

### **Investor Presentation**

May 2025

Potential for High-Grade High-Value High-Tonnage EU Critical Minerals



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#### **COMPETENT PERSON STATEMENT**

The information in this report that relates to Exploration Results is based on information compiled by Mr Fernando Palero, a Competent Person who is a Member of the European Federation of Geologists. Mr Palero is an independent geological consultant. Mr Palero has sufficient experience that 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 Palero consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# Introduction

### Osmond Resources (ASX.OSM) is focused on developing critical minerals' mines important to the EU.

Potential for:	
High Grade	<ul> <li>Outcrop samples containing over 45% Total Heavy Minerals (<b>THM</b>)</li> <li>Exceptionally high grades of titanium (rutile), zircon and rare earths</li> </ul>
High Value	<ul> <li>Titanium is predominantly high-value rutile</li> <li>High-grade zircon and hafnium</li> <li>THM assemblage compares favourably to existing producers</li> </ul>
High Tonnage	<ul> <li>Two interpreted pervasive seams</li> <li>Mineralised outcrops over 10km apart</li> <li>86km<sup>2</sup> permit area</li> </ul>
EU Critical Minerals	<ul> <li>EU Critical Materials Act 2024</li> <li>Magnet rare earths and titanium metal two of 17 Strategic CMs</li> <li>Light and heavy rare earths, titanium and hafnium four of 34 CMs</li> </ul>

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# **1. Corporate Overview**

Capital Table as at	28 April 2025	
Ordinary Shares	95.6m	
Undiluted Share Capital		95.6m
Orion Acquisition Shares (refer ASX Release dated 6 September 2024)		
Stage 1 - 30%	25.0m	
Stage 2 - to 60%	42.5m	
Stage 3 - to 80%	42.5m	
Total		110.0m
Options		42.4m
Fully Diluted		248.1m
Share Price at 24 April 2025	\$0.49	
Undiluted Market Cap		\$46.9m
Fully Diluted Market Cap		\$121.5m
Cash at Bank at 24 April 2025	\$4.23m	



#### Key Management

Anthony Hall Managing Director and CEO

Lachlan Rutherford Executive Director

Fernando Palero Chief Geologist

Gonzalo Mayoral In-Country Manager

Javier Pontvianne Process Engineering Manager

Pedro Rodriguez Advisor 25 years commercial experience in strategy, venture capital, risk management and compliance. Successfully transitioned two natural resources IPOs to ASX300 companies as MD and CEO.

LLB (Honors), BBus (Accounting and Finance), GradDipAppFin, AGIA.

25 years exploration and commercial experience in business strategy and project management. Managed two EU critical minerals projects in Spain and Sweden.

PhD, MBA, BSc (Hons) (Geology).

Spanish national with over 43 years experience in mining exploration and mining operations in Spain, Africa and South America as a Chief Geologist through to consultant and researcher.

PhD in Geological Sciences.

Spanish national with over 25 years experience in construction and mining projects management. Successfully delivered Feasibility Studies for ASX listed Spanish mining developer.

Mining Engineer, Masters level Environmental and Safety Studies.

Spanish national with over 10 years experience in concentration and metallurgy within mining projects in Spain and Australia.

Mining Engineer – metallurgy specialty.

Spanish national with over 45 years of experience in the mining industry, including seven international mining companies whilst based in Spain.

Qualifications in Geology.

# 2. Orion EU Critical Minerals Project

#### **Overview**

- Project located in Jaén Province, Andalucía, Southern Spain
- 288 "cuadrículas mineras" covering an area of ~86.4km<sup>2</sup>
- A lithified placer sand geological system with various layers rich in three future facing / critical minerals with high grade potential:
  - Titanium (Rutile dominated)
  - Zircon / Hafnium
  - Rare Earths (Monazite hosted)
- Unsuccessfully explored for uranium and thorium in the 1950's and 1960's
- Initial target areas are outcropping with significant scale potential
- Three target areas identified over a distance of 10kms
- Historic galena (lead) mine in permit area located directly below mineralised outcrops
- Geological mapping has confirmed two primary seams that appear to be pervasive across the permit area
- Acquisition by Osmond subject to permit award\*



# 2. Orion EU Critical Minerals Project

#### **Location Pictures**



Photo on location at the outlook of Zone Three



Mineralised Seam Outcrops from Zone Three



Photo on location at the outlook of Zone Three



Photo showing selected outcrops and geological interpretation of potential mineralised sequence



Photo on location at Avellanar Zone showing remnants of historic galena mine in the permit area

# **3. High-Grade Potential**

### Exceptionally high-grade results from rock chip sampling program

High-grade potential with samples delivering 45% Total Heavy Minerals (THM).

