

# ASX Announcement

10 JULY 2023



## SPECTACULAR GOLD MINERALISATION CONFIRMED AT M3M'S EDJUDINA PROJECT

### HIGHLIGHTS

- Re-sampled 1m screen fire assay results returned 10m at 241.2 g/t Au from 27m (EDJAC164) [Applying a top cut of 40 g/t Au per metre returns 10m at 14.8 g/t Au]
- Bonanza grades identified in EDJAC164 from 27 – 28m (2,303.53 g/t Au)
- Higher grades and higher variability returned in EDJAC164 compared to the 4m fire assay composites highlights nugget component
- Analysis underway on results to optimise future drill programs and assaying methodologies
- Follow-up air core program completed with samples to be submitted this week and magnetic survey to completed in July

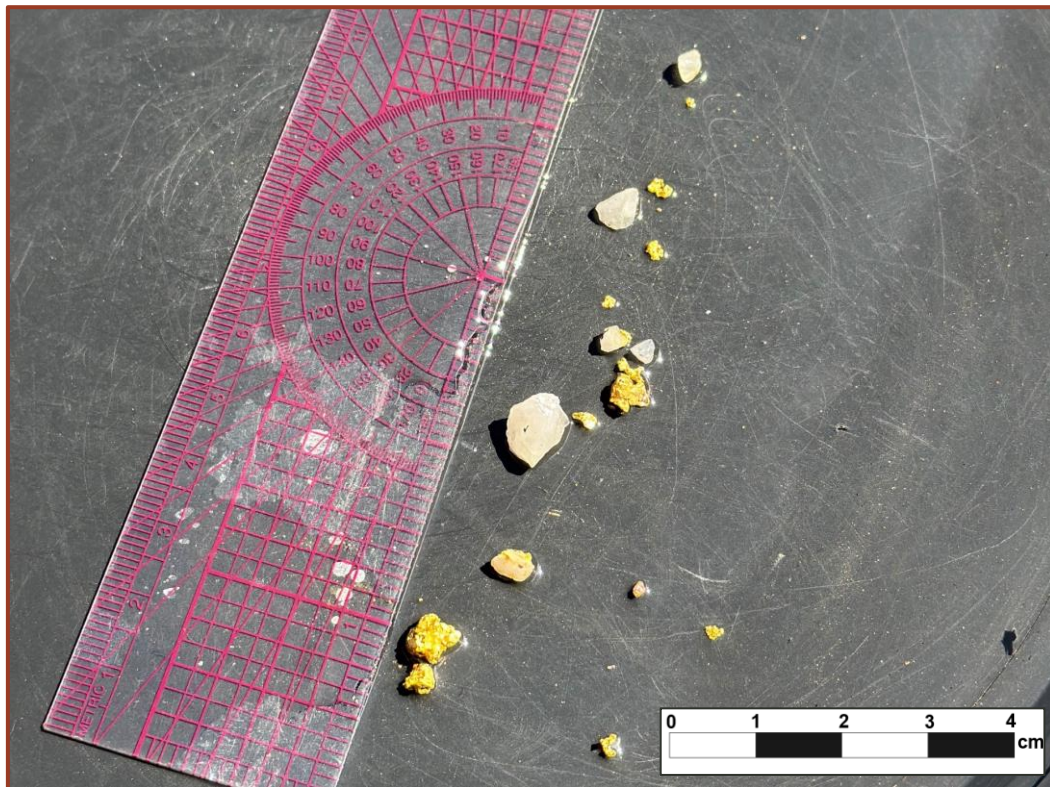


Figure 1 – Coarse Gold Panned from EDJAC164 (27 – 28m)



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#### Projects

Edjudina Gold Project (100% Owned)  
Victoria Bore Copper Project (100% Owned)

Shares on Issue	46.5M
Share Price	\$0.185
Market Cap	\$8.6M
ASX Code	M3M

**M3 Mining Limited** (ASX: M3M) (**M3 Mining** or the **Company**) is very pleased to provide this update on the recently received screen fire assay results from the El Capitan prospect at the Edjudina Gold Project (**Edjudina** or the **Project**).

As shown in Table 1, the 1m re-assay screen fire results highlight the high-grade tenure of the mineralisation over a 10m interval. These 1m sample results compare favourably to the original 4m composites and allows the Company to further refine the zone of mineralisation down the hole and demonstrates increased variability as expected for the style of mineralisation. These results will form the basis for sampling and assay methodologies for future drilling programs following detailed magnetic surveys ahead of M3 Mining advancing the bonanza grade El Capitan prospect. The Edjudina Project is located in the eastern Goldfields, approximately 150km northeast of Kalgoorlie in Western Australia.

