However, dump leaching is likely to recover less gold compared to crushing and leaching the same material. The test work will provide Flagship the necessary information to conduct trade off studies, where the present value of higher gold recoveries through crush and leach are compared to the present value of capital and operating cost savings gained through dump leach. Aside from decreasing Capex and Opex, dump leach also simplifies the operations which serves to reduce risk.

Heap leaching inclusive of dump leaching is practiced all around the world and in 2021 was responsible for approximately 46% of global gold production. In the Maricunga Gold Belt (MGB), RIO2 (TSXV: RIO) is currently constructing the Fenix dump leach gold project located about 40km NW of Pantanillo. Fenix is slated to produce approximately 82,000oz Au pa for 17 years. The ROM grade over the mine life is a planned average 0.48g/t Au and AISC are stated to be \$1237/oz.

RIO2 and previous owners conducted numerous heap leach focussed testwork campaigns on the Fenix deposit. Like Pantanillo, the tests showed rapid and relatively high gold recoveries at fine to moderate particle sizes. However, RIO2 is adopting the dump leach process that does not include crushing, instead leaching blasted ROM ‘ore’ at a particle size of 100% -150mm, delivered to the heap directly from the mine. RIO2 expects a gold recovery to be 75% over the life of mine at a head grade of 0.48g/t Au. The recovery curves from the Fenix testwork at a -19mm crush, Pantanillo-25mm crush and Fenix dump leach material is shown in Figure 2. This demonstrates slower gold recoveries of the dump leach material but with ultimate gold recoveries of 75% against approximately 82% average gold recovery at -19mm crush size, a difference of 7%, see Figure 3.



**Figure 2:** Leach Kinetics - Au recovery v time for Pantanillo and Fenix crushed samples versus Fenix ‘dump leach’ material.



**Figure 3:** Fenix Testwork - Feed size vs Au recovery

As a result of the metallurgical review, Flagship is of the opinion that the data for the Fenix and Pantanillo leach testwork conducted on crushed material show similar leach kinetics i.e. recovery v time. This similarity may also translate to the potential for dump leaching of the Pantanillo oxide mineralisation and may open up a pathway for an even lower Capex and Opex start-up.

In summary, although the leach testwork supports increased gold recovery with finer particle sizes on the heap, the increase in gold recovery may not warrant the additional Capex and Opex, which would counter intuitively reduce a projects Net Present Value.

### Strategy and Work Plan

Flagship’s strategy for the Pantanillo project is to define sufficient Mineral Resources that will support considerations for project development consisting of open pit mining and heap leach processing with an aim to produce 100,000oz of gold per year for more than 10 years.

Nearby projects, such as the Fenix Gold Project owned by RIO2 provides a useful benchmark, where construction has recently commenced. Fenix is an oxide gold project slated to produce 1.32 Million ounces of gold over a 16 year mine life, it has a 0.48g/t head grade and an average life of mine AISC of US\$1,237/oz Au<sup>3</sup>.

Flagship’s work plan for the Pantanillo Gold Project will focus on the following:

- Conducting the necessary work to convert and increase the existing qualifying foreign estimate to Mineral Resources reported in accordance with the JORC Code (2012). This will include validation of the existing drillhole data, confirmatory, infill and extensional drilling as well as other supportive work.
- Additional metallurgical testwork and other project studies for input into techno-economic evaluation.

The Pantanillo deposit has significant additional exploration potential for both oxide and higher-grade sulphide mineralisation. Oxide potential exists along strike and in areas proximal to the existing deposit.

<sup>3</sup> For details on Rio2’s Fenix Gold Project, see: <https://www.rio2.com/post/rio2-completes-feasibility-study-for-the-fenix-gold-project>.

Further potential for additional mineralisation also exists below post mineralisation cover to the southeast of Pantanillo. Outside of the Pantanillo deposit, exploration potential remains in the Pantanillo Central, Quebrada Pantanillo and Oro 52 prospects. Although the alunite alteration is typically associated with advanced argillic alteration caps that commonly overly gold-bearing porphyry-type deposits like Pantanillo and other gold deposits in the region, limited drilling has been conducted at some of these targets.

Exploration potential throughout the broader project area of over 100km<sup>2</sup> will also be assessed. The occurrence of magnetite and pyrite in the fresh mineralisation provides a good co-incident geophysical target utilising magnetics and Induced Polarisation.

