ASX Announcement

20 July 2023

STRONG RARE EARTHS IN SOILS CONFIRM SIGNIFICANCE OF 14% REE IN STREAM SEDIMENTS AND DEFINE DRILL TARGET AT LOCKIER RANGE

Odessa Minerals Limited (ASX:ODE) ("Odessa" or the "Company") advises that it has received and reviewed the rare earth element ("REE") analysis results from the tenement-wide **systematic soil sampling program** over the Lockier Range project located in the Gascoyne region of Western Australia.

Highlights:

Well-defined and standout **drill targets for REE** have now been identified at Lockier Range and includes:

- **Mt Yaragner West REE**
  - **~2.5km x 1.5km** target zone with **very high cerium (Ce) + lanthanum (La)** in systematic soil analysis[1]
  - **>2,400ppm** Ce+La ppm peak soil value
  - Coincident thorium radiometric anomalies
  - Proximity to historic HMC stream sediment results up to **14% total REE (3.36% Nd+Pr)[2]**
  - **Several other** anomalies warranting follow up work

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:

- ~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

David Lenigas, Executive Director of Odessa, said:

"With historic stream sediment sample results at Lockier Range up to 14% REE (including 3.36% Neodymium and Praseodymium), these very high REE soil sampling results define a compelling REE target in the emergent Gascoyne REE province, which require priority mapping followed by drilling. Mt Yaragner has always been our main REE target of interest, and these new results confirm it remains a very high priority for next steps. Combined with the high order lithium targets released at the end of last week and these REE results, Lockier Range is looking very promising for Odessa."

The Lockier Range Project consists of a single 125km^2 Exploration License (E09/2649). Previous work includes historic stream sediment sampling showing the project to be highly anomalous in lithium pegmatite and REE carbonatite indicator elements.

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[1] Cerium and Lanthanum are the only REE assayed in the multi-element method for soils used. These two elements are the most abundant of the rare earth elements and are considered as pathfinders for other valuable REE including Nd, Pr, Tb and Dy.

[2] Historic data from heavy media concentrate stream sediment sampling conducted by IGO Ltd and reported in WAMEX Report A99601 (2013). Refer to Company press-release dated 25 October 2022 for further details.

The Lockier Range Project is located in the highly sought-after Gascoyne region of Western Australia and is in close proximity to significant recent lithium/pegmatite discoveries by Delta Lithium Ltd (ASX:DLI), Voltaic Strategic Resources (ASX:VSR) and Reach Resources (ASX:RR1). Furthermore, the project lies in a north-south corridor of REE carbonatite discoveries by Hastings Technologies Ltd (ASX:HAS); Dreadnought Resources Ltd (ASX:DRE) and Kingfisher Mining Ltd (ASX:KFM) (Figure 1, Figure 6). Odessa recently reported very positive results from its soil sampling for lithium and lithium pathfinder elements.[3]

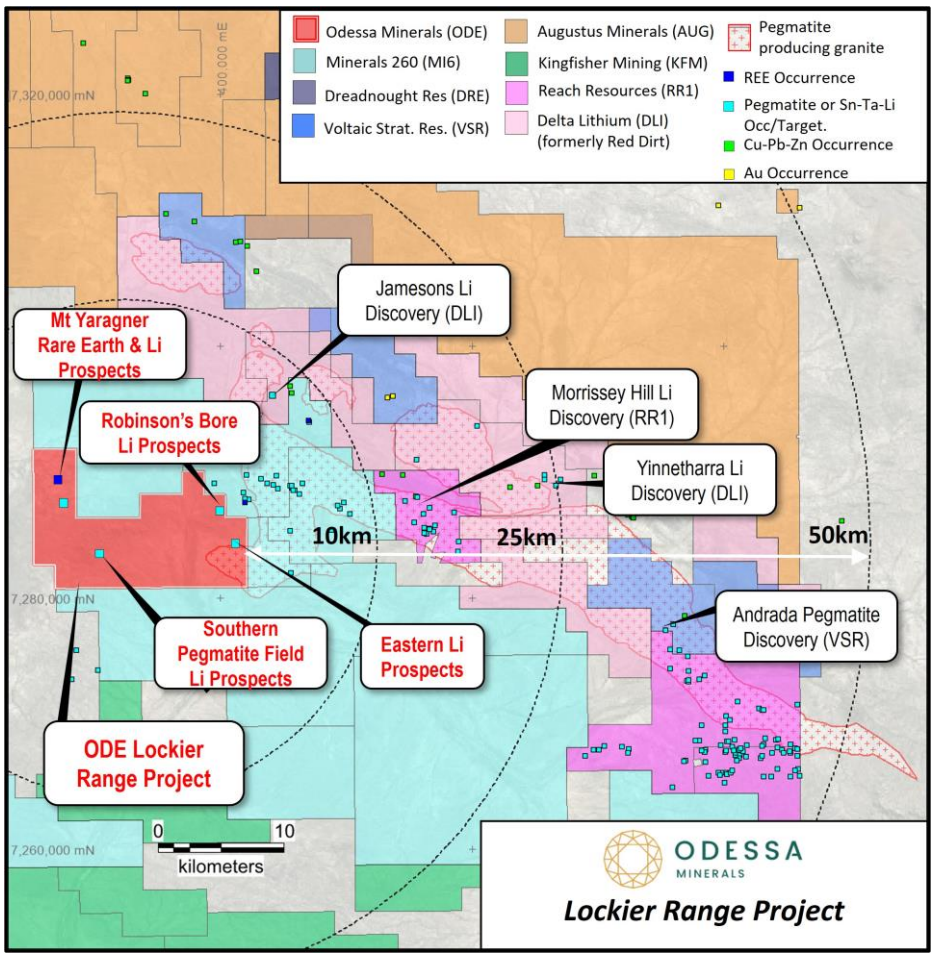

Figure 1 - Lockier Range Project, proximal to the emergent Gascoyne lithium pegmatite province.

