

ASX ANNOUNCEMENT

15 June 2021

# SIGNIFICANT INCREASE IN JURUENA RESOURCE

# Global Mineral Resource Estimate (MRE) of 387,000 oz @ 6.3g/t Au including a 170% increase in Indicated Resources to 156,800 oz @ 17.0g/t Au

The Company's total portfolio of Resources across its Juruena and Palm Springs Projects now stands at ~750,000 oz Au<sup>1</sup>

#### **Highlights**

- The Juruena Resource comprises 3 separate but adjacent gold deposits:
  - High-Grade Epithermal Gold deposits at Dona Maria and Querosene:
    - Indicated 286,000t @ 17.0 g/t Au for 156,000 ounces Au; and
    - Inferred 692,000t @ 7.6 g/t Au for 170,000 ounces Au
  - **The Crentes Gold-Copper deposit hosted in the Juruena Fault:** 
    - Inferred 943,000t @ 2.0 g/t Au for 60,900 ounces Au
- 40% of the MRE is classified into the Indicated Category, representing a 100,000 ounce gold increase, with the bulk of the increase at Dona Maria where the orebody has been significantly extended down plunge
- The updated MRE at Juruena gives the Company the confidence to consider Scoping Studies and begin the application process for Mining Licenses over the key areas
- All three deposits remain open at depth with the potential to further increase the Mineral Resource. In addition, Crentes has significant copper potential<sup>2</sup> that was not estimated due to a lack of historic Cu sampling

Meteoric Resources NL (**Meteoric** or the **Company**) (ASX: **MEI**) provides shareholders an updated Mineral Resource Estimate for the Juruena Project, comprising gold mineralisation from the adjacent Dona Maria, Querosene and Crentes deposits. The updated Global Mineral Resource now stands at 1.9Mt @ 6.3 g/t Au for 387,000 ounces of gold, an increase of 50% over the previous resource.

Dr Andrew Tunks Meteoric's Managing Director said, "Firstly, huge congratulations to the Brazilian geologists, staff and contractors who have worked long and diligently at Juruena to deliver these outstanding results to shareholders, against a backdrop of unprecedented world events.

This substantial increase of the Mineral Resource will allow us to seriously assess development scenarios on the ground for the first time. With 40% of the global resource classified into the Indicated Category, we now have sufficient significant resources to update the 2017 Scoping Study and prepare an application for a mining license.

<sup>1</sup>MEI: ASX – 3<sup>rd</sup> June 2021 - Palm Springs Maiden Resource

<sup>2</sup> MEI: ASX - 18<sup>th</sup> Feb 2021 – Deep Drilling Commenced on Copper-Gold Porphyry Target







Having now seen this significant increase in total ounces, we have looked at using different cut-offs for shallow and deeper mineralisation and it's clear there is great potential for both initial open pit mining to moderate depths followed by deeper underground mining. These ideas will be rigorously examined and costed during development studies.

This significant resource increase, particularly in the Indicate Category, where we have had over 170% growth in ounces at a grade in excess of half an ounce per tonne gold, lends support for our down plunge exploration strategy. Looking further afield, the drilling success supports using the same exploration strategy to further test down plunge targets at both Querosene and Crentes projects.

Finally, the deep copper-gold potential at Juruena is currently being assessed. Our deep IP survey was used to target our deep drilling program, which is still in its early stages, but already intersecting promising indications of a mineralised magmatic (porphyry) system".

Prospect & Depth	RESOURCE CATEGORY	CUT OFF (g/t Au)	TONNES	GRADE	GOLD (oz)
All < 100m	Indicated	0.8	150,000	13.7	66,300
All > 100m	Indicated	2.5	136,300	20.6	90,500
Indicated	Sub Total	0.8	286,300	17.0	156,800
All < 100m	Inferred	0.8	1,211,000	3.5	134,700
All > 100m	Inferred	2.5	423,000	7.0	95,800
Inferred	Sub Total	2.5	559,300	10.4	186,300
Global MRE			1,920,500	6.3	387,200

#### Table 1. GLOBAL MINERAL RESOURCE

Note: Figures may not add up due to rounding.

#### Table 2. HIGH GRADE EPITHERMAL GOLD ONLY DEPOSITS

Prospect & Depth	RESOURCE CATEGORY	CUT OFF (g/t Au)	TONNES	GRADE (g/t)	GOLD (oz)
Dona Maria < 100m	Indicated	0.8	125,000	11.0	44,000
Dona Maria > 100m	Indicated	2.5	130,000	16.2	84,000
Sub-total	Indicated	0.8	255,000	15.6	128,000
Dona Maria < 100m	Inferred	0.8	164,000	2.8	15,000
Dona Maria > 100m	Inferred	2.5	274,000	6.4	57,000
Sub-total	Inferred	2.5	438,000	5.1	72,000
Dona Maria Total			693,000	9.0	200,000
Querosene < 100m	Indicated	0.8	25,000	27.4	22,000
Querosene > 100m	Indicated	2.5	6,000	32.2	6,000
Sub-total	Indicated	0.8	31,000	28.1	28,000
Querosene < 100m	Inferred	0.8	151,000	13.5	65,000
Querosene > 100m	Inferred	2.5	103,000	13.6	33,000
Sub-total	Inferred	2.5	254,000	12.0	98,000
Querosene Total			285,000	13.9	127,000
High Grade Indicated			286,000	17.0	156,000
High Grade Inferred			692,000	7.6	170,000
HIGH	978,000	10.4	326,000		

Note: Figures may not add up due to rounding.



