# **ASX ANNOUNCEMENT**

16 April 2015



# Significant extension to Keysbrook mineralisation

- Exploration drilling has significantly extended the Keysbrook mineralisation
- Confirms potential to materially extend the life of the Keysbrook Project
- Mineralisation remains open to south-west and west
- New Mineral Resource statement targeted for midvear

MZI Resources Ltd (ASX:MZI) is pleased to announce that the exploration program commenced in January 2015 has confirmed significant extensions to mineralisation at the Keysbrook Project.

Results received for drilling completed to 13 March 2015 confirm the Keysbrook orebody is significantly larger than the current Project area. Drilling to date is extending the mineralisation to the west and north of the existing Mineral Resources. Intersections include:

- 3m@2.8%THM (Total Heavy Mineral) from 0m in KE059
- 5.5m@1.8%THM from 0.5m in KE563
- 8m@2.3%THM from 3m in KE570
- 11m@1.5%THM from 0m in KE702
- 10m@2.5%THM from 1m in KE761
- 12m@1.3%THM from 0m in KE783

These drilling results are consistent with the existing Keysbrook Mineral Resource.

The exploration drilling program has drilled 908 holes to 13 March with the results reported in the table attached to this announcement. Approximately 500 drillholes are scheduled to be drilled to complete the program. The program to date has confirmed mineralisation extending over 5 square kilometres of lateral extent.

Importantly, the majority of intercepts are from near surface (i.e. minimal overburden), show low clay fines and minimal oversize – all features consistent with the existing Keysbrook Mineral Resource.

#### **COMPANY DIRECTORS**

Mal Randall Non-Executive Chairman

Trevor Matthews Managing Director

Nathan Wong Non-Executive Director

Stephen Ward Non-Executive Director

#### SENIOR MANAGEMENT

Mike Ferraro Chief Operating Officer

Peter Gazzard Technical Director

John Traicos Legal Manager/Company Secretary

Jamie Wright Chief Development Officer

#### **CONTACT DETAILS**

Principal & Registered Office Level 2, 100 Royal Street East Perth Western Australia 6004

Website www.mzi.com.au

Email admin@mzi.com.au

**Phone** +61(8) 9328 9800

**Fax** +61(8) 9328 9911

ABN: 52 077 221 722

ASX CODE: MZI

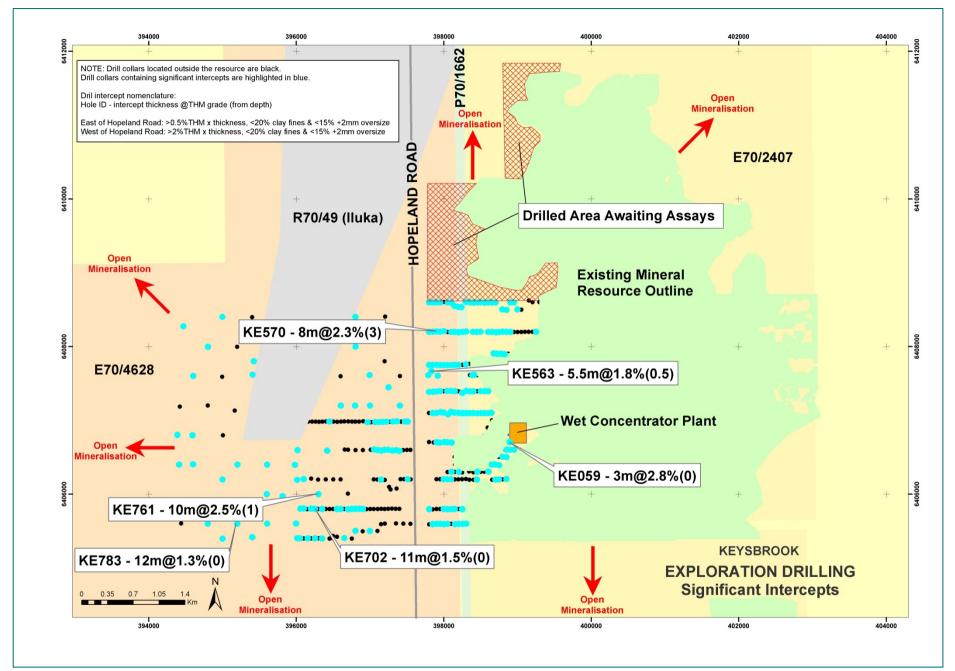


Figure 1 - Exploration Area

Assemblage analysis is yet to be completed on drill samples from the program. However, previous analysis on samples collected in the area (composited from an earlier auger program) indicate the L88 component of the mineral assemblage in the extension area may be higher than in the currently reported Mineral Resource.

Table 1: Comparison of Mineral Resource assemblage to extension area assemblage

Assemblage	THM%	L70%	L88%	Zircon%
Current Mineral Resource	2.6	28.7	46.0	14.7
Composite collected in new area	1.6	17.2	64.1	11.6

Notes: Hole location and relevant data previously reported in the ASX release dated 20 January 2015. Mineral assemblage data for the current resource is extracted from the ASX release dated 1 March 2013.

MZI will provide further updates to the mineral assemblage as they are received.

Preliminary evaluation of the results suggest that the western portion of the exploration area, located approximately 2 kilometres west of the existing Mineral Resource, may represent a new zone of mineralisation, however this will not be able to be confirmed until further assaying is completed during the June guarter.

