AMERICAN RARE EARTHS

19 November 2025

Mineral Resource Estimate Updated for the Cowboy State Mine Area at Halleck Creek

Highlights

- **Updated Mineral Resource Estimate in the Cowboy State Mine ("CSM") Area reclassifies indicated resource by 68.4 million tonnes.**
  - 102 Channel Samples collected in 2025 provided data points for an updated geological resource model, resource conversion and mineral resource estimate
  - Summer exploration and mapping collected 18 additional channel samples across the CSM area
    - 18 Channel samples returned average values of 5,471 ppm Total Rare Earth Oxides (TREO)
    - Standout sample (CS25-RM111) contained a new record high assay grade for the entire Halleck Creek Resource with a Total Rare Earth Oxide ("TREO") grade of 13,816 PPM, which is 4X higher than the resource average
- **New exploration drilling permits obtained at Halleck Creek:**
  - 27 hole locations were permitted at the CSM area for the Development drilling needed for future technical studies beyond the Pre-Feasibility Study ("PFS")
  - 29 hole locations were permitted at the Bluegrass area, a potential exploration target which would add to total Halleck Creek Mineral Resource Estimates

American Rare Earths (ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) ("ARR" or the **"Company"**), is pleased to announce an updated Mineral Resource Estimate for the Cowboy State Mine area within its flagship Hallack Creek Rare Earths Project. The update incorporates the results from 18 additional channel samples and coincides with the acquisition of two new exploration drilling permits.

Odessa Resource Ltd. ("Odessa"), of Perth Australia, were commissioned to update the geological resource model for the CSM Area using 102 channel samples collected during 2025. The locations and assays for the 102 channel samples added to the geological resource model reside in Appendix B. The updated mineral resource estimate for the Cowboy State Mine area is approximately 547.5 million tonnes using a TREO cut-off grade of 1,00ppm, see Table 1 and Figure 4. The channel sample results enabled Odessa to reclassify approximately 63.9 million tonnes to the indicated category from the inferred category from the Mineral Resource Estimate presented in the February 2025 updated CSM Scoping Study[1], see Table 2. Additional mapping associated

[1] See ASX release dated February 24, 2025

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with the channel sampling expanded the resource area to increase the CSM mineral resource estimate by approximately 4.5 million tonnes. It should be noted that the overall tonnage increase and change in grade do not reflect a material change to the total resource estimates for the Cowboy State Mine area.

It should be clearly noted that Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into an Ore Reserve. Areas where ARR does not control mineral resources have been excluded from resource estimates.

Table 1 - Mineral Resource Estimate for the Cowboy State Mine Area at a 1,000ppm TREO cut-off

Resource Area	Classification	Tonnage	Grade				Contained Material			
			TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
		t	ppm	ppm	ppm	ppm	t	t	t	t
Cowboy State Mine	Indicated	391,378,955	3,295	2,904	392	929	1,289,650	1,136,405	153,245	363,541
	Inferred	156,091,388	3,468	3,047	421	984	541,251	475,612	65,639	153,572
	Total	**547,470,344**	**3,344**	**2,944**	**400**	**945**	**1,830,901**	**1,612,018**	**218,884**	**517,112**

Table 2 - Differences in the Mineral Resource Estimate from February 2025 to October 2025 at a 1,000ppm TREO cut-off

CSM MRE	Classification	Tonnage	Grade				Contained Material			
			TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
		t	ppm	ppm	ppm	ppm	t	t	t	t
Oct 2025 Update	Indicated	391,378,955	3,295	2,904	391.551	928.872	1,289,650	1,136,405	153,245	363,541
	Inferred	156,091,388	3,468	3,047	420.514	983.856	541,251	475,612	65,639	153,572
	Total	**547,470,344**	**3,344**	**2,944**	**399.809**	**944.549**	**1,830,901**	**1,612,018**	**218,884**	**517,112**
Feb 25 Scoping Study	Indicated	322,961,462	3,276	2,907	368.697	924.559	1,057,922	938,847	119,075	298,597
	Inferred	220,014,226	3,677	3,274	403.867	1019.98	809,092	720,236	88,856	224,411
	Total	**542,975,688**	**3,438**	**3,056**	**382.948**	**963.225**	**1,867,014**	**1,659,083**	**207,932**	**523,008**
Difference	**Indicated**	*68,417,494*	*19*	*-3*	*23*	*4*	*231,729*	*197,559*	*34,170*	*64,944*
		12.60%	*0.57%*	*-0.11%*	*5.97%*	*0.45%*	*12.41%*	*11.91%*	*16.43%*	*12.42%*
	Inferred	*-63,922,837*	*-210*	*-227*	*17*	*-36*	*-267,841*	*-244,624*	*-23,218*	*-70,839*
		-29.05%	*-5.71%*	*-6.92%*	*4.12%*	*-3.54%*	*-33.10%*	*-33.96%*	*-26.13%*	*-31.57%*
	Total	*4,494,656*	*-94*	*-111*	*17*	*-19*	*-36,113*	*-47,065*	*10,952*	*-5,895*
		0.83%	*-2.74%*	*-3.63%*	*4.40%*	*-1.94%*	*-1.93%*	*-2.84%*	*5.27%*	*-1.13%*

In October 2025, ARR received two drilling permits from the Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD). 27 drill hole locations were permitted across the CSM area in preparation for in-fill drilling required for future technical studies beyond the forthcoming PFS.

In addition, 29 drill hole locations were permitted across the Bluegrass Area that has the potential to add meaningful tonnage to the Halleck Creek's current 2.6Bn tonne resource estimate.

Why it matters? Increasing the Indicated Resource estimates at the CSM area enables near surface resources to be incorporated into pit designs and mine plans for the CSM pre-feasibility study. Stantec will integrate the updated block model with results from the ongoing process optimisation work to enhance the CSM pits and mine designs. To maintain momentum and position the CSM Project for timely development, ARR is proactively securing permits for drilling and sampling to support future geological data collection beyond the PFS. Additional in-fill drilling will be required to improve geological confidence across proposed pits in subsequent technical studies.

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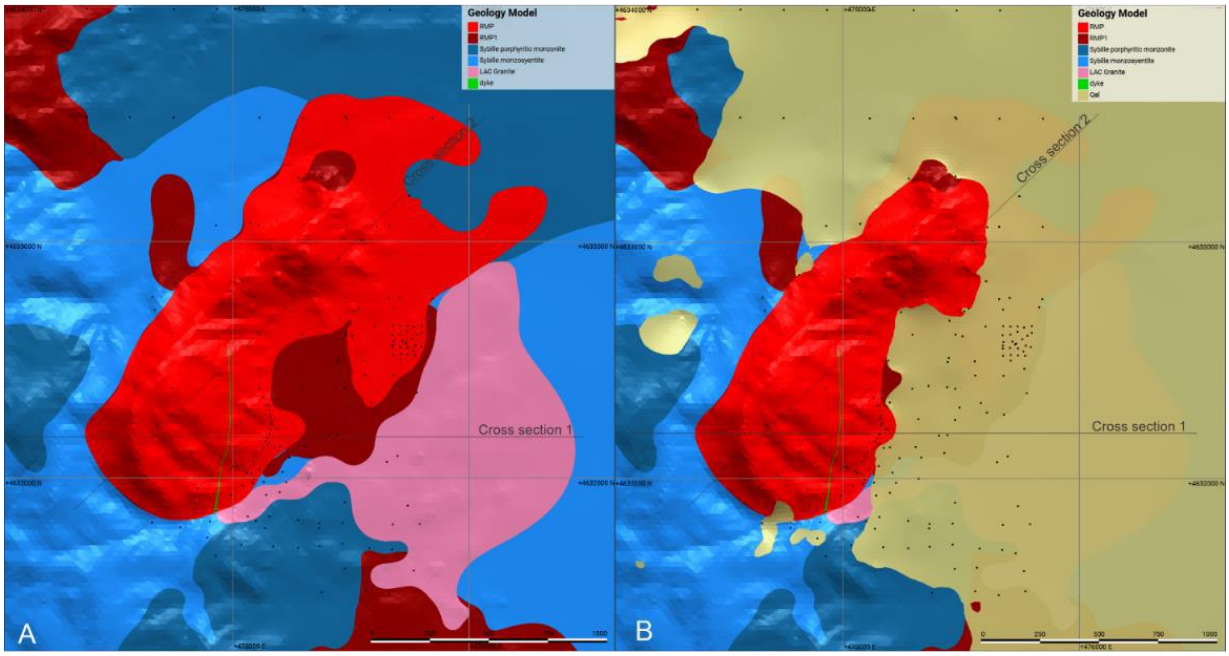
Additional Technical Details

CSM Resource Model Update

ARR commissioned Odessa Resources Ltd. to update the geological resource model for the CSM area[2]. Odessa evaluated the 102 channel samples collected by ARR and incorporated them into the Leapfrog geological modeling system to update the block model for the CSM area, see Figure 4, Figure 2, and Figure 3. Based on the channel samples, Odessa converted approximately 63.9 million tonnes to indicated resources from inferred resources and added approximately 4.5 million tonnes for a total mineral resource estimate of 547.5 million tonnes in the Cowboy State Mine, see Table 1 and Table 2.

Figure 1 - Plan View of Geological Model (A colluvium excluded; B colluvium included)



Odessa, 2025

[2] Odessa Summary Report "Red Mountain Update Report Methodology and Resource Estimation Report", November 2025

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Figure 2 - Cross Sections of the Geological Model

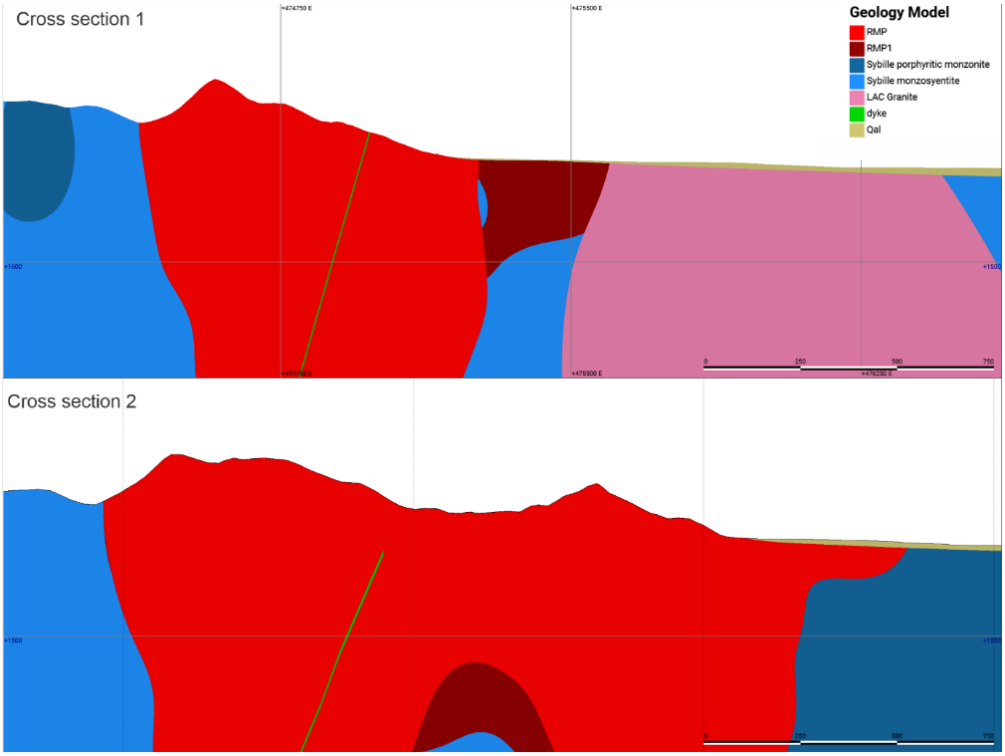

Figure 3 - Perspective View of Domain Model (1.5xVE)

