

ASX Announcement

1 FEBRUARY 2024



EXTENSIVE GOLD ANOMALY IN EDJUDINA SOILS

HIGHLIGHTS

- **Significant gold-in-soil anomaly discovered at the Edjudina Gold Project, 4km southeast of El Capitan, where previous drilling intersected 1m at 2,304 g/t Au¹**
- **Gold and pathfinder elements indicate continuation and intensification of mineralized trends from El Capitan**
- **Target zone (Au >10ppb) extending across a strike length of 2.4km**
 - **900m long central anomaly with gold exceeding 20ppb**
 - **Peak gold soil values of 144.5ppb and 59.5ppb located coincident to an area known for numerous gold nugget occurrences**
- **Drill program currently being planned to test the high-priority targets**

M3 Mining Limited (ASX: M3M) (**M3 Mining** or the **Company**) is pleased to provide an update on the soil sampling program completed recently at the Edjudina Gold Project (**Edjudina** or the **Project**), located approximately 150km northeast of Kalgoorlie, WA.

EXECUTIVE DIRECTOR SIMON ELEY SAID:

"The geochemical soil sampling at the Edjudina Gold Project, which was undertaken to the southeast of the El Capitan prospect, has yielded promising results. M3 Mining's analysis suggests that these gold-in-soil zones are extensions of previously encountered mineralization from El Capitan to the southeast along the local magnetic trend. Notably, the main target zone shows a more pronounced gold response than at the El Capitan prospect, which had significant gold intercepts in earlier drilling programs. The survey findings are encouraging, highlighting several targets ready for drilling. M3 is in the process of planning an aircore drilling program and aim to commence within this quarter."

¹ EDJAC164 (27-28m) See M3M announcement 10/07/2023 "Spectacular gold mineralisation confirmed at Edjudina" for further details.