Mineralisation remains open to the south-west and west based on these results and will provide a focus for further exploration into the future.

#### **Planned Work**

Given the success to date, the drilling program has been extended to include infill drilling in the newly discovered areas reported on above, as well as to undertake further exploration drilling to test for additional extensions to the mineralisation

In parallel to this part of the program, MZI will undertake further assaying to determine mineral assemblage and resource estimation to enable a revised Mineral Resource to be released early in the third quarter of 2015.

#### Comment

MZI Managing Director Trevor Matthews said: "These drilling results give us even greater confidence that the Keysbrook Project will be a long life producer of high value mineral sands products."

"With construction at Keysbrook progressing well toward the scheduled commencement of production in December 2015, MZI is well on the way to establishing itself as an independent Australian based supplier of high value mineral products with a positive market outlook."

The Keysbrook Project, located approximately 70 kilometres south of Perth in Western Australia, is designed to produce in excess of 95,000 tonnes of leucoxene and zircon products annually.

For further details please contact:

**Trevor Matthews** *Managing Director* 

+61 8 9328 9800

#### **Competent Person's Statement – Exploration Results**

The information in this report that relates to exploration results is based on information compiled or reviewed by Mr Stephen Harrison BSc (Hons) who is a member of the Australia Institute of Geoscientists. Stephen Harrison is a full time employee of MZI Resources Ltd. Stephen Harrison has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Stephen Harrison consents to the inclusion of this information in the form and context in which it appears in this report.

			Castion	A		Cast of III	on olon d F	and .				
			Section	A - Holes L	ocated	East of Ho	opeland F	Road				
HOLE	Easting	Northing	RL(m)	Azimuth	Dip	Total Depth	Depth From (m)	Thickness (m)	Oversize %	Slimes %	Total Heavy Mineral %	Survey Method
KE013	397905.189	6406699.168	23.051	-	-90	4	1	1	0.9%	11.3%	1.8%	DGPS
KE014	397942.447	6406699.778	23.186	-	-90	6	0	4	0.7%	9.5%	1.5%	DGPS
KE015	397997.121	6406702.786	23.370	-	-90	5	2	3	2.0%	15.9%	1.5%	DGPS
KE016	398043.749	6406702.439	23.370	-	-90	4	1	1	0.9%	14.2%	1.1%	DGPS
KE017	398104.107	6406701.687	23.711	-	-90	4	0	3	0.5%	7.7%	1.9%	DGPS
KE040	398454	6406303	29	-	-90	6	4	2	1.1%	10.6%	1.5%	GPS
KE059	398896.198	6406702.992	26.944	-	-90	6	0	3	0.2%	5.1%	2.8%	DGPS
KE062	398946.974	6406604.035	26.336	-	-90	3	0	2	1.0%	8.1%	2.1%	DGPS
KE063	398901.562	6406602.462	26.629	-	-90	6	0	2	0.0%	4.2%	3.0%	DGPS
KE064	398850.501	6406603.517	27.173	-	-90	6	0	2	0.0%	2.3%	2.0%	DGPS
KE071	398798.834	6406505.881	26.034	-	-90	3	0	1	0.2%	16.9%	2.6%	DGPS
KE072	398849.777	6406503.774	25.800	-	-90	3	0	1	4.2%	10.4%	1.3%	DGPS
KE073	398748.186	6406390.727	25.314	-	-90	3	0	1	3.6%	9.7%	2.1%	DGPS
KE074	398695.745	6406402.618	25.088	-	-90	3	0	2	2.4%	14.7%	2.4%	DGPS
KE075	398650.266	6406399.882	25.090	-	-90	3	0	1	0.2%	9.2%	1.2%	DGPS
KE077	398604.240	6406301.734	25.210	-	-90	6	0	2	0.3%	8.6%	1.6%	DGPS
KE080	397997.182	6406201.057	23.168	-	-90	3	0	1	0.1%	18.4%	1.9%	DGPS
KE081	398042.827	6406204.335	23.942	-	-90	2.5	1	1.5	2.3%	14.5%	1.3%	DGPS
KE082	398093.141	6406202.069	23.743	-	-90	3	0	2	1.8%	11.9%	1.2%	DGPS
KE089	398446.404	6406198.469	24.296	-	-90	3	0	1	0.2%	7.2%	1.3%	DGPS
KE091	398697.121	6406198.274	24.963	-	-90	3	0	1	5.0%	9.7%	2.1%	DGPS
KE092	398749.103	6406200.413	25.108	-	-90	6	0	1	1.9%	10.0%	1.6%	DGPS
KE094	398848.363	6406203.408	25.343	-	-90	3	0	1	2.4%	4.9%	1.6%	DGPS
KE120	398199.491	6406303.837	23.649	-	-90	3	0	1	2.4%	17.6%	4.6%	DGPS
KE122	398099.805	6406303.712	23.428	-	-90	3	0	1	0.6%	9.2%	1.1%	DGPS
KE127	398247.269	6405798.850	23.765	-	-90	6	1	2	8.4%	13.3%	1.5%	DGPS
KE129	398150.185	6405799.951	23.078	-	-90	3	0	1	1.3%	10.0%	1.3%	DGPS
KE130	398100.308	6405798.398	22.997	-	-90	3	0	1	0.1%	20.0%	1.7%	DGPS
KE134	398050.924	6405795.961	22.886	-	-90	3	0	1	3.5%	12.2%	1.6%	DGPS
KE135	397999.022	6405797.877	22.847	-	-90	3	0	1	3.5%	18.2%	1.0%	DGPS
KE139	397800.917	6405799.156	22.257	-	-90	3	1.5	0.5	0.2%	17.2%	1.2%	DGPS
KE142	398300.107	6405598.691	23.275	-	-90	3	0	2	11.0%	11.8%	1.6%	DGPS
KE143	398251.059	6405598.079	23.101	-	-90	3	0	2.5	0.7%	4.9%	1.4%	DGPS
KE144	398198.808	6405597.429	22.995	-	-90	3	0.5	1	6.4%	5.7%	1.5%	DGPS
KE145	398150.378	6405596.787	22.907	-	-90	3	0	1	1.5%	6.6%	1.1%	DGPS
KE147	398049.872	6405595.860	22.662	-	-90	3	1	0.5	1.3%	19.9%	1.3%	DGPS
KE148	397999.372	6405595.459	22.651	-	-90	3	0	1	0.0%	2.5%	1.1%	DGPS
KE148	397999.372	6405595.459	22.651	-	-90	3	2.5	0.5	0.1%	16.8%	2.1%	DGPS
KE149	397949.365	6405594.738	22.523	-	-90	3	0	1	1.7%	4.6%	1.5%	DGPS
KE150	397899.747	6405594.253	22.368	-	-90	3	0	1	4.2%	1.2%	1.2%	DGPS
KE151	397848.258	6405593.988	22.205	-	-90	3	1	0.5	0.5%	12.7%	1.0%	DGPS

