

28 July 2023

# SIGNIFICANT PEGMATITES INTERCEPTED AT MORTIMER HILLS DURING PHASE 2 DRILL PROGRAM

#### **HIGHLIGHTS**

Phase 2 drilling program of 11 holes for a total depth of 1,260m intersected multiple thick pegmatites at Alpha and Creek prospects, Mortimer Hills Project (Figure 1) confirming the prospectivity of the Mortimer Hills tenement.

#### Intercepts include:

MHC004: 108 m in three pegmatites intercepted from 11 m and open at end of hole at Creek

Prospect.

MHA011: 43 m in four pegmatites intercepted from 10 m at Alpha Prospect.

MHA010: 36.5 m in eight pegmatites intercepted from 4 m at Alpha Prospect.

MHC005: 30 m in one pegmatite intercepted from 4 m at Creek Prospect.

MHA013: 25 m in five pegmatites intercepted from 4 m at Alpha Prospect.

The Company advises that all the drill intersection widths pertaining to the above intercepts are apparent only. As the orientation of the pegmatites is unknown, the true widths of the pegmatites may be less than these apparent widths.

The Company notes that the presence of pegmatite rock does not necessarily indicate the presence of lithium, cesium, tantalum (LCT) mineralisation. Laboratory chemical assays are required to determine the grade of mineralisation.

Refer to Appendix 1 and 2 for more details.

- The Phase 2 drilling program was focused on deeper drilling than the Phase 1 drilling program. The Company notes that neighbouring DLI's drilling on its Yinnietharra Project (Figure 1) on Zeus' western boundary encountered the bulk of its mineralised pegmatites at depths of between 50-200 m (See *DLI ASX Announcement, 23 June 2023*). The Company's Phase 2 drilling program targeting pegmatites between 50-150m received encouraging results.
- All the samples will be despatched to ALS Global laboratory in Perth for chemical analysis with assay results expected in about 8 weeks.
- The Company also extended the previous field mapping and surface geochemical sampling, collecting 187 soil samples over structural targets, to better target future drilling programs to test new target areas.

**Zeus Resources Ltd (ASX: ZEU) ("Zeus" or "the Company")** is pleased to announce that the Company has completed the Phase 2 drilling program at its Mortimer Hills Project approximately 130 km Northeast of Gascoyne Junction in Western Australia and continue to receive encouraging results.

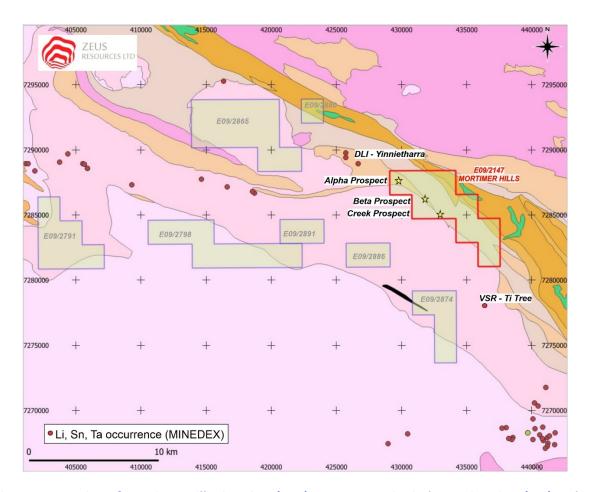


Figure 1: Location of Mortimer Hills Li Project (ZEU) tenements, Yinnietharra Li Project (DLI) and Ti Tree Prospect (VSR)

#### **PHASE 2 DRILLING**

The Company commenced the eleven hole Phase 2 RC drilling on 9 July 2023.

The nine holes at the Alpha prospect tested mapped pegmatites to the south of the pegmatites previously tested in the Phase 1 drilling program. These pegmatites are in the Pooranoo Metamorphics closer to the contact with the Thirty Three Supersuite Granite. These holes were also drilled deeper than the Phase 1 drilling up to 150 m (Figure 2).