Hole ID	Sample ID	From	To	Screen Fire Assay (g/t Au)	Composite Fire Assay (g/t Au)
EDJAC164	EDJAC3256	23	24	0.02	0.02 (20 – 24m)
EDJAC164	EDJAC3257	24	25	0.02	13.49
EDJAC164	EDJAC3258	25	26	0.02	
EDJAC164	EDJAC3259	26	27	0.04	
EDJAC164	EDJAC3262	27	28	<u>2,303.53</u>	
EDJAC164	EDJAC3263	28	29	<u>40.91</u>	8.03
EDJAC164	EDJAC3264	29	30	<u>6.78</u>	
EDJAC164	EDJAC3265	30	31	<u>15.33</u>	
EDJAC164	EDJAC3266	31	32	<u>11.14</u>	
EDJAC164	EDJAC3267	32	33	<u>15.80</u>	5.61
EDJAC164	EDJAC3268	33	34	<u>3.69</u>	
EDJAC164	EDJAC3269	34	35	<u>3.61</u>	
EDJAC164	EDJAC3270	35	36	<u>1.66</u>	
EDJAC164	EDJAC3271	36	37	<u>9.98</u>	0.57
EDJAC164	EDJAC3272	37	38	0.37	
EDJAC164	EDJAC3273	38	39	<u>0.80</u>	
EDJAC164	EDJAC3274	39	40	<u>2.82</u>	0.73
EDJAC164	EDJAC3275	40	41	0.09	
EDJAC164	EDJAC3276	41	42	0.05	
EDJAC164	EDJAC3277	42	43	0.05	
EDJAC164	EDJAC3278	43	44	0.02	0.10
EDJAC164	EDJAC3279	44	45	0.04	
EDJAC164	EDJAC3280	45	46	<u>0.68</u>	
EDJAC164	EDJAC3281	46	47	0.01	
EDJAC164	EDJAC3282	47	48	0.10	0.25
EDJAC164	EDJAC3283	48	49	0.15	
EDJAC164	EDJAC3284	49	50	0.02	
EDJAC164	EDJAC3285	50	51	0.04	
EDJAC164	EDJAC3286	51	52	0.05	0.00
EDJAC164	EDJAC3287	52	53	0.23	

Table 1 – Screen Fire Assay Results for Drillhole EDJAC164

**EXECUTIVE DIRECTOR SIMON ELEY:**

*“M3 Mining is extremely pleased to announce the validation of our original four metre composite assays, which have been confirmed on a one metre basis using the screen fire assay method and included a higher sample volume than the initial fire assays. In addition to the assay results, the presence of visible gold within EDJAC164 supports the high-grade gold intercepted at the El Capitan prospect. The screen fire assays increase our confidence in the mineralisation at the recently discovered prospect and provide the Company with strong conviction to progress exploration activity at El Capitan.”*

**Assay methodologies**

As previously announced (see “High Grade Gold Intersection from Scout Drilling at Edjudina” released to the ASX on 7 June 2023), M3 Mining recently completed an AC drilling program in May, consisting of 76 holes for a total of 3,456m. The program intersected high-grade gold mineralisation at the El Capitan Prospect from analysis of four metre composite samples.

Since receiving these results, the Company’s geology team have collected individual one-metre samples which were submitted for analysis via screen fire assay. This methodology uses a much larger sample size (500g charge verses a 30g charge used by a standard fire assay analysis) and analyses the sample in a method that produces, what is considered, a more representative sample where coarse gold is anticipated.

When undertaking a screen fire assay, the sample is pulverised and a 500g aliquot is then screened over a 75µm sieve, separating it into two fractions, which are recovered and weighed. The coarse fraction is assayed to extinction whilst the more homogenous fine fraction undergoes two standard fire assay readings. A final weighted average of the gold content can then be calculated which provides a higher accuracy reading of the gold content in each sample.

While still at an early stage of exploration, the use of screen fire assays has confirmed the original 4m composite fire assays (Appendix 1), and has further refined the understanding of the zone and the tenor of mineralisation (Figure 2). This new knowledge will be utilised in sampling methods which are being applied to the recently completed AC program over the prospect<sup>1</sup>.

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<sup>1</sup> See M3M announcement 07/07/2023 “Expedited drilling program concludes at El Captitan” for further details.