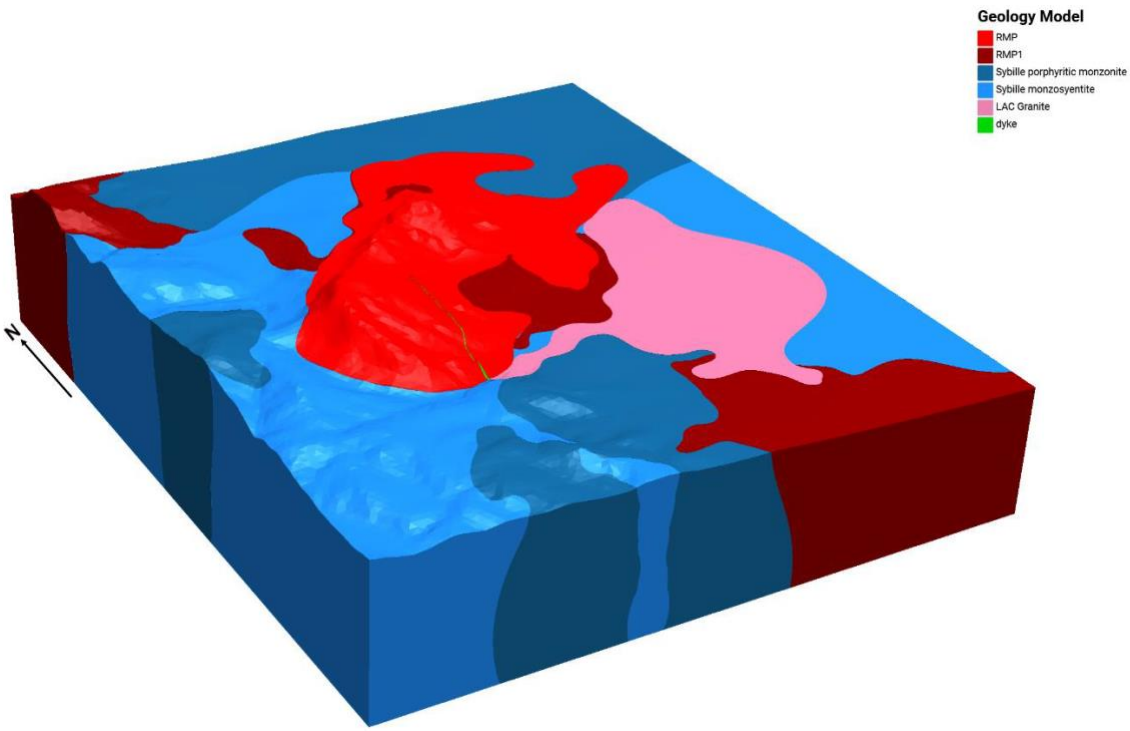

Figure 4 illustrates the TREO geochemical data from the channel samples collected across the CSM area. The channel sample results also facilitated minor changes to lithological domains within the model. This change accounts for an increase of Indicated Resources by an estimated 4.5 million tonnes, or 0.83%. Exploration results for 110 channel samples were presented in previous press releases in May 2025[3]. The final 18 channel samples collected in 2025 are presented below.

Red Mountain Channel Samples

The Company's geologists mapped a banded zone outcropping at the southwestern side of Red Mountain. 13 channel samples were collected across and adjacent to the banded zone. The average TREO grade of the 13 channel samples on Red Mountain is 5,706 ppm. This zone contains foliated mafic bands within the Red Mountain Pluton, see Figure 5. Channel samples collected across the foliated zone contain high TREO grades. One channel sample (CS25-RM111) from the zone has a TREO grade of 13,816 ppm, which is the highest TREO assay collected across the CSM area, and the greater Halleck Creek project area. The banded zone ranges in thickness between 1.5 and 3 meters and extends for approximately 250 meters along the southwestern face of Red Mountain. The banded zone plunges below surface to the south. In the same area, WRI geologists observed numerous large allanite phenocrysts (crystals) which exhibit macro-scale metamict[4] structures from the allanite extending into the surrounding groundmass, see Figure 6.

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[3] See ASX release dated May 8, 2025, and ASX release dated May 21, 2025

[4] Metamict structures occur from decay of radionuclide elements in Allanite over long time periods which breaks down the internal crystal lattice of allanite and adjacent minerals.

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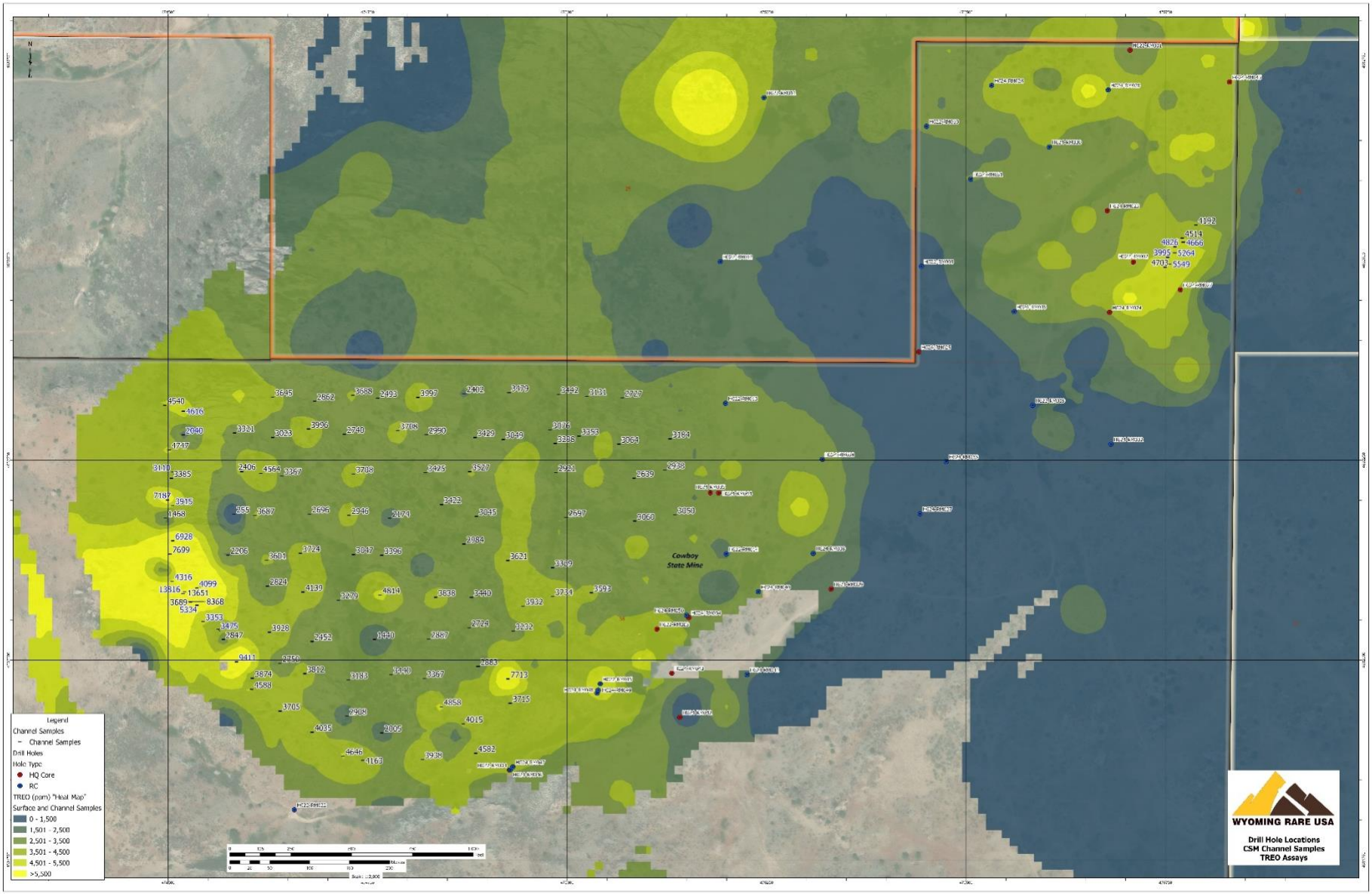
Figure 4 – Drill hole and Channel Sample Locations – Recent Sample Locations in Blue



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CSM Test Pit Channel Samples

In preparation for bulk sampling from the CSM Test Pit, 5 channel samples were collected from outcrop at the test pit site. The channel samples in the CSM test pit area have an average TREO grade of 4,860 ppm. The highest TREO grade channel sample in the test pit area is 5,549 ppm.

The average Magnet REO grade for the 18 channel samples is 1,614 ppm constituting 28.5% of TREO. This also an increase of 67.6% over the modeled Magnet REO average grade of 963 ppm in the CSM area.

