27 March 2024



LYNDON PROJECT EXPLORATION COMMENCES

Odessa Minerals Limited (ASX:ODE) ("Odessa" or the "Company") is pleased to provide an update on its Lyndon Project ("Project"), located approximately 200km northeast of Carnarvon in Western Australia.

Highlights:

- VTEM data re-processing underway covering the Relief Well palaeochannel Uranium target
- Field reconnaissance, mapping and rock chipping commenced
- Lyndon Project prospective for palaeochannel-hosted and calcrete-type uranium mineralisation, lithium-caesium-tantalum (LCT) pegmatites, rare earth element (REE) carbonatites, Sediment-hosted Pb-Zn-Cu, orogenic gold, and intrusive Ni-Cu-PGE
- Lyndon Project Immediately adjoins Paladin Energy's Carley Bore Uranium Project (15.6MLbs U₃O₈ announced resource)

Lyndon Exploration Plan

Uranium Targeting

Following the promising data review of uranium potential across the Project, Odessa has now commenced the first field program at Lyndon. Field programs will initially focus on assessing calcrete-type uranium mineralisation overlying radiogenic granitoids at the Jailor Bore and Baltic Bore prospects through rock chipping and spectrometer-aided mapping around high-grade rock chip results including rock chip sample "3206" that returned an impressive result of **3,420ppm U₃O₈** (Figure 1 & Figure 2) from previous sampling.

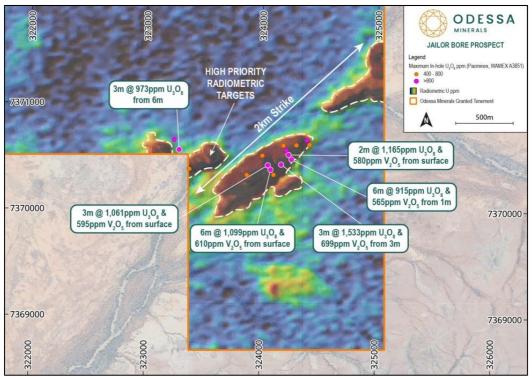


Figure 1: Jailor Bore Uranium Prospect area displaying significant U₃O₂ ppm results from historic drilling underlain by Uranium-band radiometric data (red = high uranium in radiometric data).





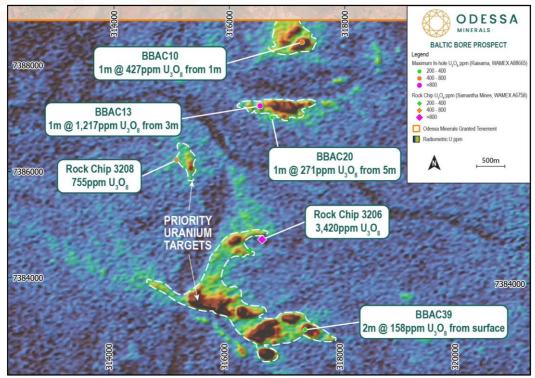


Figure 2: Baltic Bore Uranium Prospect area displaying significant U₃O₂ ppm results from historic drilling and rock chipping underlain by Uranium-band radiometric data (red = high uranium in airborne radiometric data).

Follow-up mapping at Ben Hur, Giant and Red Hill will target calcrete-type uranium mineralisation above Devonian carbonates and assess the potential for unconformity-type uranium mineralisation along the contact between the Moorarie Supersuite and the overlying Devonian sequence (Figure 3; Figure 4).

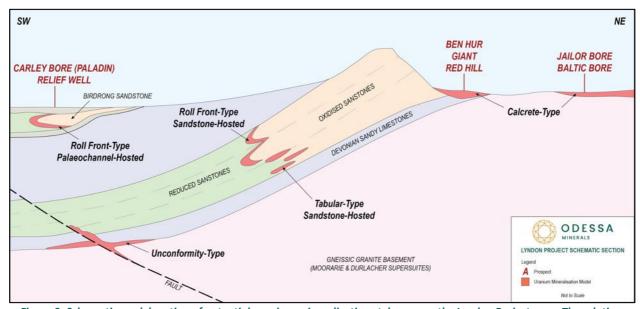


Figure 3: Schematic model section of potential uranium mineralisation styles across the Lyndon Project area. The relative position of prospects are displayed.