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Projects

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

Shares on Issue	47.3M
Share Price	\$0.063
Market Cap	\$3.0M
ASX Code	M3M

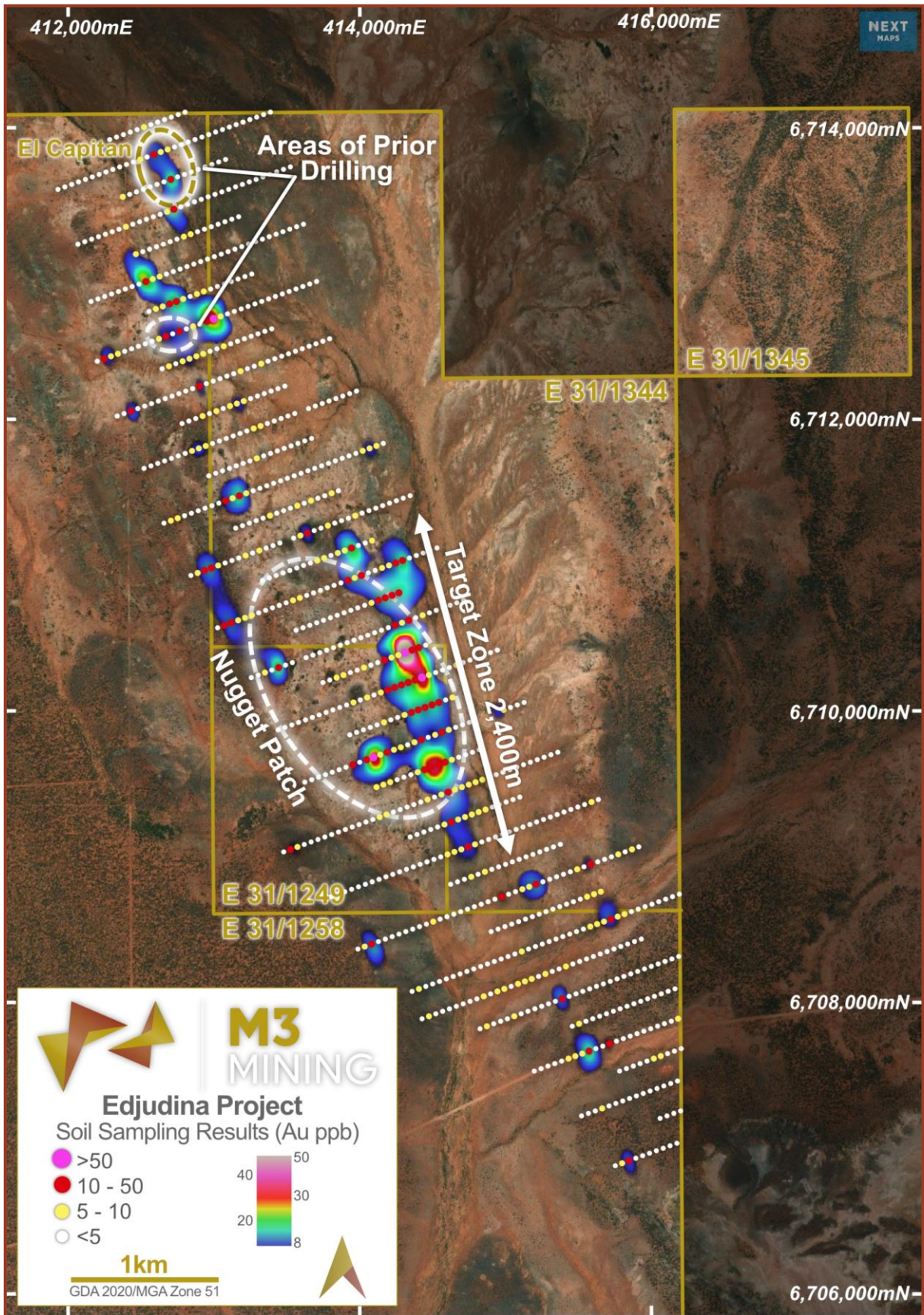


Figure 1 – Gold Anomalism at The Edjudina Gold Project

Soil Sampling Program

A total of 939 soil samples were collected across three tenements at the Company's Edjudina Gold Project covering a total area of 12km². The lines were spaced 200 to 400m apart along the El Capitan magnetic trend which is interpreted by the Company to host the same gold mineralisation that was encountered in aircore drilling at El Capitan. Along each line, the samples were spaced at 50m to provide a detailed geochemical dataset to be used for drill targeting.

The samples were prepared and analysed in Perth via the *LabWest/CSIRO UltraFine* process. Analysis is performed on the reactive 2-micron clay fraction, with microwave digestion and low detection level ICP-MS/OES technology. Numerous gold anomalies have been identified that are generally associated with elevated arsenic levels.

The most significant gold anomaly is situated on the border between E31/1249 and E31/1344, both wholly owned tenements of M3 Mining. The anomaly is interpreted to be a continuation of the mineralisation encountered at El Capitan as it lies adjacent to the localised magnetic trend. This trend includes the El Capitan prospect to the north (which has been the focus of all prior drilling). The trend has a number of gold nugget occurrences and sporadic historical gold drilling intercepts (see Figure 1).

The central anomaly (with gold-in-soil values of 144.5ppb and 59.5ppb) represents a walk-up drill target and will be tested in the planned drill program. Historically, only very few holes have been drilled but the effectiveness of these drillholes may have been reduced due to regolith dispersion and broad hole spacing.

All prior drilling efforts have been solely focussed on El Capitan and the lines drilled to date represent only six percent coverage of the entire trend.

Next Steps

The Company is currently planning a drill program to test the targets identified in the recent soils program in Q1 CY2024. The program will consist of roughly 5,000m of aircore drilling which will cover multiple lines across multiple anomalies and provide the company with the information required to prioritize the following round of drilling.