			Section	A - Holes L	ocated	East of H	opeland F	Road				
KE381	398801.676	6408200.492	26.987	_	-90	3	0	1	2.3%	6.1%	1.8%	DGPS
	398851.766	6408201.837		-	-90	3	0	1.5	0.7%	3.5%	1.5%	DGPS
KE382			28.375									
KE383	398901.188	6408200.870	27.812	-	-90	3	0	1	1.8%	4.3%	1.6%	DGPS
KE390	399250.224	6408203.347	29.123	-	-90	3	0	1.5	1.4%	1.5%	2.9%	DGPS
KE419	398826.113	6407898.514	26.789	-	-90	3	0.5	1	3.5%	12.6%	2.1%	DGPS
KE421	398772.865	6407901.279	26.499	-	-90	6	0	2.5	2.8%	9.4%	2.1%	DGPS
KE421	398772.865	6407901.279	26.499	-	-90	6	3	1	0.5%	13.1%	1.6%	DGPS
KE422	398724.311	6407904.561	26.251	-	-90	6	0	2	3.1%	6.4%	1.3%	DGPS
KE423	398673.997	6407907.910	25.903	-	-90	3.5	0	0.5	1.9%	4.7%	1.0%	DGPS
KE423	398673.997	6407907.910	25.903	-	-90	3.5	1.5	0.5	5.8%	14.4%	1.7%	DGPS
KE525	398650.661	6407100.022	25.956	-	-90	3	0	2	0.9%	5.5%	2.5%	DGPS
KE526	398599.358	6407098.625	25.344	-	-90	3	0	1.5	0.8%	9.2%	3.0%	DGPS
KE527	398550.013	6407098.561	25.150	-	-90	3	0	1.5	2.7%	12.6%	1.6%	DGPS
KE528	398499.767	6407099.181	25.260	-	-90	3	0	2.5	1.3%	8.4%	1.7%	DGPS
KE529	398450.537	6407099.259	25.218	1	-90	3	0	2.5	1.9%	5.0%	1.1%	DGPS
KE530	398400.288	6407099.370	24.842	-	-90	3	0	2.5	2.3%	9.5%	1.3%	DGPS
KE531	398349	6407098	25	-	-90	3	0	2.5	3.1%	7.2%	1.5%	GPS
KE532	398302	6407096	27	-	-90	3	0	2	1.2%	12.0%	2.2%	GPS
KE533	398357	6407393	30	-	-90	3	0	2	0.0%	7.0%	1.3%	GPS
KE534	398399.515	6407397.148	25.018	-	-90	3	0	1.5	0.1%	4.3%	1.2%	DGPS
KE535	398599.350	6407398.707	25.665	-	-90	3	0	1.5	1.3%	4.9%	1.2%	DGPS
KE536	398548.804	6407398.103	25.472	-	-90	3	0.5	0.5	0.0%	5.2%	1.2%	DGPS
				-				1				
KE537	398498.538	6407397.643	25.196		-90	3	0		0.1%	5.6%	1.1%	DGPS
KE539	398302.448	6407397.208	24.198	-	-90	3	0.5	1	0.0%	11.1%	1.4%	DGPS
KE540	398249.670	6407098.962	23.925	-	-90	3	0.5	0.5	0.2%	4.0%	1.1%	DGPS
KE541	398199.138	6407098.964	24.407	-	-90	3	0	3	0.6%	6.8%	1.7%	DGPS
KE542	398150.636	6407106.681	24.276	-	-90	6	0	4	0.4%	3.8%	1.3%	DGPS
KE543	398100.210	6407100.188	24.937	-	-90	6	0	4	0.0%	3.5%	1.5%	DGPS
KE544	398058.335	6407081.403	26.062	-	-90	6	1.5	3.5	0.1%	4.4%	1.6%	DGPS
KE545	397995.043	6407105.201	25.792	-	-90	6	0	5	1.6%	4.9%	1.8%	DGPS
KE546	397956.813	6407114.315	24.788	-	-90	6	0.5	5	0.1%	9.0%	1.4%	DGPS
KE547	397898.650	6407099.298	23.317	-	-90	6	3	0.5	0.0%	14.6%	1.4%	DGPS
KE548	397849.253	6407098.379	23.254	-	-90	6	2	0.5	0.1%	5.7%	1.0%	DGPS
KE548	397849.253	6407098.379	23.254	-	-90	6	3.5	0.5	0.0%	12.0%	1.1%	DGPS
KE548	397849.253	6407098.379	23.254	-	-90	6	5	1	0.0%	17.2%	1.7%	DGPS
KE550	398249.823	6407370.685	24.082	-	-90	3	0	1	0.4%	4.9%	1.2%	DGPS
KE552	398152.000	6407395.996	23.599	-	-90	3	0	0.5	0.1%	7.1%	1.1%	DGPS
KE553	398099.502	6407395.020	23.688	-	-90	3	0.5	2.5	2.8%	13.7%	1.1%	DGPS
KE554	398049.303	6407395.119	23.614	-	-90	3	0	2	0.6%	10.8%	1.1%	DGPS
KE556	397949.996	6407393.091	23.308	-	-90	3	0	1.5	0.0%	9.4%	1.2%	DGPS
KE557	397898.595	6407392.217	23.199	1	-90	3	0	1.5	0.7%	7.1%	1.4%	DGPS
KE558	397850.623	6407391.186	23.254	-	-90	3	0	2	1.3%	10.8%	1.3%	DGPS
KE559	397798.834	6407388.745	23.282	=	-90	3	0	2	1.3%	9.9%	1.4%	DGPS
KE560	398249.252	6407098.546	23.924	-	-90	3	0	1	0.9%	3.6%	1.2%	DGPS
KE561	397913.874	6407602.967	24.826	-	-90	6	1	2.5	0.1%	7.2%	1.7%	DGPS
INE OUT	007010.074	0.101002.301	27.020	I	_ 55		ı ' '	2.0	J. 170	1.2/0	1.770	20,0