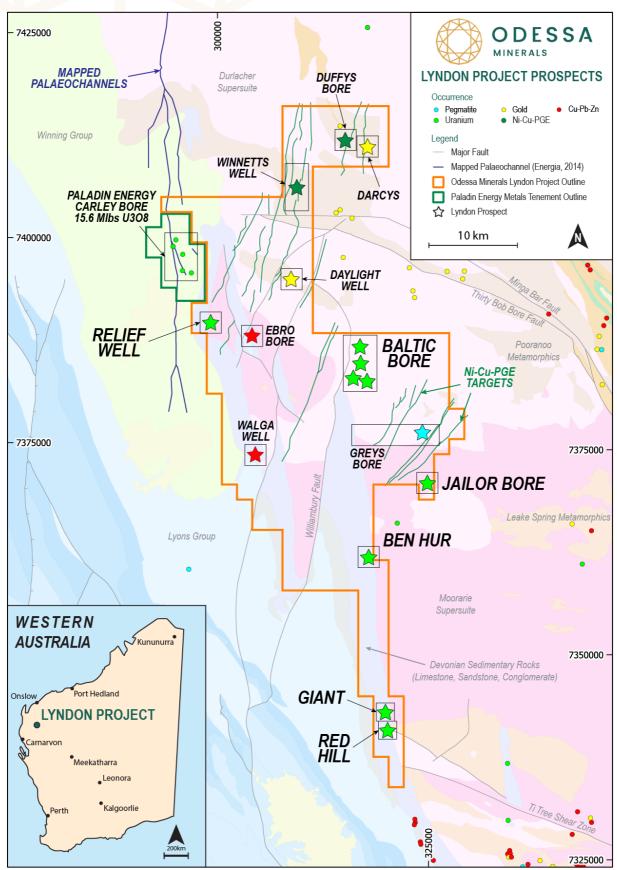


Figure 4: Lyndon Project prospects in relation to Minedex occurrences and the Carley Bore Project (Paladin Energy). Underlain with GSWA 1:500k bedrock geology and structures.





Odessa is currently re-processing historic VTEM data over the Relief Well prospect to determine the geometry of the VTEM anomaly and assess the potential for palaeochannel-hosted uranium mineralisation (Figure 5).

Relief Well is directly along strike from Paladin Energy's Carley Bore deposit and is interpreted as being an upstream extension of the palaeochannel host. Stratigraphy consists of a sequence of palaeochannel sandstone sediments (the Birdrong Sandstone) of the Winning Formation.

Depth-slice analysis of re-processed VTEM imagery will determine the deepest portions of the palaeochannel that are most likely to host significant roll front-type uranium mineralisation. Additionally, VTEM imagery will aid in mapping the subsurface shale unit that was intercepted in historic drilling at Relief Well. This work will allow Odessa to generate targets for drill testing where the deepest parts of the palaeochannel are overlain and confined by the impermeable shale unit.

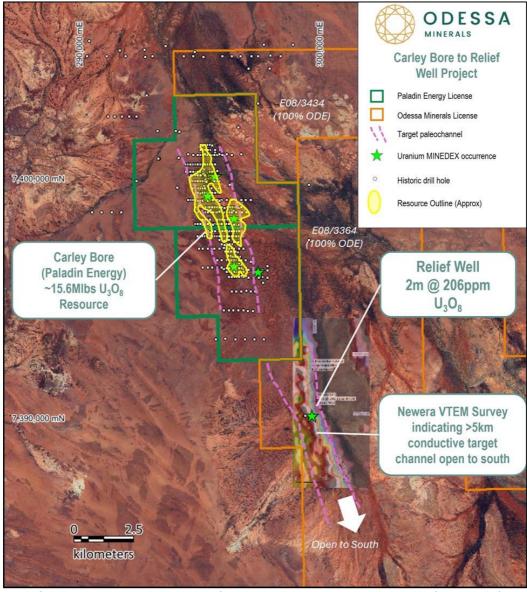


Figure 5: Relief Well VTEM survey indicating the inferred paleochannel extension along strike from Paladin's Carley Bore deposit.





Target Generation

Aside from Uranium, the Lyndon Project is prospective for Lithium-Caesium-Tantalum pegmatite mineralisation along strike from Delta Lithium's Yinnetharra LCT deposits, sedimentary-hosted base metals (Cu-Zn-Pb) within the Devonian carbonate sequences, Ni-Cu-PGE mineralisation within mafic intrusions in an analogous setting to FQM/Dreadnought's Money Intrusion, and gold mineralisation associated with the Minga Bar and Thirty-Bob Bore Fault System (Figure 4).

Lithium-Caesium-Tantalum Exploration

Outcropping pegmatites occur at the Grey's Bore prospect covering an area of 9km by 1.5km. To date, no sampling has been conducted across these pegmatites according to Open File data sources. Odessa will shortly commence systematic mapping and sampling of pegmatites at Grey's Bore, as well as identify new prospects across the Project.