**- Ends -**

Authorised by the Chairman and Managing Director

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## IMPORTANT INFORMATION

### Competent Persons Statement - General

The information in this report that relates to Exploration Targets and Exploration Results, is based on information compiled by Mr. David Hobby, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Hobby is a fulltime employee, Director and Shareholder of Flagship Minerals Limited. Mr. Hobby has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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 (JORC Code). Mr. Hobby consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Forward Looking Statements

Various statements in this document constitute statements relating to intentions, future acts and events which are generally classified as “forward looking statements”. These forward looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other important factors (many of which are beyond the Company’s control) that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed in this document. For example, future reserves or resources or exploration targets described in this document may be based, in part, on market prices that may vary significantly from current levels. These variations may materially affect the timing or feasibility of particular developments. Words such as “anticipates”, “expects”, “intends”, “plans”, “believes”, “seeks”, “estimates”, “potential” and similar expressions are intended to identify forward-looking statements. Flagship Minerals Limited cautions security holders and prospective security holders to not place undue reliance on these forward-looking statements, which reflect the view of Flagship Minerals Limited only as of the date of this document. The forward-looking statements made in this document relate only to events as of the date on which the statements are made. Except as required by applicable regulations or by law, Flagship Minerals Limited does not undertake any obligation to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

### Important

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## Appendix 1 - Summary of Previous heap leach testwork for Pantanillo

In 2006 Kinross contracted SGS-Lakefield of Santiago to undertake 10 bottle-roll tests of drill chips on eight samples (with two duplicates) divided into two size groups, -2mm and -75 microns (0.075mm). The tests were clearly for orientation purposes, since the drill chip material did not represent the much coarser heap-leach size, and the laboratory recoveries obtained therefore might be expected to be considerably better than actual heap leach recoveries.

Of the eight samples, one was from an oxide-breccia at 110m depth, one from a mixed “ore” (oxide/sulphide porphyry) at unknown depth, and the remaining six from a sulphide-bearing (hypogene) porphyry at various drill depths between 156m and 460m.

The gold recovery for the oxide-breccia was 89.6%; the mixed oxide/sulphide sample gave 62.5% recovery, and the six sulphide samples averaged only 36.6% recovery. The leach tests were extended to 97 hours. However, virtually all of the gold was recovered within the first 24 hours.

The orientation samples indicated that the Pantanillo oxide is highly amenable to cyanide leaching, as might be expected. The sulphide zones gave poor cyanide leach results and the mixed zones were in-between.

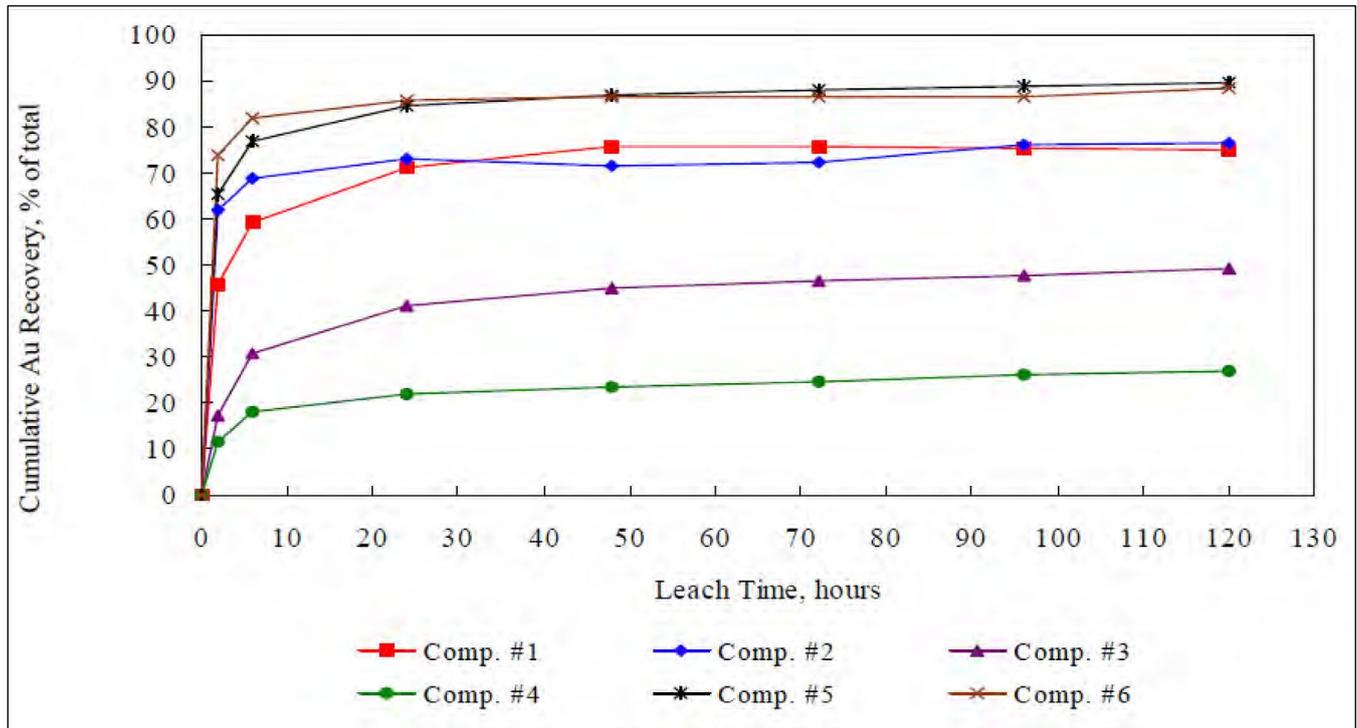
In the 2008 Kinross processed 1,298 samples in bottle roll tests. The results are summarized in Table 1 below. These tests were conducted on 20g samples of drillcore sample splits across a range of Au grades, with a particle size of -89 microns (0.089mm). Bottle roll leaching was only conducted for 4 hours. It is assumed that most of the samples were of oxide mineralisation with minor mixed samples. It also assumed that gold recoveries would increase with longer leach times.