Rich in titanium, zircon, hafnium and rare earth elements.

Magnetic rare earth oxides (Neodymium, Praseodymium, Terbium and Dysprosium).

#### Table showing all assay results from 2020 rock chip channel sampling\*

Sample	TiO <sub>2</sub>	ZrO <sub>2</sub>	HfO <sub>2</sub>	Nd <sub>2</sub> O <sub>3</sub>	Pr <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Dy <sub>2</sub> O <sub>3</sub>
Code	%	%	ppm	ppm	ppm	ppm	ppm
AV-1	19.00	6.57	1,539	2,193	616	31	149
AV-2	19.05	6.54	1,403	1,971	506	27	135
AV-3	15.15	6.10	1,327	2,059	547	30	144
AV-4	13.85	5.05	1,123	1,697	432	23	108
AV-5	11.95	3.67	787	1,201	315	16	78
AV-6	12.20	4.34	894	1,277	328	19	93
AV-7	18.25	5.42	1,144	1,371	350	20	98
AV-8	24.40	9.70	2,353	3,383	868	41	195
AV-9	19.10	7.50	1,598	2,531	697	33	162
AV-10	>30.0	10.90	2,618	2,683	769	36	173
AV-11	15.30	4.11	938	1,283	318	20	98
AV-12	14.55	4.08	954	1,266	327	19	95
AV-13	14.45	6.24	1,362	2,164	607	31	149
AV-14	13.85	3.88	834	1,201	309	17	88
AV-N1	9.11	3.28	735	924	240	12	61
AV-N2	11.45	4.76	1,041	1,540	394	23	107

**AV-9 SAMPLE** 



Photo showing AV-9 sample area

# 4. High-Value Potential



#### Mineral species shows high-value rutile, zircon, hafnium and magnet rare earths

Select Modals and Oxides from Bulk Sample Results*									
Element	Mineral	Unit	Sample 1	Sample 2	Sample 3				
Titonium	Rutile	%	13.26	13.16	15.22				
Intanium	Ilmenite	%	6.02	4.69	5.05				
Zirconium	Zircon	%	9.28	8.44	9.37				
	Monazite	%	1.54	1.50	1.72				
Dere Fortho	Allanite	%	0.30	0.02	0.03				
Rare Earths	Xenotime	%	0.03	0.03	0.03				
	TREO**	ppm	16,238	14,747	16,106				
Element	Oxides	Unit	Sample 1	Sample 2	Sample 3				
Hafnium	HfO <sub>2</sub>	ppm	1,204	1,178	1,295				
Neodymium	Nd <sub>2</sub> O <sub>3</sub>	ppm	2,049	1,858	2,039				
Praseodymium	Pr <sub>6</sub> O <sub>11</sub>	ppm	575	520	568				
Samarium	Sm <sub>2</sub> O <sub>3</sub>	ppm	366	331	364				
Gadolinium	Gd <sub>2</sub> O <sub>3</sub>	ppm	259	232	256				
Terbium	Tb <sub>4</sub> O <sub>7</sub>	ppm	33	30	33				
Dysprosium	Dy <sub>2</sub> O <sub>3</sub>	ppm	155	142	154				
Lutetium	Lu <sub>2</sub> O <sub>3</sub>	ppm	13	12	13				
Yttrium	Y <sub>2</sub> O <sub>3</sub>	ppm	689	628	684				

- Rutile is the most valuable titanium mineral with the highest TiO<sub>2</sub> content of over 95% TiO<sub>2</sub>.
- Pricing data from the USGS Mineral Commodity Summaries 2025 for 2024 shows Rutile trades at a 380% premium over Ilmenite (US\$1,310 vs. US\$340). <u>https://pubs.usgs.gov/publication/mcs2025</u>
- Hafnium trading at all time highs.
- Strategically important magnet rare earth including six of seven recently banned for export by China as highlighted.

# 4. High-Value Potential

#### 150kg Bulk Sample results show exceptionally high-value THM assemblage

#### Select Modals and Oxides from 150kg Bulk Sample Results\*

	Sample 1	Sample 2	Sample 3
Style	Hard rock (li	thified min. sa	nds)
Insitu grade			
Rutile	13.26%	13.16%	15.22%
Leucoxene	-	-	-
Ilmenite	6.02%	4.69%	5.05%
Zircon	9.28%	8.44%	9.37%
Mz+Xn	1.57%	1.53%	1.75%
Total Heavy M	ineral (THM)		
ТНМ	30.4%	27.8%	31.4%
THM Assembl	age		
Rutile	43.6%	47.3%	48.5%
Leucoxene	-	-	-
Ilmenite	19.8%	16.9%	16.1%
Zircon	30.5%	30.4%	29.8%
Mz+Xn	5.2%	5.5%	5.6%