			Section	A - Holes L	ocated	East of H	opeland R	Road				
KE562	397787.038	6407613.384	24.501		-90	6	0	3.5	0.1%	2.9%	1.3%	DGPS
				-								
KE563	397833.655	6407668.689	25.909	-	-90	15	0.5	5.5	0.3%	6.5%	1.8%	DGPS
KE564	398198.410	6407751.293	23.750	-	-90	5.5	0.5	0.5	0.0%	2.5%	1.0%	DGPS
KE564	398198.410	6407751.293	23.750	-	-90	5.5	1.5	2	0.7%	10.8%	1.3%	DGPS
KE564	398198.410	6407751.293	23.750	-	-90	5.5	4.5	0.5	0.0%	19.8%	1.1%	DGPS
KE565	398150.574	6407750.043	23.690	-	-90	5	1	1	3.5%	16.2%	1.3%	DGPS
KE566	398100.839	6407749.329	23.489	-	-90	3	1	1	2.8%	15.4%	1.2%	DGPS
KE567	398049.424	6407750.768	23.743	-	-90	3	0	1.5	0.1%	3.4%	1.0%	DGPS
KE568	397997.655	6407750.291	23.811	-	-90	3	0	2.5	1.0%	9.7%	1.1%	DGPS
KE569	397951	6407748	31	-	-90	3	0	2.5	0.0%	8.4%	1.3%	GPS
KE570	397898.286	6407751.700	24.152	-	-90	3	0	2.5	0.1%	7.4%	1.3%	DGPS
KE571	397849.782	6407751.295	24.267	-	-90	6	0.5	3.5	0.3%	8.1%	1.3%	DGPS
KE572	397799.626	6407751.858	24.375	-	-90	4	1.5	1	0.0%	2.6%	1.0%	DGPS
KE574	398298.788	6407755.175	24.111	-	-90	4	2.5	0.5	0.0%	4.0%	3.5%	DGPS
KE578	398099.054	6408198.945	23.713	_	-90	3	0	0.5	0.1%	3.7%	1.0%	DGPS
KE579	398149.245	6408199.181	23.920	_	-90	3	0	1.5	0.9%	8.3%	1.4%	DGPS
KE580	398198.893	6408195.531	23.946	_	-90	3	0	1.5	4.9%	8.5%	1.4%	DGPS
KE581	398196.407	6408534.988	24.612	-	-90	3	0	1.5	0.6%	2.6%	1.6%	DGPS
						3	0	0.5				
KE582	398150.957	6408548.406	24.328	-	-90				0.1%	8.1%	2.3%	DGPS
KE583	397802.367	6408598.561	23.357	-	-90	3	0	0.5	3.6%	19.6%	1.1%	DGPS
KE584	397847.517	6408601.078	23.805	-	-90	3	0	1	0.4%	9.8%	1.9%	DGPS
KE585	397898.473	6408600.543	23.932	-	-90	3	0	1.5	0.1%	8.2%	1.5%	DGPS
KE586	397949.793	6408600.868	23.931	-	-90	3	0	2	0.7%	15.6%	1.3%	DGPS
KE588	397797.057	6408199.373	23.361	-	-90	3	0	1.5	2.0%	17.5%	1.2%	DGPS
KE589	397849.552	6408201.238	23.413	-	-90	3	0	2	3.1%	15.1%	1.5%	DGPS
KE590	397899.852	6408202.269	23.649	-	-90	3	0	2	0.3%	10.6%	1.8%	DGPS
KE591	397951.527	6408202.625	23.995	-	-90	3	0	2.5	0.8%	9.6%	1.6%	DGPS
KE592	397999.849	6408204.608	23.741	-	-90	3	0	1.5	3.0%	9.1%	1.0%	DGPS
KE593	398050.231	6408599.628	23.889	-	-90	3	0	0.5	1.7%	12.6%	1.6%	DGPS
KE594	398098.231	6408599.248	24.003	-	-90	3	0	2	2.0%	8.2%	1.4%	DGPS
KE595	398351.190	6408599.747	24.817	-	-90	3	0	1.5	2.4%	12.6%	1.5%	DGPS
KE596	398400.239	6408600.122	24.952	-	-90	3	0	1	0.0%	8.0%	1.4%	DGPS
KE597	398450.446	6408600.051	25.090	-	-90	3	0	1.5	3.6%	10.2%	1.8%	DGPS
KE598	398499.168	6408600.166	25.264	-	-90	3	0	2	1.9%	9.6%	1.6%	DGPS
KE599	398548.906	6408599.457	25.396	-	-90	2.5	0	0.5	0.1%	5.0%	1.1%	DGPS
KE600	398600.994	6408599.937	25.583	-	-90	3	0	0.5	0.9%	12.8%	1.5%	DGPS
KE601	398649.944	6408600.029	25.951	_	-90	3	0	2	0.6%	5.1%	1.4%	DGPS
KE602	398699.830	6408599.620	26.043	-	-90	3	0	1.5	0.6%	4.6%	2.0%	DGPS
						3						
KE603	398796.320	6408501.530	26.851	-	-90		0	2	3.2%	10.5%	2.6%	DGPS
KE605	398850	6408495	30	-	-90	3	0	2.5	1.5%	6.8%	2.3%	GPS
KE606	398901.392	6408598.463	27.254	-	-90	3	0	0.5	1.4%	10.6%	2.4%	DGPS
KE607	398949.293	6408599.535	27.685	-	-90	2	0	0.5	0.4%	4.6%	3.6%	DGPS
KE608	398999	6408503	25	-	-90	2.5	0	0.5	0.9%	5.0%	1.5%	GPS
KE612	398747.917	6408198.454	26.412	-	-90	1.5	0	1	10.7%	17.2%	1.2%	DGPS
KE613	398701.229	6408198.017	26.084	-	-90	3	0	2	2.4%	5.6%	2.3%	DGPS

