

ASX Announcement

31 JANUARY 2024



HIGH GRADE ROCK CHIPS AT EDJUDINA GOLD PROJECT

HIGHLIGHTS

- High-grade rock chip samples up to 65 g/t Au collected from historic workings at Broken Hill Bore prospect.
- Reconnaissance at Old Plough Dam identifies geological similarities to the nearby Twin Peaks gold deposit.
- Resampling of 1m aircore splits at El Capitan confirms narrow but consistent gold mineralisation.
- Rock chip sampling at El Capitan South enhances geological understanding
- Future exploration plans include geochemical soil sampling and further alteration mapping in early 2025

M3 Mining Limited (ASX: M3M) (**M3 Mining** or the **Company**) is pleased to provide an update on the Edjudina Gold Project (**Edjudina** or the **Project**), located approximately 150km northeast of Kalgoorlie, WA. M3 Mining is exploring for large orogenic gold deposits in greenstone belts of Archaean age.

EXECUTIVE DIRECTOR SIMON ELEY SAID:

"M3 Mining's latest field program at the Edjudina Gold Project has delivered valuable geological insights across several priority prospects. While resampling at El Capitan confirmed the presence of gold mineralisation, the results indicate that mineralisation is narrow, and further exploration efforts will be better focused elsewhere. The reconnaissance work at Old Plough Dam has reinforced its prospectivity, with geological characteristics aligning with the 'Twin Peaks' mineralisation style, which has proven gold endowment in the region. Meanwhile, the Broken Hill Bore prospect shows promise, with rock chip sampling returning high-grade results, including 65 g/t Au, highlighting the potential for significant gold mineralisation. These findings will guide our next phase of exploration, with soil geochemistry and further mapping planned for early 2025."



