

# Encouraging Maiden Rare Earth Drill Results at Merivale South

## Highlights

- Encouraging intersections over 800m of strike at the Merivale South Prospect
- Drilling targeted a broad geochemical TREO anomaly identified by historic auger drilling
- Mineralisation remains open in all directions
- To date, only a small section of one of three geochemical targets tested
- Metallurgical testing to commence and form basis of future drill program

**Larvotto Resources Limited** (ASX: LRV, Germany: K6X, 'Larvotto' or 'the Company') today announced maiden total rare earth element oxide (TREO) results from aircore drilling at its Merivale South prospect in Western Australia. Merivale South lies within the Company's 100%-owned Eyre Project, located 40km east of Norseman within the Albany–Fraser Range sequence of rocks, known for its rare earth mineralisation.

Initial drill results have produced very encouraging results, with multiple wide, near surface intersections of TREO. It is expected that the mineralisation is hosted within ionic clays, making them suitable for simple, cost-effective extraction.

Samples are predominantly six metre field composites, unless the hole was stopped at drilling refusal. Maximum values of up to 3,466ppm TREO over six metres were recorded.

## Highlights include:

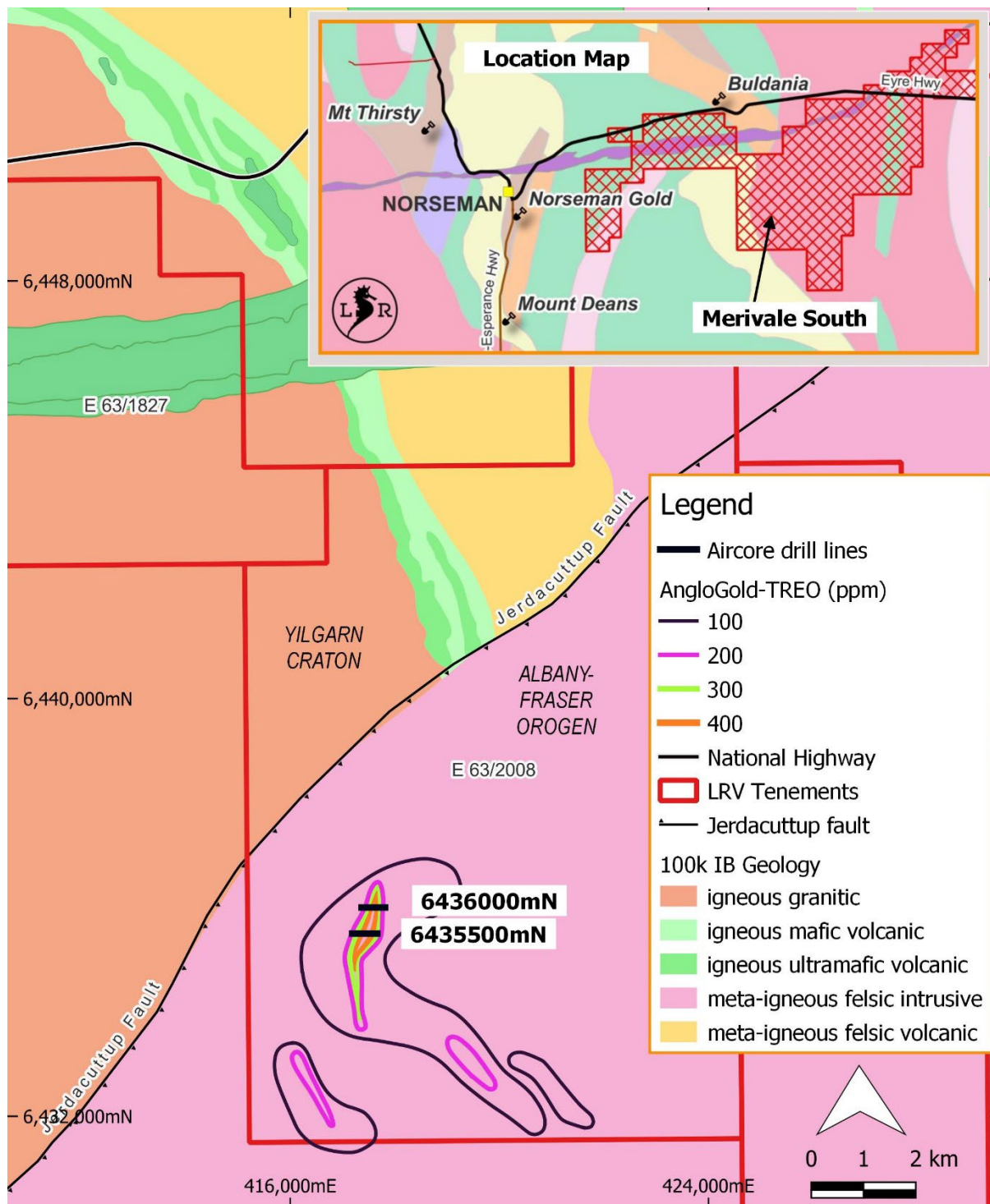
- 6m @ 3140 ppm TREO from 18m, with 17.33% combined NdPr and 2.93% Dy (MSAC001)
- 6m @ 2130 ppm TREO from 18m, with 16.59% combined NdPr and 2.94% Dy (MSAC002)
- 5m @ 2841 ppm TREO from 24m, with 20.50% combined NdPr and 1.68% Dy (MSAC002)
- 6m @ 1119 ppm TREO from 12m, with 16.90% combined NdPr and 3.50% Dy (MSAC003)
- 6m @ 3466 ppm TREO from 18m, with 21.09% combined NdPr and 1.73% Dy (MSAC003)
- 6m @ 1158 ppm TREO from 6m, with 17.49% combined NdPr and 2.02% Dy (MSAC025)

## Managing Director, Ron Heeks commented,

*"This is an extremely encouraging result from first pass drill testing of just a small section of one of our rare earth element (REE) anomalies. The results compare favourably with those quoted by leading companies in the field, with excellent heavy TREO and NdPr ratios. Widths are also very good and close to the surface. We look forward to the results from metallurgical testing to determine the amenability of the mineralisation to extraction. Given the huge size of the anomaly, this could just be the tip of the iceberg and this round of drilling could be the beginning of a significantly larger drilling program."*

The drill program consisted of two lines of 60° aircore drilling along lines approximately 500 metres long. Holes were typically drilled to aircore blade refusal. The drill lines were designed to cover a broad geochemical TREO anomaly identified by a historic auger drill program and an infill soil geochemical anomaly defined by Larvotto. (See ASX: LRV release dated September 27, 2022 REE Anomalies Identified at Eyre Project).

The higher-grade core of the anomaly was over 3km-long but this lies within a greater, lower grade anomaly over 8km-long. The geochemical anomaly was also aligned with a very strong thorium radiometric response. The anomaly drill tested was one of three identified within the Merivale South prospect.



**Figure 1** Merivale South drill line location plan and geochemical contours



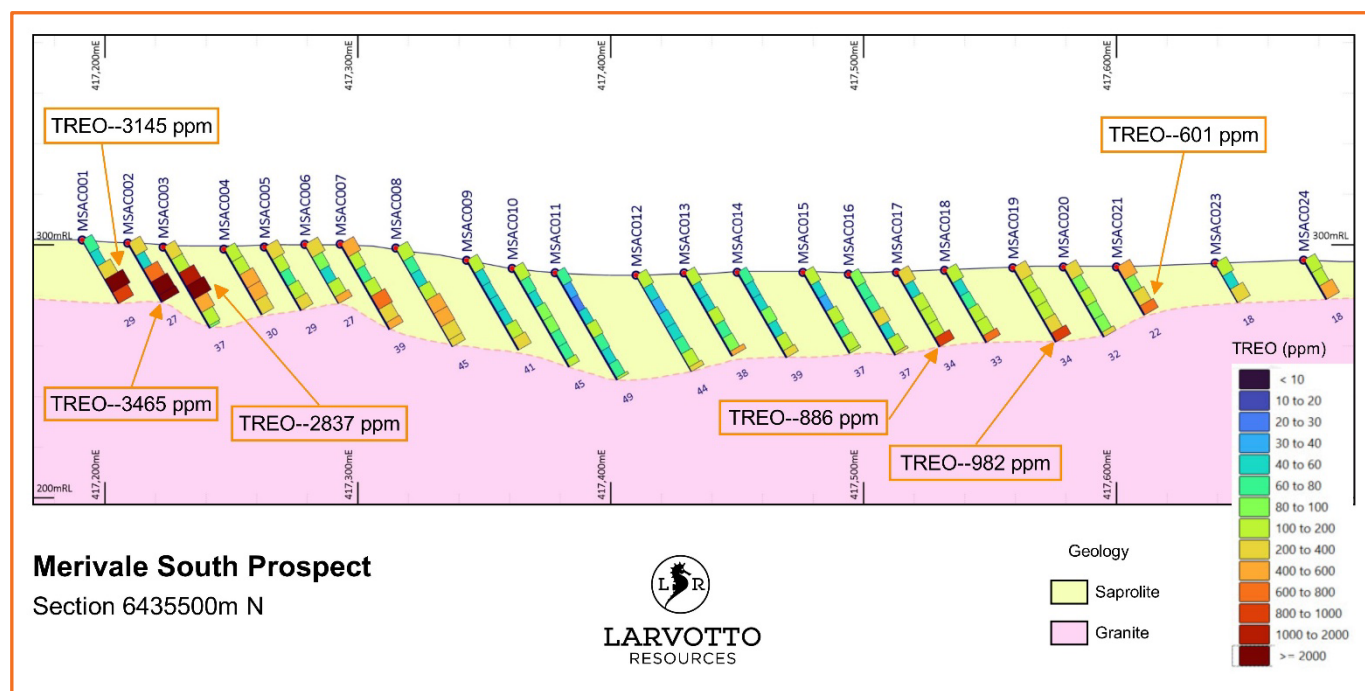
Results from the drilling reveal the mineralisation has very good heavy REO (HREO) percentages as well as excellent NdPr ratios, both of which are significant in assessing rare earth projects. Combined with good widths and near surface mineralisation the first pass drilling has potentially identified a significant project.

Summary results from the drilling are provided in Table 1, with all results provided in Appendix A.

