ASX Announcement

27 July 2023

EXTENSIVE PEGMATITES CONFIRMED AT ROBINSON BORE LOCKIER RANGE

Odessa Minerals Limited (ASX:ODE) ("Odessa" or the "Company") presents an exploration update including confirmed presence of pegmatites in the Robinson Bore and Eastern lithium anomalies at the Lockier Range project in the Gascoyne Region of Western Australia. Furthermore, the Company is pleased to announce exploration plans and the appointment of exploration manager and geoscience services team.

Highlights:

- **Exploration reconnaissance confirms multiple outcrops of coarse pegmatites[1] at Lockier Range, including Robinson Bore adjacent to Minerals 260 Ltd (ASX:MI6)[2] lithium anomalies**
- **Robinson Bore Pegmatite Field**
  - **Pegmatites observed in outcrop in the field and traced from aerial imagery**
  - **Target area >2.5km by 1.5km**
  - **Variable width from 50cm to >5 metres in outcrop**
  - **Close spatial association with soil anomalism with elevated Li-Cs-Ta-Be**
- **Eastern Pegmatite Field**
  - **5 pegmatite outcrops confirmed on margin of Thirty Three supersuite granitoids**
  - **Elevated Li-Cs-Ta in soils in areas obscured by cover**
  - **Target area >2.5km by 1.5km**
  - **Variable width from 50cm to >5 metres in outcrop**
- **Southern Pegmatite Field**
  - **Several outcropping pegmatites observed and sampled**
- **Jay Ward of OmniGeox Ltd appointed as Exploration Manager**

Figure 1 - Historic diggings on pegmatite at Robinson Bore 398699mE, 7287847mN

[1] The presence of pegmatites does not confirm the presence of lithium spodumene. Pegmatites are fractionated coarse grained igneous rocks commonly associated with lithium spodumene mineralisation; however, many pegmatites do NOT contain appreciable quantities of mineralisation. The presence of lithium mineralisation can only be confirmed with assaying.

[2] Refer ASX:MI6 announcement dated 25 July 2023.

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David Lenigas, Executive Director of Odessa, said:

"It is very good news that first reconnaissance over the main lithium targets identified in recent soil sampling has shown extensive outcropping pegmatites. We believe that our systematic targeting is rapidly honing in to the lithium and REE areas of interest and we look forward to having our geology team on the ground in the coming weeks conducting detailed surface mapping and identifying sites for our maiden drilling program."

Odessa's **Lockier Range Lithium** and **Rare Earth Element** ("REE") Project covers a **large area** of 125km^2 within its substantial **Gascoyne** tenement package of +3,000 km^2; and is ideally located:

- Adjoining Minerals 260's "Aston" Lithium project with extensive anomalies
- ~8.5km southwest of Delta Lithium's "Jameson" lithium pegmatite discovery
- ~15km west of Reach Resources' "Morrissey Hill" lithium pegmatite discovery
- ~25km west of Delta Lithium's "Yinnetharra" lithium pegmatite discovery
- ~40km west of Voltaic Strategic Resources' pegmatite discovery
- ~60-70km south of Hastings Technologies' and Dreadnought Resources' rare earth projects

Odessa recently reported very positive results from its soil sampling for lithium, lithium pathfinder elements and rare earth elements (announcements dated 14/07/2023 & 20/07/2023) (Figure 4 & 5).