Initial work will focus on defining fractionation and fertility trends across pegmatite swarms through feldspar sampling to calculate key indicators, such as K/Rb ratios. Whole-rock samples will be collected to delineate pegmatite suites and analyse for lithium and pathfinder elements.

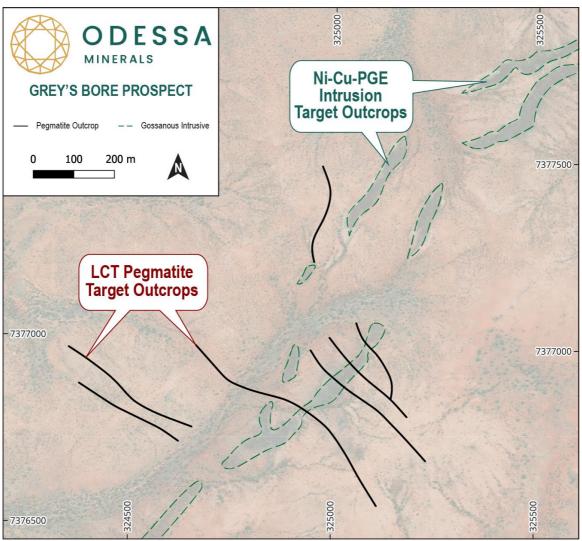


Figure 6: Grey's Bore prospect displaying outcrops of the mafic intrusive suite and cross-cutting pegmatite targets.





Ni-Cu-PGE Exploration

Aeromagnetic data flown by Odessa in 2023 across the Project has provided a detailed insight into the location of intrusions throughout the region that are not outlined in GSWA maps (Figure 6). These intrusions are thought to be part of the same suite as Dreadnought Resources' gabbroic-doleritic Money Intrusion that is host to Ni-Cu-PGF mineralisation.

Analysis of satellite and spectral data has outlined three target areas where these intrusions out/sub-crop over strike lengths of 13km at Grey's Bore, 7km at Duffy's Bore, and 6km at Winnet's Well (Figure 4). Exploration will initially focus on mapping and sampling gossanous portions of the outcrops in order to generate areas for targeted ground and airborne electro-magnetic (EM) surveys to define areas of potential sulphide accumulation for later drill testing.

Gold Exploration

Multiple gold occurrences are present across the Lyndon Project, related to the deep-seated Minga Bar and Thirty-Bob Bore Fault Zones that are host to multiple gold and copper-gold deposits, including Eric's Find (Figure 4). Eric's Find is 18km east along strike from the Project and has returned results including; 19 g/t Au, 6.4% Cu and 202 g/t Ag (IRG, 2010).

Compilation of historic data across the Lyndon Project shows that gold mineralisation occurs both within intense shear zones related to the major Fault Zones and within quartz veining hosted by the NE-striking mafic intrusive suite.

Darcy's prospect is hosted within an extensive set of quartz veins of varying orientation cross-cutting a dolerite host. Oxide copper mineralisation is present at surface within dolerite gossans, returning rock chip assays up to **2.2 g/t Au, 2.4% Cu, and 38g/t Ag** (IRG, 2010). The Daylight Well prospect (see Figure 5) was historically mined producing **124t at 40g/t Au** (WAMEX A43783).

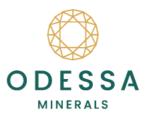
Additional mapping and sampling is required to understand the style and structural controls on gold mineralisation within the northern portion of the tenure, with an initial focus on the outcropping, historically-worked Darcy and Daylight Well prospects.

Cu-Pb-Zn Exploration

Multiple MINEDEX occurrences for Cu-Pb-Zn are present at the Lyndon Project within Devonian carbonates that are a suitable host for sedimentary base metal deposit styles, such as Mississippi Valley Type (MVT), Sedimentary Exhalative (SEDEX) and Carbonate Replacement (CRD).

Previous exploration was conducted at the Ebro Bore and Walga Well prospects by Aquitane Australia from 1972 and Dominion Mining from 1990 for carbonate-hosted base metals. Odessa is in the process of compiling, ground-truthing and analysing Open File data, including historic mapping, surface sampling and drilling at Ebro Bore. Once complete, the Company will update the market on the next steps in relation to Cu-Pb-Zn exploration plans.





Lyndon Project Overview

The Lyndon Project is located on the margin of the Carnarvon Basin and Gascoyne Complex approximately 200km south of Onslow and 200km NE of Carnarvon, in Western Australia. The project consists of over 1,000km² of exploration licenses and applications.