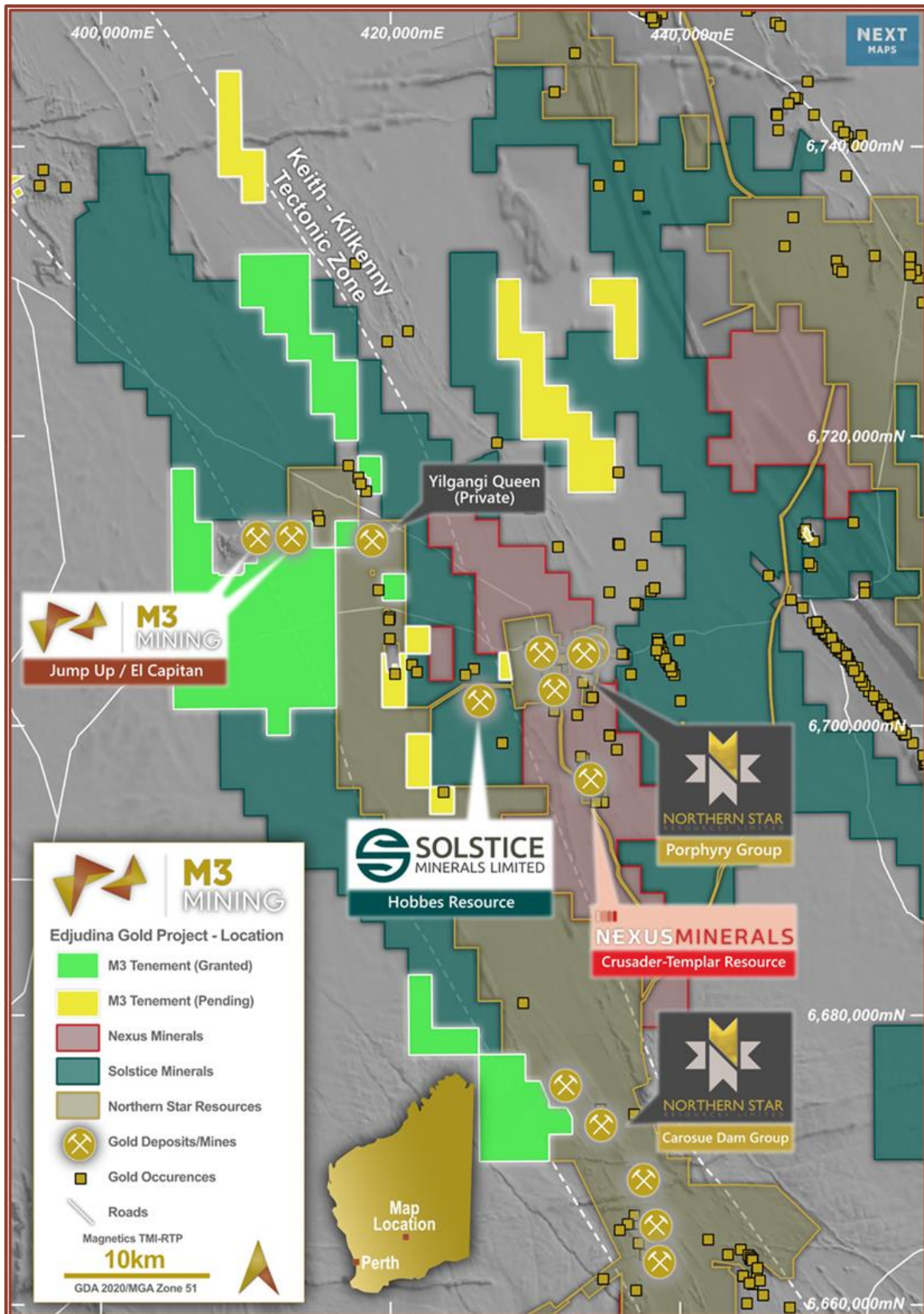


Figure 2 – The Edjudina Gold Project



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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.