REE Carbonatite Targeting

The Gascoyne Province of Western Australia is emergent with the discovery of significant critical rare earth element resources and occurrences by Hastings Technology Metals (ASX:HAS), Dreadnought Resources (ASX:DRE) and Kingfisher Mining (ASX:KFM), along with other REE-focused explorers such as Augustus Minerals (ASX:AUG) and Minerals 260 (ASX:MI6).

[3] Odessa ASX announcement dated 14 July 2023

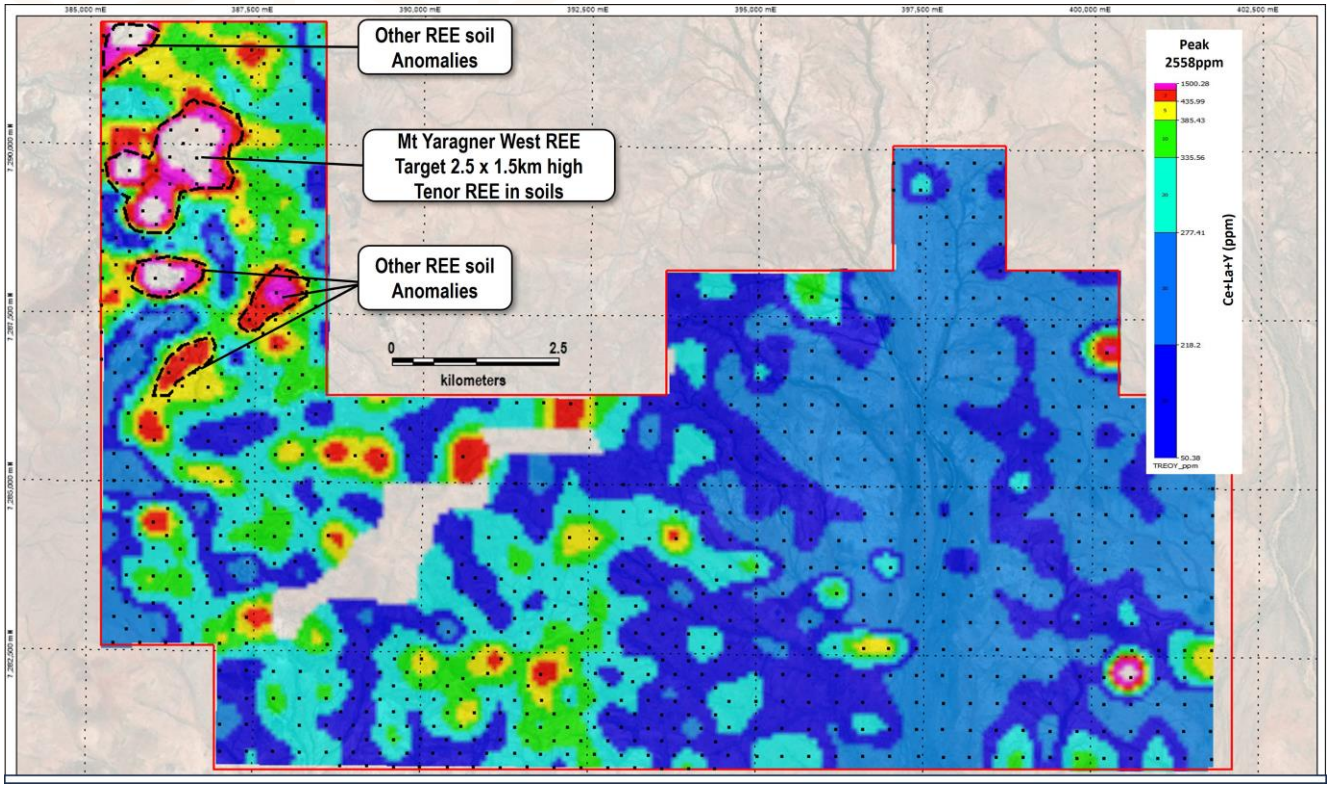

Figure 2 - Soil sampling grid by TREE (Ce+La+Y). Black dots = sample points. MGA94 Zone 50

The Lockier Range Project consists of Durlacher Supersuite granitoids and Moogie Metamorphics intruded by Thirty Three Supersuite granitoids. The Durlacher Supersuite granitoids are a preferential host of the REE-bearing ironstone carbonatites at Hastings Technology's Yangibana Project and Dreadnought Resources' Yin Project. Whereas the Thirty Three Supersuite granites are considered the source granite of nearby lithium pegmatite discoveries (e.g. Delta Lithium Ltd (ASX:DLI)).

In 2013, IGO Ltd reported very high REE results in heavy media separation stream sediment samples from the Lockier Range Project. In 2022, Odessa completed airborne magnetics and radiometrics which revealed high thorium (an important indicator of REE carbonatites) in the Mt Yaragner area. Recently, the Company completed a >1000 systematic soil sampling program using a 200 to 400m grid pattern over the entire Lockier Range Project area. This survey has indicated very high 'REE in soils' anomaly in the NW of the project area, to the west of Mt Yaragner. A distinct and discrete soil anomaly, coincident with thorium (Figures 2 & 3) forms a clear drill target.