Hole No	From	Int	TREO	MREO	Mag%	CREO	HREO	HREO %	LREO	LREO %	TREO -CEO2	NdPr	NdPr %	Dy%
MSAC001	18	6	3140	844	26.9	1206	1113	35.4	2027	64.6	2200	544	17.33	2.93
MSAC001	24	5	862	226	26.2	282	243	28.2	619	71.8	564	154	17.81	2.45
MSAC002	18	6	2130	550	25.8	824	766	35.9	1364	64.1	1503	353	16.59	2.94
MSAC002	24	5	2841	786	27.7	742	494	17.4	2347	82.6	1681	582	20.50	1.68
MSAC003	12	6	1119	304	27.2	496	482	43.0	638	57.0	876	189	16.90	3.50
MSAC003	18	6	3466	998	28.8	883	572	16.5	2894	83.5	2052	731	21.09	1.73
MSAC017	30	4	886	302	34.1	280	176	19.9	710	80.1	621	230	25.97	1.78
MSAC019	30	4	982	315	32.1	310	220	22.4	763	77.6	686	229	23.32	2.25
MSAC025	6	6	1158	285	24.6	384	316	27.3	842	72.7	749	203	17.49	2.02
MSAC027	6	6	3148	841	26.7	760	439	13.9	2709	86.1	1798	658	20.89	1.26
MSAC030	0	6	942	263	27.9	221	113	12.0	828	88.0	542	208	22.12	1.10

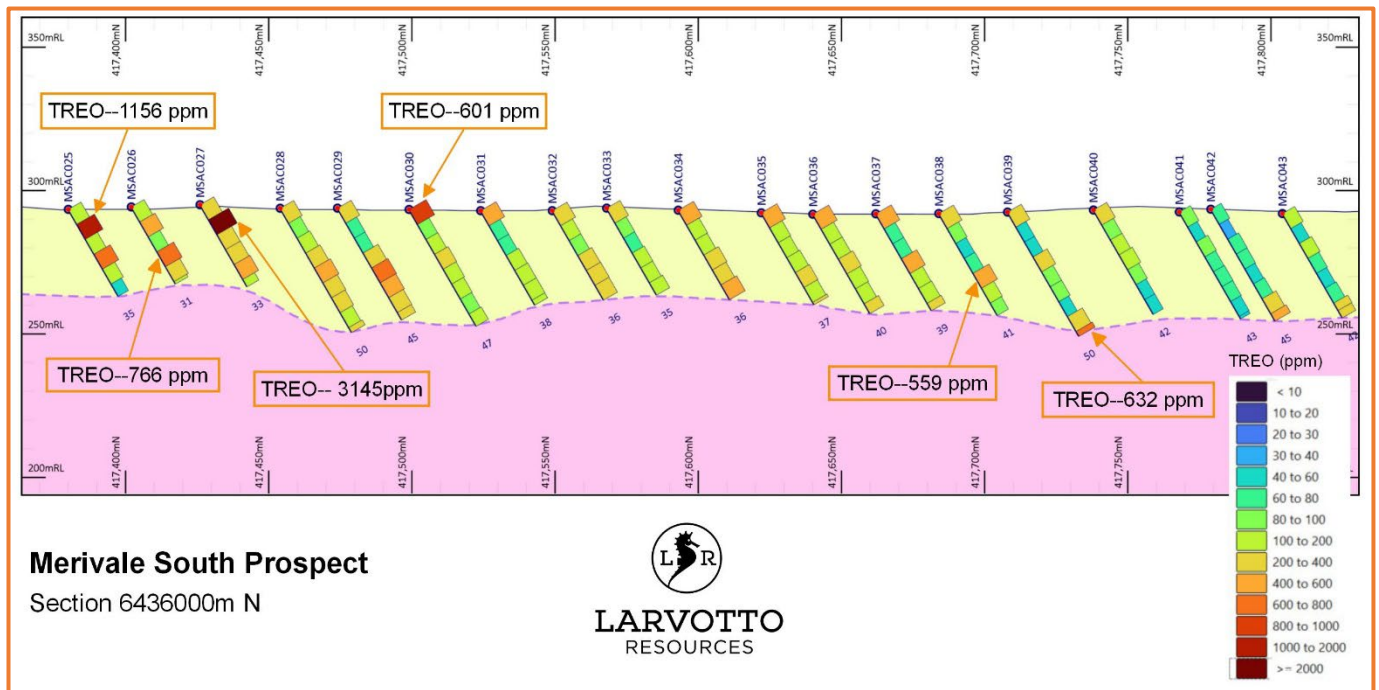
**Table 1** TREO results higher than 800ppm with significant parameters

The aircore drill lines were designed as a quick test of the northern and central parts of one anomaly to determine if it was highlighting significant subsurface TREO mineralisation as the surface geochemistry suggested. Results to date would suggest this aim has been achieved successfully. This drill program formed part of a wider drill program that also covered the lithium target at Merivale and was completed before the lithium drilling began for logistical reasons. Lithium results are to follow once received and interpreted.



**Figure 2** Aircore drill section 6435500N with 6m composite TREO results





**Figure 3** Aircore drill section 6436000N with 6m composite TREO results

The drill hole cross sections of the aircore drilling are displayed as Figures 2 and 3. Analytical results are typically 6m composites. As can be seen from Figures 1 and 3, some of the best results were obtained from the most westerly end of the southern drill line. This strongly suggests that the mineralisation is open further to the west. It should also be noted that the southern half of the anomaly has not been tested, nor has the other two anomalies further south.

Samples were collected by taking in-field tube samples of 2m downhole drill composites to form 6m composites for laboratory testing. Samples near the end of hole were composited to the end of hole.

All samples were submitted to Intertek Genalysis Laboratory for analysis by four acid digestion multi-element analysis with supplementary REE package.

## Next Phase

The significant intersections (a TREO-CeO<sub>2</sub> value of greater than 400ppm) from the 6 metre field samples will be resampled on 2 metre intervals to provide greater definition of the TREO mineralisation and to provide material for future metallurgical testwork. Concurrently, selected intervals will be sent for immediate metallurgical testing to determine if the mineralisation is associated with ionic clays and provide an indication of potential recoveries. This work will determine the extent of future drilling.

## Reporting Confirmations

The information in this report that relates to exploration results is extracted from the Company's ASX announcements:

- Prospectus dated 18 October 2021; and
- ASX: LRV release titled "REE Anomalies Identified at Eyre Project" dated September 27, 2022.

The Company confirms that it is not aware of any new information or data that materially affects the information included within the original market announcements.

## Competent Persons Statement

The information in this presentation that relates to exploration results is based on information compiled by Mr Ron Heeks, who is a Member of the Australasian Institute of Mining and Metallurgy and who is Managing Director of Larvotto Resources Limited. Mr Heeks 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 in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Heeks consents to the inclusion in the release of the matters based on his information in the form and context in which it appears. The Company is not aware of any new information or data that materially affects the information included in this presentation. All material assumptions and technical parameters underpinning the estimates in the announcements referred to continue to apply and have not materially changed.



This announcement was authorised for release by the Board of Larvotto Resources Limited.

## About Larvotto Resources Ltd

Larvotto Resources Limited (ASX: LRV) is actively exploring its portfolio of projects including the large Mt Isa copper, gold, and cobalt project adjacent to Mt Isa townsite in Queensland, an exciting gold exploration project at Ohakuri in New Zealand's North Island and the Eyre multi-metals and lithium project located some 30km east of Norseman in Western Australia. Larvotto's board is a mix of experienced explorers and corporate financiers. Visit [www.larvottoresources.com](http://www.larvottoresources.com) for further information.

## Forward Looking Statements

Any forward-looking information contained in this news release is made as of the date of this news release. Except as required under applicable securities legislation, Larvotto does not intend, and does not assume any obligation, to update this forward-looking information. Any forward-looking information contained in this news release is based on numerous assumptions and is subject to all of the risks and uncertainties inherent in the Company's business, including risks inherent in resource exploration and development. As a result, actual results may vary materially from those described in the forward-looking information. Readers are cautioned not to place undue reliance on forward looking information due to the inherent uncertainty thereof.



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### PROJECTS

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## Appendix A Merivale drill results

Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC001	0	6	77	22	28.18	28	23	29.93	54.26	70.07	52	15	19.23	2.56
MSAC001	6	6	41	8	20.42	13	12	29.94	28.68	70.06	24	5	12.95	2.30
MSAC001	12	6	355	81	22.82	186	187	52.56	168.54	47.44	283	48	13.62	3.07
<b>MSAC001</b>	18	6	<b>3140</b>	844	26.9	1206	1113	35.4	2027	64.6	2200	544	17.33	2.93
<b>MSAC001</b>	24	5	<b>862</b>	226	26.2	282	243	28.2	619	71.8	564	154	17.81	2.45
MSAC002	0	6	270	70	26.0	87	72	26.8	198	73.2	173	49	18.08	2.26
MSAC002	6	6	56	14	24.4	19	17	30.4	39	69.6	38	9	16.29	2.62
MSAC002	12	6	737	186	25.3	366	370	50.2	367	49.8	597	113	15.33	3.56
<b>MSAC002</b>	18	6	<b>2130</b>	550	25.8	824	766	35.9	1364	64.1	1503	353	16.59	2.94
<b>MSAC002</b>	24	5	<b>2841</b>	786	27.7	742	494	17.4	2347	82.6	1681	582	20.50	1.68
MSAC003	0	6	202	55	27.4	61	47	23.4	154	76.6	128	40	19.62	2.02
MSAC003	6	6	185	50	27.0	56	44	23.9	141	76.1	119	35	19.18	2.13
<b>MSAC003</b>	12	6	<b>1119</b>	304	27.2	496	482	43.0	638	57.0	876	189	16.90	3.50
<b>MSAC003</b>	18	6	<b>3466</b>	998	28.8	883	572	16.5	2894	83.5	2052	731	21.09	1.73
MSAC003	24	6	485	129	26.5	146	113	23.4	371	76.6	307	93	19.09	2.10
MSAC003	30	6	181	44	24.2	66	63	34.8	118	65.2	122	28	15.49	2.83
MSAC003	36	1	93	23	25.1	32	30	32.1	63	67.9	62	15	16.37	2.80
MSAC004	0	6	149	40	27.2	44	33	22.1	116	77.9	93	29	19.53	1.92
MSAC004	6	6	169	45	26.7	46	31	18.5	138	81.5	102	34	20.01	1.53
MSAC004	12	6	540	144	26.7	155	110	20.4	429	79.6	327	108	20.10	1.59
MSAC004	18	6	505	147	29.0	164	119	23.5	386	76.5	327	111	21.89	1.75
MSAC004	24	6	253	72	28.4	84	64	25.4	189	74.6	164	53	21.09	2.01
MSAC005	0	6	357	110	31.0	107	71	19.9	286	80.1	230	82	23.03	1.75
MSAC005	6	6	110	28	25.0	37	33	29.7	78	70.3	72	19	17.35	2.22
MSAC005	12	6	71	16	22.7	30	32	45.2	39	54.8	52	10	13.70	3.30
MSAC005	18	6	158	36	22.9	70	83	52.2	76	47.8	122	20	12.57	4.34
MSAC005	24	5	252	60	23.7	67	54	21.2	199	78.8	144	44	17.39	1.79