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Projects

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

Shares on Issue	83.8M
Share Price	\$0.043
Market Cap	\$3.6M
ASX Code	M3M

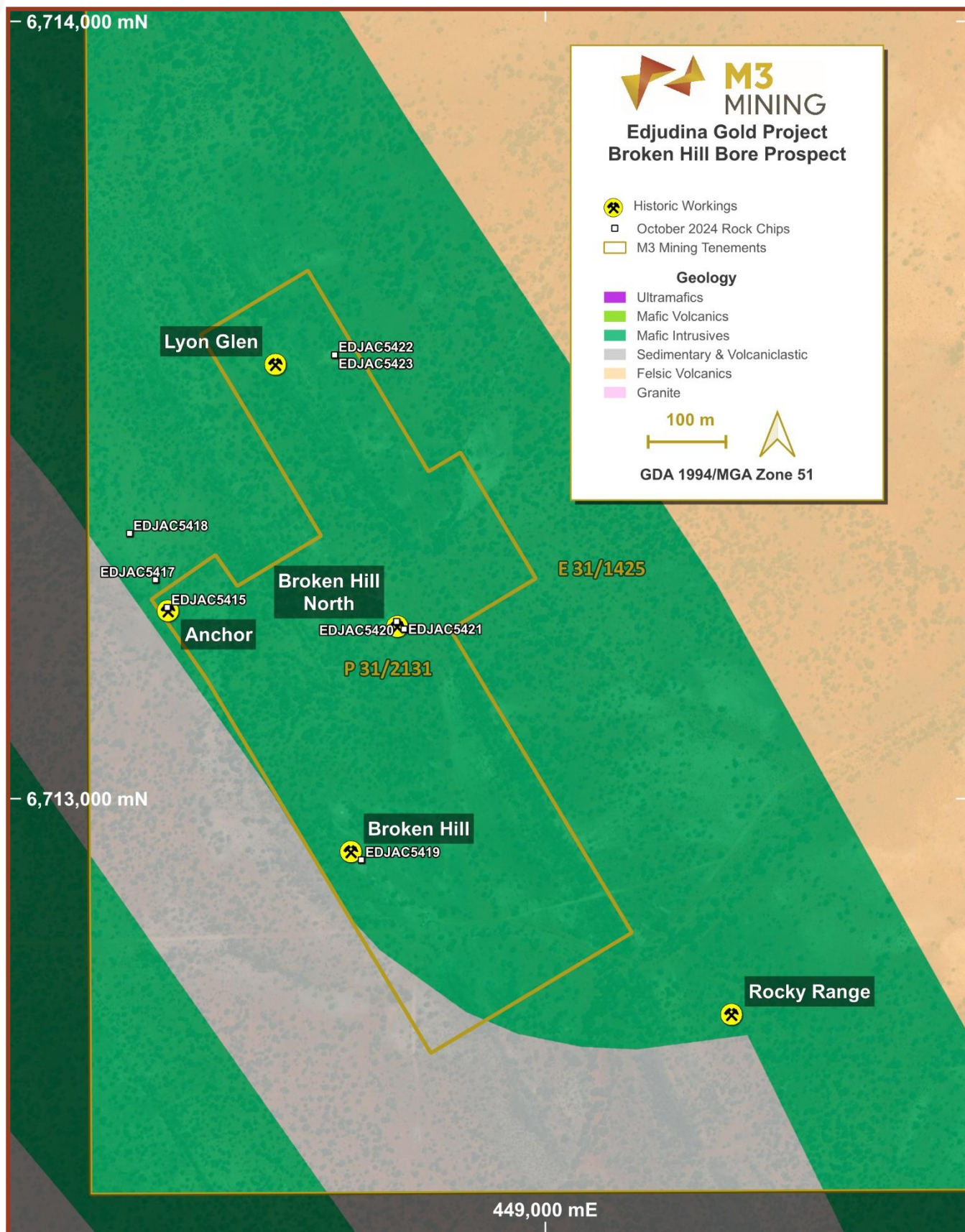


Figure 1 – Broken Hill Bore Prospect

Broken Hill Bore Prospect

A first pass rock chip sampling program was undertaken at the Broken Hill Bore group of workings (P 31/2131) located approximately 20km north east of the Porphyry Gold Mine operated by Northern Star. The Broken Hill Bore prospect hosts multiple historic gold workings, including shafts and adits extracted in the early 1900s. Four distinct workings; Anchor, Lyon Glen, Broken Hill, and Broken Hill North, which are located on the Company's tenure were examined. Historically, a total of 129.9 tonnes of ore was mined to produce 4.04kg of gold at a grade of 31.1 g/t Au¹.

Mineralisation is hosted in cross-cutting quartz veins within banded-iron formations, situated in a sheared sequence of felsic volcanoclastic, sedimentary, and mafic volcanic units. The historic workings vary in size and preservation, with some structures well-preserved, providing insights into the geological fabric, while others have collapsed.

Certain rock chips returned significant gold values (see Figure 1 & Appendix 1), highlights including:

- **EDJAC5420 (Broken Hill North Workings) – 65 g/t Au**
- **EDJAC5419 (Broken Hill Workings) – 4.3 g/t Au**
- **EDJAC5416 (Anchor Workings) – 1.9 g/t Au**
- **EDJAC5421 (Broken Hill North Workings) – 1.1 g/t Au**
- **EDJAC5415 (Anchor Workings) – 1.0 g/t Au**

These results highlight the potential for high-grade mineralisation within the prospect, and further geochemical pathfinder studies will be conducted to determine the extent of gold mineralisation beyond the historic workings. In addition to P 31/2131, M3 Mining also holds the exploration tenement application (E 31/1222) which surrounds the Broken Hill Bore group of workings.

Old Plough Dam Prospect

The Old Plough Dam prospect lies close to the Carosue Dam gold trend (see Figure 2), approximately 1,200m from the non-active Twin Peaks gold mine. M3 Mining is targeting 'Twin Peaks'-style orogenic gold mineralisation, typically hosted in siliciclastic metasedimentary rocks, with coarse visible gold in quartz-carbonate veins.

Recent reconnaissance work focused on mapping and rock chip sampling. The eastern portion of the tenure is interpreted to exhibit similar lithologies to, and extensions of the structures, that host the Twin Peaks deposit, supporting the case for further exploration.

Whilst only weakly anomalous gold values of up to 90ppb Au were returned from the rock chip sampling the results provide valuable geochemical indicators to refine future exploration (See Appendix 1 for further details). M3 Mining plans to conduct a soil geochemical survey using portable XRF analysis in Q1 2025, followed by alteration mapping to further investigate the area's prospectivity.