Geological reconnaissance has revealed that the Mt Yaragner West area consists predominantly of iron-rich weathered cover (ferricrete) and iron rich overbank gravel deposits. As yet, no ironstone carbonatites have been discovered at surface and, due to the weathering profile, drilling is the best way to determine the presence of a discovery.

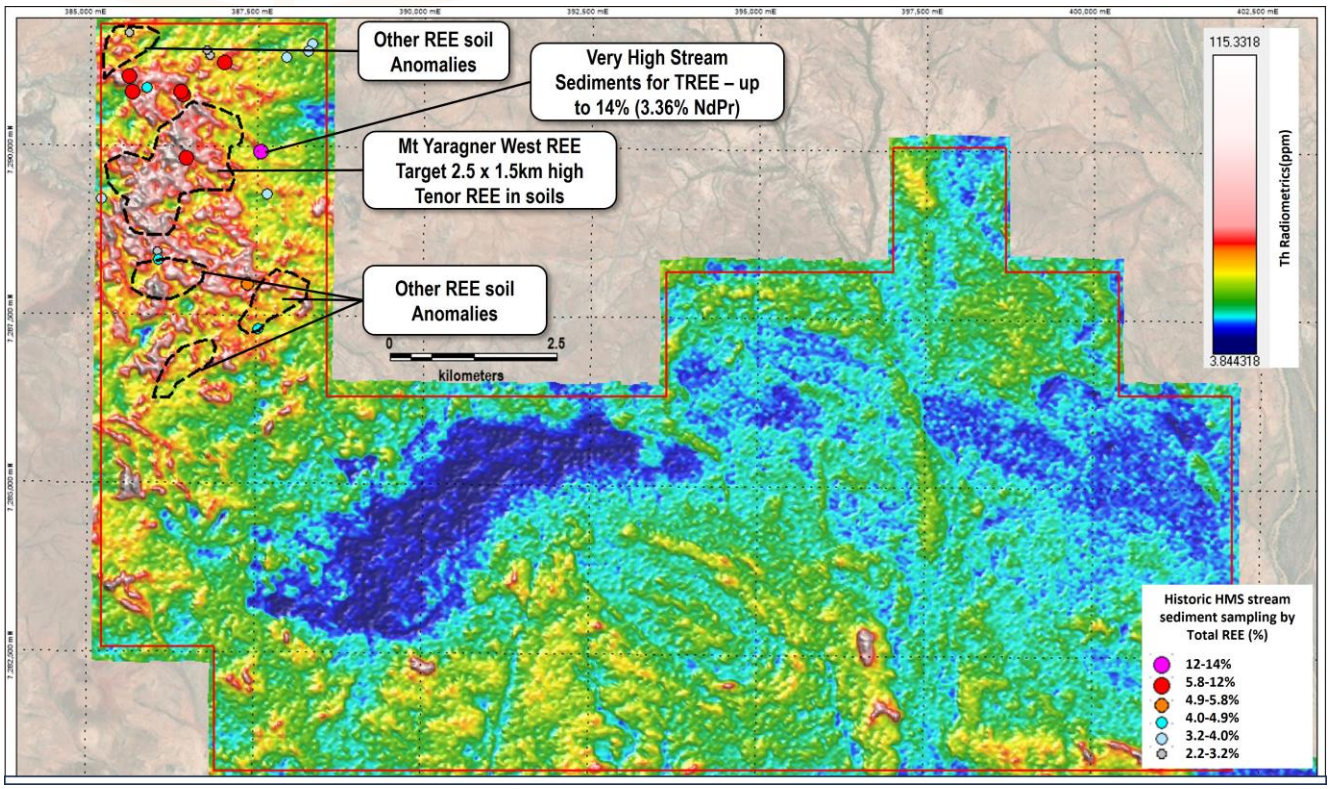

Figure 3 - Thorium radiometric with historic HMC stream sediment sampling results (total REE)

Upcoming work

Further to the identification of discrete and zoned soil anomalies for lithium pathfinders, the Company believes that Robinson's Bore and Eastern targets represent attractive targets for first pass reconnaissance drilling. The addition of the Mt Yaragner West REE soil anomaly presents a clear target for drill testing beneath the transported and weathered cover.

The Company aims to complete initial reconnaissance over the target areas to finalise the drill sites and will be lodging applications for drill permits shortly.