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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 – Soil Sampling Information (Au > 10ppb)

Sample ID	Easting	Northing	Au_ppb	Sample ID	Easting	Northing	Au_ppb	Sample ID	Easting	Northing	Au_ppb
EDJ11464	412,519	6,714,003	5.5	EDJ11666	412,430	6,712,055	16.3	EDJ11851	413,848	6,711,081	6.4
EDJ11483	412,493	6,713,781	6.2	EDJ11676	412,899	6,712,226	12.9	EDJ11852	413,895	6,711,098	8.7
EDJ11485	412,587	6,713,815	14	EDJ11682	413,181	6,712,329	5.6	EDJ11853	413,942	6,711,116	37.8
EDJ11486	412,634	6,713,832	9.5	EDJ11685	413,322	6,712,380	5.7	EDJ11856	414,083	6,711,167	6.5
EDJ11487	412,681	6,713,849	5.4	EDJ11699	412,921	6,712,021	7.1	EDJ11857	413,071	6,710,586	13.9
EDJ11503	412,374	6,713,524	5.2	EDJ11701	413,015	6,712,055	9.6	EDJ11858	413,118	6,710,603	11.2
EDJ11510	412,702	6,713,644	27.6	EDJ11703	413,109	6,712,089	5.2	EDJ11859	413,165	6,710,620	5.8
EDJ11526	412,395	6,713,319	6.5	EDJ11704	413,156	6,712,106	10	EDJ11860	413,212	6,710,637	7
EDJ11532	412,677	6,713,422	7.6	EDJ11705	413,203	6,712,124	6.8	EDJ11861	413,259	6,710,654	5.3
EDJ11533	412,724	6,713,439	29.9	EDJ11719	412,848	6,711,782	8.8	EDJ11867	413,541	6,710,757	5.5
EDJ11551	412,463	6,713,131	9.2	EDJ11720	412,895	6,711,799	8.7	EDJ11868	413,588	6,710,774	5.5
EDJ11558	412,792	6,713,251	7.8	EDJ11721	412,942	6,711,816	7.3	EDJ11875	413,916	6,710,893	13.1
EDJ11559	412,839	6,713,268	5.3	EDJ11728	413,271	6,711,936	7.7	EDJ11876	413,963	6,710,911	9.2
EDJ11575	412,532	6,712,944	41.8	EDJ11729	413,318	6,711,953	5.4	EDJ11877	414,010	6,710,928	17.6
EDJ11576	412,579	6,712,961	9.6	EDJ11751	413,293	6,711,731	6.7	EDJ11880	414,151	6,710,979	9.5
EDJ11577	412,626	6,712,978	5.5	EDJ11760	412,703	6,711,303	7.6	EDJ11881	414,198	6,710,996	5.9
EDJ11600	412,600	6,712,756	7.2	EDJ11761	412,750	6,711,320	6	EDJ11882	414,245	6,711,013	10.3
EDJ11601	412,647	6,712,773	5.8	EDJ11768	413,079	6,711,440	12.9	EDJ11883	414,292	6,711,030	26.2
EDJ11602	412,694	6,712,790	13.5	EDJ11769	413,126	6,711,457	8	EDJ11900	414,079	6,710,740	6.1