Table 3 – Channel Sample Locations and Key Rare Earth Oxide Values

Channel Sample	UTM Zone 13N Easting	UTM Zone 13N Northing	Surface Elev	Area	TREO	HREO	MREO	LREO
CS25-RM099	474,518.86	4,632,311.26	2,126.00	Red Mountain	4,909	558	1,347	4,351
CS25-RM100	474,505.86	4,632,235.26	1,931.00	Red Mountain	3,426	596	1,051	2,830
CS25-RM101	474,505.86	4,632,193.26	1,920.00	Red Mountain	4,208	578	1,278	3,630
CS25-RM102	474,505.86	4,632,149.26	1,910.00	Red Mountain	7,530	1,142	2,266	6,388
CS25-RM103	474,535.86	4,632,090.26	1,905.00	Red Mountain	4,433	632	1,307	3,801
CS25-RM104	474,543.86	4,632,048.26	1,892.00	Red Mountain	4,088	1,314	1,380	2,774
CS25-RM105	475,752.52	4,632,504.11	1,753.00	Test Pit	3,995	482	1,138	3,513
CS25-RM106	475,761.42	4,632,509.52	1,754.00	Test Pit	5,264	556	1,525	4,708
CS25-RM107	475,772.09	4,632,522.92	1,753.00	Test Pit	4,666	349	1,228	4,317
CS25-RM108	475,762.03	4,632,517.07	1,753.00	Test Pit	4,826	519	1,361	4,307
CS25-RM109	475,755.23	4,632,495.44	1,753.00	Test Pit	5,549	598	1,638	4,951
CS25-RM110	474,505.18	4,632,098.55	1,893.00	Red Mountain	4,316	589	1,205	3,727
CS25-RM111	474,518.49	4,632,083.18	1,899.00	Red Mountain	13,816	1,630	4,199	12,186
CS25-RM112	474,535.87	4,632,068.79	1,897.00	Red Mountain	5,334	627	1,462	4,707
CS25-RM113	474,562.33	4,632,038.72	1,888.00	Red Mountain	3,475	1,157	1,189	2,318
CS25-RM114	474,518.78	4,632,281.91	1,946.86	Red Mountain	2,040	468	586	1,572
CS25-RM115	474,499.31	4,632,200.16	1,908.35	Red Mountain	7,187	765	1,988	6,422
CS25-RM116	474,585.52	4,631,997.78	1,876.78	Red Mountain	9,411	1,741	2,905	7,670
Average					**5,471**	**795**	**1,614**	**4,676**

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Table 4 – Rare Earth Assays of Recent Channel Samples

Channel Sample	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3
CS25-RM099	4,909	558	1,347	4,351	985	2,101	233	903	129	293	14	98	13	69	12	31	4	21	3
CS25-RM100	3,426	596	1,051	2,830	602	1,265	162	684	117	316	15	103	14	74	13	32	4	22	3
CS25-RM101	4,208	578	1,278	3,630	789	1,652	205	849	135	293	16	107	15	74	13	32	4	21	3
CS25-RM102	7,530	1,142	2,266	6,388	1,396	2,899	356	1,493	244	602	19	206	28	145	25	63	7	41	6
CS25-RM103	4,433	632	1,307	3,801	848	1,738	214	867	134	334	15	109	15	77	14	35	4	25	4
CS25-RM104	4,088	1,314	1,380	2,774	434	1,155	176	821	188	735	18	197	30	165	30	75	9	48	7
CS25-RM105	3,995	482	1,138	3,513	760	1,683	185	757	128	257	14	84	11	57	10	24	3	19	3
CS25-RM106	5,264	556	1,525	4,708	1,118	2,144	250	1,037	159	292	15	105	13	66	11	27	3	21	3
CS25-RM107	4,666	349	1,228	4,317	896	2,242	214	842	123	176	13	70	8	41	7	16	2	14	2
CS25-RM108	4,826	519	1,361	4,307	944	2,076	227	914	146	273	14	94	12	62	11	26	3	21	3
CS25-RM109	5,549	598	1,638	4,951	1,139	2,260	272	1,107	173	315	16	110	15	71	13	28	4	23	3
CS25-RM110	4,316	589	1,205	3,727	842	1,763	195	791	136	326	13	94	13	70	13	30	4	23	3
CS25-RM111	13,816	1,630	4,199	12,186	2,580	5,638	692	2,846	430	897	20	287	38	193	35	80	10	61	9
CS25-RM112	5,334	627	1,462	4,707	1,068	2,266	243	974	156	344	14	104	14	75	13	32	4	24	3
CS25-RM113	3,475	1,157	1,189	2,318	298	991	139	709	181	679	14	158	24	136	26	61	8	45	6
CS25-RM114	2,040	468	586	1,572	298	754	84	359	77	268	10	63	10	56	10	25	3	20	3
CS25-RM115	7,187	765	1,988	6,422	1,448	3,096	336	1,336	206	411	15	136	18	92	16	38	5	30	4
CS25-RM116	9,411	1,741	2,905	7,670	1,507	3,513	445	1,849	356	974	18	280	40	215	39	90	11	65	9
Average	**5,471**	**795**	**1,614**	**4,676**	**997**	**2,180**	**257**	**1,063**	**179**	**433**	**15**	**134**	**18**	**97**	**17**	**41**	**5**	**30**	**4**

Figure 5 – Example of Localized area of foliated texture in outcrop with bands of mafic minerals from Red Mountain

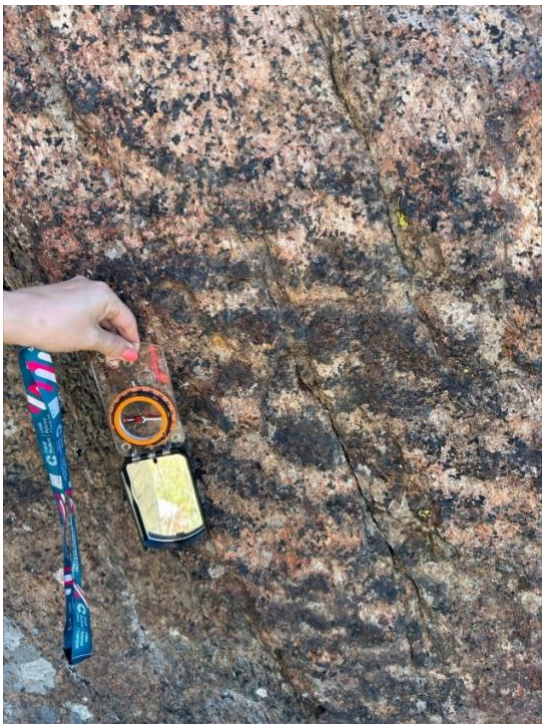

Figure 5 & 6 - Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

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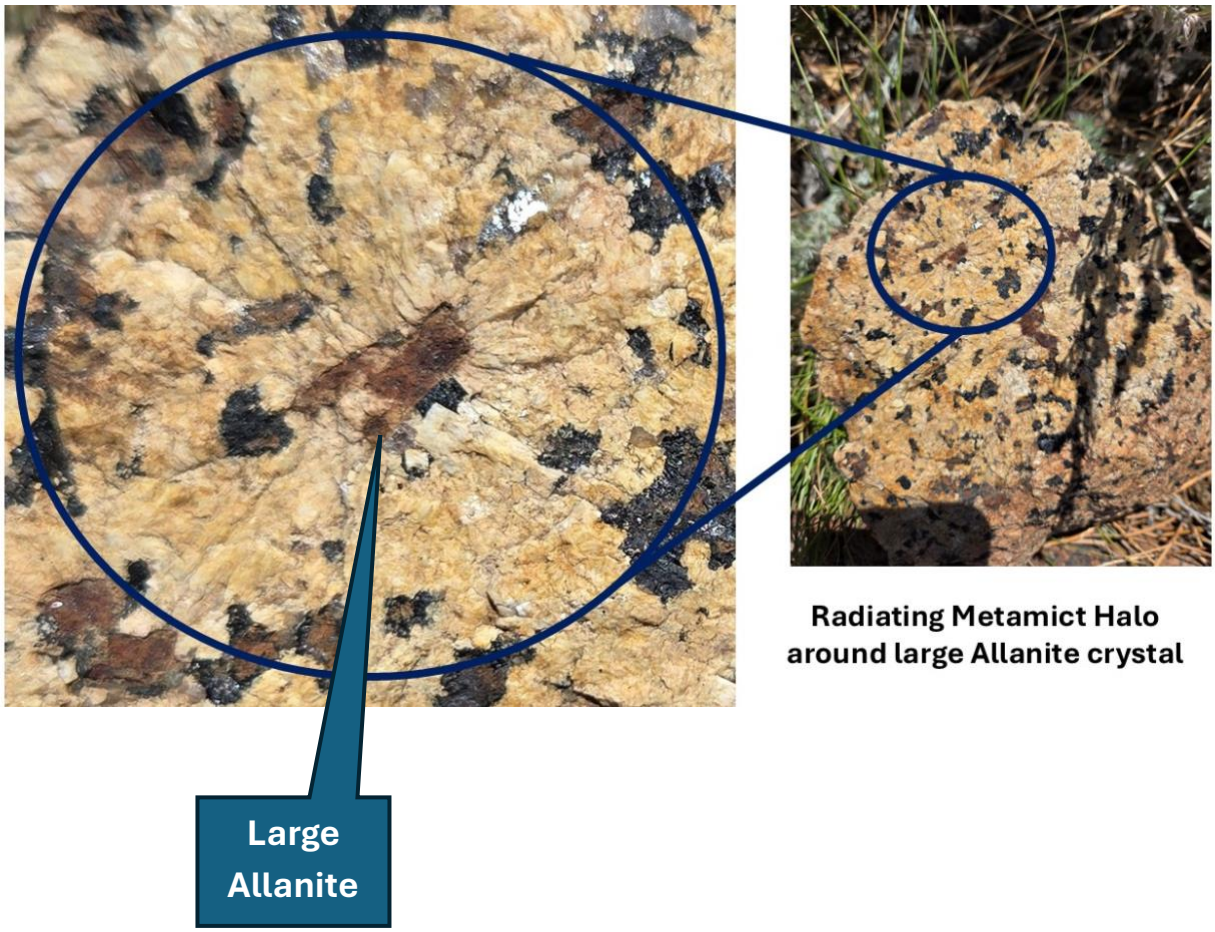
Figure 6 – Example of Allanite Phenocryst and Associated Metamict Structure



Cowboy State Mine Area Drilling Permit

The proposed drilling at the CSM area will increase geological confidence levels across the proposed pits and further de-risk the CSM leading into development work beyond the pre-feasibility study currently being drafted. The objectives of this drilling are to define substantial measured resources within the proposed pits at CSM, and to determine if higher grade zones observed from channel sampling continue at depth within Red Mountain.

The 18 channel samples taken across the CSM area will provide valuable information for the next phase of development drilling to determine hole orientations and drilling angles. The 27 permitted drill hole locations are positioned around and atop Red Mountain, see Figure 7. ARR is currently working with consulting geologists and contractors to determine optimal routes for drilling access up Red Mountain. Depending on weather and ground conditions, the construction of access trails is anticipated to commence before the end of the year with drilling planned to commence by mid next year.