**Table 1: Summary of Bottle-Roll Tests conducted by Kinross**

Summary of Bottle-Roll Tests (Source: Kinross)				
Grade Bracket (g/t Au)	Average Au Recovery (%)	No. of Samples	Cu (ppm)	CNCu (%)
Above 1.2	79	130	416	15
1.00 - 1.2	75	48	350	20
0.8 - 1.0	71	69	356	16
0.6 - 0.8	65	149	302	16
0.4 - 0.6	66	274	343	16
0.2 - 0.4	66	438	382	18
0.1 - 0.2	70	190	229	17

In 2010 Orosur, contracted McClelland Laboratories to carry out bottle roll tests on 23 samples (0.3 to 2.7 kg each). McClelland crushed the samples to 80% -1.7 mm and prepared six composite samples for testing. Each composite was leached for 120 hours.

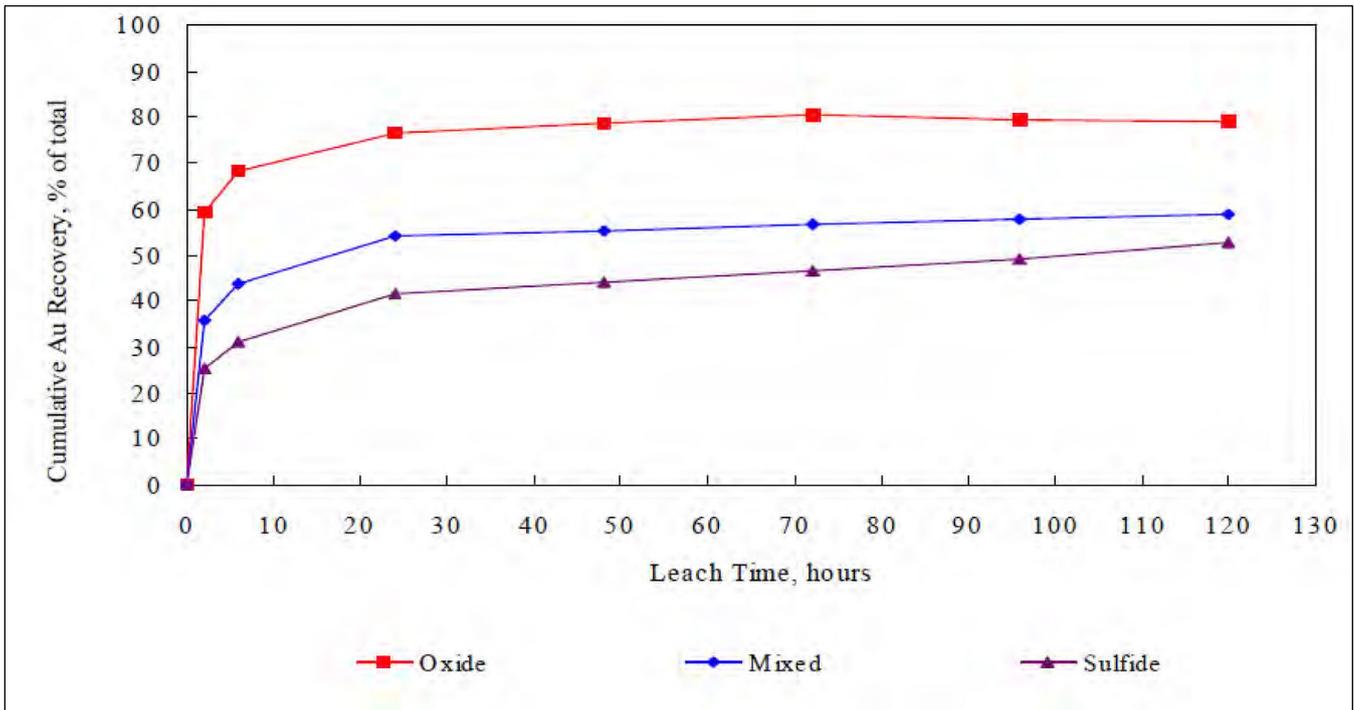
Samples #1, #2, #5 and #6 showed gold recoveries between 75% and 89.6% with rapid gold recovery, almost complete after 24 hours of leaching. The high sulphide samples (#3 and #4) showed recoveries of 49.2% and 26.9% respectively, also with rapid recovery indicating that longer leaching time would not substantially increase gold recovery. Figure 13-1 shows the recovery versus time curves which clearly show the rapid gold recovery for the composite samples.