The two holes in the Phase 2 drilling at the Creek prospect were also deeper than the Phase 1 drilling and tested two untested large pegmatites along the granite contact (Figure 2).

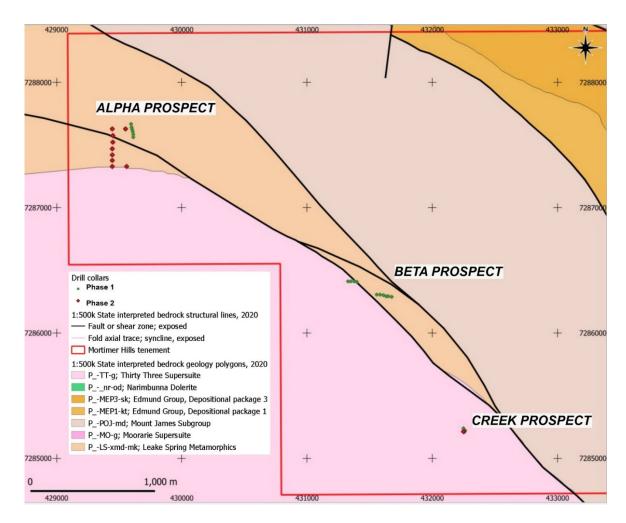


Figure 2: Drilling completed to date at Alpha, Beta and Creek prospects.

The originally planned 2,500 m Phase 2 drilling program was reduced to 1,260 m so the assays from this drilling program and the soil geochemical sampling can be properly evaluated before further drilling. Under the constraints of the approved Program of Works (PoW), continuing with the original drilling plan would duplicate testing the same shear system along the Thirty Three Granite contact. The undrilled metres from this program will be used instead to test other structural targets, especially to the north of the Alpha prospect, that were mapped and soil sampled during July 2023.

#### FIELD MAPPING AND SOIL GEOCHEMICAL SAMPLING

The Company collected 187 surface geochemical samples during July across key regional structures to better target future drilling programs.

The pegmatites at the adjacent Yinnietharra Lithium project follow shears that potentially extend into the Mortimer Hills tenement (Figure 3). Zeus' soil geochemical sampling followed traverses across the interpreted extension of these shears and other Geological Survey of Western Australia (GSWA) regional shears at approximately 50 m intervals. Encouragingly, several substantial pegmatites were identified along these traverses at about the interpreted shears.

Depending on the assay results for these samples, further soil sampling is planned to in-fill the existing sample lines and to test other structural targets within the Mortimer Hills tenement.

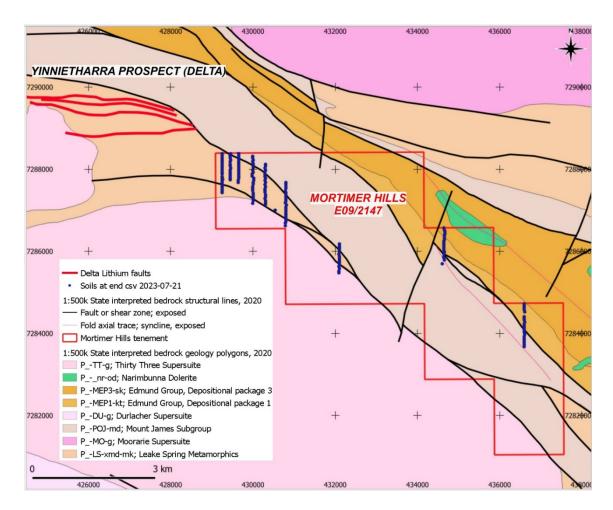


Figure 3: Soil geochemical sample locations on regional geology (after GSWA).