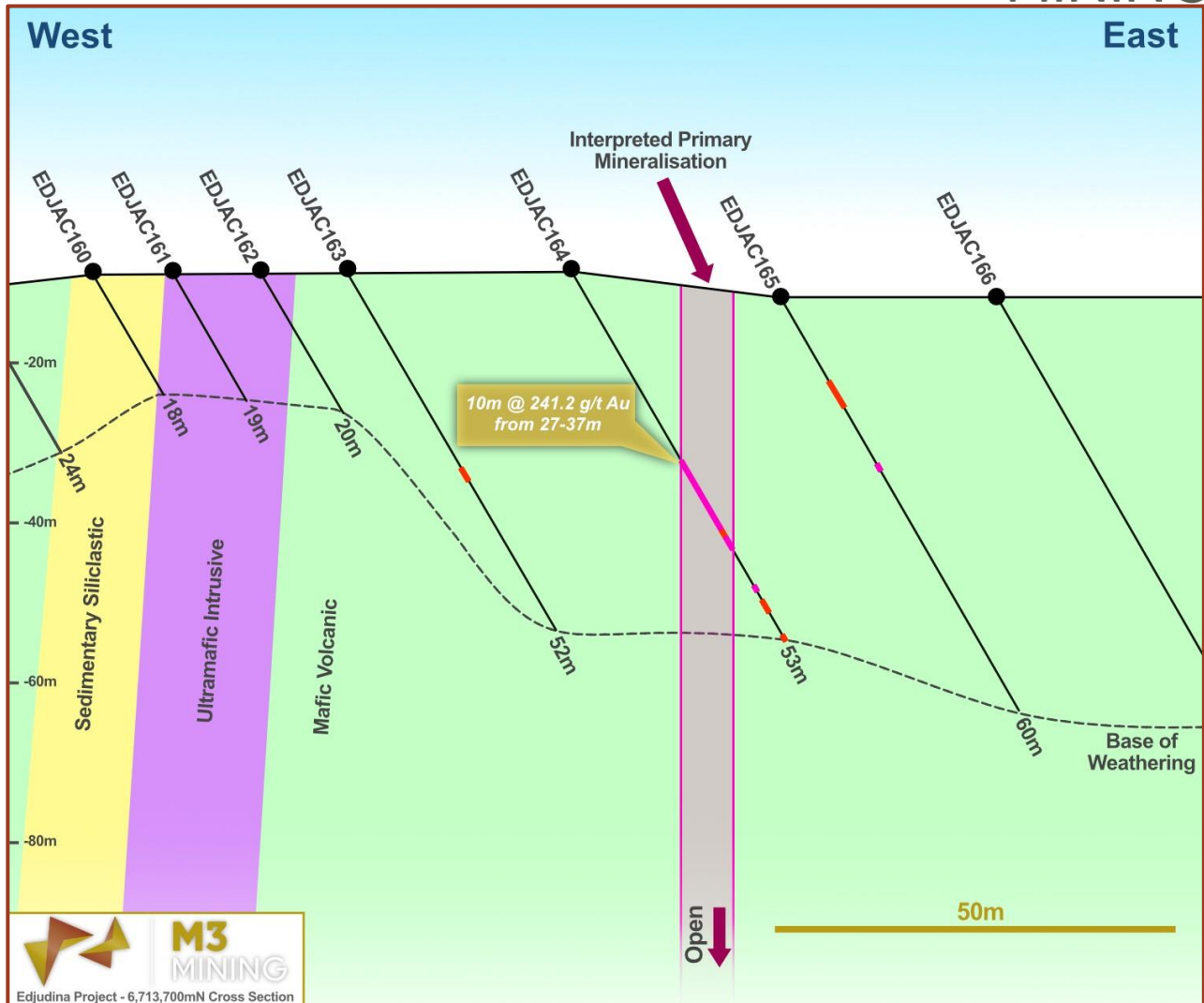


Figure 2 – Cross Section of Mineralisation encountered in Drillhole EDJAC164



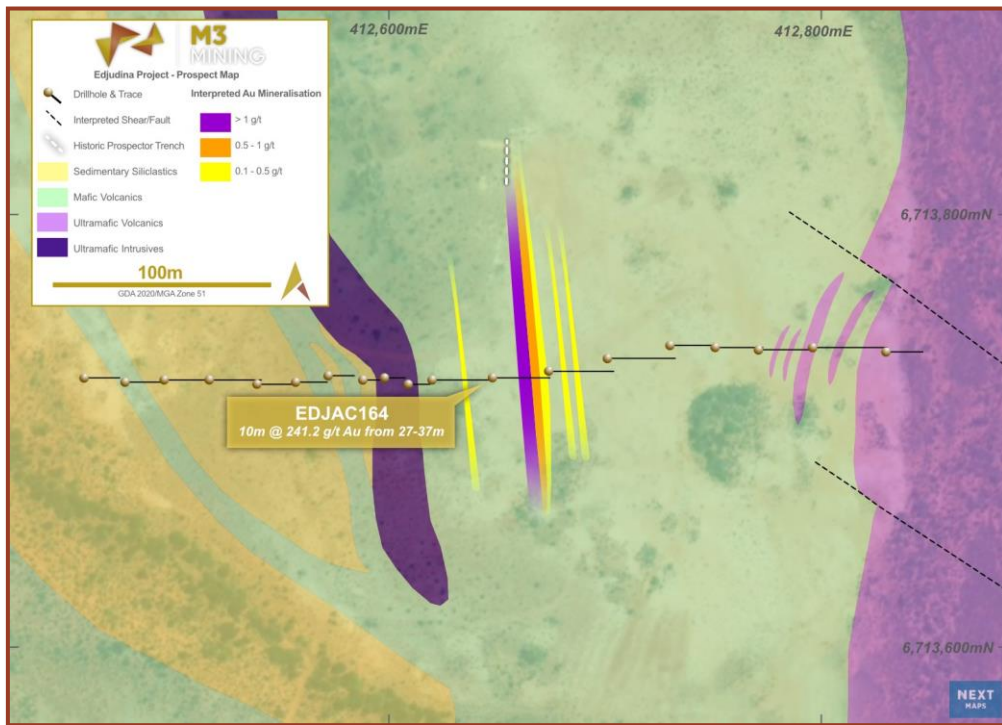