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC006	0	6	353	107	30.2	100	64	18.1	289	81.9	222	80	22.63	1.63
MSAC006	6	6	83	21	25.8	25	21	25.5	62	74.5	52	15	17.92	2.28
MSAC006	12	6	58	14	24.4	22	24	41.6	34	58.4	42	8	14.11	3.96
MSAC006	18	6	155	38	24.4	51	45	28.9	110	71.1	101	27	17.54	2.22
MSAC006	24	3	433	116	26.9	122	86	20.0	346	80.0	265	88	20.27	1.68
MSAC007	0	6	424	116	27.3	110	71	16.7	353	83.3	248	88	20.74	1.46
MSAC007	6	6	113	27	23.7	37	34	30.0	79	70.0	71	18	16.03	2.45
MSAC007	12	6	61	14	23.1	23	24	39.1	37	60.9	42	9	14.33	3.32
MSAC007	18	6	183	44	24.3	47	33	17.8	151	82.2	109	34	18.55	1.48
MSAC007	24	6	702	192	27.4	164	84	11.9	619	88.1	416	156	22.17	1.04
MSAC007	30	6	384	101	26.2	96	61	15.9	323	84.1	221	77	20.11	1.41
MSAC007	36	3	531	125	23.6	116	67	12.7	464	87.3	287	99	18.69	1.04
MSAC008	0	6	195	52	26.7	50	33	17.0	162	83.0	112	39	19.84	1.53
MSAC008	6	6	62	15	24.2	20	17	27.9	45	72.1	40	10	16.60	2.31
MSAC008	12	6	54	13	24.1	19	19	34.9	35	65.1	36	8	15.60	2.89
MSAC008	18	6	141	45	32.2	41	25	17.7	116	82.3	94	35	25.04	1.55
MSAC008	24	6	429	140	32.5	131	84	19.6	344	80.4	303	106	24.83	1.77
MSAC008	30	6	456	128	28.1	116	68	14.8	389	85.2	276	101	22.23	1.29
MSAC008	36	6	377	100	26.5	92	55	14.7	321	85.3	214	78	20.71	1.26
MSAC008	42	3	332	97	29.1	90	55	16.7	277	83.3	189	74	22.37	1.47
MSAC009	0	6	128	34	26.3	34	24	18.6	104	81.4	75	25	19.30	1.59
MSAC009	6	6	52	13	24.8	20	20	38.4	32	61.6	36	8	15.22	3.36
MSAC009	12	6	40	10	24.7	16	18	44.0	23	56.0	29	6	14.35	3.95
MSAC009	18	6	45	12	25.6	14	13	28.2	33	71.8	30	8	17.51	2.48
MSAC009	24	6	48	11	22.9	15	14	29.2	34	70.8	30	7	15.40	2.51
MSAC009	30	6	165	34	20.7	39	31	18.9	134	81.1	83	25	15.11	1.69
MSAC009	36	5	371	102	27.5	101	67	18.1	304	81.9	224	79	21.26	1.47
MSAC010	0	6	136	40	29.1	39	27	19.8	109	80.2	86	30	21.74	1.74
MSAC010	6	6	66	20	29.8	24	20	31.0	45	69.0	46	13	20.45	2.88





Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO- CEO2	NdPr	NdPr%	Dy%
MSAC010	12	6	43	13	29.8	16	14	32.0	29	68.0	31	9	20.56	2.95
MSAC010	18	6	85	27	31.5	27	20	23.2	65	76.8	56	20	23.18	2.09
MSAC010	24	6	82	22	27.1	28	24	29.2	58	70.8	54	16	18.83	2.61
MSAC010	30	6	66	16	23.9	20	17	26.6	48	73.4	39	11	16.56	2.35
MSAC010	36	6	60	15	24.4	19	16	27.3	44	72.7	36	10	16.71	2.42
MSAC010	42	3	121	29	24.0	33	26	21.2	96	78.8	69	21	17.18	1.82
MSAC011	0	6	73	19	25.6	24	19	25.8	54	74.2	46	13	18.34	1.88
MSAC011	6	6	34	9	25.6	14	15	44.3	19	55.7	25	5	14.69	4.06
MSAC011	12	6	26	5	18.5	9	11	40.6	16	59.4	20	3	9.71	3.54
MSAC011	18	6	43	10	24.2	12	11	24.9	32	75.1	29	7	16.88	2.12
MSAC011	24	6	104	28	26.7	35	32	30.6	72	69.4	69	19	18.00	2.66
MSAC011	30	6	65	16	23.9	23	23	36.0	41	64.0	43	10	14.93	3.10
MSAC011	36	6	45	11	24.3	14	13	27.6	33	72.4	28	7	16.50	2.33
MSAC011	42	6	71	17	24.2	26	26	36.7	45	63.3	47	11	15.01	3.14
MSAC011	48	1	197	51	26.0	55	42	21.5	154	78.5	114	37	18.85	1.87
MSAC012	0	6	101	27	27.0	30	23	22.8	78	77.2	62	20	19.39	1.95
MSAC012	6	6	42	13	31.3	18	19	45.6	23	54.4	30	6	14.31	10.09
MSAC012	12	6	39	9	23.7	16	19	48.1	20	51.9	30	5	11.89	4.57
MSAC012	18	6	54	13	23.6	18	17	31.6	37	68.4	35	8	15.49	2.67
MSAC012	24	6	57	14	25.0	17	14	24.7	43	75.3	37	10	17.67	2.07
MSAC012	30	6	64	15	23.9	23	24	37.3	40	62.7	43	9	14.83	3.28
MSAC012	36	6	112	26	22.9	32	29	25.8	83	74.2	63	18	15.69	2.28
MSAC012	42	2	288	90	31.2	96	74	25.8	214	74.2	195	64	22.33	2.47
MSAC013	0	6	111	32	28.7	34	27	24.1	84	75.9	72	23	20.44	2.22
MSAC013	6	6	41	12	28.6	16	17	40.5	24	59.5	29	7	16.98	3.98
MSAC013	12	6	47	14	29.1	18	17	37.3	29	62.7	33	9	18.57	3.48
MSAC013	18	6	118	35	29.4	44	38	32.3	80	67.7	81	24	20.46	2.58
MSAC013	24	6	79	21	26.3	29	26	32.7	53	67.3	53	14	17.88	2.66
MSAC013	30	6	93	22	24.2	28	26	27.7	67	72.3	57	15	16.65	2.43



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC013	36	2	590	178	30.2	203	162	27.5	427	72.5	408	125	21.16	2.51
MSAC014	0	6	64	17	26.8	20	17	27.1	46	72.9	41	12	18.25	2.45
MSAC014	6	6	44	12	27.4	17	16	36.4	28	63.6	30	8	17.31	3.46
MSAC014	12	6	42	11	26.9	17	18	44.1	23	55.9	31	6	15.37	4.16
MSAC014	18	6	87	21	24.1	28	26	29.9	61	70.1	54	14	16.21	2.53
MSAC014	24	6	46	11	23.0	18	20	42.6	27	57.4	32	6	13.45	3.68
MSAC014	30	6	114	26	23.1	50	52	45.7	62	54.3	81	14	12.68	3.91
MSAC014	36	3	235	65	27.8	102	102	43.3	133	56.7	175	39	16.67	3.96
MSAC015	0	6	106	31	29.1	36	29	27.6	77	72.4	71	21	19.99	2.53
MSAC015	6	6	43	12	27.8	17	17	39.1	26	60.9	30	7	16.69	3.64
MSAC015	12	6	39	11	27.8	14	13	34.3	26	65.7	27	7	17.86	3.16
MSAC015	18	6	125	30	24.3	35	28	22.4	97	77.6	72	22	17.42	1.89
MSAC015	24	6	67	16	23.8	22	21	31.2	46	68.8	42	10	15.44	2.69
MSAC015	30	6	132	34	26.1	45	39	29.9	93	70.1	85	23	17.49	2.69
MSAC015	36	1	172	47	27.1	60	53	30.8	119	69.2	115	31	18.12	2.70
MSAC016	0	6	88	24	27.5	26	21	23.6	67	76.4	55	17	19.35	2.13
MSAC016	6	6	62	17	27.7	22	21	33.6	41	66.4	41	11	17.46	3.34
MSAC016	12	6	74	21	28.0	26	23	30.8	51	69.2	50	14	19.19	2.60
MSAC016	18	6	205	38	18.7	49	42	20.8	162	79.2	96	27	13.01	1.69
MSAC016	24	6	57	12	21.1	22	24	41.4	34	58.6	38	7	12.54	3.34
MSAC016	30	6	189	60	31.8	74	63	33.3	126	66.7	143	42	22.20	2.90
MSAC016	36	1	372	113	30.5	153	136	36.5	236	63.5	283	77	20.57	3.12
MSAC017	0	6	210	62	29.4	57	38	18.2	172	81.8	125	45	21.53	1.75
MSAC017	6	6	58	17	29.1	21	20	34.5	38	65.5	40	11	18.42	3.23
MSAC017	12	6	132	41	30.8	49	41	31.2	91	68.8	91	28	21.37	2.82
MSAC017	18	6	126	33	25.9	48	46	36.5	80	63.5	87	21	16.75	3.19
MSAC017	24	6	103	21	20.9	29	28	26.9	75	73.1	56	14	13.66	2.41
MSAC017	30	4	886	302	34.1	280	176	19.9	710	80.1	621	230	25.97	1.78
MSAC018	0	6	187	58	31.1	56	40	21.2	148	78.8	122	41	22.04	2.97



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC018	6	6	55	16	28.7	21	21	37.2	35	62.8	39	10	18.06	3.52
MSAC018	12	6	70	18	25.2	27	27	38.0	44	62.0	49	11	15.71	3.39
MSAC018	18	6	122	29	24.1	43	43	35.4	79	64.6	81	18	14.96	3.23
MSAC018	24	6	190	46	24.2	48	35	18.5	155	81.5	108	34	17.85	1.68
MSAC018	30	3	634	227	35.8	210	133	20.9	502	79.1	460	173	27.24	1.86
MSAC019	0	6	305	87	28.5	79	51	16.6	255	83.4	177	65	21.26	1.62
MSAC019	6	6	112	30	26.6	45	43	38.7	69	61.3	79	19	16.96	2.90
MSAC019	12	6	183	40	22.1	92	103	56.3	80	43.7	145	21	11.46	4.66
MSAC019	18	6	167	38	22.8	73	78	46.9	89	53.1	120	22	13.24	3.79
MSAC019	24	6	219	51	23.4	60	49	22.2	170	77.8	132	37	17.09	2.01
<b>MSAC019</b>	30	4	<b>982</b>	315	32.1	310	220	22.4	763	77.6	686	229	23.32	2.25
MSAC020	0	6	305	90	29.4	82	51	16.6	255	83.4	184	68	22.27	1.59
MSAC020	6	6	92	25	27.5	30	26	28.2	66	71.8	60	18	19.12	2.54
MSAC020	12	6	121	31	25.3	43	39	32.6	81	67.4	79	20	16.88	2.71
MSAC020	18	6	90	19	21.5	40	45	49.5	45	50.5	64	10	11.57	4.12
MSAC020	24	6	99	21	21.6	43	48	48.5	51	51.5	70	12	11.89	4.06
MSAC020	30	2	268	72	26.7	112	115	43.0	153	57.0	195	42	15.52	4.01
MSAC021	0	6	429	124	29.0	119	80	18.7	349	81.3	255	91	21.29	1.75
MSAC021	6	6	91	25	27.5	30	27	29.2	64	70.8	59	17	18.41	2.71
MSAC021	12	6	252	69	27.4	81	68	26.9	184	73.1	164	49	19.49	2.29
MSAC021	18	4	601	185	30.8	173	110	18.4	491	81.6	397	142	23.62	1.71
MSAC022	0	6	557	163	29.3	148	95	17.0	463	83.0	329	121	21.67	1.73
MSAC022	6	6	71	19	27.3	26	25	35.2	46	64.8	49	12	17.58	3.20
MSAC022	12	6	319	85	26.6	131	131	40.9	189	59.1	231	52	16.27	3.70
MSAC023	0	6	156	45	28.7	46	35	22.8	120	77.2	98	31	20.13	2.20
MSAC023	6	6	51	13	26.0	21	23	45.7	27	54.3	37	7	14.58	4.38
MSAC023	12	6	293	73	25.1	97	91	31.1	202	68.9	179	48	16.32	3.00
MSAC024	0	6	173	50	29.2	51	38	21.8	135	78.2	107	36	20.81	2.09
MSAC024	6	6	112	25	22.6	61	72	64.4	40	35.6	90	10	8.91	5.97