EDJ11603	412,741	6,712,807	25.9	EDJ11770	413,173	6,711,474	20.7	EDJ11901	414,126	6,710,757	11.7
EDJ11604	412,788	6,712,824	9.3	EDJ11771	413,220	6,711,491	7.6	EDJ11902	414,173	6,710,774	17.4
EDJ11606	412,882	6,712,858	6.9	EDJ11788	414,019	6,711,782	7.3	EDJ11903	414,220	6,710,791	10.8
EDJ11607	412,929	6,712,875	6	EDJ11789	414,066	6,711,799	9.1	EDJ11904	414,267	6,710,808	16.9
EDJ11615	412,246	6,712,414	11.6	EDJ11790	414,113	6,711,816	6.5	EDJ11907	413,349	6,710,261	8.2
EDJ11616	412,293	6,712,431	6.2	EDJ11797	413,382	6,711,338	6.4	EDJ11909	413,442	6,710,295	27.8
EDJ11617	412,340	6,712,448	8.2	EDJ11801	413,570	6,711,406	5.2	EDJ11926	414,241	6,710,586	11.4
EDJ11623	412,622	6,712,551	5.4	EDJ11803	413,664	6,711,440	5.7	EDJ11927	414,288	6,710,603	6.7
EDJ11624	412,669	6,712,568	12.6	EDJ11806	413,805	6,711,491	5.4	EDJ11928	414,335	6,710,620	12.5
EDJ11626	412,763	6,712,602	15.2	EDJ11808	412,887	6,710,944	6.8	EDJ11930	414,429	6,710,654	5.8
EDJ11628	412,857	6,712,636	9	EDJ11809	412,934	6,710,962	11	EDJ11939	413,840	6,710,227	7
EDJ11629	412,904	6,712,653	9	EDJ11810	412,981	6,710,979	15	EDJ11940	413,887	6,710,244	7
EDJ11630	412,951	6,712,670	16	EDJ11811	413,028	6,710,996	5	EDJ11943	414,028	6,710,295	7
EDJ11631	412,997	6,712,687	59	EDJ11815	413,216	6,711,064	6	EDJ11946	414,169	6,710,347	11
EDJ11632	413,044	6,712,704	8	EDJ11817	413,310	6,711,098	7	EDJ11947	414,216	6,710,364	9
EDJ11648	412,690	6,712,363	7.7	EDJ11823	413,592	6,711,201	7.2	EDJ11948	414,263	6,710,381	5.6
EDJ11650	412,784	6,712,397	7.1	EDJ11824	413,639	6,711,218	11.2	EDJ11949	414,310	6,710,398	144.5
EDJ11651	412,831	6,712,414	9.3	EDJ11827	413,780	6,711,269	6.2	EDJ11950	414,357	6,710,415	23.2
EDJ11652	412,878	6,712,431	5.3	EDJ11831	413,968	6,711,338	6	EDJ11951	414,404	6,710,432	21.6
EDJ11653	412,925	6,712,448	5.7	EDJ11848	413,707	6,711,030	5.2	EDJ11964	413,955	6,710,056	6.2
EDJ11656	413,066	6,712,499	7.4	EDJ11849	413,754	6,711,047	9.4	EDJ11966	414,049	6,710,090	5.5