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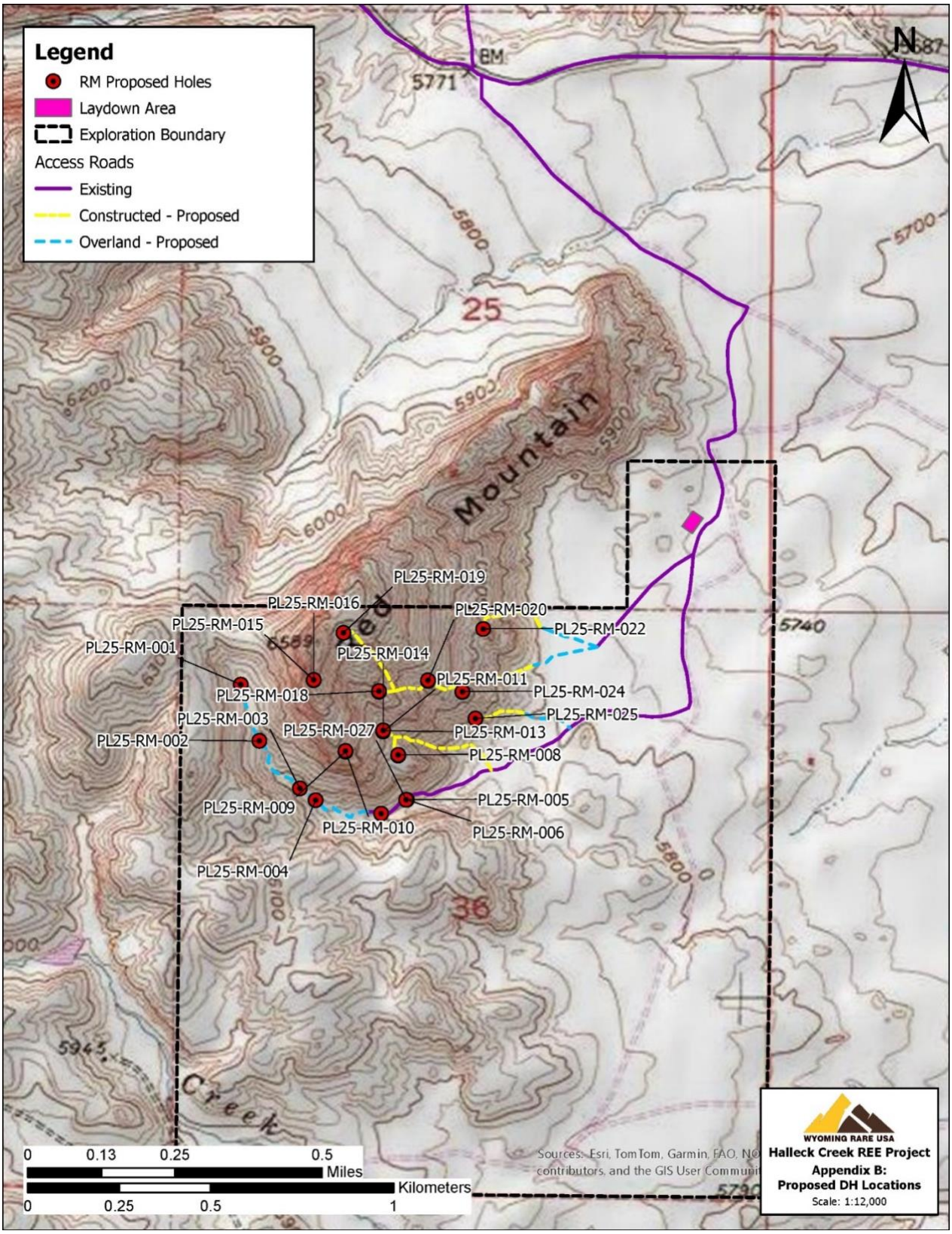
Figure 7 – Proposed Hole Locations at Cowboy State Mine



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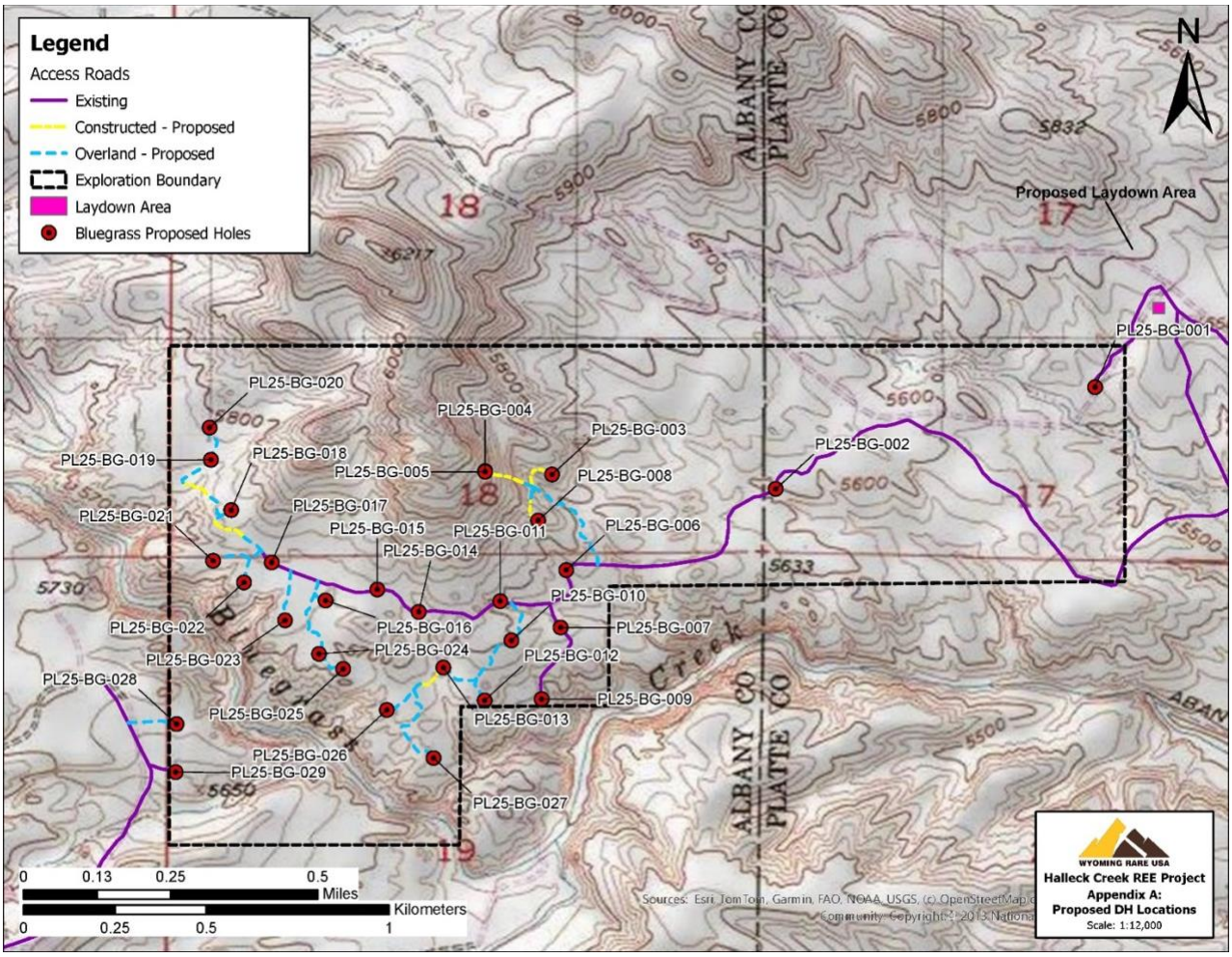
Bluegrass Exploration Area Drilling Permit

Unrelated to the Cowboy State Mine Area, locations for up to 29 drill holes in the Bluegrass exploration area have also been permitted on Federal Land where ARR controls unpatented lode claims, see Figure 8. The drilling permit will enable future exploration drilling to potentially expand the resources at Halleck Creek. Extensive surface geochemical sampling and channel sampling has been performed across the Bluegrass area. These data points indicate that Bluegrass area could have TREO grades similar to grades observed at the Overton Mountain Exploration area. The Bluegrass area has the potential to add meaningful tonnage to Halleck Creek's current 2.63 billion tonne resource estimate.

Figure 8 – Proposed Hole Locations at Bluegrass Exploration Area



This release was authorised by the Board of American Rare Earths.

Investors can follow the Company's progress at www.americanree.com

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Competent Person(s) Statement:

Competent Persons Statement: The information in this document is based on information prepared by American Rare Earths personnel. This work was reviewed and approved for release by Mr. Dwight Kinnes (Society of Mining Engineers #4063295RM) who is employed by American Rare Earths 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 in the 2012 JORC Code. Mr. Kinnes consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

ARR confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. ARR confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.

About American Rare Earths Limited:

American Rare Earths (ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) is a critical minerals company at the forefront of reshaping the U.S. rare earths industry. Through its wholly owned subsidiary, Wyoming Rare (USA) Inc. ("WRI"), the company is advancing the Halleck Creek Project in Wyoming—a world-class rare earth deposit with the potential to secure America's critical mineral independence for generations. Located on Wyoming State land, the Cowboy State Mine within Halleck Creek offers cost-efficient open-pit mining methods and benefits from streamlined permitting processes in this mining-friendly state.

With plans for onsite mineral processing and separation facilities, Halleck Creek is strategically positioned to reduce U.S. reliance on imports—predominantly from China—while meeting the growing demand for rare earth elements essential to defense, advanced technologies, and economic security. As exploration progresses, the project's untapped potential on both State and Federal lands further reinforces its significance as a cornerstone of U.S. supply chain security. In addition to its resource potential, American Rare Earths is committed to environmentally responsible mining practices and continues to collaborate with U.S. Government-supported R&D programs to develop innovative extraction and processing technologies for rare earth elements.

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Appendix A – Halleck Creek JORC Table 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 downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	In July and August 2025, WRI collected 18 channel samples across Red Mountain in the Cowboy State Mine area of the Halleck Creek Rare Earths project. In March 2025, WRI collected 106 channel samples across Red Mountain in the Cowboy State Mine area of the Halleck Creek Rare Earths project.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The channel samples were measured, photographed, described at each location. Multiple channel samples were located in areas where sills outcropped. Quality control included inserting certified reference materials (CRMs), blanks, and duplicates into the sampling stream.
	Aspects of the determination of mineralisation that are Material to the Public Report.	The Red Mountain Pluton (RMP) of the Halleck Creek Rare Earths Project is a distinctly layered monzonitic to syenitic body which exhibits significant and widespread REE enrichment. Enrichment is dependent on allanite abundance, a sorosilicate of the epidote group. Allanite occurs in all three units of the RMP, the

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Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
		clinopyroxene quartz monzonite, the biotite-hornblende quartz syenite, and the fayalite monzonite, in variable abundances.
	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.	The method used for channel sampling is a recognized method for collecting channel samples in deposits like Halleck Creek. Each channel sample is 1 meter in length to provide a representative sample across the outcrop
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 another type, whether the core is oriented and if so, by what method, etc.).*	Drilling was not performed during this channel sampling program
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Continuous lengths of rock outcrop were collected along each channel sample. Two parallel cuts approximately 8 to 10 cm apart and approximately 8 to 10 cm deep were made with an angle-grinder equipped with diamond saw blades. For a length of 1 meter. The rock material within the cuts waw extracted using cold chisels and rock hammers.