Prospect & Depth	RESOURCE CATEGORY	CUT OFF (g/t Au)	TONNES	GRADE (g/t)	GOLD (oz)
Crentes < 100m	Indicated	0.8	-	-	-
	Indicated	2.5	-	-	-
Sub-total	Indicated	0.8	897,000	1.9	54,700
Crentes > 100m	Inferred	0.8	897,000	1.9	54,700
	Inferred	2.5	46,000	4.2	6,200
Sub-total	Inferred	2.5	46,000	4.2	6,200
Cre	entes Total		943,000	2.0	60, <mark>900</mark>

#### Table 3. CRENTES GOLD-COPPER DEPOSIT

Note: Figures may not add up due to rounding

#### The 2021 Update of the Juruena Mineral Resource

#### **Summary of the Resource Parameters**

As per ASX Listing Rule 5.8 and the 2012 JORC reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for more detail please refer to JORC Table 1 - Sections 1 to 3 included below as Appendix 1).

The updated Mineral Resource includes deposits at Querosene, Crentes and Dona Maria.

The stated Mineral Resource for Querosene is a re-statement of the 2016 resource estimate announced by Crusader Resources Limited (now Big River Gold Limited, ASX: BRV). Insufficient work has been completed to warrant updating the Mineral Resource. A summary of the material information used to estimate the 2016 Mineral Resource is detailed in the Crusader ASX announcement dated 22/12/2016. The Company confirms that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed.

The Mineral Resource for Crentes consists of two (2) models: a restatement of the eastern portion of the 2015 Crentes Mineral Resource (Crentes East), and an updated Mineral Resource of the western portion (Crentes West) which includes an additional ten (10) diamond drill holes.

The updated Mineral Resource for Dona Maria includes an additional twenty-one (21) diamond drill holes since 2016.

PROSPECT	CATEGORY	CUT OFF	Tonnes	Grade (g/t)	Oz Au
	Indicated		67,800	13.7	29,800
Donna Maria	Inferred	2.5 g/t	148,500	12.2	58,200
	Sub-total		216,300	12.7	88,000
	Indicated		31,200	28.4	28,500
Querosene	Inferred	2.5 g/t	188,700	14.7	89,300
	Sub-total		219,900	16.7	117,800
Г	otal Indicated		99,000	18.3	58,300
-	Total Inferred		337,200	13.6	147,500
Total High-Grade			436,200	14.7	205,800
Crentes	Crentes Inferred		846,450	2.0	55,100
Glo	bal Resources	1,282,650	6.3	260,900	

#### Table 1. PREVIOUS GLOBAL MINERAL RESOURCE FOR JURUENA



#### Geology and geological interpretation

At Dona Maria, high-grade gold mineralisation is constrained within several discrete, narrow, steeply dipping ( $80^\circ$ ) zones within a broader silica-sericite-pyrite alteration halo (Figures 1-3). Thin dolerite dykes (0.5 m - 2.0 m) commonly sit within or adjacent to these high-grade zones. The zones strike towards  $350^\circ$  and dip at  $80^\circ$  to the west. True thickness for these high-grade zones is typically between 1m to 3m.

The Crentes copper-gold mineralisation is hosted primarily in the Juruena Fault (Figure 4). It sits within a broad hydrothermal breccia zone 5m to 35m wide, with the higher grades of copper-gold mineralisation associated with strong silicification due to a stockwork of banded quartz-pyrite -chalcopyrite, consistent with a Low Sulfidation style of mineralisation. The Crentes gold mineralisation is typically lower grade than both Dona Maria and Querosene and extends over a 600m strike length. The copper-gold mineralisation strikes towards 110° and dips 75° to the south. No effort was made to estimate a copper Mineral Resource at Crentes due to lack of Cu assays in historic drilling. All veins have been modelled using Leapfrog™ software's vein modelling tools.



Figure 1. Mineralisation at Dona Maria and Crentes (oblique view -30 -->300)



Figure 2. Mineralisation at Dona Maria and Crentes (oblique view -50 -->160)

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Figure 3. Sections through Dona Maria Looking North



Figure 4. Section 8990080 mN through the southern end of the Dona Maria resource Hole JUDD024 obliquely intercepts mineralised breccias at Crentes before intercepting Dona Maria main lode at depth. NS section looking west through Crentes highlighting breccia hosted Cu-Au mineralisation

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#### Drilling techniques and hole spacing

Drilling was carried out between 1996 – 2020 by various companies. Diamond drilling utilised industry standard conventional wireline technology with a mixture of HQ and NQ core size. RC drilling generally used a 5 ½ inch face sampling hammer and the rigs utilised a compressor with auxiliary booster. Drill-hole inclinations ranged from -40 degrees to -80 degrees at various azimuths. More than half of the drillholes were oriented and downhole surveys were completed using a variety of single shot, multi-shot and continuous reading tools.

In 2019 and 2020, Meteoric drilled 37 diamond drill-holes (8,695.4m) of NQ2 diameter with HQ pre-collars at the Dona Maria, Crentes, Querosene, Uiliam and Tatu prospects.

In 2016, Crusader drilled 64 diamond drill-holes (7,873m) of NQ2 diameter with HQ pre-collars at the Querosene, Dona Maria and Tatu prospects.

Primarily targeting the Querosene, Dona Maria and Crentes zones, Crusader completed 71 RC drill-holes in 2014 and 2015 (7,452m) using a nominal 5 ½ inch face sampling hammer. In early 2015 Crusader also completed 11 diamond drill-holes (1,863.81m) of NQ2 diameter with HQ pre-collars and 2 trenches for 17m.

