

ODESSA EXPANDS GASCOYNE RARE EARTH ELEMENT EXPLORATION HOLDING TO OVER 3,000 SQUARE KILOMETRES

Highlights

- 2,148 square kilometres of new exploration license applications at the Gascoyne East Project
- >3,000 square kilometres of highly prospective Gascoyne Terrane in Western Australia, making Odessa one of the key exploration land holders in the Gascoyne.
- Minimal previous exploration at Gascoyne East Project—exploration targeting models indicating Prospectivity for:
 - Clay / Fluvial Rare Earth Element (REE) Deposits
 - Hard rock REE Deposits
 - Sedimentary hosted copper-lead-zinc deposits

Odessa Minerals Limited (ASX:ODE) (“Odessa” or the “Company”) is pleased to announce that it has applied for 2,143 square kilometres of new exploration license applications in the Gascoyne Terrane.

David Lenigas, Odessa’s Executive Director, commented: *“With the recent acquisitions at Lyndon and Lockier Range, we are pleased to have recognised further opportunity at the Gascoyne East Project area. These new applications represent perhaps the last significant strategic land-package available for exploration application in the district. In working with our advisors, the Gascoyne East Project represents a hitherto previously un-explored part of this Gascoyne Province. The Gascoyne and surrounding district is Western Australia’s pre-eminent emergent discovery province for REE and Lithium pegmatites with discoveries and acquisitions in recent times by Hastings Technology, Dreadnought Resources, Kingfisher Mining, Red Dirt Metals and Krakatoa Mining. The Gascoyne is now a very exciting project area for Odessa, and we see this very large tenement package as highly prospective for REE’s and lithium.”*

About Gascoyne East Project

The Gascoyne East Project consists of six new exploration license applications. The project is approximately 90% covered by colluvium gravels and cover sediments and, as such, has received minimal previous exploration.

The area is interpreted as predominantly underlain by Gascoyne Terrane Moorarie Supersuite granitoids—a potential host for the carbonatite hosted REE mineralisation analogous to other discoveries elsewhere in the Gascoyne. The project is located approximately 80 kilometres to the south-southeast, and along a dominant regional structural trend, from Kingfisher Mining Ltd’s Mick Well rare earth element discovery, and approximately 16 kilometres north of Krakatoa Resources Mt Clere REE project.