Sample ID	Easting	Northing	Au_ppb	Sample ID	Easting	Northing	Au_ppb	Sample ID	Easting	Northing	Au_ppb
EDJ11968	414,143	6,710,125	5.4	EDJ12052	413,571	6,709,065	7.4	EDJ12225	414,404	6,708,091	6.7
EDJ11969	414,190	6,710,142	10.8	EDJ12064	414,135	6,709,270	7	EDJ12240	415,109	6,708,348	7
EDJ11970	414,237	6,710,159	14.3	EDJ12065	414,182	6,709,287	5.2	EDJ12250	415,579	6,708,519	5.2
EDJ11971	414,284	6,710,176	14.4	EDJ12071	414,464	6,709,390	5.4	EDJ12251	415,626	6,708,536	5.3
EDJ11972	414,331	6,710,193	18.6	EDJ12073	414,558	6,709,424	5.7	EDJ12252	415,673	6,708,553	5.6
EDJ11973	414,378	6,710,210	17	EDJ12074	414,605	6,709,441	20.3	EDJ12253	415,720	6,708,570	14
EDJ11974	414,425	6,710,227	59.5	EDJ12075	414,652	6,709,458	7.1	EDJ12254	415,767	6,708,587	5.1
EDJ11975	414,472	6,710,244	7.7	EDJ12076	414,699	6,709,475	8.4	EDJ12255	415,814	6,708,604	5.5
EDJ11979	414,660	6,710,313	7.7	EDJ12077	414,746	6,709,493	5.4	EDJ12264	414,473	6,707,903	9.2
EDJ11991	414,165	6,709,920	7.4	EDJ12078	414,793	6,709,510	7	EDJ12272	414,849	6,708,040	6.7
EDJ11994	414,305	6,709,971	5.5	EDJ12079	414,840	6,709,527	6	EDJ12274	414,943	6,708,074	5.6
EDJ11995	414,352	6,709,988	21.1	EDJ12096	414,579	6,709,219	9.4	EDJ12275	414,990	6,708,091	5.8
EDJ11996	414,399	6,710,005	11.8	EDJ12097	414,626	6,709,236	11.2	EDJ12277	415,083	6,708,126	5.1
EDJ11997	414,446	6,710,022	11.6	EDJ12098	414,673	6,709,253	6.8	EDJ12278	415,130	6,708,143	5.5
EDJ11998	414,493	6,710,039	18.1	EDJ12099	414,720	6,709,270	8.6	EDJ12279	415,177	6,708,160	5.8
EDJ11999	414,540	6,710,056	19.2	EDJ12100	414,767	6,709,288	5.6	EDJ12281	415,271	6,708,194	5.4
EDJ12001	414,634	6,710,091	6.9	EDJ12101	414,814	6,709,305	5.2	EDJ12284	415,412	6,708,245	6.5
EDJ12009	413,951	6,709,629	12.8	EDJ12102	414,861	6,709,322	5.8	EDJ12301	414,870	6,707,835	7.2
EDJ12011	414,045	6,709,663	10.3	EDJ12126	414,601	6,709,014	5.7	EDJ12305	415,058	6,707,904	5.3
EDJ12012	414,092	6,709,680	50.1	EDJ12127	414,647	6,709,031	6.6	EDJ12312	415,387	6,708,023	17.8
EDJ12013	414,139	6,709,697	8.7	EDJ12128	414,694	6,709,048	7.7	EDJ12331	415,502	6,707,852	8.1
EDJ12014	414,186	6,709,715	12.6	EDJ12129	414,741	6,709,065	10.2	EDJ12351	415,430	6,707,613	6.6
EDJ12015	414,233	6,709,732	7.3	EDJ12130	414,788	6,709,082	6.6	EDJ12352	415,477	6,707,630	5.2
EDJ12016	414,280	6,709,749	7.6	EDJ12147	415,587	6,709,373	6	EDJ12353	415,524	6,707,647	6.4
EDJ12018	414,374	6,709,783	5.2	EDJ12152	414,763	6,708,860	7.1	EDJ12354	415,571	6,707,664	26.5
EDJ12019	414,421	6,709,800	16.9	EDJ12154	414,857	6,708,895	6.7	EDJ12357	415,712	6,707,716	10.8
EDJ12021	414,515	6,709,834	6.1	EDJ12166	414,033	6,708,382	7.4	EDJ12367	416,181	6,707,887	5.4
EDJ12022	414,562	6,709,851	13.3	EDJ12167	414,080	6,708,399	19.5	EDJ12373	416,015	6,707,613	6.6
EDJ12023	414,609	6,709,868	8.6	EDJ12176	414,502	6,708,553	5.8	EDJ12374	416,062	6,707,630	6.4
EDJ12031	414,985	6,710,005	8.2	EDJ12186	414,972	6,708,724	10.4	EDJ12381	415,660	6,707,271	8.7
EDJ12035	414,113	6,709,475	5.6	EDJ12189	415,113	6,708,775	9	EDJ12397	415,797	6,706,896	7.7
EDJ12036	414,160	6,709,492	5.3	EDJ12190	415,160	6,708,792	7.6	EDJ12398	415,844	6,706,913	12.5
EDJ12037	414,207	6,709,509	5.5	EDJ12191	415,207	6,708,809	18.9				
EDJ12041	414,395	6,709,578	8.3	EDJ12197	415,489	6,708,912	5.6				
EDJ12042	414,442	6,709,595	22.3	EDJ12199	415,583	6,708,946	10.2				
EDJ12043	414,489	6,709,612	45.9	EDJ12203	415,771	6,709,014	5.1				
EDJ12044	414,536	6,709,629	21.8	EDJ12205	415,865	6,709,049	5.3				
EDJ12045	414,583	6,709,646	31.6	EDJ12221	415,557	6,708,724	5.2				
EDJ12046	414,630	6,709,663	6.2	EDJ12222	415,604	6,708,741	5.7				
EDJ12051	413,524	6,709,048	10.1	EDJ12223	415,651	6,708,758	6.2				