**Figure 13-1:** Gold Leach Rate Profiles, Bottle Roll Test, Pantanillo Drill Core Composites, Nominal 1.7mm Feed Size (Source: McClelland, Nov. 2010)

In 2011 Orosur conducted additional testwork at McClelland Laboratories including bottle roll tests. McClelland crushed a total of 46 samples to 100% -38 mm and prepared three composites (Oxide, Mixed & Sulphide). The three composite samples were then crushed to a particle size of 80% – 1.7mm for the bottle roll testwork. The samples were derived from hole PNN11-050DDH which was specifically drilled as a ‘metallurgical hole’.

The results of the bottle roll testwork are shown in Figure 13-2. The Oxide, Mixed and Sulphide composites could generally be classed as moderately leachable. Good recoveries were obtained in 120 hours with these composites. Oxide yielded 78.9% Au recovery and sulphide 52.8% recovery. The recovery speed was moderate, however gold extraction was almost complete after 48 hours in all samples. For the Mixed and Sulphide composites, gold recovery was lower and slower compared to the Oxide sample.



**Figure 13-2:** Gold Leach Rate Profiles, Bottle Roll Test, Pantanillo Composites, 80% - 1.7mm Feed Size (Source: McClelland, Nov. 2010)

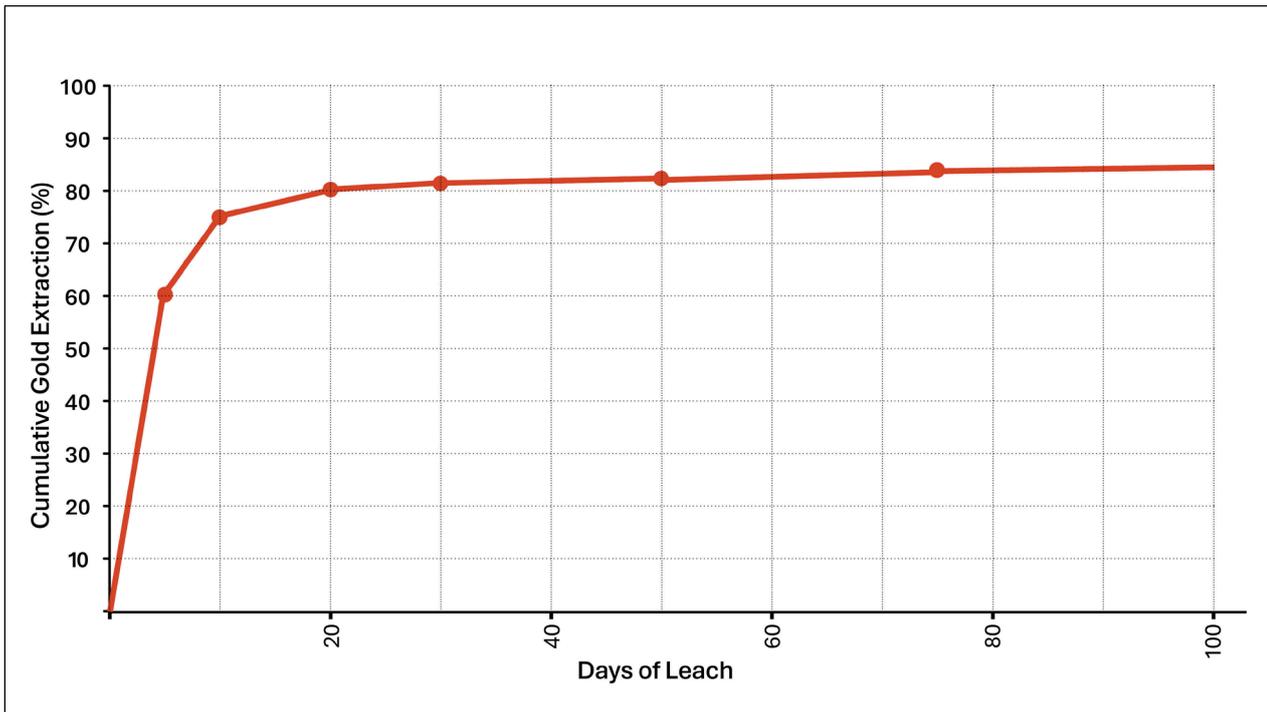
For the same composites (Oxide, Mixed and Sulphide) a testwork program of column leaching was also completed. This testwork used material crushed to 80% -25 mm (100% -38 mm) and the objective was to determine the gold and copper recoveries, the recovery rates, and the reagent consumptions by simulating heap leach conditions.

The columns used were 0.20 m in diameter and were filled to a height of approximately 2.63 m, a sample load of approximately 125 kg. A standard procedure was followed without agglomeration but with lime addition to the dry feed prior to loading in the columns (at the rate of 2.8 to 3.9 kg/t of feed). The leach solution addition rate was 12 L/h/m<sup>3</sup> (0.20 L/min/m<sup>3</sup>).

In general the results show that the oxide composite can be leached using cyanide at a feed size of 80% -25 mm in 10 cm diameter, 3 m high columns, with a gold recovery of 80% after 25 days and 83.5% after 188 days.

For the mixed material under the same conditions after 158 days the gold recovery was 53.3% and for the sulphide material under the same conditions after 146 days the gold recovery was 26.7%.

The gold recovery rate was fairly rapid and the gold recovery was almost complete after 20 days indicating and longer leach times did not appreciably improve gold recovery. The cyanide consumptions were moderate at 1.01 to 1.34 kg NaCN/t feed and copper was assumed to be the main cyanide consumer.



**Figure 13-3:** Gold Leach Rate Profiles Column Percolation Leach Tests, Pantanillo Composites, 80% - 25mm Feed Size  
 (Source: McClelland, Nov. 2010, modified by Flagship Minerals)

## References

[https://www.sedarplus.ca/csfsprod/data102/filings/01503016/00000001/h%3A%5CD\\_Sedar%5CFortune%5CUruguay%5CPantanilloFINAL.pdf](https://www.sedarplus.ca/csfsprod/data102/filings/01503016/00000001/h%3A%5CD_Sedar%5CFortune%5CUruguay%5CPantanilloFINAL.pdf) November 23, 2009

<https://www.sedarplus.ca/csfsprod/data111/filings/01631911/00000002/v%3A%5COrosurMining-Uruguay%5CPressReleases%5COMI-PR-Pan43-101-Oct15-2010.pdf>

<https://www.sedarplus.ca/csfsprod/data131/filings/01919058/00000002/v%3A%5COrosurMining-Uruguay%5CPressReleases%5COMI-NI43101-Jun5-2012.pdf>