Figure 3 – Plan View of Drill line at The El Capitan Prospect

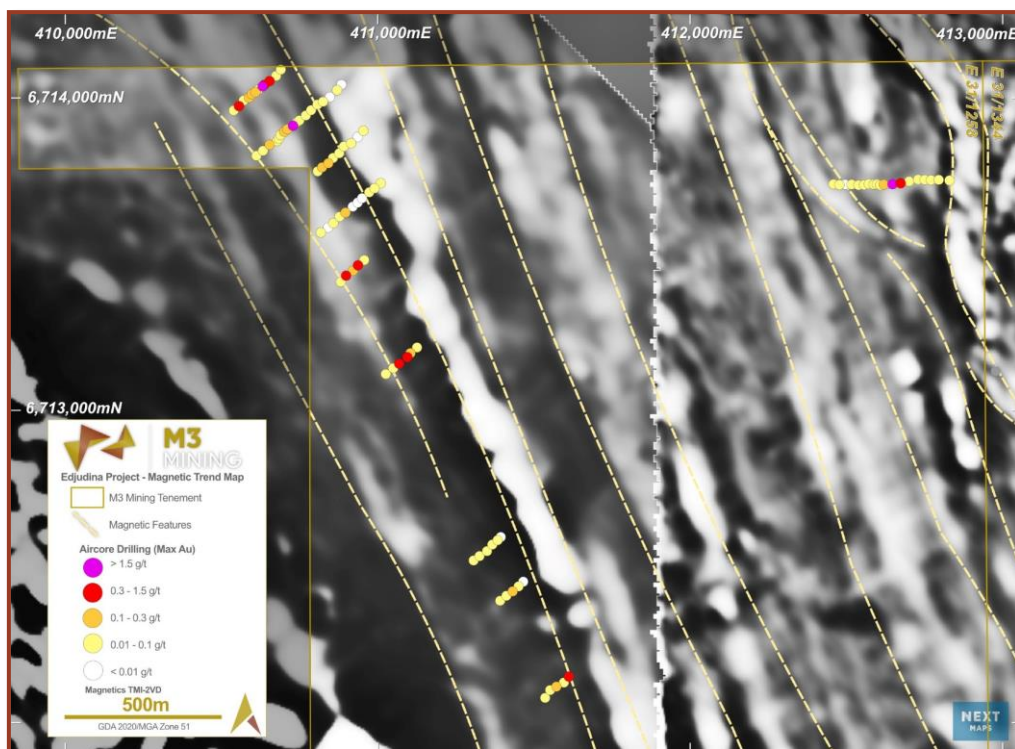


Figure 4 – Detailed aeromagnetic trends over The El Capitan and Jump Up Prospects