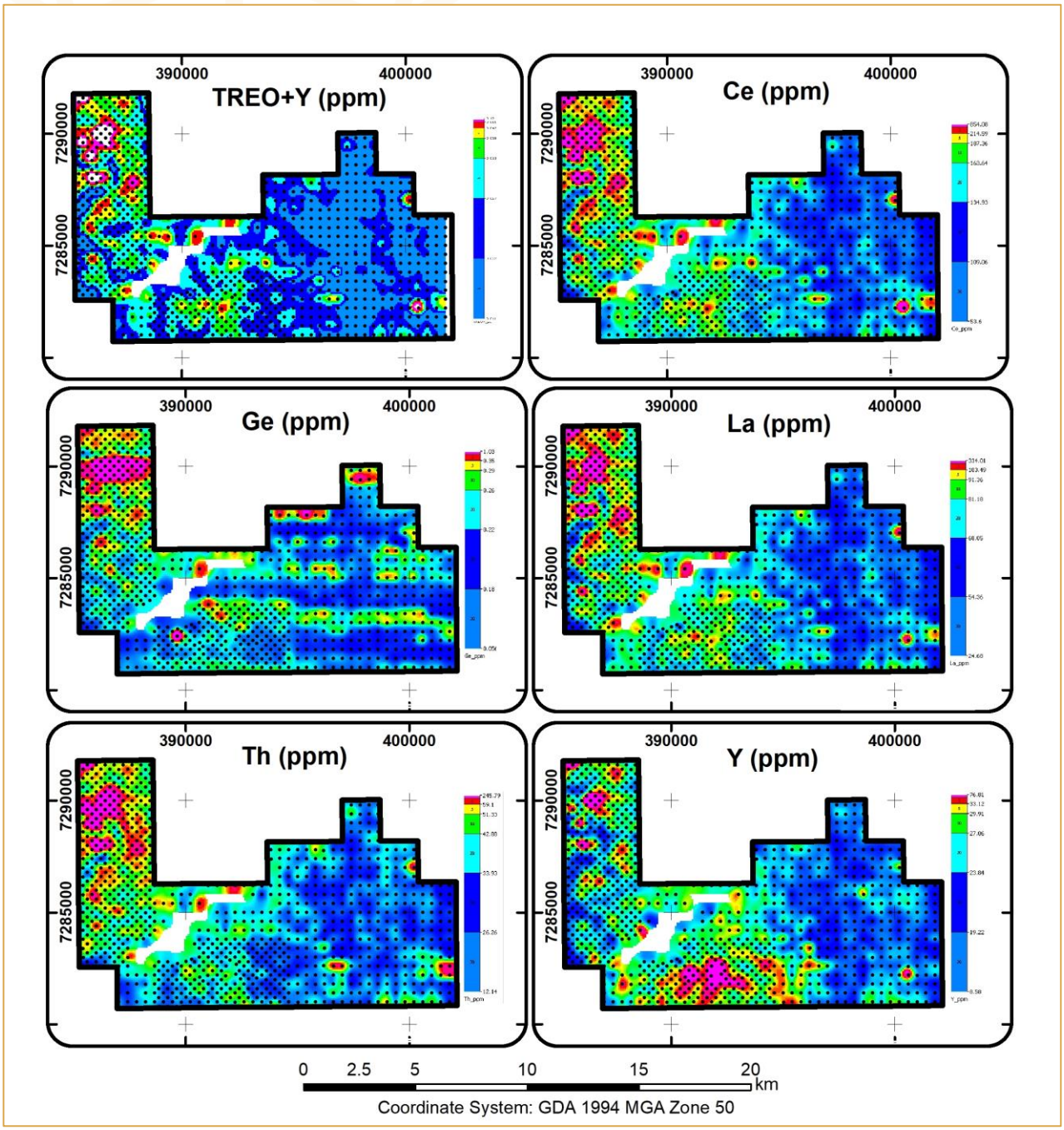

Figure 4 - Gridded soil data for REE pathfinders for Lockier Range Project. Hotter colours - red->purple are the highest order results.