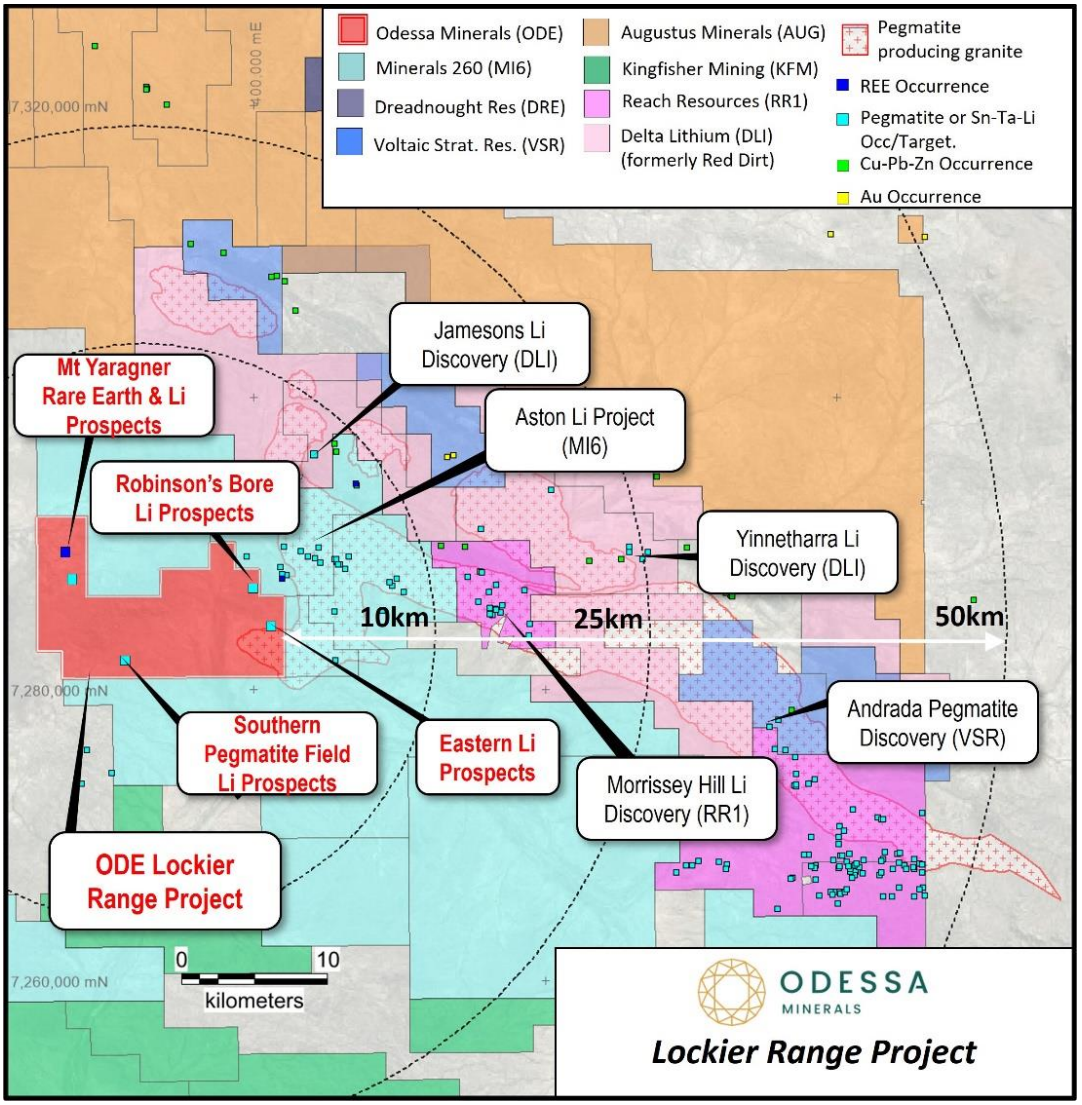

Figure 2: Lockier Range Project, proximal to the emergent Gascoyne lithium pegmatite province.

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Lockier Range Pegmatite Identification

The Company's Chairman and the geological consultant recently conducted a field visit to Lockier Range. The aim of the field visit was to check and confirm the presence of the pegmatites; principally at the Robinson Bore, Eastern and Southern pegmatite targets, all of which showed strong lithium and lithium pathfinders in recently reported soil results.

Field observations have confirmed aerial (satellite) imagery interpretations of pegmatites. At Robinson Bore, pegmatites outcrop over an area at least approximately 2.5 x 1.5km and are coincident and within the 4 x 2km anomaly of lithium and lithium pathfinders in soil.

Pegmatites are dominantly striking N-S and outcropping portions range from a few centimetres to >10m width. Also at Robinson Bore, historic diggings on pegmatite were observed and are believed to have been dug for beryl or similar pegmatite gemstones (Figure 1).

At the Eastern Pegmatite field, small sub-cropping pegmatites were observed amongst transported and residual cover sediments along the contact zone of the important Thirty Three Supersuite granitoids.

Figure 3 – Subcropping pegmatite (fore-ground) at Southern Pegmatite target area. Location 392800mE, 7282500mN

At the Southern pegmatite field access was restricted due to pastoralist's mustering activities, however, pegmatites were observed principally from the air, with samples collected from one location with subcropping pegmatites observed as 50cm to 2m wide (true width potentially obscured by cover) (Figure 3).