Historically, over the wider Juruena project area, Lago Dourado Minerals Ltd ("Lago") completed 90 RC drill-holes (6,618m) and 70 diamond drill-holes (22,497.81m) between 2010 and 2013. Between 1996 and 1997 by Consolidated Madison Holdings Ltd ("Madison") completed 91 diamond drill-holes (15,821.89m).

Sections within the Mineral Resource are generally spaced 25m to 50m with hole directions varying depending on the orientation of the targeted mineralised zone.

#### Sampling and sub-sampling techniques

The drill chips and core have been geologically logged in detail and sampled for lab analysis in line with industry standards. Reverse circulation (RC) samples were collected at one metre intervals and the sample material passed through a 3 stage Jones riffle splitter. Diamond drill core was split in half lengthways and sampled typically at 0.5 - 1m intervals, although sampling was to geological boundaries and hence sample length ranged from 0.3 - 1.4m. Sample mass varied according to the sample length, typically mass varied between 1- 6kgs.

All efforts were made to ensure sample contamination was minimised and that all samples could be deemed representative of the interval that they originated from. Based on statistical analysis of field duplicates, there is no evidence to suggest samples are not representative.

#### Sample analysis method

Samples were sent for analysis at independent labs and gold concentrations were determined via 50g fire assay. In later campaigns, samples returning grades > 100g/t gold were re-assayed by Fire Assay with a Gravimetric finish using a lower detection limit (10ppb vs 5ppb). Screen fire assays were performed on select coarse rejects of the original samples.

ALS-Global were used by Meteoric for all analyses, with sample preparation done in Goiania, Brasil and the analysis (Fire Assay) in Lima, Peru with 50g aliquots followed by Atomic Absorption Spectroscopy (AAS). On occasions where 'visible gold' was present or Fire Assay results were >100g/t Au a Screen Fire Assay (Au-SCR24) was requested. These are considered appropriate methods for this style of mineralisation. Additionally, a multi element suite of ME-MS61 48 element 4 acid ICP-MS was done.

SGS-Geosol were used by Crusader for all analyses. Crusader samples were assayed for Au by Fire Assay of 50g aliquots followed by Atomic Absorption Spectroscopy (AAS), a technique designed to report total gold. This technique has a lower detection limit of 5ppb. Samples reporting above 100,000ppb were re-assayed from pulps using a Fire Assay 50 g charge and AAS finish with a 10ppb lower detection limit. Screen fire assays were performed as a check on an interval covering a high grade (+2,000ppm sample) as coarse gold is better detected using this method.





Acme in Santiago, Chile were used for fire assays for the Lago samples, whilst Acme in Vancouver, Canada were used for multi-elemental analyses. The samples were assayed for Au by Fire Assay of 50g aliquots followed by Atomic Absorption Spectroscopy (AAS), a technique designed to report total gold. In addition all Lago samples were analysed for a suite of 34 elements with an aqua regia digest and ICP-MS finish.

Quality Control procedures were adopted by Meteoric, Crusader and Lago including a selection of either field duplicates, blanks or reference standards being inserted at least 1 in every 20 samples. No geophysical tools were used to determine any element concentrations used in the resource estimate.

#### **Cut-off grades**

For Dona Maria hard boundary envelopes have been wireframed to geological (mafic dyke) and structural/alteration boundaries which also typically coincide with high gold grades. In some instances, the gold-hosting zones are visually subtle, and gold grade has been used to define the limits of these zones.

For Crentes, the zone has been wireframed to a broad, low grade, approximately 0.2 ppm Au mineralised zone.

A lower cut-off of 0.8 ppm Au has been applied to the initial 100m from surface at Dona Maria, Querosene and Crentes as such areas could represent potential open pit mining zones. A lower cut-off of 2.5 ppm Au has been applied to material deeper than 100m from surface as such areas could represent potential underground mining zones. These are considered appropriate cut-off grades based on comparable open pit and underground operations in Brazil and abroad.



Figure 5. Grade Tonnage curves for the estimated Mineral Resources. A) Global Resource, B) Dona Maria Deposit

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#### **Estimation Methodology**

At Dona Maria, for comparison purposes, grade estimation for gold was completed by three methods including Ordinary Kriging (OK), Inverse Distance Squared (ID<sup>2</sup>) and accumulation methods (utilizing ID<sup>2</sup>) using Geovia Surpac<sup>™</sup> software with gold grades back calculated from true thickness and grade thickness estimations. For the updated portion of the Mineral Resource at Crentes (Crentes West), Ordinary Kriging (OK) and Inverse Distance Squared (ID<sup>2</sup>) was used. For the existing 2015 portion of the Crentes Mineral Resource (Crentes East), Multiple Indicator Kriging (MIK) was used.

At Dona Maria and Crentes West, the block model was constructed with parent blocks of 4m (E) by 10m (N) by 10m (RL). Both have been sub-celled at the domain boundaries for accurate domain volume representation. Estimation parameters were based on the variogram models, data geometry and kriging estimation statistics. Topcuts were decided by completing an outlier analysis using a combination of methods including grade histograms, log probability plots and other statistical tools. Based on this statistical analysis of the data population, various grade top-cuts between 5ppm and 20ppm were applied for the Dona Maria mineralised zones (OK model) plus a top-cut of 400ppm to the internal high-grade domains (13 and 14). A grade top-cut of 17.5ppm was applied to Crentes West (OK model).