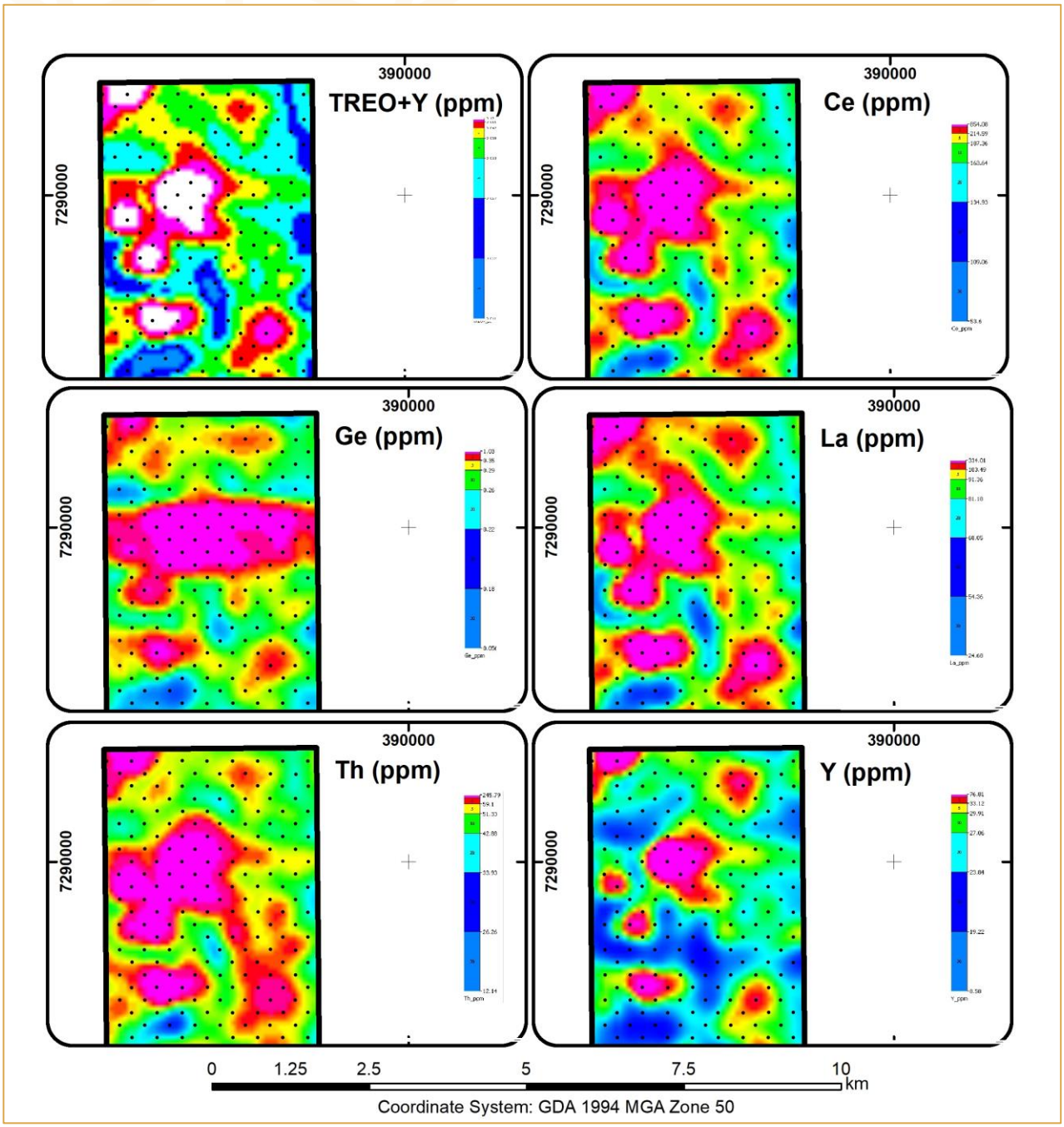

Figure 5 - Gridded soil data for REE pathfinders for Mt Yaragner West Target at Lockier Range. Hotter colours - red->purple->white are the highest order results.

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.

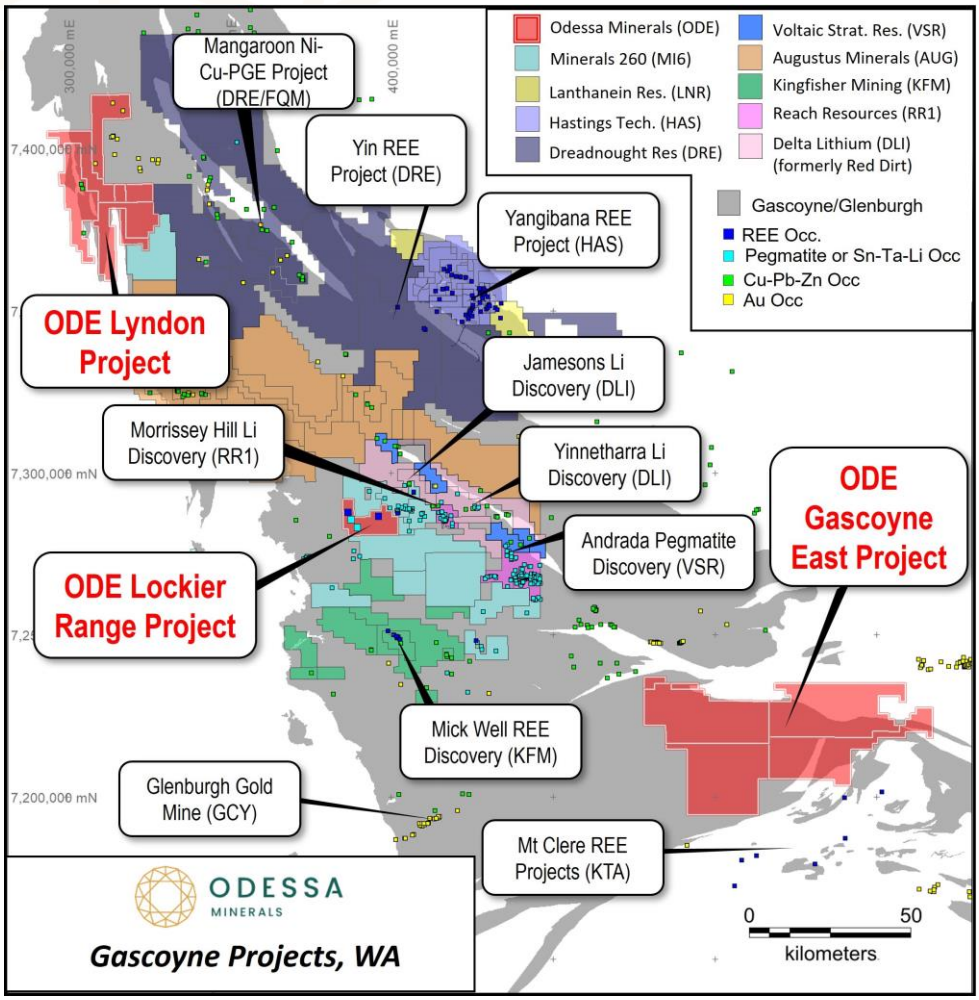

Figure 6 - Odessa Minerals regional Gascoyne Project location map with Geological Survey WA Minedex Occurrences.

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www.odessaminerals.com.au

Competent Persons Statement

Information in this report relating to exploration data and interpretations is based on data compiled by Odessa Minerals and reviewed by Jeremy Peters, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist and Mining Engineer of that organisation. Mr Peters is an independent

consultant of Burnt Shirt Pty 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. Dr Peters consents to the inclusion of the data in the form and context in which it appears.

Appendix 1: Soil assay results for REE carbonatite pathfinders

Table A1. Soil assay results >190ppm Ce for key REE pathfinders at Lockier Range. Coordinates in MGA94 Zone 50.