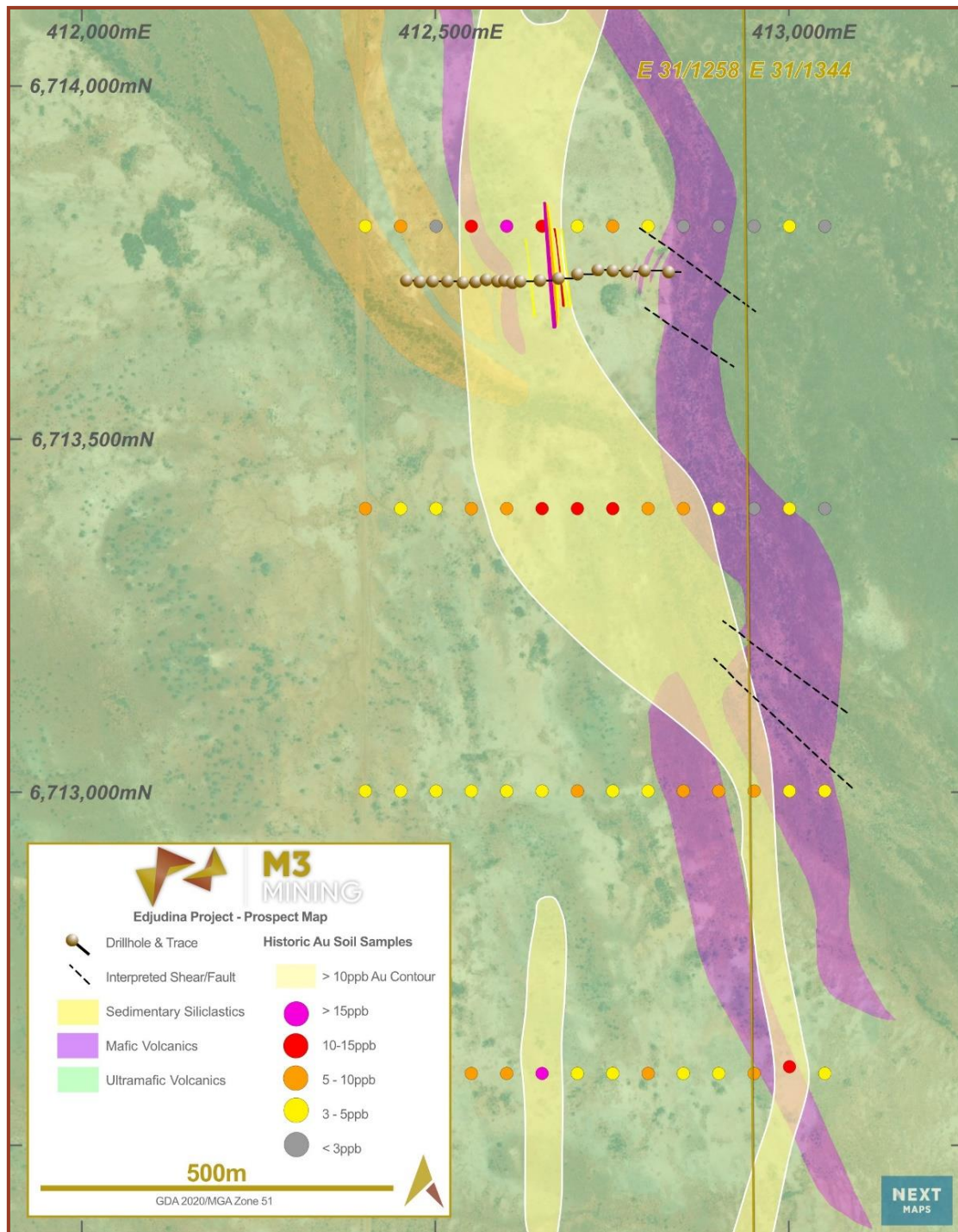


Figure 5 – Plan View of historic gold soil sampling at The El Capitan Prospect



## Expedited AC drilling program completed

As announced (see “Expedited Drilling Program Concludes at El Capitan” released on 7 July 2023), M3 Mining has concluded the expedited AC drilling program at El Capitan with samples scheduled for delivery to the laboratory for analysis this week. Drilling concluded on 30 June 2023.

A total of 3,182 metres was drilled over 74 holes. The program was designed to test north and south extensions following the results from the initial scout drilling campaign<sup>2</sup> as a precursor, and subject to results, to a reverse circulation drilling program to test the depth of the potential mineralisation. Mechanical issues with the drilling rig along with uncertainty concerning the implementation of new legislation by the WA State Government meant that the original target of 4,000 metres for the program was not met.



*Figure 6 – Drilling at the El Capitan Prospect*

## Next Steps

The Company awaits the receipt of assay results for the expedited AC program. As shown by the coarse gold panned from EDJAC164 (see Figure 1) and the screen fire assay results, the mineralisation at El Capitan exhibits a high nugget effect. As the Company advances El Capitan it will be exploring various alternative assay methodologies, such as Photon Assay. This method also uses a 500g charge which provides a more representative analysis than the standard 30g fire assay charge. The Company expects to receive these results prior to the end of August.

Further work will be undertaken by the M3 Mining technical team over the coming weeks to better understand the mineralisation and geology present at the El Capitan prospect. This will include analysis of the results received from the recently completed AC drilling program as well as a detailed magnetic survey.

<sup>2</sup> See M3M announcement 07/06/2023 “High Grade Gold Intersection from Scout Drilling at Edjudina” for further details.