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Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
	Measures are taken to maximise sample recovery and ensure the representative nature of the samples.	Tarpaulins were laid out across the channel samples to collect the entire rock sample.
	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.	The granitic rocks of the RMP are composed of evenly distributed phenocrysts. There is no relationship or bias due to grain size or orientation.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	All channel samples were visually logged by field geologists. The channel samples were all photographed.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	The channel samples were logged qualitatively, but the assays for each sample are quantitative.
	The total length and percentage of the relevant intersections logged.	The length of each channel samples was logged.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Channel samples were not cut or split.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	The samples were collected on a dry basis.

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Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The channel samples were dry. Sample preparation: 1kg samples split to 250g for pulverising to -75 microns. Sample analysis: 0.5g charge assayed by ICP-MS technique. This sampling preparation method is considered appropriate for the type of material collected and is considered industry standard.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	WRI relied on ALS internal quality control measures for this small sample set.
	Measures are taken to ensure that the sampling is representative of the in situ material collected, including, for instance, results for field duplicate/second-half sampling.	The channel samples were sent to ALS labs for preparation using their standard techniques for sample preparation.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Allanite is generally well distributed across the channel samples and the sample sizes are representative of the fine grain size of the Allanite.

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Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
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.*	ALS uses a 5-acid digestion and 32 elements by lithium borate fusion and ICP-MS (ME-MS81). For quantitative results of all elements, including those encapsulated in resistive minerals. These assays include all rare earth elements.
	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.	Handheld XRF readings were collected in the field, but not used for quantitative analysis
	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.	WRI relied on ALS internal quality control measures for this small sample set.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Consulting company personnel have observed the assayed channel samples. Company personnel sampled the entire length of each hole.
	The use of twinned holes.	No twinned holes were used.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data entry was performed by ARR personnel and checked by ARR geologists. All field logs were scanned and uploaded to company file servers. All photographs of the core were also uploaded to the file server daily. All scanned documents are cross-referenced and directly available from the database.

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Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
		Assay data from the channel samples was imported into the database directly from electronic spreadsheets sent to ARR from ALS.
	Discuss any adjustment to assay data.	Assay data is stored in the database in elemental form. Reporting of oxide values are calculated in the database using the molar mass of the element and the oxide.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The channel sample locations were surveyed using a Garmin handheld GPS unit.
	Specification of the grid system used.	The grid system used to compile data was NAD83 Zone 13N.
	Quality and adequacy of topographic control.	Topography control is +/- 10 ft (3 m).
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The channel samples were collected on a 200-meter grid as topographic access allowed.
	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.	Spacing supports classification into Indicated and Inferred categories based on geostatistical analysis and grade continuity confirmed through cross-sections and swath plots.

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Section 1 Sampling Techniques and Data		
(Criteria in this section apply to all succeeding sections.)		
Criteria	***JORC Code explanation***	**Commentary**
	Whether sample compositing has been applied.	Sample compositing was applied during resource estimation. Assay data from 10 meter channel samples has not been composited.
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.*	Mineralization at Halleck Creek is a function of fractional crystallization of allanite in syenitic rocks of the Red Mountain Pluton. Mineralization is not structurally controlled and exploration drilling to date does not reveal any preferential mineralization related to geologic structures. Therefore, orientation of channel samples does not bias sampling.
	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.	Orientation of channel samples does not bias sampling.
Sample security	*The measures are taken to ensure sample security.*	All channel samples were collected from the site daily and stored in a secure, locked facility until the samples were dispatched by bonded courier to ALS Laboratories. Chains of custody were maintained at all times.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

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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.*	Channel sampling occurred on two Wyoming State mineral licenses 0-43570 and 0-43571 covering approximately 682 acres.
	The security of the tenure held at the time of reporting and any known impediments to obtaining a licence to operate in the area.	No impediments to holding the leases exist. To maintain the State leases minimum rental payments of $1/acre for 1-5 years; $2/acre for 6-10 years; and $3/acre if held for 10 years or longer.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Prior to sampling by WIM on behalf of Blackfire Minerals and Zenith there was no previous sampling by any other groups within the ARR claim and Wyoming State Lease blocks.
Geology	*Deposit type, geological setting and style of mineralisation.*	The REE's occur within Allanite which occurs as a variable constituent of the Red Mountain Pluton. The occurrence can be characterised as a disseminated rare earth deposit.
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:*	Drilling was not performed for this program
	easting and northing of the drill hole collar	Drilling was not performed for this program. However, locations and lengths of each channel sample were collected.
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	

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Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	dip and azimuth of the hole	
	downhole 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.	Drilling was not performed for this program
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.*	The channel samples assay results have not been truncated.
	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.	Assays are representative of each 1-meter sample interval.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used.

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Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Allanite mineralization observed at Halleck Creek occurs uniformly throughout the CQM and BHS rocks of within the Red Mountain Pluton. Therefore, the geometry of mineralisation does not vary with drill hole orientation or angle within homogeneous rock types.
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.*	Locations and assays of each channel sample are in Table 1 and Table 2 above. Figure 3 shows the geology of the channel samples.
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 practised to avoid misleading reporting of Exploration Results.*	Reporting of the most recent exploration data is included in the "Technical Report of Exploration and Updated Resource Estimates at Red Mountain of the Halleck Creek Rare Earths Project", December 2024. Previous data is presented in the "Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project", March 2023, and in report "Summary of 2023 Infill Drilling at the Halleck Creek Project Area", November 2023.

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Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
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.*	In hand specimen this rock is a red colored, hard and dense granite with areas of localized fracturing. The rock shows significant iron staining and deep weathering. Microscopic description: In hand specimen the samples represent light colored, fairly coarse-grained granitic rock composed of visible secondary iron oxide, amphibole, opaques, clear quartz and pink to white colored feldspar. All of the specimens show moderate to strong weathering and fracturing. Allanite content is variable from trace to 2%. Rare Earths are found within the Allanite. Historical metallurgical testing consisted of concentrating the Allanite by both gravity and magnetic separation. The current program employs sequential gravity separation and magnetic separation to produce a concentrate suitable for downstream rare earth elements extraction.
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).*	Detailed geological mapping and channel sampling is planned to enhance further development drilling to increase confidence levels of resources.

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Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See press release text.

Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Drill hole data header, lithologic data checked by field geologists and by visual examination on maps and drill hole striplogs. Assay and Qa/Qc data were imported into the database directly from electronic spreadsheets provide by laboratories. Histograms graphical logs were also prepared and reviewed by ARR geologists.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	Mr. Dwight Kinnes visited the Halleck Creek site numerous times in 2024 and 2025. Mr. Patrick Sobecke and Mr. Erick Kennedy of Stantec visited the site on February 10, 2025. Mr. Alf Gillman of Odessa Resources and Mr. Kelton Smith of Tetra Tech visited the site on March 7, 2024.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on*	The Halleck Creek RE deposit is contained with rocks of the Red Mountain Pluton. These rocks consist primarily of clinopyroxene quartz monzonite (CQM), and biotite hornblende syenite (BHS). These two lithologies are difficult to visually distinguish. However, the concentration of rare earth elements is observable between lithologies. Rocks of the Elmers Rock Greenstone Belt (ERGB) and the Sybille (Syb) intrusion are easily distinguishable from rocks of the RMP. These rock units are essentially barren of rare earth elements. Therefore, the confidence in discerning rocks of the RMP from is high. The extent of the RMP relative to other units was outlined into modelling domains used for resource estimates. The distribution of allanite throughout CQM and BHS rocks of the RMP is generally uniform and is not structurally controlled. Potassic alternation observed does not appear to affect the grade of allanite throughout the deposit.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	Mineral Resource estimation. *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Halleck Creek REE project currently contains two primary resource areas: the Red Mountain area and the Overton Mountain area. Resources also extend into the Bluegrass resource area. The Cowboy State Mine area is a subset of Red Mountain cover land minerals owned by the state of Wyoming, and under lease by WRI. The Red Mountain resource area is bounded to the west by the ERGB, and to the south by the Syb. Archean granites bound the Red Mountain area to the east. RC samples with TREO grades exceeding 1,500 ppm occurred at the base of 37 drill holes in the Red Mountain resource area extending down to depths of 150m with one hole extending to a depth of 175.5m. Therefore, ARR considers the Red Mountain resource area to be open at depth. The Overton Mountain resource area is bounded to the west by mineral claims, and therefore, remains open to the west. Lower grade BHS rocks occur at the northern end of Overton Mountain. Drilling data to the east and south indicate that the Overton Mountain resource area remains open across Bluegrass Creek.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
		Like the Red Mountain drilling, RC samples at Overton Mountain contained TREO assay values exceeding 3,500 ppm to depths of 150m in 18 holes. One, 302m diamond core hole additionally exhibited grades exceeding 2,000 ppm to the bottom of the hole. Therefore, ARR considers the Overton Mountain resource area to be open at depth.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer*	A revised three-dimensional geological model was developed Odessa Resources Pty. Ltd., from Perth Australia, using both drillhole information and surface mapping to isolate the higher-grade RMP domain from the surrounding lithologies. Odessa provided a summary for the geological model and resource estimates entitled, "Red Mountain Update Report Methodology and Resource Estimation Report", November 2025. The domains that are modelled comprise the primary geological units as interpreted by ARR geologists. These geological domains consist of: • QAL Quaternary alluvium • RMP Red Mountain Pluton comprising mostly clinopyroxene quartz monzonite (CQM) • RMP1 comprising mostly biotite-hornblende quartz syenite and fayalite monzonite • ERGB unmineralized Elmers Rock Greenstone Belt • SYB low grade monzonite Sybille intrusions • LAC Laramie Anorthosite Complex Geochemical surface sample results were incorporated into the model but only to define the outer limits of the resource block domains. The Figures below show the general arrangement of the geological domains.