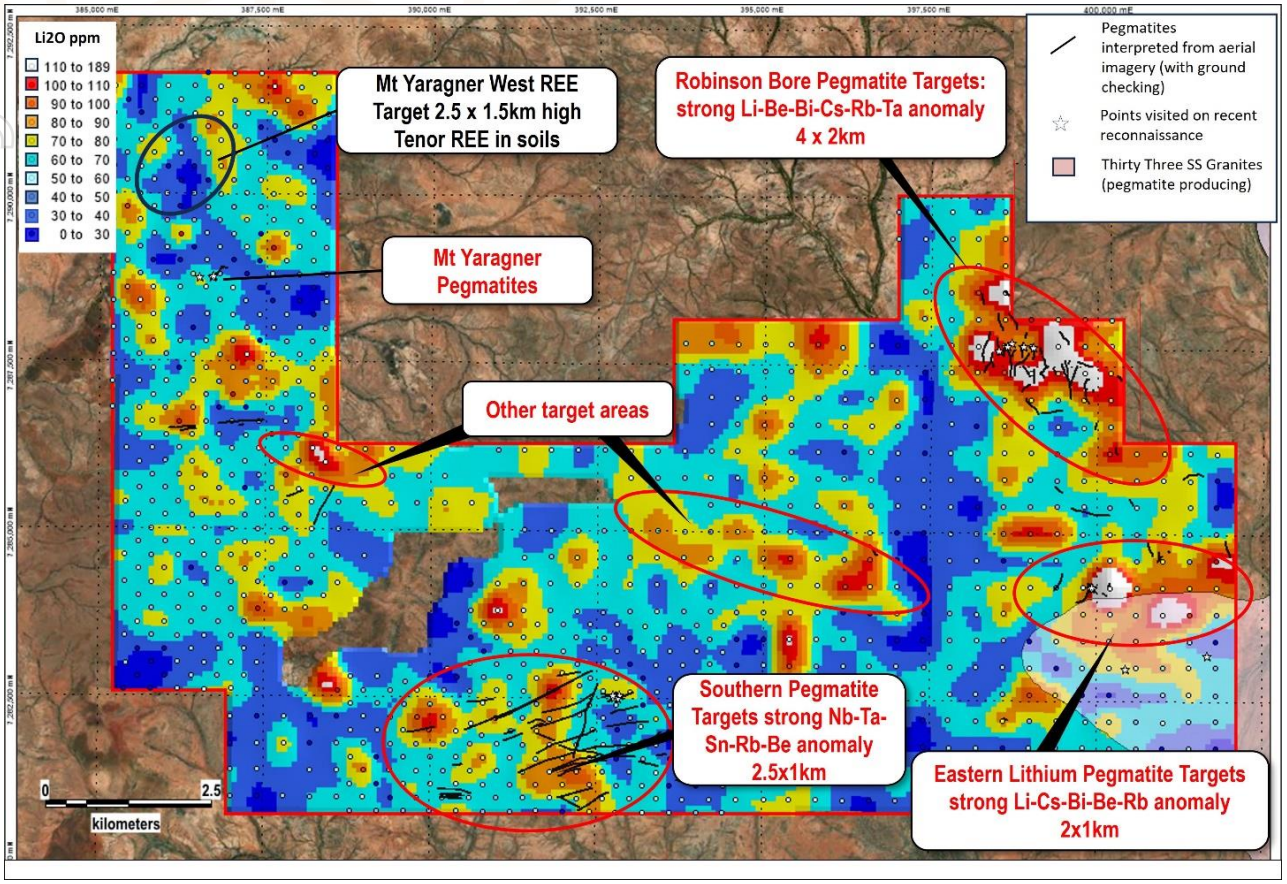

Figure 4 - Principal pegmatite target areas, Lockier Range Project on gridded soil results for Li2O ppm.