			Section	A - Holes L	ocated l	East of H	opeland F	load				
KE614	398650.111	6408198.442	25.751	-	-90	3	0	2.5	2.9%	9.3%	1.6%	DGPS
KE615	398599.507	6408198.814	25.591	-	-90	3	0	2	4.7%	10.9%	2.3%	DGPS
KE616	398547.350	6408198.901	25.356	-	-90	3	0	2.5	2.2%	12.4%	2.0%	DGPS
KE617	398498.574	6408198.544	24.989	-	-90	3	0	3	3.5%	14.7%	1.9%	DGPS
KE618	398449.126	6408198.197	24.708	-	-90	3	0	2.5	1.2%	13.1%	1.6%	DGPS
KE619	398397.011	6408198.041	24.553	-	-90	3	0	2.5	3.9%	7.9%	1.3%	DGPS
KE620	398345.963	6408197.675	24.464	=	-90	3	0	1	0.1%	10.9%	1.7%	DGPS
KE621	398299.620	6408199.660	24.350	=	-90	3	0	0.5	0.1%	10.3%	1.3%	DGPS
KE622	398240.048	6408533.968	24.582	-	-90	3	0	1	0.0%	12.1%	1.9%	DGPS
KE623	398249.750	6408199.054	24.049	-	-90	3	0	2.5	1.8%	9.4%	1.3%	DGPS
KE625	398301.235	6408604.974	25.070	-	-90	3	0	2	0.7%	8.2%	2.1%	DGPS
KE631	398411	6407615	27	-	-90	6	4.5	0.5	0.0%	15.8%	2.0%	GPS
KE632	398384.841	6407614.368	25.372	-	-90	6	4	0.5	0.0%	18.4%	1.1%	DGPS

NOTE: Intercepts are based on a cut-off of 0.5m thickness at 1%THM, 20% clay fines and 15% +2mm oversize. These cut-off figures represent the economic cut-off for the current Keysbrook reserve and display a degree of geological continuity.