Sample id	Easting (m)	Northing (m)	Ce (ppm)	Fe (%)	Ge (ppm)	La (ppm)	P (ppm)	Th (ppm)	Y (ppm)
X100329	386394	7290002	1760	12.6	1.76	650	1180	480	148.5
X100309	385598	7289602	967	11.6	0.92	390	590	306	76.1
X100239	385996	7288000	841	7.41	0.91	380	650	263	77.3
X100394	385597	7291600	646	8.44	0.6	290	630	185	71.5
X100265	385799	7288998	569	7.46	0.64	240	490	177.5	57.6
X100748	400597	7282200	517	2.49	0.35	162.5	440	57.6	52.1
X100285	386601	7289401	509	5.35	0.63	220	460	155.5	46.4
X100330	386804	7289997	484	6.6	1.28	202	430	137.5	57.1
X100274	386001	7288802	460	5.13	0.52	202	450	144.5	48
X100240	386400	7287997	454	6.62	0.48	211	410	132.5	45
X100085	385999	7284396	443	4.29	0.41	230	390	108.5	41.3
X100303	386603	7289799	420	4.47	0.41	201	410	146.5	45.8
X100217	387802	7287798	411	5.49	0.48	201	420	118	45.5
X100302	386195	7289805	410	6.84	0.4	181.5	340	149.5	37.6
X100284	386203	7289396	380	4.44	0.46	180.5	310	142	35.8
X100379	385198	7291205	360	5.56	0.46	172	350	100.5	46.4
X100347	386802	7290402	350	4.27	0.38	165	300	101.5	35.6
X100328	385996	7289998	349	7.89	1.44	120.5	280	65.1	33.9
X100292	385998	7289199	348	5.96	0.43	145	400	98	32.5
X100135	386002	7285601	346	5.1	0.37	152.5	380	104.5	35.6
X100327	385594	7290003	334	4.03	0.54	151.5	380	92.8	34.1
X100286	386997	7289400	333	5.3	0.46	156.5	460	112	42.3
X100127	385797	7285801	328	4.42	0.34	153	320	93	31
X101074	400201	7286998	319	3.27	0.3	155.5	380	85	32.8
X100182	387802	7286999	318	6.42	0.35	147	500	87.7	42.3
X100321	387003	7290201	317	4.91	0.77	146	330	88.4	40.6
X100179	386603	7287002	316	7.7	0.31	128	310	65.4	33.5
X100278	387201	7288802	312	4.14	0.43	145.5	420	106.5	39.3
X100198	387400	7287401	302	5.67	0.34	138	440	75.3	33.6
X100161	386200	7286599	295	7.47	0.68	150.5	280	69.5	40.3
X100220	385597	7287600	288	4.95	0.36	134	300	79.8	33.8
X100317	385399	7290199	287	4.71	0.35	127	230	62.1	31.1

Sample id	Easting (m)	Northing (m)	Ce (ppm)	Fe (%)	Ge (ppm)	La (ppm)	P (ppm)	Th (ppm)	Y (ppm)
X100312	386798	7289605	283	4.6	0.71	128.5	360	78.8	31.8
X100934	388600	7285399	282	4.58	0.29	130	340	67	36.1
X100370	385402	7291400	280	4.88	0.37	138	330	76.9	33
X100508	391790	7282177	276	5.22	0.24	108	1010	55.4	57.3
X100555	391204	7282404	276	5.51	0.3	140.5	360	68.6	39.3
X100230	385804	7288197	274	4.75	0.36	130	320	79.3	31.4
X100841	393802	7284202	273	3.94	0.19	115.5	740	49.4	27
X100014	387400	7282997	265	4.17	0.29	127	310	72	28.7
X100120	386800	7285200	265	7.49	0.28	123	350	72	33.3
X100376	387400	7291399	265	4.86	0.39	125.5	330	74.4	36.1
X101014	392200	7286200	265	4.75	0.32	130	350	72.5	24.7
X100331	387197	7290001	264	4.11	0.84	111.5	310	70.7	34.3
X100381	385999	7291198	264	5.22	0.39	132.5	380	68	32.1
X100244	388005	7287999	262	4.26	0.34	127	280	73.4	30.4
X100211	385404	7287800	259	5.06	0.31	122	300	66.9	31.8
X100936	389400	7285398	259	3.56	0.25	125	290	59.5	30.7
X100202	385198	7287195	255	5.05	0.27	120.5	240	67.5	26.7
X100939	390603	7285403	255	7.26	0.4	129.5	500	66.7	29.2
X100241	386801	7288002	254	4.55	0.31	114	260	70.1	28.5
X100096	386999	7284998	253	4.33	0.29	117.5	320	78.5	23.9
X100119	386400	7285199	252	5.75	0.25	123.5	340	67	29.1
X100332	387600	7289999	251	4.67	0.69	119	300	72.7	32.9
X100552	390003	7282397	251	4.39	0.27	105	310	69.3	36.2
X100229	385402	7288199	249	4.72	0.35	118.5	300	67.1	33.8
X100338	386602	7290600	249	4.83	0.29	116	290	77.7	29.2
X100320	386601	7290199	248	4.24	0.43	116.5	290	73	29.1
X100489	390801	7281599	248	3.64	0.26	120.5	500	56.8	45.5
X100170	386801	7286395	246	2.85	0.37	102	340	65.7	60.1
X100254	388200	7288594	244	4.04	0.35	119.5	280	78.1	28
X100828	388602	7284206	244	7.09	0.23	113.5	360	62.8	44.7
X100223	386802	7287600	242	5.5	0.32	116.5	300	63.8	31
X100115	387807	7285403	241	5.6	0.37	119	310	59.3	33.7
X100353	385403	7290997	241	4.73	0.34	120.5	310	67.1	31.9
X100758	396982	7282599	241	5.06	0.27	112	390	78.8	29.4
X100069	386400	7284001	239	4.58	0.27	123	560	40.4	26.7
X100273	385601	7288800	239	3.4	0.39	117	260	88.9	23.9
X100168	386004	7286400	237	6.68	0.33	107	390	64.1	41.7
X100187	386404	7286801	237	5.62	0.26	116	190	60.6	24.9
X100188	386804	7286800	237	8.29	0.23	114.5	240	61.1	26.3
X100232	386603	7288196	237	3.56	0.31	112.5	270	65.3	25.1
X100310	385993	7289605	237	5.92	0.74	88.5	150	74.5	20.9
X100377	387800	7291398	237	5.46	0.39	116	290	63.3	34.2