¹ See Great Gold Mines NL annual report (A71276) released 28 February 2005 for further information

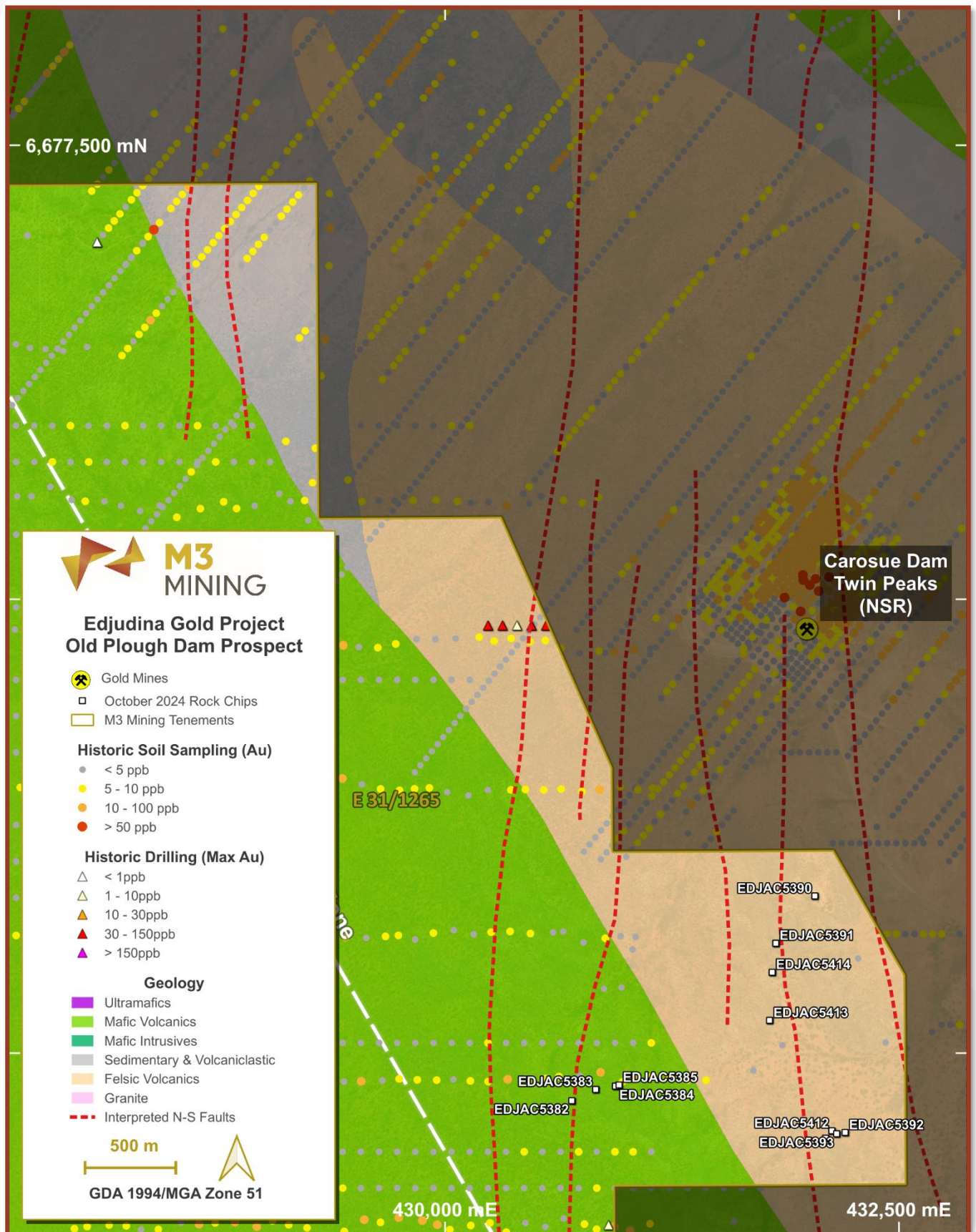


Figure 2 – Old Plough Dam Prospect

El Capitan Prospect

At El Capitan, the October program focused on resampling 1m splits from previous aircore drilling to confirm gold mineralisation in high-grade intersections. A total of 16 1m samples were collected from four composite samples across key drill holes. Full results are shown in Appendix 1 with highlights including:

- **EDJAC280 (27-28m) – 0.963 g/t Au**
- **EDJAC297 (6-7m) – 0.764 g/t Au**
- **EDJAC271 (5-6m) – 0.717 g/t Au**
- **EDJAC297 (5-6m) – 0.52 g/t Au**

While the results confirm the presence of gold, the mineralisation remains narrow, and further follow-up drilling is not currently warranted. In addition, rock chip sampling at El Capitan South did not return substantial gold values but provided improved geological insights in to the mineralisation. Mapping confirms that the geology at El Capitan South is similar to the main El Capitan prospect, further refining the Company's structural understanding of the region.

Given these findings, M3 Mining will shift exploration focus to other areas within the Edjudina Gold Project.

What's Next?