The Company has previously conducted detailed airborne magnetics and radiometrics over a large part of the project area. The Project encompasses multiple MINDEX occurrences and is prospective for Lithiumpegmatites, uranium, rare earth elements, intrusive Ni-Cu-PGE, orogenic gold and sedimentary-hosted Cu-Pb-Zn mineralisation.

The Project area encompasses the unconformity between the eastern margin of the Phanerozoic Carnarvon Basin overlying Precambrian basement of the Gascoyne Province. The basement consists of Proterozoic granites, metamorphic gneisses and schists of the Gascoyne Complex. The western parts of the Project include the Palaeozoic-Mesozoic basin margin sedimentary sequences of the Southern Carnarvon Basin including the Merlinleigh Sub-Basin, marked by Devonian sedimentary carbonates; Carboniferous-Permian glacigene sediments of the Lyons Group; and the siliciclastic sequences of the Cretaceous Winning Group that were deposited coincident with NW-SE rifting.

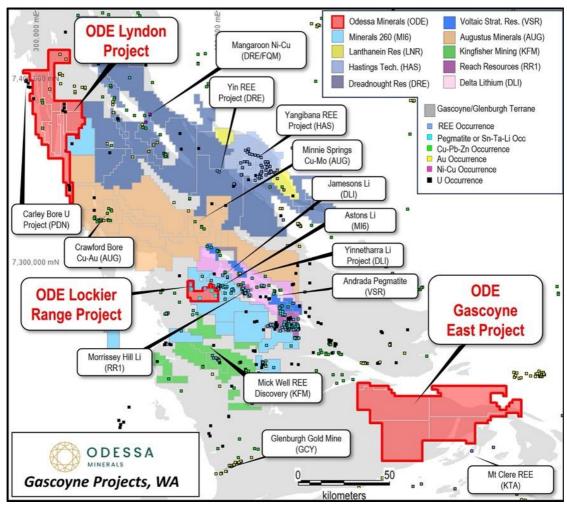


Figure 7: Odessa Minerals regional Gascoyne Project location map overlain with Geological Survey WA Minedex Occurrences.





About Odessa Minerals

Odessa Minerals Ltd is an ASX listed company (ASX: ODE) that holds exploration licenses over 3,000km² 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.

ENQUIRIES

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Competent Persons Statement

Information in this report relating to exploration information is based on historic 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 (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.)

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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. 	Not applicable, no new results are reported in this announcement.
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). 	Not applicable, no new results are reported in this announcement.
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. 	Not applicable, no new results are reported in this announcement.
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	Not applicable, no new results are reported in this announcement.

Criteria	JORC Code explanation	Commentary
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. 	Not applicable, no new results are reported in this announcement.
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. 	 In the case of Jailor Bore and Relief Well drilling noted by Newera, laboratory (WAMEX A104029 as example) assaying completed on samples pulverised to 75um using XRF_U_EXP technique at SGS Laboratories Perth. In the case of Baltic Bore with drilling conducted by Raisama (WAMEX A88665) samples are reported that QA/QC and check samples were utilised, however, without description of QA/QC outcomes. Samples were assayed at Genalysis Laboratories in Perth. For other prospects including results from the 1970s, laboratory information has not necessarily been presented. As in the case of all historic sampling, QA/QC and verification is not possible, and all assay results are subject to further checking and confirmatory work.
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 verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 This report contains a compilation of historic results. On-going verification, including on-ground checking is pending. The oxides U₃O₈ and V₂O₅ are the industry accepted form of reporting Uranium and Vanadium assay results. Where historic results were reported in U ppm and V ppm, assay results were converted to stoichiometric oxides (U₃O₈ and V₂O₅) using the element-to-oxide stoichiometric conversion factors in the table below:
		Element Conversion Factor Oxide
		U 1.1792 U ₃ O ₈
		V 1.7852 V ₂ O ₅

Criteria	JORC Code explanation	Commentary
Location of data points	 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. 	 Historic work by Uranerz, Samantha Mines and Pacminex do not contain accurate survey information. The Company is relying upon the MINEDEX database locations for general description of the historic work and has digitised locations from maps presented in WAMEX reports using known geographical points (e.g. water bores, airfields and creeks) as reference. In the case of data presented by Newera and Raiasama, survey is under the control of hand-held GPS with an assumed accuracy of +-5m.
		 The Company converts historic data and uses MGA94 Zone 50 in this report.
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. 	 As presented in the body of this release in maps compiled from historic data, the sample and drill spacing is variable.
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. 	 Drilling is vertical for flat-lying deposits, particularly those presented as calcrete deposits.
Sample security	The measures taken to ensure sample security.	Historic work only and sample security not reported.
Audits or reviews	The results of any audits or reviews of sampling techniques and data	 This report contains historic information compiled from open file reports. The work is on-going and field checking is pending.