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC024	12	6	420	92	21.9	200	226	53.8	194	46.2	302	42	10.04	4.84
MSAC025	0	6	161	39	24.0	54	50	31.3	110	68.7	99	25	15.57	2.65
<b>MSAC025</b>	6	6	<b>1158</b>	285	24.6	384	316	27.3	842	72.7	749	203	17.49	2.02
MSAC025	12	6	121	21	17.1	33	31	25.9	90	74.1	58	13	10.72	2.15
MSAC025	18	6	662	56	8.5	91	95	14.3	567	85.7	428	34	5.11	1.50
MSAC025	24	6	131	29	22.0	41	40	30.8	91	69.2	86	17	12.97	3.52
MSAC025	30	5	58	14	23.9	22	23	40.0	35	60.0	41	8	13.40	3.85
MSAC026	0	6	168	49	29.1	55	43	25.4	125	74.6	110	35	20.56	2.13
MSAC026	6	6	430	110	25.7	164	153	35.7	276	64.3	307	70	16.18	2.97
MSAC026	12	6	96	24	25.3	29	24	25.5	71	74.5	59	17	17.46	2.44
MSAC026	18	6	767	168	21.9	131	57	7.4	710	92.6	375	140	18.27	0.67
MSAC026	24	6	292	64	21.8	59	36	12.5	255	87.5	153	51	17.31	1.09
MSAC026	30	1	143	32	22.1	28	16	11.3	127	88.7	76	25	17.69	0.98
MSAC027	0	6	250	67	27.0	69	49	19.7	200	80.3	149	50	19.91	1.70
<b>MSAC027</b>	6	6	<b>3148</b>	841	26.7	760	439	13.9	2709	86.1	1798	658	20.89	1.26
MSAC027	12	6	334	84	25.3	94	72	21.6	262	78.4	198	61	18.16	1.94
MSAC027	18	6	367	101	27.4	94	56	15.3	311	84.7	211	78	21.29	1.34
MSAC027	24	6	539	138	25.6	135	87	16.2	452	83.8	308	105	19.57	1.43
MSAC027	30	3	107	30	28.4	36	32	29.8	75	70.2	69	20	18.83	2.93
MSAC028	0	6	221	54	24.4	50	30	13.4	191	86.6	119	42	19.16	1.15
MSAC028	6	6	99	24	24.2	25	17	17.0	82	83.0	57	19	18.80	1.57
MSAC028	12	6	151	41	27.3	51	45	29.8	106	70.2	96	28	18.55	2.86
MSAC028	18	6	287	93	32.3	97	67	23.4	220	76.6	185	70	24.53	2.13
MSAC028	24	6	574	163	28.4	191	148	25.8	426	74.2	376	121	21.04	2.08
MSAC028	30	6	291	76	26.0	76	53	18.3	238	81.7	170	57	19.48	1.61
MSAC028	36	6	217	59	27.1	60	42	19.6	174	80.4	124	43	19.88	1.86
MSAC028	42	6	121	34	27.7	33	22	18.5	99	81.5	70	25	20.79	1.74
MSAC028	48	2	214	63	29.4	61	41	19.1	173	80.9	132	47	22.02	1.77
MSAC029	0	6	244	62	25.4	55	31	12.6	213	87.4	134	49	20.16	1.10



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC029	6	6	<b>70</b>	17	24.2	22	20	28.0	50	72.0	44	12	16.72	2.60
MSAC029	12	6	<b>63</b>	18	28.1	25	27	42.4	36	57.6	45	10	16.31	4.23
MSAC029	18	6	<b>384</b>	110	28.6	145	121	31.5	263	68.5	256	80	20.83	2.43
MSAC029	24	6	<b>642</b>	173	26.9	224	182	28.3	460	71.7	410	127	19.82	2.13
MSAC029	30	6	<b>486</b>	127	26.1	136	101	20.9	385	79.1	287	93	19.11	1.83
MSAC029	36	6	<b>305</b>	76	25.0	82	62	20.2	243	79.8	179	56	18.33	1.81
MSAC029	42	3	<b>255</b>	63	24.7	61	41	16.2	214	83.8	130	47	18.33	1.53
<b>MSAC030</b>	<b>0</b>	<b>6</b>	<b>942</b>	263	27.9	221	113	12.0	828	88.0	542	208	22.12	1.10
MSAC030	6	6	<b>93.61</b>	25.61	27.36	35.91	37.05	39.58	56.56	60.42	65	15	16.45	3.85
MSAC030	12	6	<b>103.54</b>	25.89	25.00	29.13	23.13	22.34	80.41	77.66	63	19	18.09	2.00
MSAC030	18	6	<b>208.21</b>	59.61	28.63	77.20	66.95	32.16	141.26	67.84	142	42	20.13	2.89
MSAC030	24	6	<b>161.44</b>	40.84	25.30	68.83	70.70	43.79	90.74	56.21	118	25	15.37	3.85
MSAC030	30	6	<b>105.90</b>	28.83	27.23	46.51	45.94	43.38	59.96	56.62	79	18	16.98	3.87
MSAC030	36	6	<b>84.43</b>	22.40	26.54	38.77	41.82	49.54	42.60	50.46	64	13	14.97	4.27
MSAC030	42	5	<b>126.99</b>	33.81	26.63	62.58	67.85	53.43	59.14	46.57	100	19	14.62	4.65
MSAC031	0	6	<b>499.70</b>	129.83	25.98	110.77	58.17	11.64	441.53	88.36	267	103	20.57	1.07
MSAC031	6	6	<b>79.59</b>	19.95	25.07	26.84	25.03	31.44	54.56	68.56	50	13	16.48	3.16
MSAC031	12	6	<b>76.62</b>	19.72	25.73	28.22	29.30	38.24	47.32	61.76	53	12	15.70	3.55
MSAC031	18	6	<b>141.02</b>	40.37	28.63	41.46	29.43	20.87	111.59	79.13	86	30	21.40	1.90
MSAC031	24	6	<b>167.85</b>	44.87	26.73	64.24	61.00	36.34	106.84	63.66	114	30	17.67	3.15
MSAC031	30	6	<b>171.30</b>	45.85	26.76	64.28	57.46	33.54	113.84	66.46	116	31	18.11	2.80
MSAC031	36	2	<b>157.63</b>	47.39	30.06	53.92	45.04	28.57	112.59	71.43	102	33	20.82	2.74
MSAC032	0	6	<b>375.36</b>	114.57	30.52	97.87	53.70	14.31	321.66	85.69	233	89	23.77	1.33
MSAC032	6	6	<b>106.72</b>	28.52	26.73	31.25	24.82	23.25	81.90	76.75	65	20	19.13	2.37
MSAC032	12	6	<b>98.15</b>	26.80	27.31	37.20	39.30	40.04	58.85	59.96	69	16	16.35	4.07
MSAC032	18	6	<b>252.74</b>	77.42	30.63	81.41	60.37	23.89	192.37	76.11	152	57	22.36	2.23
MSAC032	24	6	<b>282.74</b>	81.31	28.76	97.96	82.19	29.07	200.55	70.93	174	56	19.95	2.66
MSAC032	30	6	<b>254.44</b>	76.64	30.12	86.05	70.37	27.66	184.07	72.34	164	53	20.83	2.62
MSAC033	0	6	<b>212.03</b>	58.39	27.54	51.34	29.09	13.72	182.94	86.28	123	46	21.57	1.22



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC033	6	6	<b>81.77</b>	21.65	26.48	25.72	23.21	28.39	58.55	71.61	52	15	18.31	2.44
MSAC033	12	6	<b>74.93</b>	19.65	26.23	25.80	25.04	33.42	49.89	66.58	51	13	16.87	3.23
MSAC033	18	6	<b>116.45</b>	31.90	27.39	43.47	39.74	34.12	76.71	65.88	79	21	18.38	3.34
MSAC033	24	6	<b>107.71</b>	28.15	26.13	41.56	41.11	38.16	66.61	61.84	75	18	16.64	3.38
MSAC033	30	5	<b>186.68</b>	46.69	25.01	54.18	42.64	22.84	144.04	77.16	112	34	18.28	2.00
MSAC034	0	6	<b>482.28</b>	149.37	30.97	118.82	52.63	10.91	429.65	89.09	299	121	25.12	0.89
MSAC034	6	6	<b>136.86</b>	36.87	26.94	36.59	24.09	17.60	112.78	82.40	79	29	20.94	1.59
MSAC034	12	6	<b>111.74</b>	29.84	26.71	29.73	20.14	18.02	91.60	81.98	66	23	20.90	1.53
MSAC034	18	6	<b>328.69</b>	86.92	26.44	140.49	140.76	42.83	187.92	57.17	234	54	16.28	4.45
MSAC034	24	6	<b>221.54</b>	54.77	24.72	87.13	87.64	39.56	133.89	60.44	153	34	15.36	3.81
MSAC034	30	6	<b>505.60</b>	114.82	22.71	116.27	82.08	16.23	423.52	83.77	254	85	16.86	1.47
MSAC035	0	6	<b>545.40</b>	153.55	28.15	120.03	56.57	10.37	488.83	89.63	308	122	22.30	0.89
MSAC035	6	6	<b>140.07</b>	37.43	26.72	36.68	25.46	18.17	114.61	81.83	81	28	20.16	1.56
MSAC035	12	6	<b>106.95</b>	28.89	27.01	31.22	23.73	22.19	83.23	77.81	65	22	20.10	1.93
MSAC035	18	6	<b>172.87</b>	50.31	29.10	55.80	43.70	25.28	129.16	74.72	110	36	20.86	2.50
MSAC035	24	6	<b>252.73</b>	71.43	28.26	92.76	83.45	33.02	169.28	66.98	167	47	18.67	3.33
MSAC035	30	6	<b>195.93</b>	47.77	24.38	53.96	44.03	22.47	151.90	77.53	110	34	17.32	1.98
MSAC035	36	1	<b>299.93</b>	73.58	24.53	79.77	62.62	20.88	237.31	79.12	166	52	17.50	1.83
MSAC036	0	6	<b>581.86</b>	162.31	27.89	125.70	53.62	9.21	528.25	90.79	323	132	22.68	0.79
MSAC036	6	6	<b>132.74</b>	35.71	26.90	35.43	23.99	18.07	108.75	81.93	76	27	20.64	1.61
MSAC036	12	6	<b>138.37</b>	38.10	27.54	45.53	40.13	29.00	98.25	71.00	89	26	19.02	2.75
MSAC036	18	6	<b>304.33</b>	90.66	29.79	101.44	77.88	25.59	226.46	74.41	192	66	21.73	2.57
MSAC036	24	6	<b>179.55</b>	49.04	27.32	62.81	53.97	30.06	125.58	69.94	114	34	18.82	3.15
MSAC036	30	6	<b>131.06</b>	23.65	18.04	34.44	32.80	25.03	98.26	74.97	61	15	11.60	2.56
MSAC036	36	4	<b>288.62</b>	43.27	14.99	58.44	53.19	18.43	235.43	81.57	107	29	10.00	1.63
MSAC037	0	6	<b>505.49</b>	138.25	27.35	114.64	58.18	11.51	447.31	88.49	277	110	21.75	1.07
MSAC038	6	6	<b>75.89</b>	19.78	26.07	22.73	19.25	25.36	56.64	74.64	46	14	18.27	2.28
MSAC039	12	6	<b>75.35</b>	20.28	26.91	31.51	34.47	45.74	40.88	54.26	55	11	15.04	4.19
MSAC040	18	6	<b>441.28</b>	135.85	30.79	118.66	68.63	15.55	372.64	84.45	247	105	23.80	1.44