#### **Classification criteria**

The Mineral Resource has been classified on the basis of confidence in the geological model, continuity of mineralised zones, drilling density, confidence in the underlying database and the available bulk density information. Indicated Mineral Resources pierce points are defined nominally on 30-50mN x 30-50mRL spaced drilling and Inferred Mineral Resources pierce points are defined nominally up to 50-80mN x 50-80mRL with consideration given for the confidence of the continuity of geology and mineralisation.

The Juruena Mineral Resource has been classified partly as Indicated Resources and the remainder as Inferred Resources according to JORC 2012.

#### Mining and metallurgical methods and parameters

Dona Maria and Querosene have been identified as potential underground mining zones with their narrow, steeply dipping and high-grade natures. Crentes has been identified as a potential open-pit zone with broad lower grade mineralisation close to surface, although Dona Maria and Querosene will also be tested for their potential for the shallow mineralisation to be mined from an open cut

A representative composite mineralised sample from Querosene has been tested by an independent laboratory and gold recovered using a variety of techniques, including cyanide leaching.

Composite samples from mineralisation at both Crentes and Dona Maria have been submitted for testwork, however results are not yet available.





#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results for the Juruena Project is based on information reviewed, collated, and fairly represented by Mr Peter Sheehan who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Mr Sheehan has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Sheehan consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Mineral Resources for the Juruena Project is based on and fairly represents information compiled by Mr Peter Sheehan (an employee and shareholder of Meteoric Resources Limited) and Mr Lauritz Barnes, (Consultant with Trepanier Pty Ltd). Mr Sheehan and Mr Barnes are both members of the Australasian Institute of Mining and Metallurgy. Mr Sheehan and Mr Barnes have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Sheehan is the Competent Person for the database (including all drilling and mining depletion information), the geological and mineralisation models, resource classification plus completed the site visits. Mr Barnes is the Competent Person for the 3-D model plus the estimation and resource classification. Mr Sheehan and Mr Barnes consent to the inclusion in this report of the matters based on information in the form and context in which they appear.

The announcement has been authorised for release by the Directors of the Company.

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### **APPENDIX 1**

#### JORC Code, 2012 Edition – Table 1 Juruena

#### Section 1 Sampling Techniques and Data

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

Criteria		Commentary
Sampling techniques	•	Reverse circulation (RC) drill sample: samples were collected at one metre intervals and locally, in the proximity of the main target zone, at 0.5m intervals. In zones of little apparent interest, samples were composited in 4m intervals for submission to the laboratory and 3 - 4kg duplicates of the individual 1m samples retained for future analysis, if required. The sample material passed through a 3 stage Jones riffle splitter. Samples were kept relatively dry through the use of a booster compressor to maintain a high level of air pressure.
	•	Diamond drill sample: diamond core was split in half lengthways and sampled typically at 0.5 - 1m intervals, although sampling was to geological boundaries and hence sample length ranged from 0.3 - 1.4m. Samples were placed in high density plastic sample bags and immediately sealed shut with cable ties. Half core was retained on site in Juruena for future reference. Sample mass varied according to the sample length typically mass varied between 1- 6kg
	•	Samples were sent for analysis at an independent lab and gold was determined via 50g fire assay. All efforts were made to ensure sample contamination was minimised and that all samples could be deemed representative of the interval that they originated from. Based on statistical analysis of field duplicates, there is no evidence to suggest samples are not
	•	representative. Assay procedures are in line with industry standards, however samples > 100g/t gold were re-assayed by Fire Assay with a Gravimetric finish using a lower detection limit (10ppb vs 5ppb). Screen fire assays were performed on select coarse rejects of the original samples.
Drilling techniques	•	Diamond drilling: Diamond drilling was carried out between 1996 – 2020 by various companies using industry standard conventional wireline technology. Core size was a mixture of HQ and NQ size. 2019-2020 holes were collared to fresh rock using HQ diametre, and the hole was completed using NQ diametre. Drilling was standard tube (not triple tube). Reverse Circulation (RC) drilling: Crusader completed 73 RC drill-holes in 2014 and 2015 (7,749.50m) using a nominal 5 ½ inch face sampling hammer. Drilling was carried out using a dedicated air rig with a compressor and auxiliary booster to maintain a high level of air pressure to keep samples dry Where high water inflows potentially threatened sample integrity, the drill hole uses a device the sample of the samples dry was been deviced and subsequently the drill hole uses a drilled use of the samples and the sample integrity.
	•	Drill-hole inclinations ranged from -40 degrees to -80 degrees and oriented on various azimuths depending on the geological formation.
	•	More than half of the drillholes were oriented using various tools:
	•	Down-hole surveys of 2019-2020 holes was carried out by Willemita Sondagem Ltda at the completion of each hole using a MAXIBORE-22 tool.
	•	Down-hole surveys in 2015-2016 were carried out by SERVITEC Drilling using a combination of EZ Shot and PEE-WEE tools. The drill core was oriented every 3m in NQ core using a REFLEX ACT tool. 2015-2016 diamond core was oriented, initially with a spear and subsequently with a Reflex ACT II instrument.
	•	Down-hole surveys in 2011 used a REFLEX EZ Shot single shot tool.
Drill comple	•	Historic Madson holes (J-series) were not surveyed and used assumed dip and azimuth from design.
recovery	•	by measuring the length of core recovered compared to the length drill run. Drill recoveries were considered very good with over 90% of the drill runs > 90% recovery.
	•	Care when drilling broken ground, dispensing with the core into the trays and working closely with the contractors to ensure sample recoveries remained consistent. RC drill sample recoveries were verified by weighing every sample. Drill recoveries were considered acceptable.
	•	Gold mineralisation does not apparently correlate to zones of low sample recovery; sample bias due to poor sample recovery is therefore not believed to be an issue.
Logging	٠	All drill-holes are geologically and geotechnically logged, and the data stored in a digital database. Geologic logging data
	•	exists for 100% of the holes drilled. Information collected in logging is considered appropriate for future studies. Logging of diamond drill-core is a combination of qualitative and quantitative, and records: weathering, colour, texture, lithology, alteration, mineralisation, and structure.
	•	The core is photographed and catalogued.
Sub-sampling	٠	Diamond drill-core is cut in half lengthways using a diamond saw. The same side from each sample cut were routinely
techniques and		sampled. This ensures samples are representative and minimises any bias.
sample	•	Duplicate samples are routinely done by cutting half of the core for sampling into quarter, and both pieces are analysed.
propuration	•	appropriate for the style of mineralisation.
	•	RC samples were collected using a 3-stage Jones riffle splitter, a high density plastic bag was placed directly over the sample
		chute on the rifle splitter. The sample size was 3-4 kilograms and the size of the chips was predominantly 0.4-0.8 centimetres with a few chips greater than this. Sampling was generally conducted on dry camples
	•	Sample preparation was undertaken by ALS Global ("ALS") in Brazil, SGS-Geosol Laboratories ("SGS") in Brazil. Acme
		Analytical Laboratories ("Acme") in Brazil for Lago samples. Madison used SGS in Brazil for sample preparation and analysis with check assaying performed at X-RAL labs in Toronto. SGS used industry standard methods (dry – crush – split – pulverise) which are considered appropriate for the style of mineralisation intersected in the drill-holes. The sample preparation method