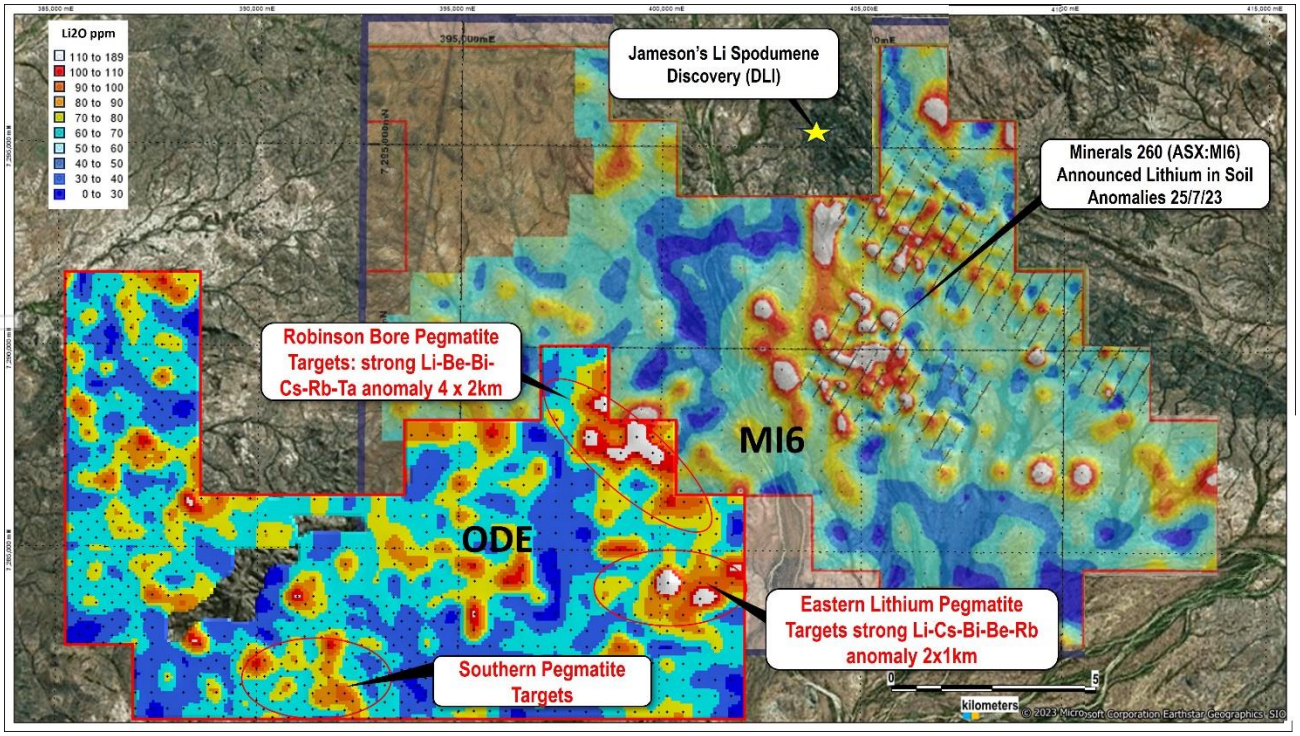

Figure 5 – Lockier Range Project Li2Oppm in soil merged with MI6's Aston Project results imagery (ASX:MI6 announcement 25/07/2023). Grid scaling for Li2O ppm in soils matched approximately.

Minerals 260 Ltd (ASX:MI6) recently announced extensive lithium in soil anomalies from the Aston Project located and adjoining to the NE of the Lockier Range Project. A comparison and merging of MI6's imagery with the gridded soil results from Lockier Range shows strongly comparable results and potential continuations of Aston's lithium anomalies on to the Lockier Range Project (Figure 5).

Exploration Manager and Geoscience Services Team Appointed

Odessa has appointed Jay Ward, from Omni Geox Ltd ("OmniX") as its exploration manager and will utilise the Omni Geox exploration team to conduct exploration campaigns. OmniX employs more than 30 geoscientists and field technicians and is fully established as an exploration services group.

The engagement of OmniX will provide Odessa with immediate access to a significantly experienced group of geologists and technical experts and thus allow Odessa to expand and contract the exploration team per project as required. The Company expects this will facilitate the rapid exploration the Company's entire portfolio of Gascoyne projects while minimising overheads.

OmniX is led by Peter Langworthy, a geologist with over 30 years' experience in mineral exploration and discovery.

The team is currently reviewing the previous work and will shortly be preparing to access the field to commence detailed mapping and sampling prioritising Robinson Bore and the Eastern Pegmatite fields, as a precursor to the maiden drill program at Lockier Range.

It is intended that this work will prioritise drill targets with drilling to be completed as soon as possible, once all required government and heritage clearances have been received.