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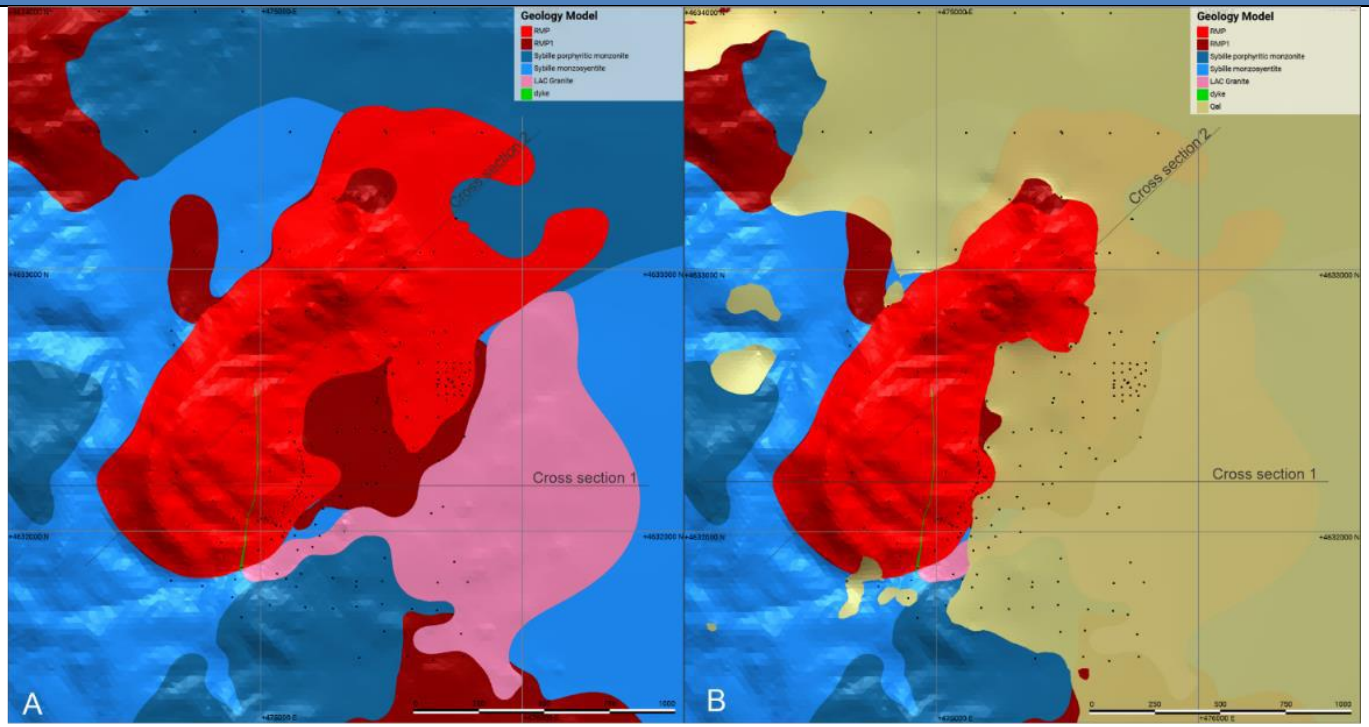
Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	software and parameters used. *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* *The assumptions made regarding recovery of by-products.* *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid*	

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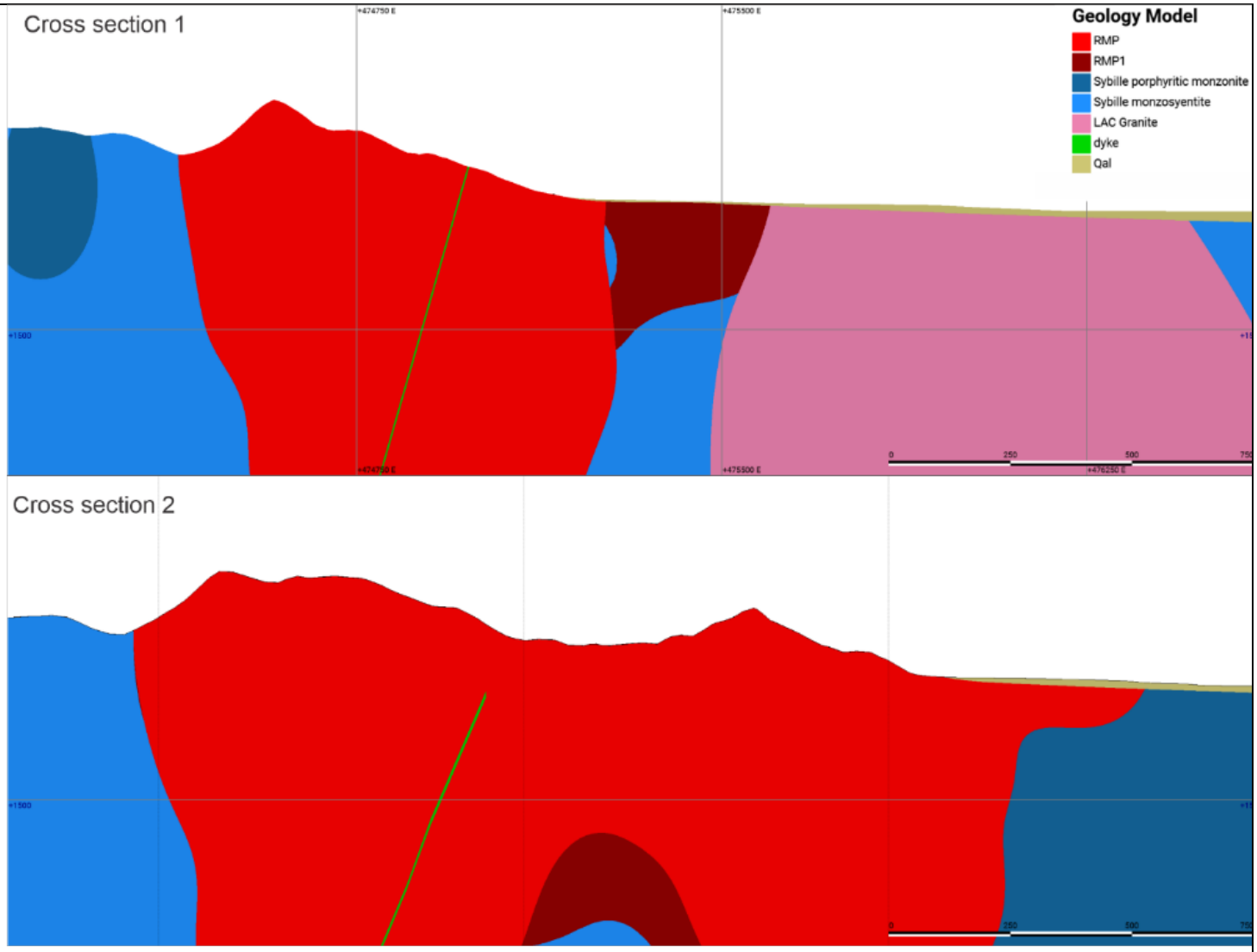
	mine drainage characterisation). *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* *Any assumptions behind modelling of selective mining units.* *Any assumptions about correlation between variables.* *Description of how the geological interpretation was used to control the resource estimates.* *Discussion of basis for using or not using grade cutting or capping.*	 Odessa updated the Red Mountain resource model using Leapfrog Edge, with all drill hole data variograms and block model parameters were updated. Grade estimation was carried using an ordinary kriged ("OK") interpolant.

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Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	*JORC Code explanation*	Commentary
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	

Block Model Parameters

Block Model Parameter	Value
Parent Block Size	20m
Sub-block count (i, j, k)	4, 4, 4
Minimum block size (i, j, k)	5m ,5m, 2.5m
Base point (x, y, z)	473900.00, 4631300.00, 2000.00
Boundary size (W x L x H)	2060.00, 2040.00, 510.00
Azimuth	0
Dip	0
Pitch	0
Size in Blocks	103x102x51=535,806

The block model contains attributes pertaining to resource block, resource category, grade class, geologic domain, and numerical attributes for TREO, rare earth oxides of all rare earth elements.

Geological domains focused on higher grade RMP and RMP1 lithologies which provided control of resource block boundaries along with variography.

General	Direction			Structure 1					
Variogram Name	Dip	Dip Azimuth	Pitch	Normalized Nugget	Normalized sill	Structure	Major	Semi-major	Minor
OM	0	0	124	0	0.6	Spherical	280	230	200
RM	0	0	90	0.1	0.8	Spherical	445	240	170

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**

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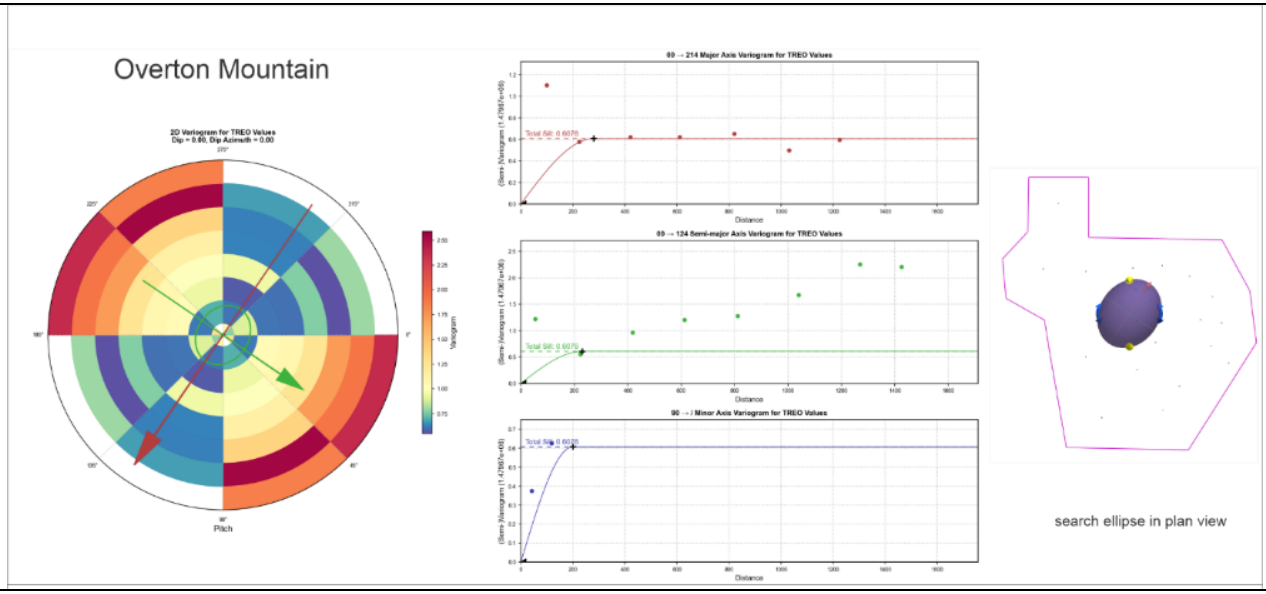