	Section B - Holes Located West of Hopeland Road											
HOLE	Easting	Northing	RL(m)	Azimuth	Dip	Total Depth	Depth From (m)	Thickness (m)	Oversize %	Slimes %	Total Heavy Mineral %	Survey Method
KE657	396448.041	6406985.720	21.275	-	-90	9	1	2	0.0%	3.2%	1.3%	DGPS
KE667	396966.616	6406977.594	21.202	-	-90	9	6	2	0.1%	16.2%	1.5%	DGPS
KE669	397071.198	6406977.621	21.987	-	-90	15	2	3	0.1%	11.9%	1.5%	DGPS
KE670	397119.468	6406978.415	22.251	-	-90	12	1	7	0.1%	13.2%	1.0%	DGPS
KE671	397170.119	6406981.157	22.767	-	-90	12	1	2	0.0%	2.6%	1.7%	DGPS
KE672	397221.057	6406983.713	22.908	-	-90	12	1	4	0.0%	3.9%	1.2%	DGPS
KE674	397312.297	6406983.940	24.041	-	-90	15	2	2	0.0%	4.5%	1.4%	DGPS
KE675	397367.568	6406984.742	24.685	-	-90	15	2	4	0.0%	3.4%	1.8%	DGPS
KE676	397420	6406983	25	-	-90	21	2	3	0.0%	7.7%	2.0%	GPS
KE689	396905	6405800	18	-	-90	15	3	8	1.9%	16.5%	1.3%	GPS
KE690	396853	6405800	20	-	-90	15	7	5	0.6%	14.3%	1.1%	GPS
KE691	396800	6405800	19	-	-90	12	3	5	1.7%	9.0%	1.4%	GPS
KE692	396752	6405800	19	-	-90	12	4	7	0.4%	11.2%	1.1%	GPS
KE693	396699	6405800	17	-	-90	12	0	4	0.0%	7.2%	1.1%	GPS
KE695	396601	6405800	15	-	-90	12	2	6	0.9%	11.9%	1.2%	GPS
KE696	396548	6405800	14	-	-90	12	0	6	1.4%	12.9%	1.1%	GPS
KE700	396349	6405800	20	-	-90	12	10	1	0.1%	15.8%	4.1%	GPS
KE702	396250	6405800	20	-	-90	12	0	11	0.8%	10.3%	1.5%	GPS
KE703	396200	6405800	23	-	-90	14	1	6	1.2%	8.8%	1.5%	GPS
KE703	396200	6405800	23	-	-90	14	10	2	1.2%	12.6%	1.3%	GPS
KE706	397509	6406200	21	-	-90	9	3	2	0.0%	3.1%	1.3%	GPS
KE712	397399	6406590	19	-	-90	12	2	2	0.0%	4.4%	1.8%	GPS
KE713	397354	6406600	19	-	-90	12	2	2	0.0%	9.1%	1.3%	GPS
KE714	397300	6406590	16	-	-90	9	2	2	0.3%	5.4%	1.6%	GPS
KE715	397245	6406600	19	-	-90	9	2	4	1.7%	5.9%	1.2%	GPS