Building on the knowledge gained from this field campaign, M3 Mining will continue advancing the Edjudina Gold Project with a focus on the most prospective targets. Planned activities for early 2025 include:

- **Soil geochemical surveys using portable XRF at Old Plough Dam to refine target areas for follow-up exploration.**
- **Alteration mapping to identify potential 'Twin Peaks'-style mineralisation at Old Plough Dam.**
- **Geochemical pathfinder analysis at Broken Hill Bore to assess potential extensions to historic high-grade workings.**
- **Ongoing geological assessment to prioritise future drill targets.**

M3 Mining remains committed to systematic and results-driven exploration at Edjudina, leveraging both historic data and new insights to uncover the project's full potential. Further updates will be provided as new data becomes available.

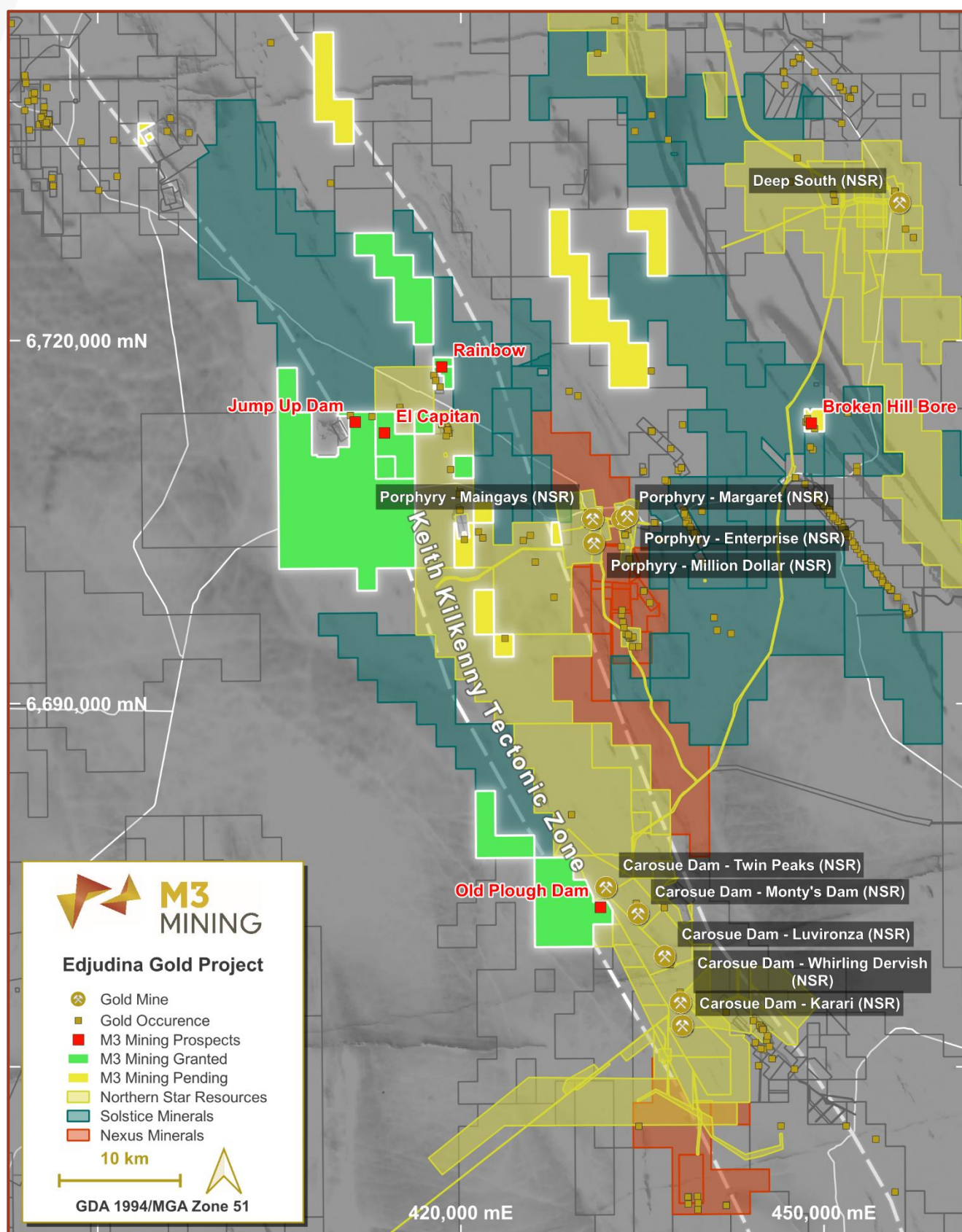


Figure 3 – The Edjudina Gold Project





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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.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the earlier released announcements.