#### **Competent Person Statement:**

The information in this announcement that relates to the Exploration Results is based on information compiled by Mr Phil Jones, who is a Member of the Australian Institute of Geologists (AIG) and Australian Institute of Mining and Metallurgy (AusIMM). Mr Jones is an independent geological consultancy. Mr Jones does not nor has had previously, any material interest in Zeus or the mineral properties in which Zeus has an interest. Phil Jones's relationship with Zeus is solely one of professional association between client and independent consultant. Mr Jones has experience in exploration, prospect evaluation, project development, open pit and underground mining and management roles. Mr Jones has worked in a wide variety of commodities including gold, lithium, iron ore, phosphate, copper, lead, zinc, silver, nickel and silica in Australia, China, Kyrgyzstan, Indonesia, New Zealand, Malaysia, Papua New Guinea, and Africa. Mr Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Jones consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

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No guarantee, representation, or warranty, express or implied, is made as to the accuracy, likelihood of achievement or reasonableness of any forecasts, prospects, returns, statements, or tax treatment in relation to future matters contained in this announcement. The forward-looking statements are based on information available to the Company as at the date of this announcement. Except as required by applicable laws or regulations, none of the Company or its Affiliates undertakes to provide any additional information or revise the statements in this announcement, whether as a result of a change in expectations or assumptions, new information, future events, results, or circumstances.

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This announcement was authorised for release to the ASX by the Board of the Company.

**ENDS** 

For further information, please contact:

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Appendix 1: Phase 1 and Phase 2 Drilling Summary - Mortimer Hills Project

Hole ID	East (m)	North (m)	RL (m)	Dip (°)	Azimuth (°)	EOH* Depth (m)	Prospect	Phase
MH001	431557	7286308	322	-60	270	50		1
MH002	431582	7286305	322	-60	270	50		1
MH003	431608	7286300	322	-60	270	55		1
MH004	431632	7286294	322	-60	270	52		1
MH005	431651	7286293	322	-60	270	50	ta	1
MH006	431675	7286289	322	-60	270	52	Beta	1
MH007	431376	7286412	322	-60	270	47		1
MH008	431350	7286412	322	-60	270	50		1
MH009	431326	7286411	322	-60	270	20		1
MH010	431398	7286409	322	-60	270	50		1
MHA001	429598	7287643	335	-60	345	49		1
MHA002	429601	7287623	335	-60	345	50		1
MHA003	429607	7287605	335	-60	345	60		1
MHA004	429610	7287583	335	-60	345	50		1
MHA005	429613	7287561	335	-60	345	50		1
MHA006	429595	7287669	335	-60	345	50		1
MHA007	429549	7287630	335	-75	180	150	В	2
MHA008	429444	7287376	330	-75	180	80	Alpha	2
MHA009	429443	7287470	330	-75	180	128	⋖	2
MHA010	429443	7287423	331	-75	180	109		2
MHA011	429448	7287521	331	-75	180	105		2
MHA012	429444	7287328	332	-75	180	112		2
MHA013	429449	7287574	333	-75	180	106		2
MHA014	429444	7287630	334	-75	180	112		2
MHA015	429559	7287329	335	-60	180	106		2
MHC001	432251	7285215	315	-60	88	43	4)	1
MHC002	432261	7285222	313	-50	112	70	Pegmatite Creek	1
MHC003	432250	7285239	315	-50	143	30	gmatit	1
MHC004	432255	7285210	315	-60	150	121	Peg	2
MHC005	432249	7285213	315	-60	215	115		2

2,172

Appendix 2: Best pegmatite intersections Phase 2 Drilling - Mortimer Hills Project

Hole ID	From	То	Length	Dip	Azimuth
MHA010	4	20	16.0	-70	180
	34	37	3.0		
	47	49	2.0		
	50	52	2.0		
	60.5	70	9.5		
	71	73	2.0		
	75	76	1.0		
	90	91	1.0		
			36.5		
MHA011	10	12.5	2.5	-70	180
	24	35	11.0		
	66.5	68	1.5		
	72	100	28.0		
			43.0		
MHA013	4	10	6.0	-70	180
	55	60	5.0		
	61	70	9.0		
	86	90	4.0		
	94	95	1.0		
			25.0		
MHC004	11	94	83.0	-60	150
	95	103	8.0		
	104	121	17.0	EOH*	
			108.0		
MHC005	4	34	30.0	-60	215
			30.0		

#### \*EOH – End of Hole

- 1. The Company advises that all the drill intersection widths pertaining to the above intercepts are apparent only. As the orientation of the pegmatites is unknown, the true widths of the pegmatites may be less than these apparent widths.
- 2. The Company notes that the presence of pegmatite rock does not necessarily indicate the presence of lithium, cesium, tantalum (LCT) mineralisation. Laboratory chemical assays are required to determine the grade of mineralisation.