			Section	B - Holes Lo	ocated \	West of H	opeland F	Road				
KE716	397198	6406600	20	-	-90	15	1	3	0.0%	2.8%	1.7%	GPS
KE717	397153	6406590	24	-	-90	9	1	6	0.1%	2.5%	1.3%	GPS
KE718	397102	6406600	25	-	-90	9	2	4	0.1%	5.4%	1.3%	GPS
KE719	397053	6406600	25	-	-90	15	2	3	0.0%	7.2%	1.4%	GPS
KE721	396017	6406600	23	-	-90	21	2	7	0.1%	6.1%	1.6%	GPS
KE722	396055	6405800	16	-	-90	9	6	2	1.0%	15.7%	1.4%	GPS
KE723	396101	6405810	16	-	-90	9	6	2	0.4%	14.6%	1.4%	GPS
KE724	396011	6405400	24	-	-90	21	6	2	6.0%	11.8%	1.6%	GPS
KE725	396051	6405400	23	-	-90	6	2	1	1.1%	13.7%	2.3%	GPS
KE725	396051	6405400	23	-	-90	6	4	2	2.2%	15.5%	3.8%	GPS
KE727	396153	6405400	23	-	-90	12	7	3	2.6%	12.8%	1.6%	GPS
KE729	396252	6405400	21	-	-90	15	5	4	2.3%	14.2%	2.0%	GPS
KE731	396348	6405400	26	-	-90	9	2	1	2.1%	16.2%	4.3%	GPS
KE735	396650	6405400	25	-	-90	12	6	2	0.2%	13.4%	2.7%	GPS
KE735	396650	6405400	25	-	-90	12	11	1	1.3%	10.2%	2.1%	GPS
KE737	396801	6405500	26	-	-90	12	7	4	0.3%	13.4%	2.0%	GPS
KE739	396997	6405500	24	-	-90	12	6	2	3.3%	13.0%	3.0%	GPS
KE747	397147	6406200	16	-	-90	9	4	2	0.0%	14.0%	1.2%	GPS
KE678	397511	6406980	25	-	-90	9	2	5	0.0%	15.5%	2.3%	GPS
KE677	397471	6406980	24	-	-90	8	3	3	0.1%	15.7%	2.7%	GPS
KE753	396296	6406200	15	-	-90	12	0	2	0.3%	5.8%	1.2%	GPS
KE754	396012	6406190	16	-	-90	15	1	3	0.0%	2.1%	1.7%	GPS
KE754	396012	6406190	16	-	-90	15	8	1	2.2%	11.9%	2.2%	GPS
KE755	396101	6406200	16	-	-90	15	6	3	0.3%	13.9%	1.5%	GPS
KE761	396300	6406000	19	-	-90	15	1	10	0.2%	6.1%	2.5%	GPS
KE766	396418	6406590	15	<u>-</u>	-90	15	3	1	0.0%	11.6%	3.1%	GPS
KE769	397403	6407200	21	-	-90	9	2	4	0.0%	7.1%	1.5%	GPS
KE770	397000	6407200	19	<u>-</u>	-90	9	0	3	0.1%	5.9%	1.1%	GPS
KE771	396797	6407200	19	-	-90	9	0	6	0.0%	6.1%	1.4%	GPS
KE772	396994	6407610	21	-	-90	12	2	4	0.0%	4.5%	1.5%	GPS
KE774	397251	6407450	21	-	-90	12	1	4	0.0%	3.3%	1.8%	GPS
KE776	396602	6407200	19	-	-90	12	1	3	0.0%	5.5%	1.4%	GPS
KE777	395605	6406400	16	-	-90	9	0	9	0.2%	9.9%	1.7%	GPS
KE778	395982	6406400	18	-	-90	9	2	7	0.1%	6.8%	1.2%	GPS
KE779	395813	6405970	6	-	-90	12	6	2	2.4%	5.8%	2.1%	GPS
KE780	395995	6405600	18	-	-90	6	0	1	0.0%	4.1%	2.2%	GPS
KE780	395995	6405600	18	_	-90	6	3	2	3.7%	15.5%	1.4%	GPS
KE781	395604	6405600	18	-	-90	8	0	2	5.7%	9.8%	2.8%	GPS
KE782	395402	6405420	24	-	-90	12	3	8	0.7%	16.0%	2.3%	GPS
KE783	395198	6405600	23	-	-90	12	0	12	1.1%	10.5%	1.3%	GPS
KE784	395000	6405400	18	-	-90	15	0	3	0.2%	4.5%	2.5%	GPS
KE785	394800	6405600	18	-	-90	9	0	7	2.1%	14.5%	1.6%	GPS
KE786	394600	6405800	19	<u>-</u>	-90	9	1	5	0.9%	11.0%	1.0%	GPS
KE788	395000	6406200	19	-	-90	9	1	8	1.2%	12.0%	1.3%	GPS
KE789	395200	6406400	18	-	-90	9	0	2	0.1%	13.4%	2.7%	GPS
1,2703	550200	0,00,000	10		1 33				5.170	13.7/0	2.7 /0	J. 5

	Section B - Holes Located West of Hopeland Road											
KE789	395200	6406400	18	-	-90	9	5	2	0.8%	9.6%	1.5%	GPS
KE790	395600	6406000	18	-	-90	9	0	1	0.4%	16.1%	2.7%	GPS
KE790	395600	6406000	18	-	-90	9	4	3	0.4%	11.9%	1.5%	GPS
KE792	394592	6406800	17	-	-90	9	4	2	0.0%	14.3%	1.9%	GPS
KE793	394598	6406400	22	-	-90	9	1	8	0.7%	10.7%	1.3%	GPS
KE794	394411	6406400	24	-	-90	12	7	5	1.6%	10.7%	2.1%	GPS
KE795	394389	6406800	25	-	-90	9	6	3	0.5%	11.5%	1.7%	GPS
KE800	395406	6407620	19	-	-90	9	0	2	0.7%	11.6%	1.9%	GPS
KE801	395424	6407800	19	-	-90	15	2	1	0.0%	16.9%	4.2%	GPS
KE801	395424	6407800	19	-	-90	15	8	4	0.4%	12.0%	1.4%	GPS
KE803	394802	6408000	18	-	-90	9	6	3	0.5%	11.7%	2.6%	GPS
KE804	394600	6407600	16	-	-90	9	2	4	0.2%	6.8%	1.9%	GPS
KE805	394468	6408280	17	-	-90	9	3	4	0.0%	5.0%	1.4%	GPS
KE806	394998	6408400	18	-	-90	9	2	2	0.0%	3.8%	1.6%	GPS
KE806	394998	6408400	18	-	-90	9	7	2	0.4%	10.1%	2.9%	GPS
KE808	396803	6408000	19	-	-90	9	3	2	0.0%	12.5%	1.6%	GPS
KE809	396802	6408400	19	-	-90	9	0	5	0.3%	9.2%	2.1%	GPS

NOTE: Intercepts are based on a minimum intercept grade of 2%m (i.e. THM grade multiplied by thickness >2). Grade cut-offs have of 1%THM, 20% clay fines and 15% +2mm oversize have also been applied.