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC041	24	6	<b>143.59</b>	39.27	27.35	40.67	29.91	20.83	113.68	79.17	86	29	20.28	1.86
MSAC042	30	6	<b>172.89</b>	38.63	22.34	47.85	41.74	24.14	131.15	75.86	94	27	15.42	2.04
MSAC043	36	3	<b>253.62</b>	52.50	20.70	69.19	62.74	24.74	190.88	75.26	130	35	13.65	2.31
MSAC038	0	6	<b>358.37</b>	107.14	29.90	88.06	44.99	12.55	313.37	87.45	212	85	23.62	1.08
MSAC038	6	6	<b>89.26</b>	22.38	25.07	29.14	25.14	28.17	64.11	71.83	55	16	17.52	2.16
MSAC038	12	6	<b>56.85</b>	15.77	27.73	18.67	17.14	30.14	39.72	69.86	37	10	18.20	3.31
MSAC038	18	6	<b>64.41</b>	17.35	26.94	26.86	30.24	46.95	34.17	53.05	48	9	14.38	4.47
MSAC038	24	6	<b>559.55</b>	166.22	29.71	159.96	104.33	18.64	455.22	81.36	316	127	22.67	1.67
MSAC038	30	6	<b>124.08</b>	31.94	25.74	45.31	43.06	34.70	81.02	65.30	83	21	16.78	3.03
MSAC038	36	5	<b>84.02</b>	20.42	24.30	34.96	39.24	46.70	44.79	53.30	62	11	13.30	4.14
MSAC039	0	6	<b>251.73</b>	75.99	30.19	68.67	40.49	16.09	211.23	83.91	155	59	23.38	1.42
MSAC039	6	6	<b>52.14</b>	13.67	26.22	18.38	18.59	35.65	33.55	64.35	35	9	16.40	3.41
MSAC039	12	6	<b>51.46</b>	12.66	24.60	20.27	22.11	42.96	29.35	57.04	38	7	14.19	3.88
MSAC039	18	6	<b>260.79</b>	76.52	29.34	79.48	57.18	21.93	203.61	78.07	156	57	21.88	1.87
MSAC039	24	6	<b>86.39</b>	22.42	25.96	34.31	34.08	39.45	52.31	60.55	61	14	16.02	3.56
MSAC039	30	6	<b>88.78</b>	22.57	25.42	31.75	31.38	35.35	57.40	64.65	60	13	15.13	4.56
MSAC039	36	6	<b>47.13</b>	11.79	25.01	15.85	15.15	32.14	31.98	67.86	31	8	16.19	2.85
MSAC039	42	6	<b>378.68</b>	98.18	25.93	110.82	82.83	21.87	295.85	78.13	241	73	19.41	1.80
MSAC039	48	2	<b>632.19</b>	151.05	23.89	271.85	260.20	41.16	371.99	58.84	467	96	15.11	2.96
MSAC040	0	6	<b>211.01</b>	56.01	26.54	64.45	50.45	23.91	160.56	76.09	135	40	19.18	1.94
MSAC040	6	6	<b>96.15</b>	24.58	25.56	34.84	33.04	34.36	63.11	65.64	66	16	16.82	2.85
MSAC040	12	6	<b>100.26</b>	24.16	24.10	41.60	43.39	43.27	56.87	56.73	74	15	14.69	3.40
MSAC040	18	6	<b>192.17</b>	50.67	26.37	73.72	69.24	36.03	122.93	63.97	133	34	17.57	2.92
MSAC040	24	6	<b>82.94</b>	20.22	24.38	31.20	31.91	38.47	51.03	61.53	59	13	15.15	3.40
MSAC040	30	6	<b>50.20</b>	11.92	23.74	17.82	18.11	36.08	32.09	63.92	33	7	14.69	3.20
MSAC040	36	6	<b>50.04</b>	12.53	25.04	20.46	21.66	43.30	28.37	56.70	36	8	15.04	3.72
MSAC041	0	6	<b>82.81</b>	22.11	26.70	23.31	17.70	21.37	65.11	78.63	52	16	19.37	1.90
MSAC041	6	6	<b>41.23</b>	11.23	27.24	16.98	18.99	46.05	22.24	53.95	31	6	14.55	5.43
MSAC041	12	6	<b>92.70</b>	24.78	26.74	32.08	30.69	33.11	62.01	66.89	63	16	17.40	3.10



Hole No	From	Interval	TREO	MREO	Mag%	CREO	HREO	HREO%	LREO	LREO%	TREO-CEO2	NdPr	NdPr%	Dy%
MSAC041	18	6	<b>64.94</b>	16.05	24.72	23.89	25.19	38.79	39.75	61.21	47	10	15.16	3.48
MSAC041	24	6	<b>73.65</b>	17.69	24.02	28.28	30.18	40.99	43.46	59.01	54	10	14.25	3.57
MSAC041	30	6	<b>66.38</b>	14.75	22.22	27.35	30.75	46.33	35.63	53.67	47	8	11.90	4.17
MSAC041	36	6	<b>49.54</b>	11.87	23.95	19.27	18.33	37.01	31.21	62.99	34	8	15.45	2.76
MSAC041	42	1	<b>40.75</b>	10.72	26.31	14.19	13.31	32.67	27.44	67.33	28	7	17.06	2.90
MSAC042	0	6	<b>62.86</b>	15.55	24.73	18.94	16.30	25.93	46.56	74.07	40	11	17.06	2.36
MSAC042	6	6	<b>31.30</b>	8.04	25.69	12.87	13.98	44.66	17.32	55.34	23	5	14.57	4.22
MSAC042	12	6	<b>72.01</b>	17.42	24.20	28.76	30.47	42.32	41.54	57.68	52	10	14.37	3.81
MSAC042	18	6	<b>64.73</b>	15.26	23.57	25.64	28.06	43.35	36.67	56.65	48	9	13.79	3.83
MSAC042	24	6	<b>50.80</b>	12.13	23.87	19.73	21.53	42.38	29.27	57.62	37	7	13.89	3.82
MSAC042	30	6	<b>69.66</b>	15.77	22.64	25.30	26.73	38.38	42.93	61.62	47	9	13.61	3.46
MSAC042	36	6	<b>237.40</b>	58.46	24.62	66.46	52.47	22.10	184.94	77.90	143	42	17.70	1.92
MSAC042	42	3	<b>460.99</b>	114.63	24.87	126.11	93.62	20.31	367.37	79.69	277	84	18.27	1.78
MSAC043	0	6	<b>137.28</b>	34.09	24.83	39.37	31.15	22.69	106.13	77.31	85	25	17.87	1.92
MSAC043	6	6	<b>55.91</b>	13.95	24.95	18.11	16.76	29.98	39.15	70.02	36	9	16.58	2.83
MSAC043	12	6	<b>121.41</b>	25.83	21.27	58.81	67.99	56.00	53.43	44.00	97	13	10.62	4.48
MSAC043	18	6	<b>71.31</b>	15.90	22.30	29.86	33.54	47.03	37.78	52.97	55	9	12.45	3.93
MSAC043	24	6	<b>51.95</b>	11.86	22.84	19.26	20.90	40.23	31.05	59.77	36	7	13.38	3.38
MSAC043	30	6	<b>78.52</b>	17.70	22.55	29.35	31.31	39.88	47.20	60.12	53	10	13.25	3.58
MSAC043	36	6	<b>207.41</b>	58.56	28.24	63.52	50.22	24.21	157.18	75.79	139	42	20.02	2.33

Table 1 Continued

Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC001	0	6	14.1	25.3	3	12	2	1	2	0	2	0	1	0	1	0	13
MSAC001	6	6	6.7	16.6	1	4	1	0	1	0	1	0	1	0	1	0	7
MSAC001	12	6	47.5	72.7	10	38	7	2	10	2	11	3	10	1	7	1	133





Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
<b>MSAC001</b>	18	6	542.6	940.4	119	425	81	15	91	14	92	21	65	9	56	8	660
<b>MSAC001</b>	24	5	167.9	297.8	35	119	21	4	21	3	21	5	14	2	13	2	136
MSAC002	0	6	52.0	96.8	11	38	7	1	6	1	6	1	4	1	4	1	41
MSAC002	6	6	11.5	18.6	2	7	1	0	1	0	1	0	1	0	1	0	10
MSAC002	12	6	114.1	140.2	25	88	17	4	20	4	26	7	22	3	20	3	244
<b>MSAC002</b>	18	6	384.4	626.4	78	275	50	9	60	9	63	15	44	6	37	5	468
<b>MSAC002</b>	24	5	605.2	1159.2	138	445	77	12	61	9	48	9	24	3	20	3	229
MSAC003	0	6	41.3	73.5	9	30	5	1	5	1	4	1	2	0	2	0	25
MSAC003	6	6	39.5	65.8	8	27	5	1	4	1	4	1	2	0	2	0	23
<b>MSAC003</b>	12	6	205.2	243.4	41	149	28	7	34	6	39	9	29	4	27	4	296
<b>MSAC003</b>	18	6	748.9	1413.9	167	564	101	16	84	11	60	10	28	4	23	3	231
MSAC003	24	6	100.8	178.0	22	70	12	2	10	2	10	2	6	1	6	1	62
MSAC003	30	6	30.8	59.1	7	21	4	1	4	1	5	1	4	1	4	1	38
MSAC003	36	1	16.9	30.9	4	12	2	1	2	0	3	1	2	0	2	0	17
MSAC004	0	6	31.0	55.6	7	22	4	1	3	0	3	1	2	0	1	0	17
MSAC004	6	6	37.2	66.5	8	26	5	1	3	0	3	0	1	0	1	0	16
MSAC004	12	6	108.5	212.5	25	84	14	2	10	1	9	2	6	1	6	1	59
MSAC004	18	6	97.7	178.1	25	85	14	2	10	1	9	2	7	1	6	1	66
MSAC004	24	6	46.5	89.0	12	41	7	1	5	1	5	1	4	1	4	1	36
MSAC005	0	6	76.5	127.0	18	64	12	2	8	1	6	1	3	0	3	0	34
MSAC005	6	6	19.6	38.8	4	15	3	1	2	0	2	1	2	0	2	0	19
MSAC005	12	6	10.7	18.5	2	8	2	0	2	0	2	1	2	0	3	0	19
MSAC005	18	6	19.7	36.0	5	15	3	1	4	1	7	2	7	1	9	1	47
MSAC005	24	5	46.8	107.9	11	33	6	1	4	1	5	1	3	1	4	1	29
MSAC006	0	6	78.4	130.9	18	62	11	2	8	1	6	1	3	0	2	0	30
MSAC006	6	6	15.8	31.2	3	11	2	0	2	0	2	0	1	0	1	0	11
MSAC006	12	6	9.8	16.1	2	6	1	0	2	0	2	1	2	0	2	0	13
MSAC006	18	6	29.6	53.4	7	21	3	1	3	0	3	1	3	0	3	1	26
MSAC006	24	3	90.5	167.9	21	66	11	1	8	1	7	1	4	1	5	1	46