## Appendix 2 - JORC Code, 2012 Edition – Table 1 Pantanillo AMEC QFE 2010

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Anglo American RC drilling acquired 2m RC split samples and 2m DD ½ core samples</li> <li>Kinross RC drilling acquired 2m RC split samples and 2m DD ½ core samples Whole samples were crushed, and a 1kg split was pulverized. Samples assayed for Au by fire assay with 50g charge, and Cu, as well as cyanide soluble copper and cyanide soluble gold</li> <li>Orosur drilling: 1m split RC samples, 2m ½ core DD samples. Samples assayed by 50g fire assay plus Cu and multielements by ICPAES.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Anglo was all RC drilling. Kinross drilled 5 ¾ inch RC and HQ diamond core. Orosur drilled 5 ½ inch RC and HQ3 diamond core</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No records for Anglo drilling. Kinross did not record RC recovery, Kinross stated HQ core recoveries &gt;90% in all but two holes.</li> <li>Orosur RC recoveries by weight estimated average recovery of 86%. Core recoveries from HQ3 stated as 93% average.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<ul style="list-style-type: none"> <li>The quantity and quality of lithological and geotechnical data collected by the Kinross and Orosur personnel are sufficient to support Mineral Resource estimation in the opinion of the QPs. All core was photographed.</li> <li>All core was photographed and 100% of all intersections are assumed to be logged, as QP</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<p>did not identify logging as an issue.</p>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Anglo procedures are unknown</li> <li>All ½ core samples were sawn on cut line</li> <li>All RC samples were riffle split</li> <li>Kinross RC and core samples were crushed to 100% &lt;2mm, a 1kg sub-sample was split off and pulverized to 85% &lt;0.075mm. QC procedures are unknown at this point.</li> <li>Orosur RC and core samples were crushed to 100% &lt;12mm with this sample split in half. One spit was crushed to 80% &lt; 2mm with a split 500g sub-sample then pulverized to 85% &lt;0.075mm.</li> <li>For Orosur drilling field duplicates were inserted at 2.8% ratio.</li> <li>In all cases sample sizes are considered appropriate</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Anglo American/EMMB methods are not documented, other than the analysis was conducted by GEOLABS.</li> <li>Kinross samples assayed by ALS Chemex in La Serena for Au by method AA24, which is fire assay with 50g charge and AAS finish, and Cu by method AA61 which is four acid digestion and AAS finish). These would be considered total extraction. Cyanide soluble copper and cyanide soluble gold analysis were also performed, using 20g aliquot with AAS finish. These methods are considered partial. Kinross QA/QC during the 2006 drilling program, the QC program implemented by Kinross included the analysis of pulp duplicates with a frequency of one duplicate in 20 samples (5%). In 2007, blanks and three reference materials were also inserted at irregular frequencies, but the detailed QC data were not available to the QP.</li> <li>During the 2008 drilling program, Kinross implemented a QC program consisting of the insertion of four SRMs (5.2%), pulp blanks (4.5%) and pulp duplicates (4.1%). AMEC processed the available QC data. The pulp duplicate error rate was 2.5%, reasonable considering an acceptable duplicate error rate limit of 10%. Most SRM values were in control (only one outlier for one of the SRMs) and the bias values ranged between - 0.3% and 3.6%.</li> <li>Orosur samples assayed by ACME with 50g fire assay for gold with AAS finish plus ICPAES for copper and 33 other elements with 4-acid</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>digestion. These methods considered total extraction for metals of interest. The Orosur QC protocol included the insertion of 425 control samples for 2,925 ordinary samples, as follows: 83 twin (and field duplicate) samples (2.8% average insertion rate), 185 pulp duplicates (6.3% average insertion rate), 99 coarse blanks (2.6% average insertion rate), and 80 reference material samples belonging to four standard reference materials (SRMs) prepared by CDN (2.7% average insertion rate). The programs did not include the resubmission of check samples to a secondary laboratory.