**M3**  
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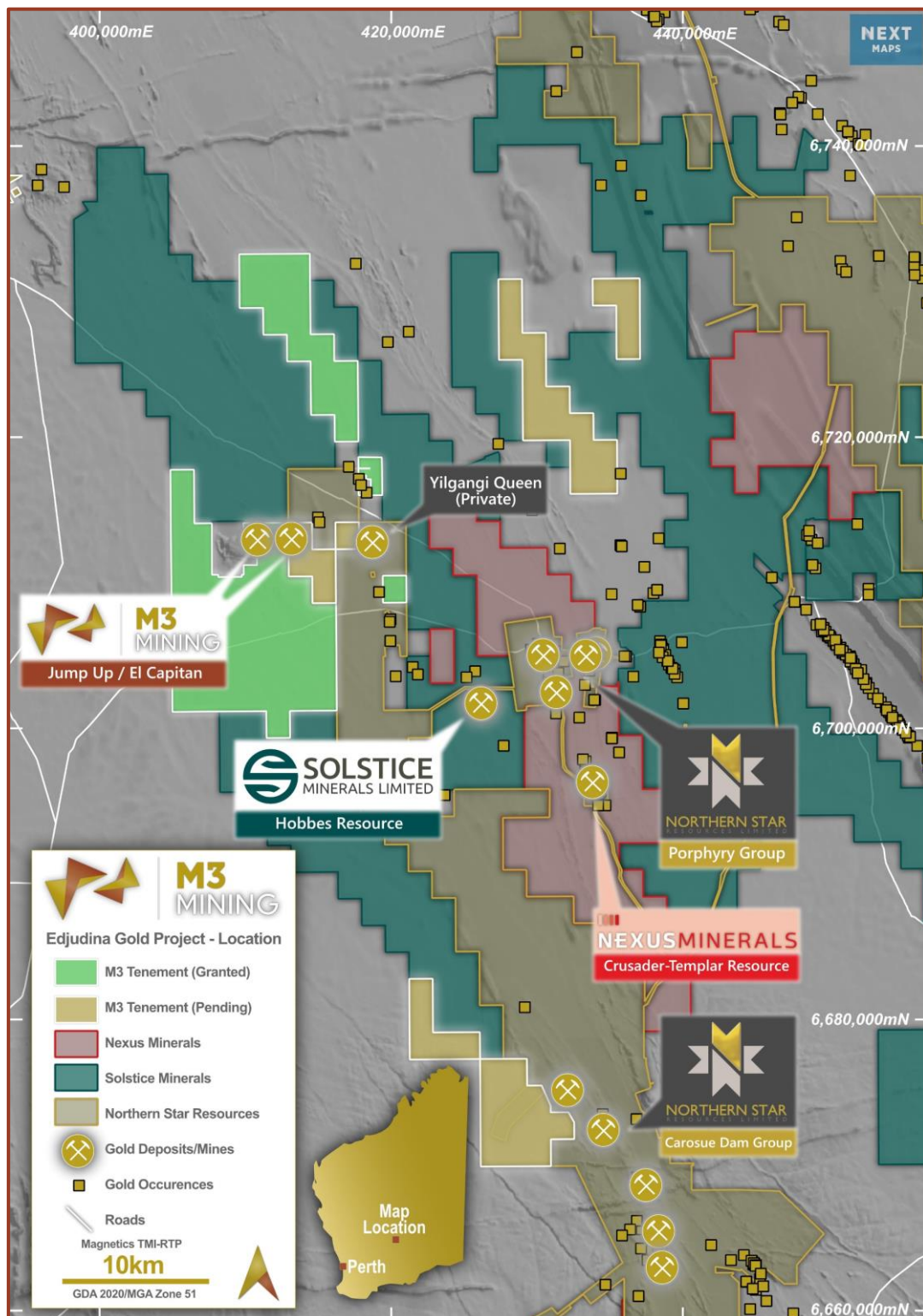


Figure 7 – Edjudina Gold Project Overview





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This announcement has been authorised for issue by the Board of M3 Mining Limited in accordance with ASX Listing Rule 15.5.

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### About M3 Mining

M3 Mining Limited (ASX:M3M) is a Perth-based mineral exploration company focused on creating value for shareholders through exploration and development of a high-quality copper and gold exploration portfolio. M3 Mining's projects are strategically located in regions surrounded by majors and has experienced minimal modern, systematic exploration across both projects. The Company's strategy is to apply a systematic approach to the assessment and prioritisation of its projects, all of which have the potential to produce material discoveries.

The information in this announcement that relates to exploration results is based on and fairly represents information compiled by Jeremy Clark, a competent person who is a member of the AusIMM. Jeremy Clark is the sole director of Lily Valley International Pty. Ltd. Jeremy Clark has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. Jeremy Clark consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.