1.2 Section 2 Reporting of Exploration Results

(Criteria listed in the preceding se		
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. 	 Lyndon Project The Lyndon Project consists of granted exploration licenses under the name of Odessa Lyndon Pty Ltd, a 100% owned subsidiary of Odessa Minerals Ltd. Tenement numbers are. E 08/3217, E 08/3364, E 08/3434, E 09/2435, E 09/2605 One exploration license is in application E 09/2938 applied for on 2/8/2023 and is pending grant.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	As noted in the body of this release, this project has undergone successive exploration campaigns from the early 1970s until 2014.
		Data within in this announcement can be found in: Pacminex, 1973 – WAMEX A3851 Pacminex, 1974 – WAMEX A5104 Newera Resources, 2009 – WAMEX A81885 Newera Resources, 2014 – WAMEX A104029 Samantha Mines, 1977 – WAMEX A6758 Raisama Itd, 2010 – WAMEX A88665 Uranerz PL , 1974 – WAMEX A4638 Newera Resources, 2007 – WAMEX A76714 Newera Resources, 2009 – WAMEX A85561 Integrated Resources Group Ltd – ASX Announcement dated 23 August 2010 Dominion Mining, 1991 – WAMEX A34571 Riverglen, 1995 – WAMEX A43783
Geology	Deposit type, geological setting and style of mineralisation.	• The Project area encompasses the unconformity between the eastern margin of the Phanerozoic. Carnarvon Basin overlying Precambrian basement of the Gascoyne Province (Figure 1). The basement consists of Proterozoic granites, metamorphic gneisses and schists. The western parts of the Project include the Palaeozoic-Mesozoic basin margin sedimentary sequences of the Southern Carnarvon Basin: the Merlinleigh Sub-Basin, marked by Devonian sedimentary carbonates; Carboniferous-Permian glacigene sediments of the Lyons Group; and a thin veneer of the siliciclastic sequences of the Cretaceous Winning Group that were deposited coincident with NW-SE rifting.

Criteria	JORC Code explanation	Commentary
		 Uranium mineralisation is found across multiple styles. Mineralisation at Paladin Energy's Carley Bore Project is roll-front type, hosted within the Cretaceous Birdrong Sandstone and concentrated at redox boundaries. VTEM data suggests the Birdrong Sandstone extends across the Odessa Lyndon Project, in which the Relief Well prospect is situated. Jailor Bore, Baltic Bore and Ben Hur prospects express calcrete-type mineralization. Daylight Well and Darcy's prospects exhibit lode-gold mineralisation associated with shearing and faulting of the Minga Bar and Thirty Bob Bore fault systems. Base Metal (Cu-Pb-Zn) mineralization at Walga Well and Ebro Bore resembles sedimentary-hosted Mississippi Valley Type mienralisation. Potential exists for sedimentary exhalative, Irish-type and carbonate replacement deposit styles. Ni-Cu-PGE mineralisation will be hosted within the Mundine Well intrusive suite, interpreted to be part of the same intrusive suite as Dreadnought Resource's Money intrusion.
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. 	 Drill hole information presented in the body of this release includes relevant information where applicable and where available/compiled. In some cases, including historic Pacminex and Uranerz results, accurate survey information is not available.
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. 	 Uranium assays are converted to the oxide U₃O₈ using conversion factor of 1.1792 (U₃O₈ is 84.7% uranium by weight).

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle 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 (eg 'down hole length, true width not known'). 	 Historic drilling reported. However, mineralisation is considered as relatively flat-lying with drilling predominantly with vertical holes. Hence true width and drill width are approximately equivalent.
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. 	 Appropriate disclosure on reporting historic results is provided within this release. All reported results are to be considered as historic and are subject to verification and confirmation works by the Company.
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.	 Odessa Minerals completed an airborne radiometric survey in 2022. The uranium band anomalism is broadly consistent with the reporting of historic results and coincides with MINEDEX mineral occurrences, thus providing confidence in the presence of significant uranium mineralisation as presented.
Further work	 The nature and scale of planned further work (eg 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. 	 Ongoing verification of all historic results, as presented. The Company is undertaking VTEM data re-processing across Relief Well for palaeochannel-hosted roll front-type uranium potential. Ground-based mapping and sampling at the Project, weather dependent. Based on the outcomes of ground-based sampling and re-processing of VTEM data, drill testing of targets will be conducted