Criteria		Commentary
		used by SGS-Geosol laboratories is presented in the following section.
	٠	Standards (certified reference material), blanks and duplicates were inserted into the sample stream at the rate of 1:25, 1:25
Ouelity of econy		and 1:40 samples, respectively for the sample batches of generally 50 samples.
Quality of assay	•	Sample preparation for Meteoric was undertaken by ALS Laboratories (Golania, Brasil). Preparation included: coarse crushing of entire sample fine crushing to 90% passing 2mm and pulverising a 1 kg split to 95% passing 106µm SGS were used by
laboratory tests		Crusader for all analyses. Acme in Santiago. Chile were used for fire assays for the Lago samples, whilst Acme in Vancouver.
,		Canada were used for mult-elemental analyses.
	٠	Meteoric samples were analysed for Au by ALS Laboratories (Lima, Peru) using Fire Assay Au-AA26 with 50g aliquots
		followed by Atomic Absorption Spectroscopy (AAS), a technique designed to report total gold. On occasions where 'visible
		gold was present of Fire Assay results were >100g/LAU a Screen Fire Assay (Au-SCR24) was requested. These are considered appropriate methods for this style of mineralisation. Additionally, a multi element suite of ME-MS61.48 element 4
		acid ICP-MS was done. Crusader samples were assaved for Au by Fire Assav of 50g aliguots followed by Atomic Absorption
		Spectroscopy (AAS), a technique designed to report total gold. This technique has a lower detection limit of 5ppb. Samples
		reporting above 100,000ppb were re-assayed from pulps using a Fire Assay 50 g charge and AAS finish with a 10ppb lower
		detection limit. Screen fire assays were performed as a check on an interval covering a high grade (+2,000ppm sample) as
		These are then fused separately and total gold is weighed from each fraction. The weight average of these fractions are then
		calculated to report total gold.
	٠	Standard Quality Control procedures were adopted by Meteoric and Crusader including field duplicates (1 every 40 samples),
		blanks (1 every 25 samples) and standards (1 every 25 samples). Field duplicates are defined as a second sample split via
		The nime splitter at the drilling for RC samples and quarter core samples for the diamond core.
	•	determined limits are discussed with the lab. Any issues not resolved to the company's satisfaction are re-analysed on a batch
		basis. External check laboratory assays were completed on ~5% of mineralised Batches from 2019-2020 drilling by SGS-
		Geosol.
	•	The coarse and pulp sample rejects from the preparation and analytical laboratories were retained and stored at the laboratory allowing for re-assaving in the future if required. All pulps are stored indefinitely
Verification of	•	Significant intercepts have been checked and replicated by Peter Sheehan, the qualified person for this release. Meteoric
sampling and		geologists also revisit the drill core for visual inspection and verification.
assaying	٠	A number of RC drill-holes were partially twinned by diamond drill-holes; the drill-holes compare well visually, but it was not
		possible to compare assay results due to lack of sampling within the mineralised areas.
	•	and appended/merged into a microsoft Excer spreadsneets and appended/merged into a microsoft Access database. The entry of data is controlled by a database administrator. Standardised geological codes and checks have been employed to
		ensure standardised geological logging and required observations performed. The database is stored by a 'Cloud' storage
		service with hard drive backup. Work procedures exist for all actions concerning data management.
	٠	Work procedures exist for all actions concerning data management. All historical (Lago) drill-hole data were sourced from
	•	Original text files for assay, collar and survey were received for the Madison drilling. Original maps and reports and digital
		data were received from Lago Dourado.
	٠	No adjustments or calibrations were made to any assay data.
	•	No twin holes were employed in this drilling campaign.
Location of data	•	Collar surveys are initially performed using handheld GPS with accuracy to ~5m. At the completion of drilling collar locations
points	÷	are picked up by a licensed surveyor or trained Technican using a Trimble total station (+/- 5cm), referenced to a government
		survey point. All drill-holes have been checked spatially in 3D and all obvious errors addressed.
	٠	The grid system used for all data types in a UTM projection, SAD69 Zone 21 Southern Hemisphere. No local grids are used.
Data spacing and	•	I opographic control was made by a licensed surveyor using a total station, referenced to a government survey point.
distribution	•	Crentes varies from 25m x 25m to approximate 50m x 50m grid, both horizontally and vertically (in the plane of the mineralised
		structure, which is sub-vertical).
	٠	The density of information is considered sufficient for conducting a mineral resource estimate to the standards required by the
		JORC 2012 mineral resource code.
	•	Original single metre samples will be re-assayed on composite samples >0.5g/t Au.
Orientation of	٠	Mineralised structures were targeted and planned to be intersected so that minimal sample bias would occur. All structures
data in relation to		were planned to be intersected as perpendicular as possible and to pass through the entire structure. On occasions issues
geological		relating to topography and access meant sub optimal dips/azimuths were employed which resulted in some oblique
50 40000		had relatively sharp contacts and all material was sampled together i.e. the structure and the hanging wall / footwall.
	•	Wherever possible, all drill holes were oriented to intersect the intended structure perpendicular to the strike and a minimum
		of 40 degrees to the dip of the mineralised zone. The mineralised structures are visible from within the artisanal miners'
	•	workings which allowed drill holes to be oriented to minimise introducing a sample blas.
	•	There is discussion in the text as to possible true widths.
Sample security	•	The company is not aware of any sample security issues during the transportation of the samples from the project site to the
, , , , , , , , , , , , , , , , , , , ,		preparatory laboratory. Samples were packed flat in clearly numbered plastic bags and sealed with tane or double cable ties