# **JORC Code**, 2012 Edition – Table 1 report template

# **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.  Include reference to measures taken to ensure sample representivity and the appropriate	<ul> <li>Samples analysed individually</li> <li>Samples collected in sample bucket, thoroughly homogenised by hand and placed into 2kg calico bags. Initial intent to pass through rotary splitter, however damp nature of some samples and splitter design resulted in extensive contamination issues, so splitter was removed.</li> <li>Analysis undertaken by Diamantina Laboratories. Samples were dried, rotary split to 100g then deslimed (no TSPP). Material was sieved at -45um and +2mm and placed into TBE with an SG of 2.95g/cc for heavy media separation. Cleaned with acetone, then dried, weighed and calculations compiled.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	• NQ sized (3½") Aircore rods were utilised for all drilling completed. Drilling completed using Arrinooka Drilling utilising a Hydco RAB50 truck-mounted drilling rig.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Drilling conducted with water injection as required to obtain sample return.</li> <li>Sample quality recorded during drilling.</li> <li>All observations logged into spreadsheet based system at the drill site</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Samples retained over 1 m intervals. Logging of rock types, quality, hardness, washability and grain size undertaken in field. Panned estimate of clay fines, oversize and heavy mineral also completed. No photography taken. All intervals logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples collected in sample bucket, thoroughly homogenised by hand and placed into 2kg calico bags. Initial intent to pass through rotary splitter, however damp nature of drilling and design resulted in extensive contamination issues, so splitter was removed.</li> <li>Duplicate samples taken at a rate of 1 in 25. Samples taken as a second 2kg grab from homogenised bucket of sample</li> <li>Refer to sample preparation and analysis technique above</li> <li>No analysis of duplicate sampling undertaken at this stage</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations</li> </ul>	<ul> <li>Heavy media separation - appropriate method.</li> <li>Twin holes drilled at 1 in 20 ratio.</li> <li>Standards inserted at a rate of 1 in 25 samples</li> <li>Blanks inserted at rate of 1 in 50 samples</li> <li>Duplicate samples taken at a rate of 1 in 25 samples</li> </ul>
Verification of	The verification of significant intersections by either independent or alternative company	Twin holes drilled at 1 in 20 ratio.

# Appendix 2 – JORC Table 1

Criteria	JORC Code explanation	Commentary
sampling and assaying	<ul> <li>personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Data stored in Micromine logging files and backed up via Email nightly</li> <li>Compilation of analysis with geological data ongoing with any problems rectified prior to reporting</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>"DGPS" in Appendix A – located via RTK DGPS.</li> <li>"GPS" in Appendix A – located via handheld GPS in MGA94.</li> <li>Topographic coverage – east of 396850E accurate LIDAR data was captured with 0.5m vertical contour intervals.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill spacing at either 400m spaced lines with 200m spaced drill centres, or 200m spaced lines with 50m spaced drill centres.</li> <li>Individual 1 m samples collected. Composite calculations used only for significant intersections outlined in the report</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The orientation of the upper Bassendean sand dunes varies from north-south in the east of the licence adjacent to the Keysbrook deposit to east-west in the west of the licence. The underlying base zone appears from current data coverage to have no preferred orientation.</li> </ul>
Sample security	The measures taken to ensure sample security.	Samples retained on locked property whilst awaiting dispatch for analysis. Samples stored in analytical laboratory sample preparation shed
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No reviews or audits undertaken to date

# Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Exploration Licence numbers E70/2407 &amp; E70/4628 are relevant to this report, as are Prospecting Licences P70/1662 and P70/1663. These tenements are held 100% by Keysbrook Leucoxene Pty. Ltd, a wholly owned subsidiary of MZI Resources Ltd.</li> <li>It is the current understanding that all licences are located on pre-1899 fee simple, freehold land</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Exploration has been undertaken during the period 2006-2008 by Iluka Resources as part of tenement E70/2495. This exploration work is the basis for a large proportion of the exploration data presented in this release. This data is acknowledged but not utilised as part of this release.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The tenement area is interpreted as being analogous to the Keysbrook deposit, with regards to geology, setting and mineralisation.</li> <li>Geologically the deposit comprises Bassendean Sand Formation sediments. This is composed of localised sand dunes, overlying a basal zone of sand. These mineralised units overly the clay-rich Guildford Formation.</li> <li>Mineralisation is dispersed throughout the sand units, having been reworked by wind</li> </ul>

# Appendix 2 – JORC Table 1

Criteria	JORC Code explanation	Commentary
		and water action from more frequently mined strandline-style mineral sands deposits.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	refer Appendix A.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Length weighted averages were created using a minimum analysis grade of 1%THM. Internal waste of up to 2 m was incorporated into the length weighted average only if the average of the interval remained greater than 1%THM.</li> <li>Intervals included are only those considered to be analogous to the Keysbrook deposit. Deeper mineralised intersections are noted in the assay sheets but are not included in this assessment.</li> <li>Analyses with &gt;20% clay fines or &gt;15% +2mm oversize are excluded.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Flat-lying mineralisation intersected by vertical drillholes.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Refer Figure 1.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	Discussed within report.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Assemblage data disclosed in the report has been generated from samples outlined in the ASX release dated 20 January 2015. The process of generating these results is as follows:</li> <li>Compositing of TBE sink material to form single sample</li> <li>Processing of composite via CARPCO magnet to split sample into magnetic components (Mag 1-4 &amp; Non-Mag)</li> <li>XRF analysis of each component to ascertain concentration of relevant elements</li> <li>Post processing of XRF results via proprietary Excel-based algorithm to determine proportion of products</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Land access agreement discussions.</li> <li>Aircore drilling in order to define the mineralisation laterally and at depth across the lease area.</li> <li>Resource estimation</li> </ul>