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC007	0	6	89.7	175.2	21	67	11	2	8	1	6	1	3	0	3	0	34
MSAC007	6	6	18.8	42.0	4	14	3	1	2	0	3	1	2	0	2	0	20
MSAC007	12	6	9.8	18.4	2	7	1	0	1	0	2	1	2	0	2	0	14
MSAC007	18	6	42.3	74.3	9	25	4	1	3	0	3	1	2	0	2	0	18
MSAC007	24	6	177.0	285.8	39	117	17	2	10	1	7	1	4	1	3	0	37
MSAC007	30	6	82.4	163.1	19	59	10	1	7	1	5	1	3	0	3	0	30
MSAC007	36	3	120.2	244.4	24	75	11	1	7	1	5	1	3	0	3	0	33
MSAC008	0	6	40.0	83.5	9	30	5	1	4	1	3	1	1	0	1	0	16
MSAC008	6	6	12.1	22.3	2	8	1	0	1	0	1	0	1	0	1	0	10
MSAC008	12	6	9.1	17.5	2	6	1	0	1	0	2	0	1	0	2	0	11
MSAC008	18	6	33.6	46.9	9	27	4	1	3	0	2	0	1	0	1	0	11
MSAC008	24	6	112.6	125.4	27	80	14	1	9	1	8	1	4	1	4	1	41
MSAC008	30	6	107.2	179.9	26	76	12	1	7	1	6	1	3	0	3	0	32
MSAC008	36	6	81.1	162.3	19	59	10	1	6	1	5	1	2	0	2	0	27
MSAC008	42	3	59.0	143.5	17	57	10	1	6	1	5	1	3	0	3	0	26
MSAC009	0	6	26.6	53.0	6	19	3	1	3	0	2	1	1	0	1	0	12
MSAC009	6	6	8.2	15.9	2	6	1	0	1	0	2	0	1	0	2	0	11
MSAC009	12	6	5.6	11.2	1	4	1	0	1	0	2	0	1	0	2	0	10
MSAC009	18	6	9.6	15.0	2	6	1	0	1	0	1	0	1	0	1	0	7
MSAC009	24	6	9.3	17.1	2	6	1	0	1	0	1	0	1	0	1	0	8
MSAC009	30	6	27.0	81.9	6	19	3	0	2	0	3	1	2	0	2	0	17
MSAC009	36	5	78.2	147.1	19	60	10	1	6	1	5	1	3	1	4	1	35
MSAC010	0	6	29.5	50.2	7	23	4	1	3	0	2	0	1	0	1	0	13
MSAC010	6	6	11.8	20.1	3	10	2	0	2	0	2	0	1	0	1	0	11
MSAC010	12	6	8.0	12.6	2	7	1	0	1	0	1	0	1	0	1	0	7
MSAC010	18	6	16.9	28.7	5	15	3	0	2	0	2	0	1	0	1	0	9
MSAC010	24	6	14.5	28.3	4	12	2	0	2	0	2	0	2	0	2	0	13
MSAC010	30	6	11.0	26.3	3	8	2	0	1	0	2	0	1	0	1	0	10
MSAC010	36	6	9.6	24.2	2	8	1	0	1	0	1	0	1	0	1	0	9



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC010	42	3	22.2	52.6	5	16	3	0	2	0	2	0	1	0	1	0	14
MSAC011	0	6	13.9	27.0	3	10	2	0	2	0	1	0	1	0	1	0	11
MSAC011	6	6	4.4	9.6	1	4	1	0	1	0	1	0	1	0	1	0	9
MSAC011	12	6	6.6	6.4	1	2	0	0	1	0	1	0	1	0	1	0	6
MSAC011	18	6	10.5	14.7	2	6	1	0	1	0	1	0	1	0	1	0	6
MSAC011	24	6	18.9	34.5	4	14	3	0	2	0	3	1	2	0	3	0	17
MSAC011	30	6	10.0	21.8	2	7	2	0	1	0	2	0	2	0	2	0	13
MSAC011	36	6	7.6	17.8	2	6	1	0	1	0	1	0	1	0	1	0	7
MSAC011	42	6	10.3	23.9	2	8	2	0	2	0	2	0	2	0	2	0	15
MSAC011	48	1	34.9	82.5	9	29	5	1	4	1	4	1	2	0	3	0	21
MSAC012	0	6	19.9	38.6	4	15	3	1	2	0	2	0	1	0	1	0	12
MSAC012	6	6	5.1	11.6	1	5	1	0	1	0	4	0	1	0	1	0	9
MSAC012	12	6	6.7	8.9	1	4	1	0	1	0	2	0	1	0	2	0	10
MSAC012	18	6	9.4	19.2	2	6	1	0	1	0	1	0	1	0	2	0	9
MSAC012	24	6	13.3	19.3	2	8	1	0	1	0	1	0	1	0	1	0	7
MSAC012	30	6	10.1	20.4	2	7	2	0	1	0	2	0	2	0	2	0	13
MSAC012	36	6	16.5	48.9	4	13	3	0	2	0	3	1	2	0	2	0	16
MSAC012	42	2	56.2	93.3	16	49	9	1	7	1	7	1	4	1	5	1	38
MSAC013	0	6	22.1	39.6	5	17	3	1	3	0	2	0	1	0	2	0	13
MSAC013	6	6	5.8	11.6	2	5	1	0	1	0	2	0	1	0	1	0	9
MSAC013	12	6	7.2	13.5	2	7	1	0	1	0	2	0	1	0	1	0	9
MSAC013	18	6	19.1	36.8	5	19	3	1	3	0	3	1	2	0	3	0	21
MSAC013	24	6	12.4	26.8	3	11	2	0	2	0	2	0	2	0	2	0	15
MSAC013	30	6	16.3	35.2	4	12	2	0	2	0	2	0	2	0	2	0	14
MSAC013	36	2	121.4	181.1	30	95	18	2	15	2	15	3	9	1	8	1	89
MSAC014	0	6	12.0	22.9	3	9	2	0	1	0	2	0	1	0	1	0	9
MSAC014	6	6	6.8	13.4	2	6	1	0	1	0	2	0	1	0	1	0	9
MSAC014	12	6	5.8	11.0	1	5	1	0	1	0	2	0	1	0	1	0	10
MSAC014	18	6	14.6	32.0	3	11	2	0	2	0	2	0	2	0	2	0	14



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC014	24	6	6.3	14.2	1	5	1	0	1	0	2	0	2	0	2	0	11
MSAC014	30	6	14.1	33.3	3	11	3	0	3	1	4	1	3	0	3	0	33
MSAC014	36	3	34.0	60.0	9	30	7	1	7	1	9	2	6	1	6	1	61
MSAC015	0	6	20.6	35.1	5	17	3	1	3	0	3	1	2	0	2	0	15
MSAC015	6	6	5.9	13.1	2	6	1	0	1	0	2	0	1	0	1	0	9
MSAC015	12	6	6.5	12.1	2	5	1	0	1	0	1	0	1	0	1	0	7
MSAC015	18	6	22.2	53.1	5	17	3	0	2	0	2	1	2	0	2	0	15
MSAC015	24	6	11.0	24.8	2	8	2	0	1	0	2	1	1	0	2	0	11
MSAC015	30	6	22.3	47.1	5	18	3	0	3	1	4	1	2	0	2	0	23
MSAC015	36	1	30.8	57.3	7	24	5	0	4	1	5	1	3	0	3	0	31
MSAC016	0	6	17.1	32.9	4	13	3	0	2	0	2	0	1	0	1	0	10
MSAC016	6	6	9.7	20.8	2	8	2	0	2	0	2	0	1	0	2	0	11
MSAC016	12	6	13.1	23.8	3	11	2	0	2	0	2	0	2	0	2	0	12
MSAC016	18	6	27.3	108.4	6	21	4	0	3	1	3	1	3	0	3	1	24
MSAC016	24	6	7.0	19.4	2	6	1	0	1	0	2	0	2	0	2	0	14
MSAC016	30	6	38.3	45.6	10	32	6	1	5	1	5	1	4	1	4	1	36
MSAC016	36	1	70.6	89.4	19	58	11	1	10	2	12	2	8	1	7	1	81
MSAC017	0	6	41.8	84.6	10	35	7	1	5	1	4	1	2	0	2	0	17
MSAC017	6	6	9.1	18.2	2	8	2	0	2	0	2	0	1	0	2	0	10
MSAC017	12	6	21.8	40.7	6	22	4	1	3	1	4	1	3	0	3	0	22
MSAC017	18	6	19.4	39.6	5	16	3	0	3	1	4	1	3	1	4	1	26
MSAC017	24	6	14.4	46.7	3	11	2	0	2	0	2	1	2	0	2	0	16
<b>MSAC017</b>	<b>30</b>	<b>4</b>	<b>214.3</b>	<b>265.4</b>	<b>56</b>	<b>174</b>	<b>31</b>	<b>3</b>	<b>20</b>	<b>3</b>	<b>16</b>	<b>3</b>	<b>8</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>85</b>
MSAC018	0	6	40.7	65.7	9	32	6	1	4	1	6	1	2	0	2	0	17
MSAC018	6	6	8.7	16.1	2	8	2	0	2	0	2	0	1	0	2	0	11
MSAC018	12	6	11.6	21.0	3	9	2	0	2	0	2	1	2	0	2	0	15
MSAC018	18	6	19.9	40.6	4	14	3	0	3	1	4	1	3	0	3	1	24
MSAC018	24	6	39.1	81.5	8	26	4	0	3	0	3	1	2	0	2	0	18
MSAC018	30	3	154.5	174.4	43	130	24	2	15	2	12	2	6	1	5	1	63