#### Select Mineral Sand Producers Showing Insitu Grade and Heavy Mineral Assemblage

Company	llu	ka	Tronox <sup>3</sup>	Eramet <sup>4</sup>	Sierra F	Sierra Rutile <sup>5</sup>	
Location	Balranald <sup>1</sup>	Global <sup>2</sup>	Global	Grande Côte	Area 1	Sembehun	
Category	Resource	Reserve	Reserve	Reserve	Reserve	Reserve	
Style	Min. sand	Min. sand	Min. sand	Min. sand	Min. sand	Min. sand	Min. sand
Insitu grade							
Rutile	4.0%	0.3%	0 504	0.04%	1.34%	1.46%	0.06%
Leucoxene	2.0%	-	0.5%	0.05%			
Ilmenite	21.6%	2.2%	2.6%	1.03%	0.75%	0.91%	2.67%
Zircon	3.7%	0.9%	0.5%	0.15%	0.13%	0.11%	0.17%
Mz+Xn	0.3%	0.2%	-	-			
Total Heavy Miner	ral (THM)						
ТНМ	33.7%	5.6%	4.9%	1.43%	4.36%	3.08%	3.2%
THM Assemblage							
Rutile	12.0%	5.0%	0.00/	2.5%	30.7%	47.4%	1.9%
Leucoxene	6.0%	-	9.8%	3.2%	-	-	
Ilmenite	64.0%	40.0%	53.5%	72.0%	17.2%	29.5%	83.3%
Zircon	11.0%	16.0%	10.3%	10.7%	3.0%	3.6%	5.3%
Mz+Xn <sup>7</sup>	0.9%	2.7%	-	-	-	-	

<sup>1</sup> ILU ASX release dated 21 Feb 2023

<sup>2</sup> ILU asx release dated 19 Feb 2025

<sup>3</sup> TROX NYSE release dated 12 Feb 2025

<sup>4</sup> ERA 2023 Annual Finanical Report, release dated 9 Apr 2024; Assumed THM assemblage from MDL MRE update dated 19 Feb 2018

<sup>5</sup> SRX ASX release dated 24 Mar 2023

<sup>6</sup> KMR 2023 Annual Report dated 4 Apr 2024

 $^{7}$  Mx+Xn = monazite + xenotime

HIGH VALUE

# 5. High-Tonnage Potential

#### Three target zones with outcropping over large distance

- Permit area 86.4km<sup>2</sup>
- Three target zones
- Mineralised outcrops over 10km distance
- Two interpreted pervasive seams



Map showing chip sampling and channel bulk sample locations locations within Zone 1 (Avellanar Zone)



Map showing sample locations in Zone 3 and distance from Zone 1 (Avellanar)

# **6. EU Critical Minerals**



### EU Critical Raw Materials focus likely to fast-track development, financing and production

Strategic Raw Materials		Critical Raw Materials					U Critical Raw Materials Act
1.	bauxite/alumina/aluminium	1.	antimony	18.	light rare earth elements	1.	Aim is to reduce dependence on
2.	bismuth	2.	arsenic	19.	lithium		countries outside of the EU for critical
3.	boron — metallurgy grade	3.	bauxite/alumina/aluminium	20.	magnesium		materials / minerals.
4.	cobalt	4.	baryte	21.	manganese	2.	Objective by 2030
5.	copper	5.	beryllium	22.	graphite		a) EU Extraction: At least 10% of EU
6.	gallium	6.	bismuth	23.	nickel — battery grade		annual consumption from EU
7.	germanium	7.	boron	24.	niobium		b) EU Processing: At least 40% of EU
8.	lithium — battery grade	8.	cobalt	25.	phosphate rock		annual consumption from EU
9.	magnesium metal	9.	coking coal	26.	phosphorus		c) EU Recycling: <b>At least 25%</b> of the EU's
10.	manganese — battery grade	10.	copper	27.	platinum group metals		annual consumption from domestic
11.	graphite — battery grade	11.	feldspar	28.	scandium		d) External Sources: <b>not more than 65%</b>
12.	nickel — battery grade	12.	fluorspar	29.	silicon metal		of the EU's annual consumption of each
13.	platinum group metals	13.	gallium	30.	strontium		strategic raw material at any relevant
14.	rare earth elements for	14.	germanium	31.	tantalum		stage of processing from a single third
	permanent magnets (Nd,	15.	hafnium	32.	titanium metal	2	country.
	Pr, Tb, Dy, Gd, Sm, and Ce)	b, Dy, Gd, Sm, and Ce) 16. helium 33. tu		tungsten	3.	Maximum of 27 months permitting	
15.	silicon metal	17.	heavy rare earth elements	34.	vanadium.		timetable for Strategic Projects
16.	titanium metal	·					involving extraction.