Upcoming Work

In the 13 weeks since the Lockier Range tenement was granted, the Company has achieved a great deal including:

1. Acquired and interpreted high-resolution magnetics and radiometrics data
2. Conducted preliminary in field reconnaissance
3. Collected over 1000 samples and identified significant lithium and REE anomalies warranting further work.

As such, the Company is now well positioned to accelerate its on-ground exploration plans for 2023.

Odessa is planning the following upcoming on-ground exploration activities:

Geological Reconnaissance (immediate)

Targeted geological reconnaissance of the Robinson Bore anomalies, including detailed mapping of the 4km x 2km area which is expected to idenitfy additional pegmatites. In additional the Company will undertake further soil sampling over the Robinson Bore Pegmatite field in a tighter 100m x 100m grid to zero in on drill targets.

Geological reconnaissance of the Southern Pegmatite field and Eastern Pegmatite field anomalies, including mapping of the 2km x 1km area, rock chips of pegmatitic structures and anomalies.

Numerous additional outcropping pegmatites have been recorded on the Lockier Range Project which require further sampling and assessment.

Drill Planning

Conduct and obtain heritage clearance and lodge program of works for the Lithium and REE drilling programmes once the drill targets have been refined. Given the variable nature of the heritage and permit process, the Company will provide updates by way of announcement upon receipt of requisite permits and approvals.

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About Odessa Minerals

Odessa Minerals Ltd is an ASX listed company (Ticker: ODE) that holds exploration licenses over 3,000 sq km of highly prospective ground in the highly sought-after Gascoyne region of Western Australia. Odessa's Projects are located in close proximity to significant recent lithium/pegmatite discoveries and lie in a north-south corridor of recent world class REE carbonatite discoveries.