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC019	0	6	61.7	128.2	15	50	9	2	6	1	5	1	2	0	2	0	22
MSAC019	6	6	16.9	32.7	4	15	3	1	3	0	3	1	3	0	3	0	26
MSAC019	12	6	20.9	38.3	5	16	4	1	4	1	9	2	8	1	8	1	65
MSAC019	18	6	19.1	47.5	5	17	4	0	4	1	6	2	6	1	6	1	48
MSAC019	24	6	45.6	87.4	9	28	4	0	3	1	4	1	3	1	4	1	26
<b>MSAC019</b>	<b>30</b>	<b>4</b>	<b>236.8</b>	<b>296.7</b>	<b>57</b>	<b>173</b>	<b>32</b>	<b>3</b>	<b>24</b>	<b>4</b>	<b>22</b>	<b>4</b>	<b>11</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>108</b>
MSAC020	0	6	64.9	121.9	15	53	9	1	6	1	5	1	2	0	2	0	22
MSAC020	6	6	16.1	32.3	4	14	2	0	2	0	2	1	2	0	2	0	13
MSAC020	12	6	19.7	41.2	5	16	3	0	3	0	3	1	3	0	3	0	22
MSAC020	18	6	8.5	26.5	2	8	2	0	2	0	4	1	3	1	4	1	27
MSAC020	24	6	9.9	29.3	3	9	2	0	2	0	4	1	4	1	4	1	29
MSAC020	30	2	38.8	72.3	10	32	8	1	8	2	11	2	7	1	7	1	68
MSAC021	0	6	84.0	173.3	20	71	13	2	10	1	7	1	4	1	3	0	37
MSAC021	6	6	15.8	31.7	4	13	3	0	2	0	2	1	2	0	2	0	14
MSAC021	12	6	47.3	87.7	12	37	7	1	5	1	6	1	4	1	5	1	37
MSAC021	18	4	144.8	204.1	36	107	18	2	12	2	10	2	6	1	5	1	53
MSAC022	0	6	113.5	228.3	27	93	17	3	13	2	10	2	4	1	4	0	40
MSAC022	6	6	11.3	22.3	3	10	2	0	2	0	2	1	2	0	2	0	14
MSAC022	12	6	48.7	88.0	12	40	8	1	8	2	12	3	8	1	9	1	77
MSAC023	0	6	31.2	57.7	7	24	5	1	4	1	3	1	2	0	2	0	17
MSAC023	6	6	6.8	13.2	2	6	1	0	1	0	2	1	2	0	2	0	13
MSAC023	12	6	39.8	114.3	12	36	7	1	6	1	9	2	6	1	6	1	50
MSAC024	0	6	33.3	65.7	8	28	5	1	4	1	4	1	2	0	2	0	18
MSAC024	6	6	8.1	21.8	2	8	2	1	4	1	7	2	5	1	5	1	45
MSAC024	12	6	33.9	118.1	10	33	9	1	13	3	20	5	15	2	13	2	143
MSAC025	0	6	24.2	61.1	6	19	4	1	4	1	4	1	3	0	3	0	30
<b>MSAC025</b>	<b>6</b>	<b>6</b>	<b>230.3</b>	<b>409.2</b>	<b>47</b>	<b>156</b>	<b>27</b>	<b>5</b>	<b>24</b>	<b>4</b>	<b>23</b>	<b>5</b>	<b>16</b>	<b>2</b>	<b>12</b>	<b>2</b>	<b>196</b>
MSAC025	12	6	13.7	63.2	3	10	2	0	2	0	3	1	2	0	2	0	20
MSAC025	18	6	299.5	233.7	12	22	4	1	5	1	10	2	7	1	6	1	57



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC025	24	6	29.1	44.6	4	13	3	0	3	1	5	1	2	0	3	0	23
MSAC025	30	5	10.1	16.8	2	6	1	0	2	0	2	0	2	0	2	0	13
MSAC026	0	6	33.2	57.7	8	27	5	1	4	1	4	1	2	0	2	0	23
MSAC026	6	6	84.0	122.6	16	54	10	2	13	2	13	3	8	1	7	1	93
MSAC026	12	6	18.0	36.5	4	13	2	0	2	0	2	0	1	0	1	0	13
MSAC026	18	6	177.7	391.9	40	100	14	2	7	1	5	1	2	0	2	0	23
MSAC026	24	6	65.7	139.3	14	37	6	1	3	1	3	1	2	0	2	0	18
MSAC026	30	1	34.1	67.6	7	18	3	0	2	0	1	0	1	0	1	0	8
MSAC027	0	6	50.6	100.1	12	38	7	1	5	1	4	1	2	0	2	0	25
<b>MSAC027</b>	<b>6</b>	<b>6</b>	<b>701.1</b>	<b>1350.8</b>	<b>163</b>	<b>495</b>	<b>78</b>	<b>11</b>	<b>52</b>	<b>7</b>	<b>40</b>	<b>7</b>	<b>19</b>	<b>2</b>	<b>14</b>	<b>2</b>	<b>206</b>
MSAC027	12	6	65.5	135.5	14	46	8	1	7	1	6	1	4	1	3	0	39
MSAC027	18	6	76.4	156.7	18	60	10	1	6	1	5	1	3	0	2	0	27
MSAC027	24	6	115.3	231.0	26	80	13	1	9	1	8	1	4	1	3	0	45
MSAC027	30	3	16.8	38.3	5	15	3	0	3	1	3	1	2	0	2	0	17
MSAC028	0	6	47.4	101.7	10	32	5	1	3	0	3	0	1	0	1	0	14
MSAC028	6	6	21.8	41.6	5	14	2	0	1	0	2	0	1	0	1	0	8
MSAC028	12	6	22.6	55.6	6	22	4	1	3	1	4	1	3	1	3	1	24
MSAC028	18	6	47.6	102.0	14	56	9	1	5	1	6	1	4	1	5	1	33
MSAC028	24	6	107.6	197.3	27	94	15	2	10	2	12	3	9	2	10	2	81
MSAC028	30	6	59.6	121.9	14	43	7	1	5	1	5	1	3	0	3	0	27
MSAC028	36	6	38.1	93.0	10	33	6	1	4	1	4	1	2	0	2	0	21
MSAC028	42	6	22.2	51.3	6	19	3	0	2	0	2	0	1	0	1	0	11
MSAC028	48	2	44.5	81.3	11	36	6	1	4	1	4	1	2	0	2	0	20
MSAC029	0	6	53.7	110.1	12	37	6	1	3	0	3	0	1	0	1	0	14
MSAC029	6	6	13.2	25.4	3	9	2	0	1	0	2	0	1	0	2	0	11
MSAC029	12	6	8.0	18.2	2	8	2	0	2	0	3	1	2	0	2	0	14
MSAC029	18	6	55.0	127.9	18	62	10	1	7	1	9	2	8	1	9	1	71
MSAC029	24	6	100.7	232.4	29	99	16	2	11	2	14	3	11	2	12	2	108
MSAC029	30	6	92.3	199.5	22	71	13	1	9	1	9	2	5	1	6	1	54



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC029	36	6	61.9	125.6	13	42	8	1	5	1	6	1	3	1	3	0	32
MSAC029	42	3	41.9	125.2	11	36	6	1	5	1	4	1	2	0	2	0	20
<b>MSAC030</b>	0	6	219.9	400.1	49	159	25	4	15	2	10	2	4	1	4	1	46
MSAC030	6	6	12.9	28.2	3	12	3	0	3	1	4	1	3	1	3	1	19
MSAC030	12	6	21.2	40.5	4	14	2	0	2	0	2	0	1	0	2	0	12
MSAC030	18	6	33.0	66.3	10	32	5	1	4	1	6	1	5	1	5	1	37
MSAC030	24	6	22.4	43.5	6	19	4	1	4	1	6	2	5	1	6	1	42
MSAC030	30	6	15.2	26.8	4	14	3	0	3	1	4	1	3	1	3	0	28
MSAC030	36	6	9.7	20.2	3	10	2	0	2	0	4	1	3	0	3	0	25
MSAC030	42	5	13.6	27.0	4	14	4	0	4	1	6	1	4	1	5	1	41
MSAC031	0	6	105.9	232.8	24	79	12	2	7	1	5	1	2	0	2	0	24
MSAC031	6	6	12.3	29.1	3	10	2	0	2	0	3	0	2	0	2	0	14
MSAC031	12	6	11.7	23.6	3	9	2	0	2	0	3	1	2	0	3	0	15
MSAC031	18	6	26.3	55.1	7	23	4	1	3	0	3	1	2	0	2	0	15
MSAC031	24	6	23.5	53.7	7	23	4	1	4	1	5	1	4	1	6	1	35
MSAC031	30	6	27.2	55.6	7	24	5	0	4	1	5	1	3	1	3	1	35
MSAC031	36	2	24.1	55.6	8	25	5	0	4	1	4	1	3	0	3	0	23
MSAC032	0	6	90.2	142.3	21	68	11	2	7	1	5	1	2	0	2	0	22
MSAC032	6	6	19.7	41.8	5	16	3	0	2	0	3	0	2	0	2	0	12
MSAC032	12	6	14.0	28.8	4	12	3	0	3	1	4	1	3	1	4	1	20
MSAC032	18	6	34.8	101.0	12	44	8	1	6	1	6	1	4	1	4	1	30
MSAC032	24	6	35.6	108.6	12	44	8	1	6	1	8	2	5	1	6	1	44
MSAC032	30	6	40.5	90.5	12	41	8	1	6	1	7	1	4	1	4	1	37
MSAC033	0	6	47.7	89.5	11	35	6	1	4	0	3	0	1	0	1	0	12
MSAC033	6	6	13.8	29.8	4	11	2	0	2	0	2	0	3	0	2	0	12
MSAC033	12	6	12.9	24.3	3	10	2	0	2	0	2	1	2	0	2	0	13
MSAC033	18	6	18.0	37.3	5	17	3	0	2	1	4	1	3	0	3	0	22
MSAC033	24	6	16.1	32.5	4	14	3	0	2	0	4	1	3	0	3	1	23
MSAC033	30	5	35.3	74.6	8	26	4	0	3	1	4	1	2	0	3	0	23



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC034	0	6	125.7	182.8	28	93	15	2	8	1	4	1	2	0	2	0	18
MSAC034	6	6	26.4	57.7	7	22	3	1	2	0	2	0	1	0	2	0	12
MSAC034	12	6	22.0	46.2	5	18	3	0	2	0	2	0	1	0	2	0	10
MSAC034	18	6	39.6	94.8	12	41	7	1	7	2	15	3	11	2	11	1	82
MSAC034	24	6	31.7	68.2	8	26	5	1	4	1	8	2	6	1	7	1	51
MSAC034	30	6	86.5	251.7	20	65	12	1	8	1	7	1	4	1	4	1	42
MSAC035	0	6	130.0	237.2	28	94	16	2	9	1	5	1	2	0	2	0	18
MSAC035	6	6	27.5	58.9	7	22	4	0	3	0	2	0	2	0	2	0	12
MSAC035	12	6	20.3	41.5	5	17	3	0	2	0	2	0	2	0	2	0	12
MSAC035	18	6	30.2	62.9	8	28	5	1	4	1	4	1	3	0	3	0	22
MSAC035	24	6	36.6	85.5	11	36	7	1	6	1	8	2	5	1	6	1	46
MSAC035	30	6	32.0	86.0	8	26	5	0	4	1	4	1	3	0	3	1	23
MSAC035	36	1	51.3	133.5	12	40	8	1	6	1	5	1	3	1	4	1	33
MSAC036	0	6	137.8	258.5	31	101	16	2	8	1	5	1	2	0	2	0	17
MSAC036	6	6	24.7	56.6	7	21	3	0	2	0	2	0	1	0	2	0	12
MSAC036	12	6	22.3	49.6	6	20	4	1	3	1	4	1	3	1	3	1	20
MSAC036	18	6	48.1	112.2	15	51	8	1	6	1	8	2	5	1	5	1	40
MSAC036	24	6	26.0	65.8	8	26	5	1	3	1	6	1	3	1	4	1	30
MSAC036	30	6	12.9	70.2	4	12	2	0	2	0	3	1	2	0	2	0	19
MSAC036	36	4	24.9	181.7	7	22	4	0	4	1	5	1	3	1	3	1	31
MSAC037	0	6	108.6	228.8	26	84	14	2	7	1	5	1	2	0	2	0	22
MSAC038	6	6	12.5	30.3	3	11	2	0	1	0	2	0	1	0	1	0	10
MSAC039	12	6	8.9	20.7	2	9	2	0	3	0	3	1	2	0	3	0	19
MSAC040	18	6	73.4	194.2	25	80	14	2	8	1	6	1	3	0	3	0	29
MSAC041	24	6	27.3	57.3	7	22	4	0	3	0	3	1	2	0	2	0	15
MSAC042	30	6	25.3	79.2	6	20	4	0	3	1	4	1	3	0	3	0	23
MSAC043	36	3	32.5	123.7	8	26	5	0	5	1	6	1	4	1	4	1	36
MSAC038	0	6	81.9	146.8	20	65	11	2	6	1	4	1	2	0	2	0	17
MSAC038	6	6	14.2	34.2	4	12	2	0	2	0	2	0	1	0	2	0	15





Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC038	12	6	9.3	20.1	2	8	2	0	1	0	2	0	1	0	2	0	8
MSAC038	18	6	8.8	16.1	2	7	2	0	2	0	3	1	2	0	3	0	16
MSAC038	24	6	85.1	243.3	31	96	16	2	10	2	9	2	5	1	5	1	51
MSAC038	30	6	19.4	40.8	5	16	3	0	3	1	4	1	3	0	3	0	25
MSAC038	36	5	11.3	22.3	3	9	2	0	2	0	3	1	3	0	4	1	22
MSAC039	0	6	55.3	97.1	13	46	8	1	5	1	4	1	2	0	2	0	17
MSAC039	6	6	8.2	16.8	2	7	1	0	1	0	2	0	1	0	2	0	10
MSAC039	12	6	8.3	13.8	2	6	1	0	1	0	2	0	2	0	2	0	12
MSAC039	18	6	41.3	105.3	14	43	8	1	5	1	5	1	3	0	3	0	29
MSAC039	24	6	13.1	25.4	3	11	2	0	2	0	3	1	2	0	2	0	20
MSAC039	30	6	15.0	29.0	3	10	2	0	2	0	4	1	2	0	2	0	17
MSAC039	36	6	7.7	16.6	2	6	1	0	1	0	1	0	1	0	1	0	8
MSAC039	42	6	84.4	137.9	19	55	9	1	6	1	7	1	4	1	5	1	47
MSAC039	48	111.8	164.7	22	73	15	2	15	3	19	4	13	2	11	2	176	
MSAC040	0	43.6	76.5	10	31	6	1	4	1	4	1	3	0	3	0	28	
MSAC040	6	17.2	29.8	4	12	3	0	2	0	3	1	2	0	2	0	19	
MSAC040	12	15.6	26.5	3	11	2	0	2	0	3	1	3	1	3	1	26	
MSAC040	18	30.4	58.8	8	26	5	1	4	1	6	1	4	1	5	1	41	
MSAC040	24	14.4	24.1	3	10	2	0	2	0	3	1	2	0	3	0	18	
MSAC040	30	7.8	16.9	2	6	1	0	1	0	2	0	1	0	2	0	10	
MSAC040	36	6.9	13.9	2	6	1	0	1	0	2	0	2	0	2	0	12	
MSAC041	0	18.4	30.6	4	12	2	0	2	0	2	0	1	0	1	0	9	
MSAC041	6	5.5	10.7	1	5	1	0	1	0	2	0	1	0	2	0	10	
MSAC041	12	16.2	29.7	4	12	3	0	2	0	3	1	2	0	3	0	16	
MSAC041	18	12.4	17.5	2	7	2	0	1	0	2	0	2	0	3	0	14	
MSAC041	24	13.2	19.7	3	8	2	0	2	0	3	1	2	0	3	0	17	
MSAC041	30	8.3	19.4	2	6	1	0	2	0	3	1	2	0	3	0	18	
MSAC041	36	7.7	15.8	2	6	1	0	1	0	1	0	1	0	1	0	12	
MSAC041	42	7.3	13.2	2	5	1	0	1	0	1	0	1	0	1	0	7	



Hole No	From	Interval	La2O2	CeO2	Pr6O11	Nd2o3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3
MSAC042	0	13.2	22.7	2	8	2	0	1	0	1	0	1	0	1	0	9	
MSAC042	6	4.2	8.6	1	4	1	0	1	0	1	0	1	0	1	0	8	
MSAC042	12	11.4	19.8	2	8	2	0	2	0	3	1	2	0	3	0	17	
MSAC042	18	11.5	16.2	2	7	2	0	1	0	2	1	2	0	3	0	16	
MSAC042	24	8.1	14.1	2	5	1	0	1	0	2	0	2	0	2	0	12	
MSAC042	30	10.4	23.1	2	7	2	0	1	0	2	1	2	0	2	0	15	
MSAC042	36	48.0	94.9	10	32	6	0	4	1	5	1	3	0	3	0	29	
MSAC042	42	99.4	183.8	20	64	11	1	8	1	8	2	5	1	4	1	52	
MSAC043	0	29.5	52.1	6	19	3	0	3	0	3	1	2	0	2	0	17	
MSAC043	6	10.2	19.7	2	7	1	0	1	0	2	0	1	0	1	0	9	
MSAC043	12	15.8	24.8	3	10	2	1	3	1	5	1	5	1	6	1	42	
MSAC043	18	12.3	16.6	2	7	2	0	2	0	3	1	2	0	3	1	20	
MSAC043	24	8.3	15.8	2	5	1	0	1	0	2	0	1	0	2	0	12	
MSAC043	30	11.5	25.3	2	8	2	0	2	0	3	1	2	0	3	0	18	
MSAC043	36	47.6	68.1	10	31	6	1	5	1	5	1	3	0	3	0	26	



## JORC Code, 2012 Edition – Table 1

### Section 1 Eyre Project Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul style="list-style-type: none"> <li>Soil samples were collected by collecting a 2kg near surface sample and sieving to sub 2mm and collecting a 300g sample for laboratory submission.</li> <li>Aircore drilling samples were collected from 2m composite piles placed on the ground using a 40mm tube sample taken diagonally across the pile. The 2m piles were composited into 6m samples for laboratory submission except where blade refusal created a lesser interval. 1 in 20 field duplicates were taken.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was undertaken with an aircore drill rig and samples were collected from 2m runs and placed in piles on the ground adjacent to the drill rig for sampling</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul style="list-style-type: none"> <li>All drilling was undertaken dry using an aircore blade bit except where near surface conditions required a RC hammer to penetrate harder layers. Recovery was deemed to be very good for the method.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Soil samples were logged for colour and type (residual vs transported). Basic geological observations were recorded.</li> <li>Drill samples we logged for a range of geological parameters including rock type, colour, texture and oxidation.</li> </ul>
Sub-sampling techniques	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>The soil samples were sieved to -2mm and pressed into 1cm diameter pellets.</li> </ul>



<i>and sample preparation</i>		<ul style="list-style-type: none"> <li>• Drill samples were 6m composites from 2m drill samples.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• For soil samples pXRF readings were conducted on a pressed pellet of the soil samples using the SciAps portable XRF analyser. pXRF measurements are a direct elemental analysis on the surface of the sample with high sensitivity to the element.</li> <li>• Each soil pellet sample was analysed a minimum of 3 times and the results averaged. The soil samples are non-homogenous and the results are semi-quantitative and are deemed to only provide an indication of the degree of base metal mineralisation.</li> <li>• Standard quality control procedures were put in place.</li> <li>• For drill samples <ul style="list-style-type: none"> <li>○ Samples were submitted to Intertek Genalysis Laboratories, where they were dried and pulverized and then analyzed by Four Acid Digestion Multi-Element Analysis.</li> <li>○ Four acid digestion offers a “near total” dissolution of almost all minerals’ species, targeting silicates not dissolved in less aggressive aqua regia digests. Carefully staged digestion steps minimise losses due to volatilisation of some elements.</li> </ul> </li> </ul>
<i>samples</i>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No independent verification of results has been undertaken at this stage.</li> <li>• No adjustment to assay data has been undertaken.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The surface samples were located with a handheld GPS and recorded in a dedicated field data logger.</li> <li>• E63/1827 was specifically focused on base metal results/ E63/2008 was focus on base metals and lithium group metals. Only results for base metals by XRF from E63/1827 are currently available. Lithium results are not yet available due to laboratory delay and will be reported at a later date.</li> <li>• Drillhole location were surveyed with a handheld GPS. RI were obtained from the government 1second DEM.</li> </ul>



<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The surface sample spacing was nominally 40 and 80 metres along the lines and 160 and 320 metres which is considered appropriate at this early stage of exploration. This is infilled over zones of geological interest.</li> <li>• Drill samples were collected from 2 metre samples collected from drillholes angled 60 degrees to the east. Holes were drilled to blade refusal with spacing designed to provided 100% ground coverage where possible.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Soil sampling was generally taken along north-south lines, which is approximately perpendicular to the strike of the stratigraphy.</li> <li>• Drillholes were predominantly drilled to the east with some west orientated holes where interesting rock units were encountered</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No specific security measures were undertaken, apart from normal industry procedures.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Given the early stage of the exploration results, no audits or reviews have been undertaken.</li> </ul>

## Section 2 Reporting of Exploration Results

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

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The project area locations are shown on Figure 2 and 3 of this report and described in the body of the report.</li> <li>• The tenure is considered to be secure. It is held 100% under Exploration Licence E63/1827 and 2008, by Eyre Resources Pty Ltd a wholly owned subsidiary of Larvotto.</li> </ul>



	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Previous exploration was conducted on the project by Western Mining Corporation in the 1960's and 70's with a limited geochemistry program and several diamond drillholes. Anomalous copper was identified in the drilling over an intersection of several feet. Newmont Exploration undertook further geochemistry on a limited area around Mt Norcott in the 1980's.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralization.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The tenement package cover a very wide range of mineralisation styles The Company is seeking base metals particularly Ni and PGE metals that may be associated. Lithium minerals and REE as ionic clays</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• <i>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:</i>  <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drillhole details are provided in the text</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No data aggregation was undertaken for soil geochemical exploration.</li> <li>• Drill samples were composited in field into 2 metre intervals and only 6 metre composites were submitted for analysis.</li> </ul>
<i>Relation-ship between mineralization</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• At this stage of exploration widths and extents are difficult to determine. Composite intervals may vary once they are submitted in 2 metre intervals.</li> </ul>



<i>widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> </ul>	
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Diagrams are provided in the body of the report.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>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 Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>The reporting is considered to be balanced taking into account the early stage of the exploration.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The is no other substantive exploration data.</li> </ul>
<i>Future work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical testwork will test the absorption characteristics of the ionic clay to determine leaching characteristics.</li> </ul>