Appendix 2 – JORC Table

JORC Code, 2012 Edition – Table 1 report – Soil Sampling

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"> Soil sampling – Samples were collected from a depth between 5 - 30cm below surface and sieved in the field to -0.5mm, achieving a sample weight between 100g - 200g The soil sampling techniques are considered standard industry practice
<i>Drilling techniques</i>	<ul style="list-style-type: none"> No drilling results reported, refer to sampling techniques section above
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> No drilling results reported, sample recovery from soil sampling is considered complete recovery. Practices to avoid surface contamination were strictly adhered to
<i>Logging</i>	<ul style="list-style-type: none"> Soil sample sites are described noting landform and nature of soil media Soil sample descriptions are considered qualitative in nature
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> UFF+ soil sampling is used to obtain an ultrafine fraction of the soil (-2µm), this is analysed to identify elemental concentrations Soil samples are collected using a steel shovel, these samples are sieved passing -2mm in the field to produce a nominal 350g field sample, this sample is processed using the CSIRO UFF+ workflow to produce an ultrafine fraction to analyse for gold and multi-elements. The sample preparation employed by LabWest has been developed in collaboration with CSIRO Field duplicates and standards (certified reference material) were added during sampling. LabWest also inserted QAQC samples as part of their workflow Field duplicates were inserted at a rate of; 1 in every 50 Standards were inserted at a rate of 1 in every 50 The sample sizes and QAQC are appropriate for the first pass nature of the exploration
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> Samples were submitted to LabWest for processing and analysis with standards being inserted by the company in-house LabWest is a commercial independent certified laboratory in Perth, Western Australia The -2 µm fraction of the soil samples were analysed for Ag, Al, As, Au, B, Ba, Be, Bi, Br, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, I, In, K, La, Li, Mg, Mn, Mo, Nb, Ni, Pb, Pd, Pt, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, and Zr via LabWest's Ultrafine + microwave digest with an ICP EOS/MS finish
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> Sampling personnel movements are logged via GPS and spot trackers, confirming locations of sampling points. Data is recorded digitally at the project within standard industry software with assay results received digitally also. All data is stored within a suitable database. No assay adjustments have been made.
<i>Location of data points</i>	<ul style="list-style-type: none"> Sample locations are recorded with a handheld Garmin GPS (+/- 3m) Grid system – MGA94 Zone 51 Soil samples – 50m sample spacing along lines, with lines spaced 200m to 400m No information is available on the quality or adequacy of topographic control
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> Soil samples – 50m sample spacing along lines, with lines spaced at 200 to 400m The spacing and location of the sampling 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 Sample spacing is insufficient to establish geological or grade continuity
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> Limited drilling has been completed to confirm the optimal sampling orientation. Exploration Results are reported, and no estimate is completed as further works are required Eight locations were unable to be sampled due to the presence of pastoral dams
<i>Sample security</i>	<ul style="list-style-type: none"> M3 staff and contractors ensured a strict chain of custody procedures that are adhered to for all samples
<i>Audits or reviews</i>	<ul style="list-style-type: none"> M3'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>	<ul style="list-style-type: none"> The Edjudina Project consists of 9 granted tenements: 7 exploration licenses and 2 prospecting licenses It also consists of 9 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>	<ul style="list-style-type: none"> 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>	<ul style="list-style-type: none"> 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>	<ul style="list-style-type: none"> No drilling undertaken, refer to section 1 above for soil sampling methodology
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> No drilling undertaken; There has been no data aggregation
<i>Relationship between mineralisation widths and intercept widths</i>	<ul style="list-style-type: none"> No drilling undertaken, all reported geochemical anomalies are present in the surficial regolith. No widths of intercepts have been reported. Trends that are inferred between sampling stations are just interpretations and require further field work to be confirmed
<i>Diagrams</i>	<ul style="list-style-type: none"> Suitable figures have been included in the body of the announcement
<i>Balanced reporting</i>	<ul style="list-style-type: none"> Key results and conclusions have been included in the body of the announcement
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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>	<ul style="list-style-type: none"> Follow up field work is planned