- 16. titanium metal •
- 17. tungsten.

Source: EUR-LEX - Document 32024R1252

Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020. Text with EEA relevance.

Single point of contact for all things

4.

permitting.

# **6. EU Critical Minerals**





Source: EU Consumption - SCRREEN Factsheets CRMS 2023 / EU Production - USGS Mineral Commodity Summaries 2024. \*Demand in metric tonnes, 2016-2020 average, 20% added for GDP rises.

# 7. Future Facing Technologies

#### Future facing technology demand drivers



### 8. Milestones



**Achieving Key Milestones** 



# 9. Iberian One & Yumbara Project



Iberian One Project Location, Spain, relative to Madrid.

#### **Project Overview**

The project consists of the Grafenal Investigation Lease (47.5km<sup>2</sup>), the Becerril Mining Permit (1.6km<sup>2</sup>) and the overlapping Paula Mining Permit, together totalling approximately 50km<sup>2</sup> as the Iberian One Project Area. Osmond is attracted to the Iberian One Project for the potential to produce a range of products with the main target product being alunite mineralisation that can potentially feed into the production of Sulphate of Potash (SOP).



Yumbara Project location, South Australia.

#### **Project Overview**

Located in the western Eyre Peninsula region of South Australia the project contains a highly magnetic feature that is interpreted as a layered ultramafic intrusive. Limited historical exploration undertaken on the Tenement, with the focus on exploration for uranium, gold, nickel, copper, and rare earth elements (REE).

**The Yumbara Project** is located within the highly prospective Fowler Domain and Nuyts Domain, both within the Gawler Craton in South Australia.

# **10. Summary**

### Osmond Resources (ASX.OSM) is focused on developing critical minerals' mines important to the EU.

• Potential for:	
High Grade	<ul> <li>Outcrop samples containing over 45% Total Heavy Minerals (<b>THM</b>)</li> <li>Exceptionally high grades of titanium (rutile), zircon and rare earths</li> </ul>
High Value	<ul> <li>Titanium is predominantly high-value rutile</li> <li>High-grade zircon and hafnium</li> <li>THM assemblage compares favourably to existing producers</li> </ul>
High Tonnage	<ul> <li>Two interpreted pervasive seams</li> <li>Mineralised outcrops over 10km apart</li> <li>86km<sup>2</sup> permit area</li> </ul>
EU Critical Minerals	<ul> <li>EU Critical Materials Act 2024</li> <li>Magnet rare earths and titanium metal two of 17 Strategic CMs</li> <li>Light and heavy rare earths, titanium and hafnium four of 34 CMs</li> </ul>

# **11. Appendix 1 – EU Support**



- · The PERTE VEC II grant funding process has been finalised with 95% of funds committed to Spain's electric vehicle battery chain.
- · Further grant funding submissions in Spain have been announced for the beginning of 2024.

Werner Hover



ABOUT THE AUTHOR

Former president of the European Investment Bank

The company spent the last few months successfully testing its

PFS.

graphite product for various market use cases, while working on its

# **12. Appendix 2 – Chinese MREOs**

**Geopolitical Impact on Rare Earth Supply Chains** 

## The New York Times

### China Halts Critical Exports as Trade War Intensifies

Beijing has suspended exports of certain rare earth minerals and magnets that are crucial for the world's car, semiconductor and aerospace industries.

"China has suspended exports of a wide range of critical minerals and magnets, threatening to choke off supplies of components central to automakers, aerospace manufacturers, semiconductor companies and military contractors around the world."

The New York Times, April 13, 2025

#### Table Showing Assay Results from 150kg Bulk Sample for Six of Seven Banned MREOs

Select Rare Earth Oxide Results from Bulk Samples*									
Element	Oxides	Oxides Unit Sample 1		Sample 2	Sample 3				
Samarium	Sm <sub>2</sub> 0 <sub>3</sub>	ppm	366	331	364				
Gadolinium	Gd <sub>2</sub> 0 <sub>3</sub>	ppm	259	232	256				
Terbium	Tb <sub>4</sub> 0 <sub>7</sub>	ppm	33	30	33				
Dysprosium	Dy <sub>2</sub> 0 <sub>3</sub>	ppm	155	142	154				
Lutetium	Lu <sub>2</sub> 0 <sub>3</sub>	ppm	13	12	13				
Yttrium	Y <sub>2</sub> 0 <sub>3</sub>	ppm	689	628	684				



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