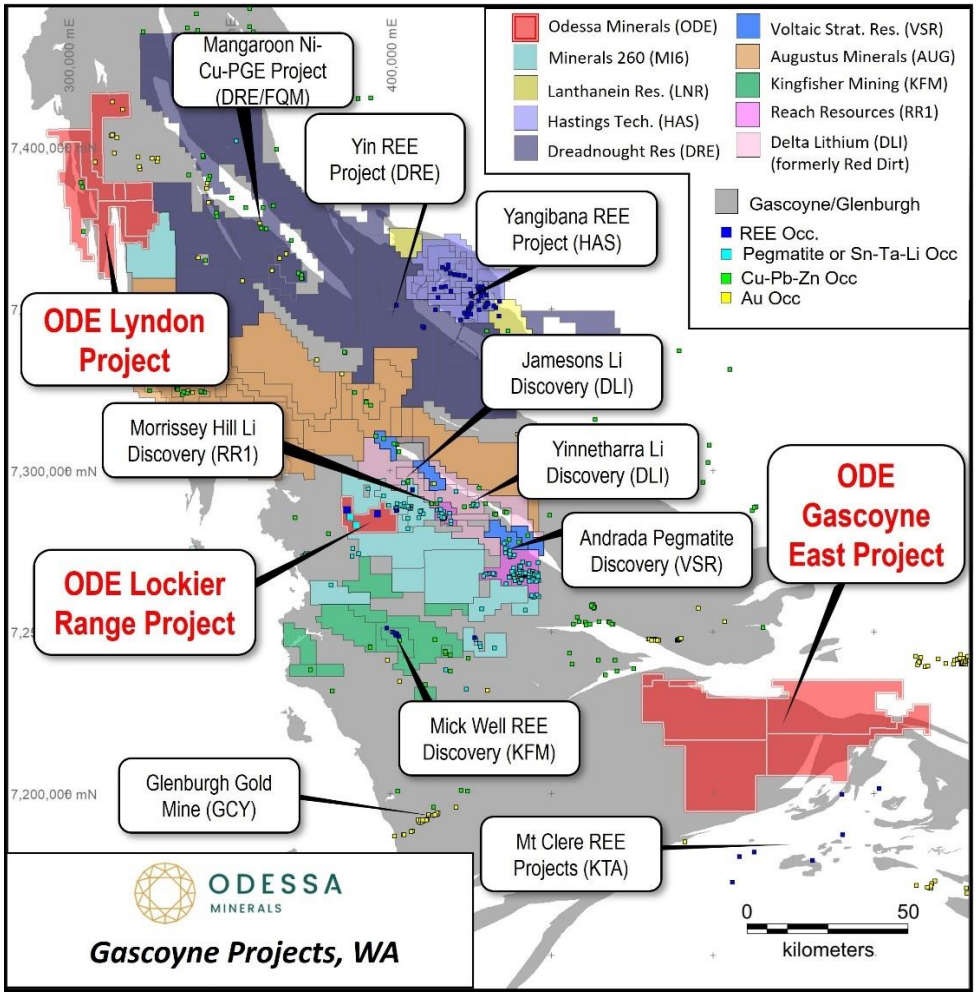

Figure 6 - Odessa Minerals regional Gascoyne Project location map with Geological Survey WA Minedex Occurrences.

ENQUIRIES

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Competent Persons Statement

Information in this report relating to exploration information is based on data compiled by Odessa Minerals and reviewed by Peter Langworthy, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Langworthy is Managing Director of (Principal Consultant) of Omni GeoX Ltd and 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 by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Langworthy consents to the inclusion of the data in the form and context in which it appears.

JORC CODE, 2012 EDITION – TABLE 1 REPORT

1.1 Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g., 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g., '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 (e.g.,* *submarine nodules) may warrant disclosure of detailed information.*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023 for reports on recent soil sampling.
Drilling techniques	• *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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).*	• No drilling reported
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• No drilling reported
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate*	• No drilling reported

Criteria	JORC Code explanation	Commentary
	Mineral Resource estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023 for reports on recent soil sampling
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *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.* • *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023 for reports on recent soil sampling
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023 for reports on recent soil sampling

Criteria	JORC Code explanation	Commentary
	verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	
Location of	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The location of the photographs reported using handheld GPS to +-5m accuracy
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023 for reports on recent soil sampling
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• n/a
Sample security	• *The measures taken to ensure sample security.*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023 for reports on recent soil sampling
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The company routintely conducts internal audits and reviews and in consultation with consultants.

Section 2 Reporting of Exploration Results

1.2

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• EL09/2649 is an exploration license application in the name of OD4 Noonie Pty Ltd. • Odessa Minerals owns a 100% interest in OD4 Noonie. There is a 1% royalty payable to the original vendor of OD4 Noonie on future production.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Pre Odessa geochemistry sampling is historic and compiled from third party reports as noted; and as previously reported in company release dated 25 October 2022. Refer previous reports namely WAMEX A99061 (IGO 2013) Stream Sediments; WAMEX A99061 (IGO 2013) Soil Samples; VENUS METALS PRESS RELEASE (28 Jan 2021) and A128133 (2021) Stream Sediments; WAMEX A117396 (ARROW MINERALS 2018) Stream Sediments.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The project area is underlain by Proterozoic rocks of the Gascoyne province of Western Australia. Rock types included Durlacher Super Suite Granitoids, Moogie Metamorphics (meta sediments) and Thirty-Three Supersuite leucogranites. • Based on rock type, radiometrics and geochemical anomalism the tenement area is prospective for carbonatite hosted rare earth elements comparable in style to the Yangibana Deposit located to the north in a similar geological settingg

Criteria	JORC Code explanation	Commentary
		• Based on the presence of Thirty-Three super suite granitoids intruding Durlacher Supersuite, the project area is prospective for lithium bearing pegmatites analogous to the nearby Yinnetharra Pegmatite field. Pegmatites of unconfirmed mineralogy and economic relevance have observed in the field been reported in this release.

Drill hole Information	• *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:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *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.*
		• No drilling reported.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No data aggregation methods other than gridding/contouring of soil results. Li2O = Li * 2.153 stochiometric conversion.
Relationship between	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle*	• No drilling reported

Criteria	JORC Code explanation	Commentary
Mineralisation n widths and intercept lengths	*is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').*	
Diagrams	• *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.*	• Maps included in the body of this release.
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.*	• No new assay or sampling results reported herein. Refer to previous announcements particularly 14/07/2023 and 20/07/2023
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 geochemistry data is reported. Pre Odessa sampling is historic and compiled from third party reports as noted; and as previously reported in company release dated 25 October 2022.
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• As noted in the body of this release Odessa Minerals is planning on conducting additional field reconnaissance work including further verification sampling of historic results. Dependent on the results of this sampling, the project area will be subjected to reconnaissance drilling.