## Appendix 1 – Screen fire assay results

### Intercepts

Hole ID	Sample ID	From	To	1m SFA* (g/t Au)	Composite FA** (g/t Au)
EDJAC163	EDJAC3315	27	28	0.01	0.06 (24 - 28m)
EDJAC163	EDJAC3316	28	29	0.42	0.15
EDJAC163	EDJAC3317	29	30	0.13	
EDJAC163	EDJAC3318	30	31	0.03	
EDJAC163	EDJAC3319	31	32	0.09	
EDJAC163	EDJAC3320	32	33	0.08	0.07
EDJAC164	EDJAC3256	23	24	0.02	0.02 (20 - 24m)
EDJAC164	EDJAC3257	24	25	0.02	13.49***
EDJAC164	EDJAC3258	25	26	0.02	
EDJAC164	EDJAC3259	26	27	0.04	
EDJAC164	EDJAC3262	27	28	2,303.53	
EDJAC164	EDJAC3263	28	29	40.91	8.03
EDJAC164	EDJAC3264	29	30	6.78	
EDJAC164	EDJAC3265	30	31	15.33	
EDJAC164	EDJAC3266	31	32	11.14	
EDJAC164	EDJAC3267	32	33	15.8	5.61
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EDJAC164	EDJAC3270	35	36	1.66	
EDJAC164	EDJAC3271	36	37	9.98	0.57
EDJAC164	EDJAC3272	37	38	0.37	
EDJAC164	EDJAC3273	38	39	0.8	
EDJAC164	EDJAC3274	39	40	2.82	
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EDJAC164	EDJAC3277	42	43	0.05	
EDJAC164	EDJAC3278	43	44	0.02	
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EDJAC164	EDJAC3280	45	46	0.68	
EDJAC164	EDJAC3281	46	47	0.01	
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EDJAC164	EDJAC3283	48	49	0.15	0.25
EDJAC164	EDJAC3284	49	50	0.02	
EDJAC164	EDJAC3285	50	51	0.04	
EDJAC164	EDJAC3286	51	52	0.05	
EDJAC164	EDJAC3287	52	53	0.23	0.00
EDJAC165	EDJAC3301	3	4	0.03	0.03 (0 - 4m)
EDJAC165	EDJAC3302	4	5	0.03	1.72****
EDJAC165	EDJAC3303	5	6	0	
EDJAC165	EDJAC3304	6	7	0.01	
EDJAC165	EDJAC3305	7	8	0.02	
EDJAC165	EDJAC3306	8	9	0	0.03 (8 - 12m)
EDJAC165	EDJAC3307	23	24	0.02	0.05 (20 - 24m)
EDJAC165	EDJAC3308	24	25	0.55	0.11
EDJAC165	EDJAC3309	25	26	0.01	
EDJAC165	EDJAC3310	26	27	0.08	
EDJAC165	EDJAC3311	27	28	0.01	
EDJAC165	EDJAC3312	28	29	0.02	0.06 (28 - 32m)

\*: screen fire assay. \*\*: fire assay. \*\*\*: Repesât FA = 309.43 g/t Au & 638.78 g/t Au. \*\*\*\*: Repeat FA = 0.16 g/t Au & 0.21 g/t Au

### Hole Location

Hole ID	Prospect	Easting	Northing	Elevation	Depth	Azimuth	Dip
EDJAC163	El Capitan	412,619	6,713,722	363	52	90	-60
EDJAC164	El Capitan	412,647	6,713,723	363	53	90	-60
EDJAC165	El Capitan	412,673	6,713,726	360	60	90	-60

## Appendix 2 – JORC Table

### JORC Code, 2012 Edition – Table 1 report - Drilling

#### Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Samples within the Projects were collected using Aircore (AC). Holes were angled at 60°. Given the status of the Project this is considered reasonable.</li> <li>AC composite samples were collected every 4m downhole, except nearing the bottom of hole where composites varied to allow a 1m sample for the last metre drilled. Samples were collected using industry standard methods.</li> <li>All samples were crushed and split at the independent international accredited laboratory, with up to 3kg pulverised, with 30g samples analysed by Industry-standard methods</li> <li>Re-sampling collected samples from higher grade intervals on a one metre basis. These samples were submitted to the laboratory and pulverised and split to create a 500g aliquot.</li> <li>The sampling techniques used are deemed appropriate for the style of mineralisation and exploration undertaken.</li> <li>M3 understands all sample preparation was completed by independent international accredited laboratories.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>AC Drilling was undertaken by Raglan Drilling. Industry standard Drilling methods and equipment were utilised to maximise sample integrity and recovery.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Sample recovery and condition data are noted in geological comments as part of the logging process for AC drilling.</li> <li>No quantitative twinned drilling has been undertaken. No relationship was able to be settled due to limited data.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>All holes were field logged by the Company's geologist using established company procedures during drilling. Lithological, alteration and mineralogical nomenclature of the deposit, as well as sulphide content, were recorded.</li> <li>Logging is suitable for the assessment of exploration potential.</li> <li>All drill holes were logged in full.</li> <li>Logging was qualitative and quantitative in nature.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Composite samples were taken via scoop-method from surface drill spoil piles by contract field staff for AC holes. Samples were prepared and analysed at Jinning Laboratories in Kalgoorlie.</li> <li>Samples were pulverized so that each sample had a nominal 85% passing 75 microns.</li> <li>All composite samples and bottom of hole samples were analysed for gold via 30g lead fire assay.</li> <li>A 4-acid digest (HNO<sub>3</sub>-HBr-HF-HCl) was used for 60 multi-elements for bottom of hole geochemistry.</li> <li>Re-sampled intervals at El Capitan were analysed by screen fire assay to provide a more accurate result given the coarse gold mineralization. Screen fire assay methodology as follows               <ol style="list-style-type: none"> <li>Pulverise entire sample to 85% passing 75µm</li> <li>Weigh a 500g sub-sample of fine residue</li> <li>Screen the 500g over a 75µm sieve and recover and weigh both fractions</li> <li>Fire assay the +75µm fraction to extinction (total sample)</li> <li>Fire assay the -75µm fraction in duplicate</li> </ol> <p>Calculations: The final weighted average gold content is determined by calculating the total gold content of the -75µm fraction by taking an average of the 2 assays and multiplying by the -75µm weight to give micrograms Au. This is then added to the micrograms Au recovered from the +75 µm assays and divided by the original weight (500g) to provide Average Au (ppm)</p> </li> <li>All other prospects: Based on the information provided sample sizes are considered appropriate to correctly represent interpreted mineralisation given the status of the projects and allow an assessment of exploration potential, the thickness and consistency of the intersections, the sampling methodology and assay value ranges for Au.</li> <li>Industry Standard QAQC was utilised included standard and blanks.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>All samples were assayed by industry-standard techniques.</li> <li>Typical analysis methods are detailed in the previous section and are considered 'near total' values.</li> </ul>