Criteria	Commentary
	These individual bags are then put in plastic woven bags which are tied and have a metal seal or similar attached. A packing list (confirming the number of sacks for transport) is prepared and samples are transported to commercial transport company for transport.
•	Upon receipt at the laboratory, samples were checked in and the list of received samples immediately sent back to the company's database administrator as a security check that all samples were received, and all were fully intact and not opened.
Audits or reviews •	The sampling techniques and data have been reviewed by the Competent Person and are found to be of industry standard.
•	No audits were completed by any external parties.

# Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>A full listing of the tenements and ownership is shown as Appendix 2.</li> <li>There is an existing 1% net smelter return payable interests to a previous owner. There are three Garimpo mining licences within the tenement package, allowing the Garimpeiros to legally work under certain restrictions. The tenements are not subject to any native title interests but is located within the border zone around a national park. Within this border zone further conditions may be required to gain an operating licence. Cattle grazing and legal timber felling are the two primary industries and land uses for the area.</li> <li>The tenement is in good standing and there are no material impediments to operating in the area.</li> </ul>
Exploration done by other parties	<ul> <li>Garimpeiros first discovered the mineralised areas around Juruena in the 1970's . Garimpeiros have been active in the region since, recovering gold from alluvial, colluvial and some oxidised rock. The area has been explored on and off from the mid 1990's through to the present, with the majority of drilling taking place from 2012 - present.</li> <li>Crusader Resources explored the project from 2014 – 2018 and announced a JORC Resource for Dona Maria, Querosene and Crentes deposits. All work undertaken by Crusader Resources was performed to a JORC compliant standard and the data generated is considered sufficient to be used in a mineral resource estimate to be reported under JORC.</li> <li>Lago Dourado Minerals drill tested several anomalies and zones from 2010 to 2013. All work undertaken by Lago Dourado Minerals was performed to a JORC compliant standard and the data generated is considered sufficient to be used in a mineral resource estimate to be reported under JORC.</li> <li>Madison Minerals Ltd first explored and carried out a drilling evaluation at Juruena in 1995/1996. The drill information of Madison would is considered sufficient to be used in a mineral resource estimate to be reported under JORC based on check drilling conducted by subsequent companies.</li> </ul>
Geology	• The Juruena mineralisation is considered to have resulted from magmatic activity (intrusions and fluids) which could be sourced from a gold rich source rock and concentrated along structural zones. The mineralisation is hosted by Paleoproterozoic volcanic and granitoid rocks of varying composition.
Drill hole Information	• All location and orientation data related to holes included in the updated Mineral Resource Estimates for Dona Maria, Querosene and Crentes have been previously reported to the ASX.
Data aggregation methods	<ul> <li>Significant intercepts are calculated using a 0.5 Au ppm lower cut-off, no upper cut, and up to 2m of consecutive dilution unless otherwise stated. Sample intervals not equal to 1 m were weight averaged.</li> <li>Internal high grade intercepts are reported within these zones based on a 10.0g/t Au bottom cut, a minimum width of 0.5m, and 2m internal dilution.</li> <li>No metal equivalent values considered.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>As far as practically possible and with the geological interpretation available mineralisation was targeted with the aim of intersecting the interpreted mineralised structure perpendicular to the strike. All positive holes to date intersecting mineralisation are at a minimum of 40 degrees to the dip, which will cause a slight overstatement of the actual intercept width. Results are reported as downhole widths, in most cases, true width is approximately 80% of down-hole length.</li> <li>Several holes are drilled oblique to the interpreted mineralised zone and are therefore not true width. These have been reported separately. Widths are corrected to true width prior to any Mineral Resource Estimations.</li> </ul>
Diagrams	See included Figures in the body of this Announcement.
Balanced reporting	Tables of results with significant intercepts for all drilling has been reported in previous announcements.
Other substantive exploration data	<ul> <li>Historical exploration data has been presented previously and includes soil sampling, auger drilling, geophysical surveys, geological mapping and interpretation.</li> <li>Metallurgical testing is preliminary at this stage, however the recoveries have been ~90% from both Querosene and Dona Maria.</li> </ul>
Further work	Further work is discussed in the body of the announcement.

#### Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	<ul> <li>The data has been imported into a Microsoft Access relational database.</li> <li>Normal data validation checks were completed on import to the database. All Meteoric logs are supplied as Excel spreadsheets and any discrepancies checked and corrected by database manager.</li> <li>All historical Crusader Resources drill-hole data were sourced from Crusader data files; Meteoric is in possession of the original electronic laboratory files.</li> <li>All historical Lago Dourado drill-hole data were sourced from Lago data files; Meteoric is in possession of the original electronic laboratory files.</li> </ul>
	<ul> <li>All historical Madison drill-hole data were sourced from Lago Dourado data files; Meteoric is in possession of hardcopy reports and electronic data files.</li> </ul>
Site visits	<ul> <li>Peter Sheehan (Chief Operating Officer for Meteoric and Competent Person) visited the site five times through 2019 and early 2020. Whilst on site he observed: planning, drilling, data collection (including QAQC procedures), data management, and treatment of the results.</li> <li>All work undertaken by Meteoric employees on the site was performed to the required standard and the data generated is</li> </ul>
	considered sufficient to be used in a mineral resource estimate to be reported under JORC.
Geological interpretation	<ul> <li>Geological interpretation of Dona Maria, Crentes and Querosene mineralised zones utilised downhole geological and structural logging, assays combined with surface geological and pit mapping plus sampling. The interpretation is considered reasonable for the available data but will require further drilling to increase confidence.</li> <li>All veins have been modelled using Leapfrog™ software's vein modelling tools.</li> <li>All holes used in the estimation were either RC or diamond drilled and sampled by Meteoric or historic entities to industry atopdated</li> </ul>
	<ul> <li>No alternative interpretations have been considered at this stage. The analysis of the available drillhole and surface geological and structural information adequately supports the interpretation utilised for this resource.</li> <li>Mineralised high grade domains were determined at Querosene and Dona Maria using a combination of surface and pit mapping and sampling plus logged sub-vertical altered and mineralised shear zones and dolerites in drillholes. In some instances, the gold-hosting zones are visually subtle, and grade has been used to define the limits of these.</li> <li>Grade is affected by the presence or not of the altered and mineralised shear zones and dolerites.</li> <li>At Dona Maria, two internal high-grade domains (13 and 14) have been defined and modelled, each within domains 3 and 4. These high-grade zones have been restricted such that they are confined within the physical vein limits of domains 3 and 4.</li> </ul>
Dimensions	<ul> <li>A late, barren sub-horizontal approx. 15m thick dolerite "sill" cross-cuts and stopes out the mineralised zone.</li> <li>At Querosene, the resource extends for 750m in strike length from surface to 180m below surface and averages.</li> </ul>
	<ul> <li>approximately 1.3m true thickness, with a 60° dip to the south-west.</li> <li>At Dona Maria, the resource extends for 300m in strike length, from surface to 425m below surface, varies between 0.8m to 9m true thickness (averages approximately 2.5m) with a 75-80° dip to the west-south-west.</li> </ul>
Estimation and modelling techniques	<ul> <li>For Querosene and Dona Maria, grade estimation for gold was completed by three methods - Inverse Distance Squared (ID2), Ordinary Kriging (OK) and accumulation method (utilising Inverse Distance Squared - ID2) using Geovia Surpac™ software. For Crentes West, grade estimation for gold was completed by Inverse Distance Squared (ID2) and Ordinary Kriging (OK). For Crentes (East in 2015), Multiple Indicator Kriging (MIK) was used. At Dona Maria (including Crentes West) and Querosene, the block models were constructed with parent blocks of 4m (E) by 10m (N) by 10m (RL) sub-blocked to 0.5m (E) by 1.25m (N) by 1.25m (RL). At Crentes East (from 2015), the block model was constructed with parent blocks of 10m (E) by 10m (N) by 10m (RL) and sub-blocked to 1.25m (E) by 1.25m (N) by 2.5m (RL). All estimation was completed to the parent cell size. Discretisation was set to 5 by 5 by 2 for all domains.</li> <li>Three estimation passes were used. For Dona Maria, the first pass had a limit of 30m, the second pass 60m and the third pass searching a large distance to fill the blocks within the wireframed zones. For Querosene, the first pass had a limit of 37.5m, the second pass 75m and the third pass searching a large distance to fill the blocks within the wireframed zones.</li> <li>For the accumulation models for both Dona Maria and Querosene, each pass used a maximum of 6 samples, a minimum of 3 samples and maximum per hole of 1 sample (as each hole had a single true thickness and grade by thickness data point). For the OK models, each pass used a maximum of 12 samples, a minimum of 6 samples are moderate to high (between 40 and 50%) and structure ranges up to 110m. Domains with more limited samples used variography of geologically similar, adjacent domains.</li> <li>Previous estimates for Dona Maria, Crentes and Querosene were initially reported by Crusader in September 2015, with Dona Maria at 196kt @ 11.8g/t for 74,700oz, Querosene at 263kt @ 12.3g/t for 104,000oz and Crentes at 846kt @ 2.0g/t for 55,000oz. This w</li></ul>
	<ul> <li>No assumptions have been made about correlation between variables.</li> <li>Search ellipse sizes were based primarily on a combination of the variography and the trends of the wireframed mineralized zones. Hard boundaries were applied between all estimation domains.</li> <li>At Dona Maria, two internal high-grade domains (13 and 14) have been defined and modelled, each within domains 3 and 4. These high-grade zones have been restricted such that they are confined within the physical vein limits of domains 3 and 4.</li> <li>In addition to carefully modelled domaining, influences of extreme sample distribution outliers were reduced by top-cutting on a domain basis. Top-cuts were decided by using a combination of methods including grade histograms, log probability plots</li> </ul>