Sample id	Easting (m)	Northing (m)	Ce (ppm)	Fe (%)	Ge (ppm)	La (ppm)	P (ppm)	Th (ppm)	Y (ppm)
X100183	388201	7286999	236	3.93	0.21	114.5	270	64.1	28.5
X100384	387199	7291206	235	4.16	0.35	117	280	61.7	30.9
X100346	386402	7290399	233	4	0.27	109.5	310	76.3	25.8
X100219	385199	7287600	230	4.4	0.26	106	290	50.9	24.9
X100757	396601	7282600	230	2.32	0.26	102.5	270	79.8	33.2
X100005	387000	7282603	228	4.86	0.21	94.7	300	36.1	21.9
X100173	387997	7286398	228	4.48	0.3	112.5	300	70.1	23.9
X100226	387602	7287596	228	4.98	0.31	113.5	330	58.7	33.3
X100492	391998	7281602	228	4.68	0.24	105.5	1020	39.7	50.5
X100814	397001	7283802	228	3.9	0.18	88.8	160	23.6	18.6
X100145	386602	7286202	227	4.98	0.27	103	330	62.1	28.8
X100174	388399	7286404	227	4.07	0.34	114	230	71.6	24.4
X100266	386197	7288997	227	6.16	0.29	107.5	290	72	21.4
X100364	386404	7290800	227	4.02	0.27	140.5	440	39.1	18.5
X100454	389599	7281195	227	4.7	0.38	116	750	36.7	44
X100752	401800	7282202	227	1.76	0.25	99.1	280	77.6	23.1
X100178	386204	7286994	226	3.74	0.22	107.5	180	70.1	24.2
X100221	386000	7287597	226	5.54	0.35	107.5	250	61	26.9
X100227	388004	7287604	225	4.58	0.28	109	310	64.3	31
X100837	392198	7284203	224	5.95	0.19	101	480	49.3	25.3
X100027	385798	7283401	223	4.31	0.27	111.5	550	34.1	34
X100218	388196	7287801	223	5.98	0.31	111	390	61.6	24.9
X100793	396202	7283404	223	3.78	0.37	106	370	55.6	42.2
X100243	387604	7287997	222	4.15	0.3	107.5	320	63.6	28.4
X100367	387603	7290800	222	8.41	0.34	107	470	60.9	38.2
X100073	388000	7284001	221	4.81	0.27	105.5	310	64.4	29
X100770	401800	7282600	221	1.75	0.3	102	380	78.5	22.9
X100255	385198	7288399	220	4.84	0.29	104	260	70.8	23.7
X100318	385802	7290201	220	3.47	0.32	105	230	56.4	20.6
X100234	387403	7288196	219	3.26	0.27	110	230	74.9	21.2
X101007	389403	7286200	218	3.37	0.27	109.5	260	52.6	27.2
X100311	386399	7289604	217	7.38	1.75	90	240	62.9	21.3
X100460	391998	7281197	217	3.18	0.26	106.5	320	62.7	39.9
X100433	394002	7280796	216	3.27	0.31	120.5	420	59.5	34.6
X100116	388201	7285403	214	5.38	0.31	104.5	310	49.2	24.7
X100324	388199	7290200	213	4.07	0.46	101.5	240	47.2	26.7
X100143	385801	7286200	212	4.88	0.27	94.5	270	59	23.6
X100207	387203	7287202	212	5.29	0.26	101	300	52.5	26.5
X100297	387996	7289204	212	3.92	0.29	105.5	310	69	30
X100171	387206	7286388	211	3.96	0.31	100	310	59.5	26.2
X100270	387801	7288998	211	3.08	0.31	103.5	290	71.4	24.6
X100322	387401	7290200	211	4.83	0.71	90.1	280	57.4	30.8