## **JORC CODE, 2012 EDITION - TABLE 1**

### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>All drilling was Reverse Circulation (RC) used to obtain 1 m samples from which approximately 2 kg was pulverised to produce an aliquot for ICP assay carried out to industry standard.</li> <li>This announcement discusses the completion of the most recent drilling program and does not include grades of samples that have been collected for chemical or physical testing.</li> <li>Pegmatites were identified in outcrop and in drill cuttings.</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>	All drilling was face-sampling RC.
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>All the drill cuttings were logged by a geologist to be stored as Excel spreadsheets.</li> <li>Sample recoveries, by visual inspection, were excellent.</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>All the drill cuttings were visually quantitatively logged by a site geologist. These logs are stored as Excel spreadsheets.</li> <li>In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially</li> </ul>

Criteria	JORC Code explanation	Commentary
		provide no information regarding impurities or deleterious physical properties relevant to valuations. Laboratory assay results are required to determine the widths and grade of the visible mineralisation (if reported) in preliminary geological logging. The Company will update the market when laboratory analytical results become available.
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 were split at rig mounted cyclone.</li> <li>The sample size is appropriate for the material being sampled.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and 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 factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Not applicable
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company 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>	Not applicable
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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>	The drill collars were recorded using a handheld GPS using GDA94 datum.
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</li> </ul>	This drilling was reconnaissance only at widely spaced locations.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> <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</li> </ul>	All the drill intersection widths pertaining to the above intercepts are apparent only. As the orientation of the pegmatites is unknown, the true widths of the pegmatites will be less than the apparent widths.
Sample security	should be assessed and reported if material.      The measures taken to ensure sample security.	The samples were delivered to the laboratory by the site geologist.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable

## **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>The Mortimer Hills project covers an area of approximately 71.65 km² and comprises one granted exploration licence E09/2147 and two exploration licence applications: E09/2791 and E09/2798.</li> <li>All the tenements are 100% owned by Zeus Resources.</li> <li>Both EL applications are subject to a ballot with other applicants.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Numerous exploration parties have previously held portions of the areas covered by the current Zeus tenure. None of this exploration is recorded as being for pegmatite hosted lithium and REE minerals, the main focus of Zeus on the tenements.</li> <li>No other exploration companies generated data that was used in this release.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>E09/2147 lies along the contact between the Thirty Three Supersuite granitic intrusives and the Pooranoo Metamorphics.</li> <li>E09/2791 and E09/2798 cover the Thirty Three Supersuite granitic intrusives and Durlacher Supersuite granites.</li> </ul>
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:</li> </ul>	The drill hole data is provided as a table at the end of the announcement.

Criteria	JORC Code explanation	Commentary
	<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> <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>	
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>	Not applicable
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>	<ul> <li>All the drill intersection widths pertaining to the above intercepts are apparent only. As the orientation of the pegmatites is unknown, the true widths of the pegmatites may be less than or greater than the apparent widths.</li> </ul>
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>	All the appropriate maps are provided in the body of this announcement.
Balanced reporting	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.	This announcement discusses the completion of a recent reconnaissance drilling program and further planned drilling and does not relate to assay data.
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.	All the meaningful exploration data has been included in the body of this announcement.
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> </ul>	Once the tenement applications have been granted, Zeus intend to carry out detailed mapping and geochemical sampling to locate any pegmatite

Criteria	JORC Code explanation	Commentary
	<ul> <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>outcrops.</li> <li>Another RC drilling program is planned to further test mapped pegmatites along the greenstone/granite contact in E09/2147.</li> </ul>