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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 base metal 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 – Rock Chip and Sample Assay Information

El Capitan Drilling Intercepts (1m re-sampling)

Sample ID	Hole ID	From	To	Easting	Northing	Au (g/t)	Ag (g/t)	As ppm
EDJAC5394	EDJAC271	4	5	412,868	6,712,651	0.01	< 50ppb	23
EDJAC5395	EDJAC271	5	6	412,868	6,712,651	0.72	0.06	43
EDJAC5396	EDJAC271	6	7	412,868	6,712,651	0.07	< 50ppb	37
EDJAC5397	EDJAC271	7	8	412,868	6,712,651	0.05	< 50ppb	35
EDJAC5398	EDJAC280	8	9	413,023	6,712,703	0.01	< 50ppb	121
EDJAC5399	EDJAC280	9	10	413,023	6,712,703	0.01	< 50ppb	82
EDJAC5400	EDJAC280	10	11	413,023	6,712,703	0.02	< 50ppb	73
EDJAC5401	EDJAC280	11	12	413,023	6,712,703	0.01	< 50ppb	90
EDJAC5402	EDJAC280	24	25	413,023	6,712,703	< 5ppb	0.07	117
EDJAC5403	EDJAC280	25	26	413,023	6,712,703	0.01	0.07	137
EDJAC5404	EDJAC280	26	27	413,023	6,712,703	0.05	0.14	274
EDJAC5405	EDJAC280	27	28	413,023	6,712,703	0.96	0.09	543
EDJAC5406	EDJAC297	4	5	414,382	6,710,639	0.13	< 50ppb	11
EDJAC5407	EDJAC297	5	6	414,382	6,710,639	0.52	< 50ppb	8
EDJAC5408	EDJAC297	6	7	414,382	6,710,639	0.76	< 50ppb	13
EDJAC5409	EDJAC297	7	8	414,382	6,710,639	0.28	0.06	22

Rock Chips (Old Plough Dam, El Capitan, Broken Hill Bore)

Sample ID	Prospect	Easting	Northing	Au (g/t)	Ag (g/t)	As ppm
EDJAC5382	Old Plough Dam	430,698	6,672,238	< 5ppb	< 50ppb	2
EDJAC5383	Old Plough Dam	430,830	6,672,300	< 5ppb	< 50ppb	1
EDJAC5384	Old Plough Dam	430,939	6,672,318	< 5ppb	< 50ppb	3
EDJAC5385	Old Plough Dam	430,959	6,672,324	< 5ppb	< 50ppb	2
EDJAC5390	Old Plough Dam	432,037	6,673,366	< 5ppb	< 50ppb	6
EDJAC5391	Old Plough Dam	431,822	6,673,105	< 5ppb	< 50ppb	2
EDJAC5392	Old Plough Dam	432,204	6,672,063	< 5ppb	0.07	3
EDJAC5393	Old Plough Dam	432,158	6,672,056	< 5ppb	< 50ppb	2
EDJAC5411	Old Plough Dam	432,097	6,672,032	< 5ppb	< 50ppb	2
EDJAC5412	Old Plough Dam	432,131	6,672,072	0.09	0.1	21
EDJAC5413	Old Plough Dam	431,788	6,672,681	0.008	< 50ppb	2
EDJAC5414	Old Plough Dam	431,802	6,672,945	< 5ppb	< 50ppb	4
EDJAC5410	El Capitan	414,076	6,709,636	0.005	< 50ppb	360
EDJAC5415	Broken Hill Bore	448,514	6,713,246	1.0	< 50ppb	55
EDJAC5416	Broken Hill Bore	448,514	6,713,246	1.9	0.08	72
EDJAC5417	Broken Hill Bore	448,499	6,713,282	0.7	< 50ppb	21
EDJAC5418	Broken Hill Bore	448,465	6,713,341	0.03	0.17	17
EDJAC5419	Broken Hill Bore	448,763	6,712,921	4.3	0.09	51
EDJAC5420	Broken Hill Bore	448,809	6,713,228	65.0	3.3	7
EDJAC5421	Broken Hill Bore	448,819	6,713,218	1.1	0.25	6
EDJAC5422	Broken Hill Bore	448,729	6,713,571	0.13	< 50ppb	28
EDJAC5423	Broken Hill Bore	448,729	6,713,571	< 5ppb	< 50ppb	24