Sample id	Easting (m)	Northing (m)	Ce (ppm)	Fe (%)	Ge (ppm)	La (ppm)	P (ppm)	Th (ppm)	Y (ppm)
X100071	387199	7283994	209	7.02	0.28	97.2	330	63.7	15.9
X100354	385801	7291003	209	6.58	0.35	104.5	300	62.7	26.8
X100440	390600	7281403	209	3.45	0.21	100.5	280	49.7	38.5
X100542	392602	7282603	208	4.12	0.25	116	1070	40.2	27.1
X100053	386401	7283598	207	5.05	0.26	97.8	560	46.1	29.2
X100838	392604	7284204	206	7.47	0.2	97.2	610	49.3	30.4
X100072	387600	7284004	204	3.93	0.25	101.5	300	53.8	32.3
X100532	388603	7282599	204	6.47	0.27	102.5	240	48.6	27.3
X100636	391403	7283799	203	4.99	0.32	99	460	33.4	28.5
X100216	387397	7287801	202	3.6	0.26	96.2	300	55	24.2
X100235	387803	7288198	202	5.02	0.29	99.3	310	61.6	27.6
X100252	387403	7288597	202	4.8	0.29	96.7	330	63	21.5
X100368	387999	7290799	202	4.59	0.3	98.4	310	59.8	29.9
X100459	391597	7281199	202	3.89	0.24	101	390	44.8	43.6
X100052	385998	7283598	201	5.23	0.26	101.5	1210	50.9	28.5
X100090	387998	7284397	201	3.44	0.24	97.5	280	52.9	25.2
X100095	386605	7284998	201	6.98	0.28	100	390	54.5	24.7
X100358	387400	7290998	201	3.52	0.27	97.6	330	55.2	31.5
X100589	391978	7282876	200	4.61	0.27	106.5	740	46.5	43.6
X100809	395001	7283798	200	3.7	0.17	101.5	380	38.1	35.3
X100935	388996	7285399	199.5	3.38	0.21	92.3	240	49.6	23.2
X100607	392604	7283397	199	3.66	0.31	109	1130	28.5	34.2
X101098	395798	7287802	199	3.84	0.33	100.5	270	56.5	26.6
X100323	387798	7290199	198	5.12	0.67	94.8	310	50.8	30.9
X100123	388000	7285199	197.5	5.06	0.22	96.1	310	47.7	28.4
X100206	386796	7287199	197	5.34	0.25	98	200	36.3	21.5
X100429	392401	7280801	196.5	3.87	0.26	98.4	460	43.7	30.1
X100140	388000	7285597	196	4.64	0.25	96.2	320	52.9	27.1
X100397	386796	7291600	196	5.35	0.28	104.5	280	49.1	29.8
X100356	386597	7290998	195.5	2.57	0.24	82.8	280	23.2	15.5
X100144	386202	7286198	194.5	4.47	0.24	92.9	310	54.8	27.6
X100148	387803	7286200	194.5	3.77	0.25	91.5	210	57.3	25.2
X100152	386002	7286004	194	4.85	0.24	86.2	410	48.5	28.6
X100574	392603	7283003	193.5	3.54	0.2	106.5	400	50.9	26.6
X100086	386403	7284400	193	3.56	0.22	93.2	290	52.2	24.7
X100169	386402	7286405	193	5.6	0.31	96.6	270	49.5	28
X100374	387000	7291395	193	4.31	0.34	94.1	250	51.8	26
X100467	388597	7281800	193	4.24	0.22	94.1	340	41.8	27.9
X100506	390994	7282193	193	4.48	0.23	96.4	1080	41.7	54.7
X100709	387800	7281800	192.5	5.62	0.17	87.7	890	28.3	39.9
X100020	386805	7282799	191	4.7	0.2	84.3	330	35.7	24.4
X100385	387597	7291205	191	6.24	0.3	116.5	380	52.9	44.8

Sample id	Easting (m)	Northing (m)	Ce (ppm)	Fe (%)	Ge (ppm)	La (ppm)	P (ppm)	Th (ppm)	Y (ppm)
X100295	387199	7289206	190.5	5.45	0.33	90.7	470	56.9	27.7
X100333	387998	7290005	190.5	5.61	0.98	91.6	310	55.2	27.8
X100431	393203	7280803	190.5	5.08	0.3	96.4	750	32.4	30.6
X100064	387399	7284197	190	4.19	0.25	92	350	51.2	29.2

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.*	• Soil samples on a 200m x 200m and 200m x 400m grid spacing were collected from approximately 15 – 25 cm below the surface, using a shovel. Soil was sieved using a 180 µm mesh and 150 - 200 g of sample was collected in a numbered paper sample bag. • Soil sample locations were recorded using a handheld GPS, which has an estimated accuracy of +/-3m.
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*	• Samples were not geologically logged

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.*	• Soil samples were dry sieved using a 180 µm mesh, and a 200 - 200 g sample of weight was collected in a paper soil sample bag. Where the soil was too wet, a 3-5 kg sample was collected in a calico bag, to be dried and sieved at the laboratory. • Standards were inserted approximately every 50 samples.
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.*	• Field introduced QA/QC procedures including the insertion of standards, and blanks was undertaken. • Laboratory internal QA/QC procedures including the insertion of standards, blanks and duplicates, grind checks and repeat analyses are standard procedure. • Samples were hand-delivered for analysis to ALS Malaga, Western Australia. • Soil samples (X series) were analysed for gold and multi-element via ALS ME-MS61r method. Samples were analysed for: Ag, Al, As, Au, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pass75um, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr. • Reported values for QA/QC samples fall within acceptable thresholds.
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*	• Field data was collected by an experienced field assistants under the guidance of experience contract company Omni GeoX. • Assays were interrogated to determine anomalism of elements compared to background values. • All assays have been loaded into the Company's Azeva database and QAQC passes internal procedures. • No adjustments have been applied to the assay data.

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 soil samples was recorded using a hand-held GPS. Waypoints were recorded at each location within the GDA94 zone 50S grid system and reconciled with the database.
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.*	• Soil samples were collected on a 200m x 200m and 200m x 400m grid spacing.
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.*	• Samples collected by experienced geological field services Company Omni GeoX. • Samples are sorted, sealed and transported from site • Samples were delivered and processed at ALS Laboratory in Malaga, Western Australia.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	The company has completed an internal audit on the data to confirm the Company QAQC guidelines are followed.

1.2 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	• *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.*	Previous 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

Criteria	JORC Code explanation	Commentary
		setting. • 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.

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 addition of Ce+La as key REE elements
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.*	• All geochemistry data is reported. Previous sampling is historic and compiled from third party reports as noted; and as previously reported in company release dated 25 October 2022.
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. Previous 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.*	• 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.