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
	<ul> <li>and statistical tools. Based on this statistical analysis of the data population, various grade top-cuts between 5ppm and 20ppm were applied for the Dona Maria mineralised zones (OK model) plus a top-cut of 400ppm to the internal high-grade domains (13 and 14). A top-cut of 85ppm was applied to Querosene (accumulation model) and 15ppm to Crentes (MIK model).</li> <li>Validation of the block model included a volumetric comparison of the resource wireframes to the block model volumes. Validation of the grade estimate included comparison of block model grades to the input composite grades plus swath plot comparison by easting, northing and elevation. Visual comparisons of input composite grades vs. block model grades were also completed.</li> </ul>
Moisture	Tonnes have been estimated on a dry basis.
Cut-off parameters	<ul> <li>A lower cut-off of 0.8 ppm Au has been applied to the initial 100m from surface at Dona Maria, Querosene and Crentes as potential open pit mining zones. A lower cut-off of 2.5 ppm Au has been applied to material deeper than 100m from surface for potential underground mining zones at Dona Maria and Querosene.</li> </ul>
Mining factors or assumptions	<ul> <li>No dilution is yet included during the resource estimation process for any of the deposits.</li> <li>Dona Maria and Querosene have been identified as potential underground mining zones with narrow, high grade steeply dipping natures and as such, a minimum mining width model will need to be created for future reserve work.</li> <li>Appropriate, narrow vein underground mining techniques such as cut and fill or shrink stoping have been considered for both Querosene and Dona Maria and appropriate dilution will need to be applied during the underground mine planning process.</li> <li>Dona Maria, Querosene and Crentes will also be tested for their potential to be open pittable.</li> <li>Appropriate open pit mining dilution will need to be applied during the pit optimisation process which has not yet been completed.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>Preliminary metallurgical testwork (a single 50kg composite sample) at Querosene has been processed at an independent laboratory and returned &gt;90% gold recoveries using industry standard leaching processes. A single composite sample from Dona Maria has also been submitted to an independent laboratory and returned &gt;90% gold recoveries using an industry standard leaching process.</li> <li>Both deposits have been previously mined by local artisanal miners (garimpeiros) at surface and gold recovered by both gravity and leaching techniques.</li> </ul>
Environmental factors or assumptions	<ul> <li>Appropriate environmental studies and sterilisation drilling would be completed prior to determination of the location of any potential waste rock dump (WRD) facility.</li> </ul>
Bulk density	<ul> <li>Meteoric and previous companies: Crusader and Lago Dourado completed specific gravity testwork on 2,898 samples across the Juruena Project using Hydrostatic Weighing (uncoated) on drill core.</li> <li>Of the abovementioned samples, 17 were from within the Querosene veins and 308 from the Crentes &amp; Dona Maria veins. These samples were statistically and spatially analysed to consider their appropriateness for use for determining the bulk density for resource tonnage reporting.</li> <li>The bulk density factors applied to the current resource estimate are 2.60 g/cm3 in sap-rock and 2.65 g/cm3 fresh material at Dona Maria and Crentes West.</li> <li>The bulk density factors applied to the current resource estimate are 2.7 g/cm3 in sap-rock and fresh material at Querosene and Crentes East.</li> <li>The existing garimpo pits at both Dona Maria and Querosene have stripped off all completely oxidised material.</li> </ul>
Classification	<ul> <li>The existing gampo his arbotic bond want and caecoserie have supped on all completely oxidised material.</li> <li>The Mineral Resource has been classified on the basis of confidence in the geological model, continuity of mineralized zones, drilling density, presence of local garimpo pits plus confidence in the underlying database and the available bulk density information.</li> <li>Indicated Mineral Resources pierce points are defined nominally on 30-50mN x 30-50mRL spaced drilling and Inferred Mineral Resources pierce points are defined nominally up to 50-80mN x 50-80mRL with consideration given for the confidence of the continuity of geology and mineralisation.</li> <li>All factors considered: the resource estimate has been assigned to Indicated and Inferred categories.</li> </ul>
Audits or reviews	• Whilst Mr. Barnes (Competent Person) is considered Independent of Meteoric, no third party review has been conducted.
Discussion of relative accuracy/ confidence	• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade.

Claim No.	Status	City	Ownership %
866.079/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.081/2009	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%
866.082/2009	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%
866.084/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.778/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.085/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.080/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.086/2009	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.247/2011	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.578/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.105/2013	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.934/2012	Granted Exploration Permit	COTRIGUAÇU/MT	100%
866.632/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.633/2006	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.294/2013	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%
866.513/2013	Granted Exploration Permit	COTRIGUAÇU/MT, NOVA BANDEIRANTES/ MT	100%
867.246/2005	Granted Exploration Permit	NOVA BANDEIRANTES/ MT	100%

# Appendix 2: Table of Brazil Licences for Juruena and Novo Astro Projects