Appendix 2 – JORC Table

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	- Resampled drill samples within the Projects were collected using Aircore (AC). Holes were angled at 60°. Given the status of the Project this is considered reasonable. - All samples were crushed and split at the independent international accredited laboratory, with up to 3kg pulverised, with 50g samples analysed by Industry-standard methods - The sampling techniques used are deemed appropriate for the style of mineralisation and exploration undertaken. - Rock chip samples were obtained from outcrop, subcrop and remanent mining material - M3 Mining ensures all sample preparation was completed by independent international accredited laboratories.
<i>Drilling techniques</i>	AC Drilling was undertaken by Raglan Drilling. Industry Drilling methods and equipment were utilised to maximise sample integrity and recovery.
<i>Drill sample recovery</i>	- Sample recovery and condition data are noted in geological comments as part of the logging process for AC drilling. - No quantitative twinned drilling has been undertaken. No relationship was able to be settled due to limited data.
<i>Logging</i>	- All holes were field logged by the companies geologist using established company procedures during the exploration period. Lithological, alteration and mineralogical nomenclature of the deposit, as well as sulphide content, were recorded. - Logging is suitable for the assessment of exploration potential. - All drill holes were logged in full. - All rock chips were provided field descriptions - Logging was qualitative and quantitative in nature.
<i>Sub-sampling techniques and sample preparation</i>	- Samples were taken via scoop-method from surface drill spoil piles by contract field staff for AC holes. Samples were prepared and analysed at Intertek Laboratories in Kalgoorlie - Samples were pulverized so that each sample had a nominal 85% passing 75 microns. - All samples were analysed for gold via 50g lead fire assay and 60-element geochemistry via 4-acid digest (HNO₃-HBr-HF-HCl) - 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. - Industry Standard QAQC was utilised included standard and blanks.
<i>Quality of assay data and laboratory tests</i>	- All samples were assayed by industry-standard techniques. - Typical analysis methods are detailed in the previous section and are considered 'near total' values. - Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was inserted by M3 Mining 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. - The analytical laboratories provided their own routine quality controls within their own practices as per international ISO standards. No significant issues were noted.
<i>Verification of sampling and assaying</i>	- While no independent sampling was undertaken by M3 Mining of the original drill samples, various CP's have reported the exploration results to JORC Code 2012. Based on the digital data review M3 Mining 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.
<i>Location of data points</i>	- 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. - Holes without downhole survey use planned or compass bearing/dip measurements for survey control. - GPS coordinates for each collar and rock chip was undertaken using the standard inbuilt GPS systems grid system – WGS84 UTM Zone 51.
<i>Data spacing and distribution</i>	- The spacing and location of the majority of the drilling in the projects is, by the nature of early exploration, variable. - The spacing and location of data is currently only being considered for exploration purposes. - The spacing and location of the rock chips collected is sporadic due to the nature of the project - Due to the early stage of exploration, the drill spacing is not considered to be suitable to estimate and report Mineral Resources.

Criteria	Commentary
<i>Orientation of data in relation to geological structure</i>	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.
<i>Sample security</i>	- M3 Mining staff and contractors ensured a strict chain of custody procedures that are adhered to for samples. - 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.
<i>Audits or reviews</i>	M3 Mining's review is independent of the Company and all previous owners.

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>	- The Edjudina Project consists of 10 granted tenements: 8 exploration licenses and 2 prospecting licenses. - It also consists of 10 tenement applications - No joint venture or royalties are understood to impact the tenements. - No known impediments are understood to occur to allow further exploration.
<i>Exploration done by other parties</i>	- 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. - Exploration is considered to be at an early stage across all tenements.
<i>Geology</i>	- The data supplied indicates mineralisation within the tenements is potentially in line with the commonly observed Eastern Goldfields shear hosted, structurally control mineralisation style. - 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.
<i>Drill hole Information</i>	No new drill hole information provided.
<i>Data aggregation methods</i>	- No high-grade cuts were applied. - No metal equivalence was utilised.
<i>Relationship between mineralisation widths and intercept widths</i>	- The geometry of the mineralisation is not confirmed, however, all results reported are considered. - All results were reported as down holes
<i>Diagrams</i>	Suitable figures have been included in the body of the announcement.
<i>Balanced reporting</i>	Key results and conclusions have been included in the body of the announcement.
<i>Other substantive exploration data</i>	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.
<i>Further work</i>	Follow up field work is planned.