</p> <ul style="list-style-type: none"> <li>• According to the QP, the QA/QC program results do not indicate any problems with the analytical programs and the data appear to be sufficiently precise and accurate for Mineral Resource estimation purposes.</li> <li>• Drill data were checked for the Anglo American program by resubmission of 100 Anglo pulps As a result of this resampling test, AMEC is of the opinion that the Anglo American assay data appear to be sufficiently precise and accurate for Mineral Resource estimation purposes.</li> <li>• A total of 16 drill samples from the Kinross 2006 program were subjected to independent FA assays in ALS Chemex and Acme using 50 g aliquots, and most of values gave only small differences from original assays.</li> </ul>
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• AMEC checked hard copy lab assay reports for gold against the assay 'database' provided by Orosur and found no material issues.</li> <li>• There is no discussion about twinned holes by AMEC. However, in the 2009 NI 43/101 does show an RC hole twinned with a diamond hole. The results of the same 50m interval in both holes showed a 238% grade increase from the RC to the DDH intersection, 0.99 to 2.38g/t Au respectively, However, a review of RC v DD intersections would appear to indicate limited if any assay bias.</li> <li>• Orosur provided AMEC with Microsoft Excel® files with survey, assay and lithology data corresponding to Anglo American, Kinross and Orosur drilling campaigns. AMEC reviewed, completed and validated the available information, and prepared a comprehensive database, which was the basis for the current resource estimation.</li> <li>• AMEC performed a review of selected drill collar,</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>down-hole survey, data, lithology records and assay data incorporated into Orosur's database. A review of potential contamination of the RC drill data was undertaken, in addition to a QA/QC review.</p> <ul style="list-style-type: none"> <li>• AMEC considers that a reasonable level of verification has been completed during the 2010 data review and no material issues would have been left unidentified from the verification programs undertaken. No problems with the database, sampling protocols, flowsheets, check analysis program, or data storage were identified that were sufficient to preclude the use of the database for estimation purposes.</li> </ul>
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Collar surveys were performed for the Kinross and Orosur drill programs by registered surveyors using differential GPS equipment. No information is available on the collar survey methods for the Anglo American drilling. Down-hole survey methods included a gyroscope/accelerometer (Kinross programs) and Reflex down-hole dip and magnetic azimuth survey equipment (Orosur program).</li> <li>• All the project coordinates were subsequently transformed into the WGS-84 19S system from PSAD 56.</li> <li>• AMEC received a digital topography from Orosur as 5 m- and 10 m-spaced contour lines that were the product of photo-interpretation. AMEC imported the contour lines into GEMS® and compared the surveyed drill-hole collar elevations against the topographic surface, and found that significant differences did occur for all drill holes. with 60% of the differences above 10 m. AMEC updated portions of the topographic surface using surveyed drill-hole collar elevations as a preliminary fix; however, AMEC recommends that a new digital topographic surface be generated to correct any problems and enable an accurate topographic clip to the block model.</li> </ul>
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The drilling grid was approximately 50 m spaced sections with 50m-100m hole spacing. AMEC considered this adequate for the "resources" reported.</li> <li>• The nominal sample length for assays was 2 m, corresponding to 82.6% of total samples; 17.0% of the samples are less than 2 m long, and only 0.4% of the samples are longer than 2 m. For</li> </ul>