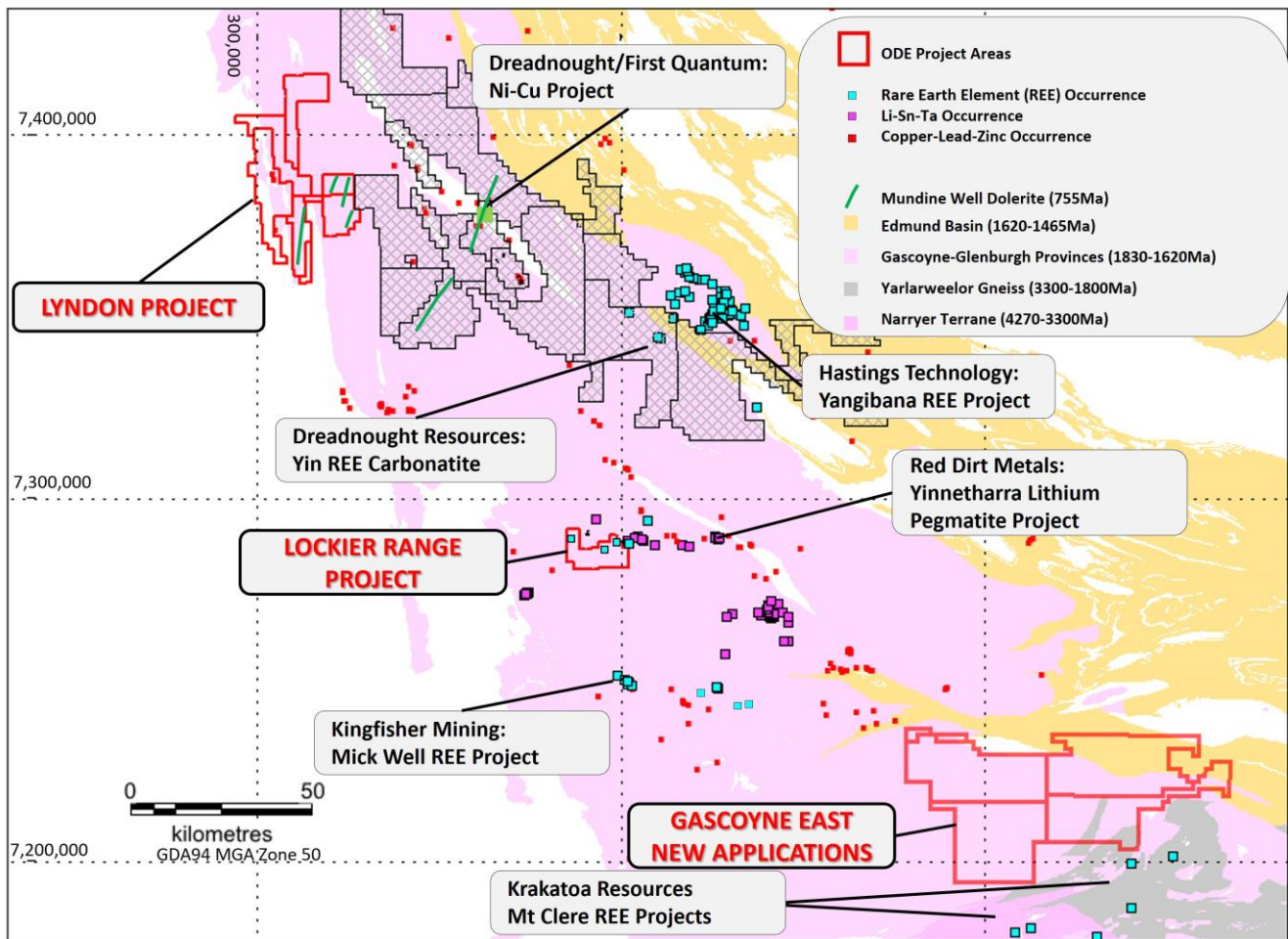


Figure 1: Gascoyne East applications and Odessa's other projects in the Gascoyne, WA

The NE quadrant of the project area includes Edmund (basin) Group sediments including pelites and sandstones. Elsewhere, the Edmund Group is host to the large-scale base-metal deposits (such as the large Abra Deposit controlled by Galena Mining Ltd). Work by Geoscience Australia and others published in 2019 (Czarnota *et al*, 2019) suggests a deep tectonic zone controls giant copper and other metal deposits in Australia such as Olympic Dam (SA), Telfer (WA) and Mt Isa (QLD) deposits, as well as analogies elsewhere in the world, with this same 'gigayear stability' gradient zone transecting the Gascoyne East area.¹

Next Steps

The Company intends to negotiate appropriate land access agreements with traditional owners/native title parties and proceed the tenements to granted status. First exploration will involve reconnaissance work, followed by ground based geophysics and/or shallow drilling to test through colluvium cover to the basement Gascoyne Group rocks.

¹ Czarnota, K., Hoggard, M.J., Richards, F.D., Huston, D.L., Jaques, L.A., "Gigayear Stability of cratonic edges controls global distribution of sediment hosted metals" *Nature Geoscience* (submitted April 2019).

Tenement Details and Agreement

Tenement ID	Status	Registered Holder	Blocks	Area SqKm
E 52/4182	Exploration License Application	ODESSA LYNDON PTY LTD	191	594.2
E 52/4183	Exploration License Application	ODESSA LYNDON PTY LTD	172	534.2
E 52/4184	Exploration License Application	ODESSA LYNDON PTY LTD	142	441.3
E 52/4186	Exploration License Application	ODESSA LYNDON PTY LTD	6	18.6
E 52/4187	Exploration License Application	ODESSA LYNDON PTY LTD	175	544.3
E 52/4198	Exploration License Application	ODESSA LYNDON PTY LTD	5	15.5
				2148.1

The identification and targeting of the project was assisted by Dr Nigel Brand of Odette Geoscience Pty Ltd, who developed an exploration targeting model that includes a down-drainage distribution of clay-hosted rare earth elements from the discoveries of Krakatoa Mining located upstream to the south.

The Company has entered into an Alliance agreement with Odette One Pty Ltd (“OD1”) (a wholly owned subsidiary of Odette Geoscience Pty Ltd) in relation to tenement opportunities presented to Odessa by OD1. Key terms of the agreement are as follows:

- OD1 at its absolute discretion may from time to time identify and introduce a tenement application Opportunity (“Opportunity”) to Odessa on a non exclusive basis.
- Odessa at its absolute discretion may apply for tenements identified in the Opportunity.
- Should Odessa apply for and be successful in having an exploration license with respect to the Opportunity granted, Odessa agrees to grant OD1 or its nominee a 15% free carried interest in the form of an unincorporated JV over that Exploration license until Decision to Mine.
- Upon Decision to Mine, OD1 must commence contributing all Joint Venture costs in proportion to its percentage share, or convert its interest into an uncapped 1.5% Net Return Royalty in respect of the tenement area.

This announcement has been approved for release by the Board of Odessa Minerals.

ENQUIRIES

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