Criteria	Commentary
	<ul style="list-style-type: none"> <li>Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was inserted by M3 at a nominal rate of 1 in 30 samples. Routine 'blank' material (unmineralised sand) was inserted at a nominal rate of 1 in 30 samples. No significant issues were noted.</li> <li>The analytical laboratories provided their own routine quality controls within their own practices as per international ISO standards. No significant issues were noted.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>While no independent sampling was undertaken by M3 of the original drill samples, various CP's have reported the exploration results to JORC Code 2012. Based on the digital data review M3 finds no reason to question the veracity of the exploration results provided and reported in this Report. No twin holes have been completed due to the early stage of exploration.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Drill collars were set out using a handheld GPS and the final collar were collected using a handheld GPS. Sample locations were collected using a handheld GPS and are considered acceptable for the nature of this programme.</li> <li>Holes without downhole survey use planned or compass bearing/dip measurements for survey control.</li> <li>GPS coordinates for each collar was undertaken using the standard inbuilt GPS systems grid system – WGS84 UTM Zone 51.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>The spacing and location of the majority of the drilling in the projects is, by the nature of early exploration, variable.</li> <li>The spacing and location of data is currently only being considered for exploration purposes.</li> <li>Due to the early stage of exploration, the drill spacing is not considered to be suitable to estimate and report Mineral Resources.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Limited drilling has been completed to confirm the optimal drilling orientation. Exploration Results are reported, and no estimate is completed as further works are required.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>M3 staff and contractors ensured a strict chain of custody procedures that are adhered to for drill samples.</li> <li>All sample bags were pre-printed and pre-numbered. Sample bags were placed in bulka bags and closed with a zip tie such that no sample material could spill out and no one could tamper with the sample once it left the company's custody.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>M3's review is independent of the Company and all previous owners.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Edjudina Project consists of 7 granted tenements, 5 exploration licenses and 2 prospecting licenses.</li> <li>No joint venture or royalties are understood to impact the tenements.</li> <li>No known impediments are understood to occur to allow further exploration.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Several generations of drilling and exploration has been completed within the Edjudina Project, including geochemical surveys, air core drilling and RC drilling occurring within the tenement packages.</li> <li>Exploration is considered to be at an early stage across all tenements.</li> </ul>

<i>Geology</i>	<ul style="list-style-type: none"> <li>The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed Eastern Goldfields shear hosted, structurally control mineralisation style.</li> <li>Given the tenements are either along strike, or along interpreted similar splays, of the highly structurally controlled Yilgarn Goldfield, mineralisation within the tenements is likely to be highly structurally controlled requiring phased exploration methods which are targeted with the results analysed in detail between each phase.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Provided in Appendix 1</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>No high-grade cuts were applied, low grade cut of 0.5 g/t Au was used for reported highlight intersections</li> <li>Appendix 1 details all results.</li> <li>No metal equivalence was utilised.</li> </ul>
<i>Relationship between mineralisation widths and intercept widths</i>	<ul style="list-style-type: none"> <li>The geometry of the mineralisation is not confirmed, however, all results reported are considered.</li> <li>All results were reported as down holes, as noted in the relevant sections.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Suitable figures have been included in the body of the announcement.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>Key results and conclusions have been included in the body of the announcement.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Historical rock sampling and drilling data mentioned in the release can be found in previous releases and detailed in the Independent Geologist Report in the prospectus.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Follow up drilling and field work is planned.</li> </ul>