Criteria	JORC Code explanation	Commentary
		estimation purposes, the original assayed interval length was used to honour the grade-shell contacts and variability observed in the deposit.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill orientations are generally appropriate for the mineralisation style, and have been drilled at orientations that are optimal/near optimal for the orientation of mineralisation for the bulk of the deposit area.</li> <li>• Some holes were drilled in the opposite direction and are sub-parallel to the key mineralised structures. However, grades in these holes are not materially different to other holes drilled orthogonal to mineralisation on that cross section mor the block model grades..</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• AMEC state, sample security appears to be appropriate for gold–copper porphyry deposits for the Anglo American and Kinross drill programs, and are appropriate for the 2010 Orosur drill program for the purposes of Mineral Resource estimation on the Pantanillo Norte deposit.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Independent data audits have been conducted, and indicate that the sample collection and database entry procedures are acceptable</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Pantanillo Project comprises 3 exploitation concessions corresponding to an area of 11,000 hectares the ("<b>Mining Rights</b>"). These Mining Rights are exclusively held by Compañía Minera Atahualpa SpA ("CMA"). The Concessions are GUILLERMO ANTONIO 1 AL 400, GABRIELA 1 AL 1000 and CECILIA 1 AL 950. Flagship has a 5-year Option agreement to acquire a 100% interest in the project or a total consideration of \$US 12.6 Million.</li> <li>• The tenure is secure as long as annual fees and rents are paid to the Government.</li> <li>• Project development will require submission of a full Environmental Impact Statement (EIS). The Project is situated in an area of environmental significance and is adjacent the Nevado Tres Cruces National Park. Certain sectors are</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>classed as Ramsar sites. An application to modify the Ramsar site boundaries was made in 2009. Consequently, any Project development activities will require consideration of endemic flora and fauna, wetlands, Astaburuaga River, the proximity of the Project to Nevado Tres Cruces National Park, its biological corridor and proposed buffer extensions.</p>
<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>In the early 1980s, Anaconda conducted initial exploration activities on the project; however, no details were available on these programs. Modern exploration has been conducted by Anglo American, Kinross, and Orosur Mining Inc. Work completed in the period 1983 to 2011 has included geological mapping, soil and rock geochemical surveys, trenching, Quickbird topography, reverse circulation (RC) and core drilling, ground magnetics, Mineral Resource estimation, metallurgical testwork and project studies . In the opinion of the AMEC QPs, the exploration programs completed to date are appropriate to the style of mineralisation within the project. The Pantanillo deposit may have additional exploration potential for sulphide mineralization down-dip to the southwest, and below the ignimbritic cover in the southeast. Other prospects in the project area also need follow-up. Much of this data has not been seen by Flagship.</li> </ul>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Maricunga belt represents a 200 km long by 50 km wide metallogenic district, located along a NNE-SSW-trending chain of Upper-Oligocene to Mid-Miocene age andesitic to dacitic volcanoes running along the Argentine-Chile border. The volcanoplutonic arc developed on a Pennsylvanian to Triassic basement composed of granitoids and intermediate to silicic volcanic rocks, overlain by Mesozoic to early Tertiary continental volcanic and clastic rocks. Subsequent erosion of late Tertiary volcanoes exposed the frequently hydrothermally altered sub-volcanic porphyry stocks The overall geological setting of the Maricunga belt corresponds to compounded, interfingering, discontinuous and texturally highly variable strato-volcanic accumulations. Although active volcanism is present in Northern and Southern Chile, there is no ‘recent’ volcanic activity in the</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>Maricunga belt.</p> <ul style="list-style-type: none"> <li>The Property is located in the central part of the Maricunga Belt, directly between the Maricunga Mine (Ex-Refugio) and the Marte-Lobo project, both owned and operated by Kinross. The Maricunga Belt hosts numerous porphyry and epithermal style Au and Au-Cu style deposits.</li> <li>The Pantanillo gold deposit is over 850m long and between 200m-600m wide and remains open along strike and down-dip. The mineralised zone strikes NE-SW and dips at 30-45 deg to the southwest Mineralisation is hosted in weathered and altered andesitic porphyry with sheeted and stockwork quartz veins. Oxide zones contain kaolinite, alunite, with limonite/goethite and hematite after pyrite. Fresh rock has a chlorite +/- magnetite +/- pyrite +/- quartz alteration assemblage, with denser vein swarms, local breccia zones and late quartz-alunite veins hosting mineralisation, commonly with higher gold grades.</li> </ul>
<p><i>Drill hole Information</i></p>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole information is provided in the document</li> </ul>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	<ul style="list-style-type: none"> <li>The drillhole intersections are weighted averages reported at downhole widths. The basis of reporting the intersections is not stated. However, it is fair to assume a lower cutoff of around 0.30g/t Au (maybe allowing for some internal dilution) has been used to generate the broader intersections, with contained higher grade zones also being reported at maybe &gt;=0.5g/t Au. Examples of these intersections are shown in the document.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralized zone over 850 m long and strikes in a 300 degree direction and is 200-600 m wide, dipping 30° to 45° to the southwest. The drilling is generally oriented between 0 and 20 degrees or N-NNE. Hole dips are generally 60 degrees, some slightly steeper and shallower. Most of the mineralised intersections are estimated to be approximately 75-90% of true width.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>A cross section and level plan are shown in the report as Figures 3 and 4.</li> <li>Drill intersections are also reported in the document</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All data currently available to the Company that relates to drilling has been reported most of which is available in the NI43/101 reports that are referenced in the document, with links provided.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling data and QFE reported is supported by metallurgical testwork of drill samples which have indicated much of the mineralisation is amenable to heap leach treatment after crushing to 80% -25mm. Bulk density measurements have been performed and sufficient drill core has been geotechnically logged. An assessment of copper and arsenic has been undertaken as potentially deleterious or contaminating substances. No material issues were identified.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Key activities proposed to ensure the qualifying foreign estimate complies with the JORC Code (2012 Edition) will include: Detailed verification and validation of information contained in the NI 43-101 report, particularly information relating to the drillhole database including sampling and assaying QA/QC, verification re-sampling and assaying of available ½ drill-core and sample pulps, verification of location/survey data, improving the geological model relevant to the mineralisation, verification of density measurements applied to the different styles of mineralisation as well modelling of the oxide, mixed and fresh rock components of the mineralisation</li> <li>The completion of additional diamond core drilling will be required to assist in validating the</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>historical drill data that will be applied to a new Mineral Resource estimate. The application of updated modifying factors, such as metallurgical testwork on new drill core will assist in determining cut-off parameters. Pit optimisations may also be conducted on the new Mineral Resource leading to further technical studies to potentially define Ore Reserves.</p>