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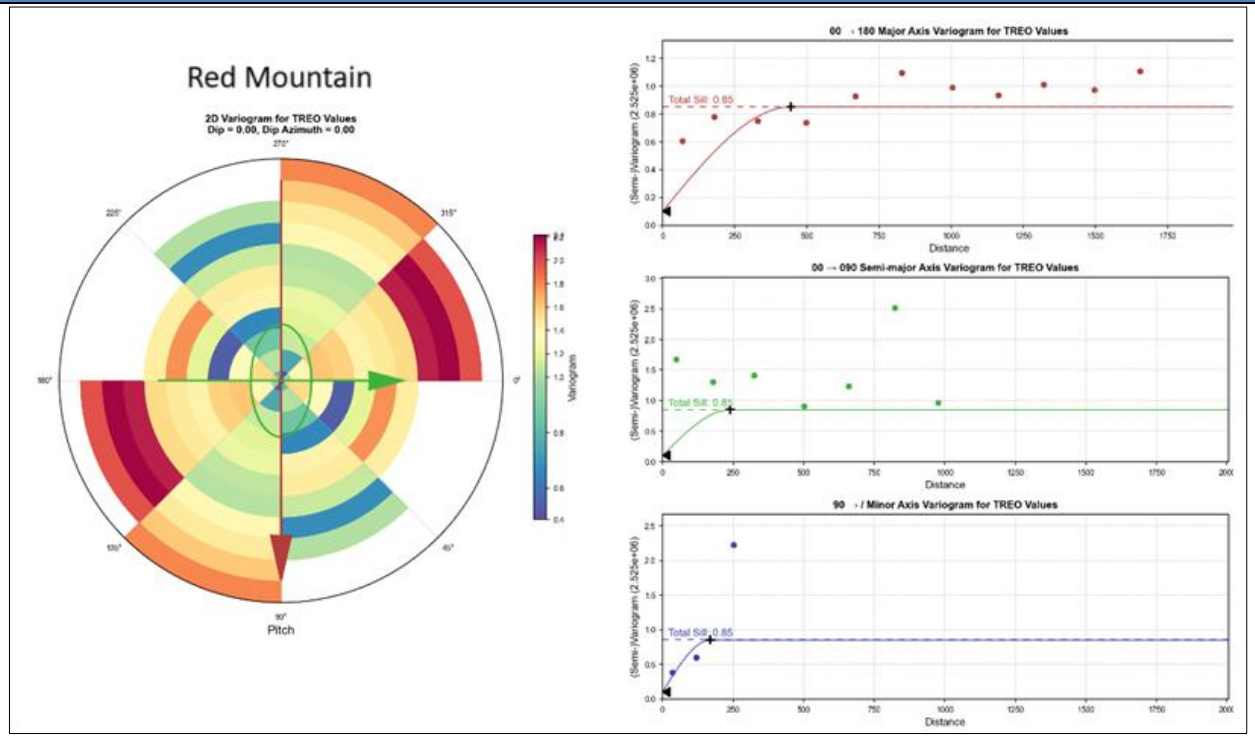
Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
		 Several estimation runs were carried out on the RMP Indicated resource to check for any variance between estimated grades and the input data. Modelled estimator: OK TREO RMP: Indicated ordinary kriged estimate with variogram model (150x150x120m search)

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Section 3 Estimation and Reporting of Mineral Resources		
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Criteria	***JORC Code explanation***	**Commentary**
		The additional estimators: ID2 TREO RMP: Inverse Distance Squared (ID2) using horizontal plane (150x150x120m search) ID2 TREO RMP: isotropic Inverse Distance Squared (ID2) using an iso-tropic 150m search ellipse ID2 TREO RMP: with variogram Inverse Distance Squared (ID2) using the same estimation and variogram parameters as the kriged model (445x240x170m search) Nearest Neighbour, RMP: nearest neighbour estimate (150x150x120m search) These validation runs, together with the kriged estimator, were compared against the raw composite data in east-west (X) and north-south (Y) swath plots across the Red Mountain area (see below). The data indicate that the kriged estimator has done a reasonable job in estimating a global resource grade with no systematic bias towards overestimating the grades. The smoothing effects of the kriging interpolant is consistent with both the inherent nature of the kriging process and the large search ellipses used.

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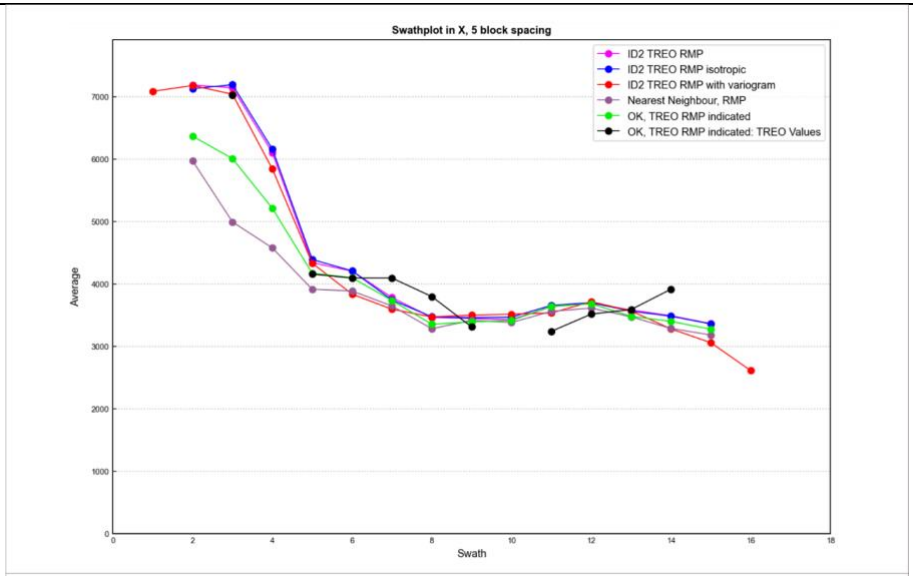

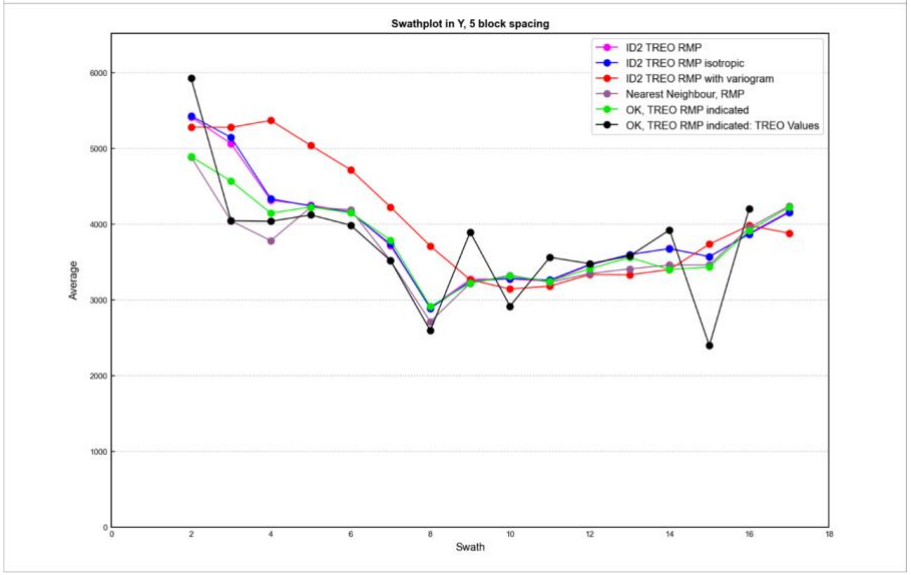

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are based on in-situ, dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A cut-off grade of 1,000 ppm TREO was applied to reported resource estimates based on preliminary net smelter calculations performed by Stantec.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the*	Mining Factors have not been applied for this mineral resource estimate. Mining factors will be applied by Stantec and Tetra Tech as part of an on-going pre-feasibility study being performed for the Cowboy State Mine Area.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be*	Metallurgical Factors have not been applied for this mineral resource estimate. Mining factors will be applied by Stantec and Tetra Tech as part of an on-going pre-feasibility study being performed for the Cowboy State Mine Area.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental*	ARR acquired exploration drilling notices from the Wyoming Department of Environmental Quality (WDEQ), Land Quality Division, for all drilling activities performed to date. ARR is developing a permitting needs assessment with local environmental consulting groups to present to each division at WDEQ to identify comprehensive environmental baseline studies needed to permit a mining operation at Halleck Creek. ARR is identifying additional regulatory stakeholders in Wyoming as part of the needs assessment. Factors for mine closure have been included in mining costs and financial modeling. At this stage of development, no mine closure plans have been developed. At this stage in project development, no social impact studies have been completed.

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Section 3 Estimation and Reporting of Mineral Resources		
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Criteria	***JORC Code explanation***	**Commentary**
	impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental	

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Section 3 Estimation and Reporting of Mineral Resources		
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Criteria	***JORC Code explanation***	**Commentary**
	assumptions made.	
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc),*	An average specific gravity of 2.70 represents the in-place ore material at Halleck Creek based on hydrostatic testing. Bulk density testing will be included during bulk sample collection currently being designed and permitted.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	moisture and differences between rock and alteration zones within the deposit. *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors*	The classification at Halleck Creek is based on the following key attributes: **Geological continuity between drill holes** • Mineralization is controlled by batholith-scale fractionation. Hence, both empirical observations and statistical analysis confirm a very high degree of continuity with the respective rock masses at Overton Mountain and Red Mountain. • This is supported by variography. **Drill spacing and drill density** • The drill pattern is mostly irregular with drill spacing of approximately 200m. • At Overton Mountain an area has been infilled on a systematic grid spacing of approximately 90m. This spacing is considered to be adequate to support a measured classification. • Drill hole spacing at Red Mountain is considered to be adequate to support indicated resources.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	(ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The CP considers the above classification strategy and methodology to be appropriate and reasonable for this style of mineralisation.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	There have not been any audits of mineral resource estimates.
Discussion of relative	*Where appropriate a*	Reported resources for Halleck Creek are in-place global estimates of tonnage and rare earth grade. The basis of classification of mineral resources was based on geostatistical analysis of variograms of rare earth elements.

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Section 3 Estimation and Reporting of Mineral Resources		
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Criteria	***JORC Code explanation***	**Commentary**
accuracy/ confidence	*statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the*	The resource is classified as either measured, indicated or inferred. Subject to the application of 'modifying factors' the measured plus indicated component of the resource may allow for a formal evaluation of its economics with the potential to be converted to a Probable Ore Reserve. Therefore, a high degree of conservatism has been adopted as the underlying premise of the resource classification and, in particular, the indicated component.

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	factors that could affect the relative accuracy and confidence of the estimate. *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the*	

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Section 3 Estimation and Reporting of Mineral Resources		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
	estimate should be compared with production data, where available.	

SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES – ORE RESERVES ARE NOT BEING REPORTED

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Appendix B – Halleck Creek JORC Table 1

Sample No	Easting	Northing	Surface Elev	Length	Lith Type	Unit ID	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	ThO2	UO2
CS25-RM001_001	475,749.57	4,632,491.46	1,784.91	1.12	CQM	RMP	4703	499	1329	4204	926	2021	222	886	149	250	15	102	12	60	10	25	3	19	3	1911	70	7
CS25-RM002_002	475,788.02	4,632,544.51	1,777.90	0.81	CQM	RMP	4192	445	1163	3747	829	1818	197	774	129	226	12	88	11	52	9	23	3	18	3	1844	72	6
CS25-RM003_003	475,771.11	4,632,528.03	1,777.90	0.88	CQM	RMP	4514	488	1295	4026	907	1892	217	864	146	250	14	96	12	56	10	25	3	19	3	1844	66	6
CS25-RM004_004	474,583.38	4,632,284.13	2,033.63	1.07	CQM	RMP	3321	484	935	2837	625	1345	151	603	113	259	12	84	11	57	11	26	3	18	3	1851	50	11
CS25-RM005_005	474,615.91	4,632,233.60	2,002.84	0.63	CQM	RMP	4564	536	1243	4028	889	1972	208	813	146	281	13	100	13	63	11	28	4	20	3	1972	65	7
CS25-RM006-L_007	474,582.36	4,632,182.54	2,008.63	0.97	BHS	RMP	319	86	92	233	52	100	14	54	13	49	2	10	2	9	2	5	1	5	1	286	32	9
CS25-RM006-S_006	474,582.36	4,632,182.54	2,008.63	0.65	Ylgd	GR	159	49	41	110	23	52	6	23	6	30	1	5	1	5	1	3	0	3	0	177	36	5
CS25-RM007_008	474,592.26	4,632,235.80	2,022.96	0.72	CQM	RMP	2406	433	677	1973	345	1013	104	423	88	234	11	69	10	52	10	24	3	17	3	1905	26	7
CS25-RM008-L_010	474,575.12	4,632,131.38	1,995.22	0.69	CQM	RMP	4001	504	1051	3497	717	1806	174	671	129	260	12	91	13	64	12	27	3	19	3	2033	65	11
CS25-RM008-S_009	474,575.12	4,632,131.38	1,995.22	0.64	Ylgd	GR	270	65	68	205	45	99	11	41	9	39	1	7	1	6	1	4	1	4	1	186	38	5
CS25-RM009-L_013	474,680.18	4,632,023.31	1,967.79	0.76	CQM	RMP	4125	453	1109	3672	810	1818	189	727	128	236	10	87	11	54	10	24	3	16	2	1499	63	7
CS25-RM009-S_012	474,680.18	4,632,023.31	1,967.79	0.95	Ylgd	GR	178	38	39	140	25	81	6	23	5	22	1	4	1	4	1	2	0	3	0	174	41	5
CS25-RM009-U_011	474,680.18	4,632,023.31	1,967.79	0.57	CQM	RMP	4011	524	1111	3487	779	1671	184	723	130	279	12	95	12	62	11	28	3	19	3	1533	55	6
CS25-RM010_014	474,670.98	4,631,983.04	1,958.95	0.4	CQM	RMP	3812	511	1037	3301	666	1671	170	667	127	272	12	89	12	61	11	28	4	19	3	2269	54	10
CS25-RM011_015	474,639.89	4,631,995.92	1,969.62	0.67	CQM	RMP	2750	462	812	2288	467	1077	126	514	104	243	11	81	11	57	10	25	3	18	3	2100	40	5
CS25-RM012_016	474,627.00	4,632,034.83	1,980.90	0.54	CQM	RMP	3928	601	1128	3327	808	1474	181	725	139	326	13	105	14	69	13	32	4	22	3	2067	51	13
CS25-RM013_017	474,624.38	4,632,092.57	1,992.48	0.86	CQM	RMP	2824	503	812	2321	483	1099	124	510	105	268	12	84	12	61	11	28	4	20	3	1979	40	6
CS25-RM014_018	474,623.17	4,632,124.99	1,994.00	0.71	CQM	RMP	3601	594	1045	3007	664	1382	163	665	133	323	12	101	14	70	13	32	4	22	3	2148	48	10
CS25-RM015_019	474,608.50	4,632,180.89	2,010.16	0.83	CQM	RMP	3687	538	1039	3149	692	1492	167	671	127	288	13	94	12	62	12	30	4	20	3	2121	53	8
CS25-RM016_020	474,642.30	4,632,230.40	2,003.15	0.58	CQM	RMP	3367	468	936	2899	643	1388	153	601	114	244	12	85	12	56	10	25	3	18	3	1965	53	6
CS25-RM017_021	474,675.81	4,632,289.02	2,022.65	0.5	CQM	RMP	3996	452	1069	3544	765	1775	181	700	123	232	13	85	11	54	10	24	3	17	3	1803	61	6
CS25-RM018_023	474,683.48	4,632,323.96	2,021.13	0.79	CQM	RMP	2862	393	772	2469	551	1201	127	499	91	206	12	69	9	46	8	22	3	16	2	2006	47	6
CS25-RM019_024	474,496.00	4,632,318.63	2,021.13	0.63	CQM	RMP	4540	979	1434	3561	645	1621	201	895	199	531	16	164	23	116	22	55	7	39	6	9104	69	13
CS25-RM020_025	474,501.20	4,632,263.10	2,009.24	0.58	CQM	RMP	4747	632	1381	4115	925	1898	226	904	162	334	15	117	15	74	14	33	4	23	3	1607	75	7
CS25-RM021_026	474,503.81	4,632,227.45	1,928.16	0.83	CQM	RMP	3385	514	966	2871	634	1345	151	622	119	268	14	91	12	62	11	28	4	21	3	2033	50	8
CS25-RM022_027	474,496.57	4,632,177.63	1,951.02	0.61	FM	RMP	1468	438	490	1030	162	437	61	295	75	239	13	69	9	50	9	25	3	18	3	2418	17	5
CS25-RM023_028	474,502.14	4,632,132.64	1,942.19	0.77	CQM	RMP	7699	756	2141	6943	1595	3317	375	1423	233	387	17	150	19	91	16	39	5	28	4	3674	106	10
CS25-RM024_029	474,520.41	4,632,085.39	1,944.01	0.86	CQM	RMP	13651	1502	3990	12149	2639	5737	694	2659	420	790	19	289	37	180	32	81	10	56	8	7335	174	22
CS25-RM025_030	474,568.93	4,632,025.93	1,923.59	0.94	CQM	RMP	2847	572	896	2275	412	1048	127	567	121	309	13	95	13	68	13	31	4	22	4	1634	40	12
CS25-RM026_031	474,605.45	4,631,977.28	1,915.67	1.3	CQM	RMP	3874	542	1071	3332	719	1621	175	689	128	287	12	94	13	66	12	30	4	21	3	3053	58	10
CS25-RM027_032	474,604.74	4,631,963.51	1,902.26	0.45	CQM	RMP	4588	565	1309	4023	873	1922	213	860	155	293	13	107	14	67	12	30	4	22	3	1864	73	8
CS25-RM028-L_035	474,640.35	4,631,936.19	1,878.79	0.56	CQM	RMP	5237	665	1474	4572	952	2242	253	961	164	342	15	130	17	79	15	34	4	25	4	2607	91	12
CS25-RM028-S_034	474,640.35	4,631,936.19	1,878.79	0.63	Ylgd	GR	232	61	61	171	37	80	9	37	8	37	1	7	1	6	1	4	0	3	1	176	39	6
CS25-RM028-U_033	474,640.35	4,631,936.19	1,878.79	0.72	CQM	RMP	5552	662	1587	4890	1065	2334	260	1044	187	343	15	128	16	80	14	34	4	24	4	2634	90	11
CS25-RM029_036	474,680.27	4,631,909.73	1,872.08	0.85	CQM	RMP	4035	589	1150	3446	728	1652	191	742	133	307	14	110	15	69	13	31	4	22	4	1891	68	7
CS25-RM030_037	474,719.02	4,631,879.84	1,848.61	0.8	CQM	RMP	4646	537	1313	4109	909	1965	227	867	141	269	14	110	14	64	12	28	3	20	3	1398	79	9
CS25-RM031_038	474,779.08	4,631,981.66	1,865.38	0.73	CQM	RMP	3440	520	974	2920	645	1376	164	623	112	274	11	96	13	62	11	28	3	19	3	1749	52	7
CS25-RM032_039	474,725.42	4,631,975.08	1,881.23	0.68	CQM	RMP	3183	438	868	2745	596	1345	149	555	100	228	11	81	11	53	10	23	3	16	2	1857	47	7
CS25-RM033_040	474,722.50	4,631,929.86	1,876.65	0.48	Ylgd	RMP	711	113	204	598	131	279	34	131	23	62	2	18	3	13	2	6	1	5	1	284	34	6
CS25-RM034_041	474,767.78	4,631,908.86	1,846.17	0.67	BHS	RMP	2005	300	515	1705	389	839	91	331	55	171	8	43	6	32	6	16	2	14	2	2445	38	6
CS25-RM035_043	474,743.66	4,631,874.64	1,847.39	0.39	CQM	RMP	4163	551	1186	3612	762	1744	200	774	132	284	13	105	14	66	12	29	4	21	3	1688	75	9
CS25-RM036_044	474,821.07	4,631,976.96	1,858.37	0.46	CQM	RMP	3367	527	956	2840	596	1364	159	610	111	279	12	92	13	63	12	28	4	21	3	1925	58	8
CS25-RM037_045	474,842.37	4,631,941.58	1,841.30	0.56	CQM	RMP	4858	625	1411	4233	1004	1904	244	927	154	331	14	120	15	71	13	31	4	23	3	1533	75	11
CS25-RM038_046	474,869.61	4,631,920.27	1,823.01	0.71	CQM	RMP	4015	509	1130	3506	771	1677	195	738	125	265	13	98	13	59	11	25	3	19	3	1661	72	8
CS25-RM039_047	474,765.57	4,632,081.41	1,880.01	0.48	CQM	RMP	4814	573	1325	4241	904	2094	231	864	148	295	13	112	14	68	12	30	4	22	3	2060	87	8
CS25-RM040_048	474,758.73	4,632,025.92	1,860.50	0.66	CQM	RMP	1440	335	416	1105	201	537	65	247	55	181	9	50	8	41	8	19	3	14	2	1628	33	5
CS25-RM041_049	474,826.39	4,632,026.12	1,836.12	0.83	FM	RMP	2887	412	832	2475	505	1201	137	535	97	203	11	85	11	52	9	21	3	15	2	1817	58	7
CS25-RM042-L_052	474,877.01	4,632,040.38	1,830.32	0.55	CQM	RMP	3649	372	1005	3277	687	1640	176	661	113	177	12	85	10	45	8	18	2	13	2	1810	74	7
CS25-RM042-S_051	474,877.01	4,632,040.38	1,830.32	0.42	Ylgd	GR	211	49	55	162	38	75	9	33	7	28	1	7	1	5	1	3	0	3	0	115	32	6
CS25-RM042-U_050	474,877.01	4,632,040.38	1,830.32	0.55	CQM	RMP	3719	388	1045	3331	722	1621	182	691	115	187	12	88	10	47	8	19	2	13	2	1783	74	11
CS25-RM043_053	474,932.37	4,632,036.30	1,808.68	1	CQM	RMP	3232	330	912	2902	644	1394	159	608	97	157	11	74	9	39	7	16	2	13	2	1634	65	9
CS25-RM044_054	474,888.30	4,631,992.04	1,831.85	0.64	BHS	RMP	2883	229	742	2654	544	1400	134	500	76	107	10	50	6	26	5	11	2	10	2	1472	64	6
CS25-RM045_055	474,925.93	4,631,976.37	1,815.39	0.86	CQM	RMP	7713	543	2133	7170	1554	3562	402	1440	212	250	13	134	15	64	11	26	4	22	4	5120	164	13
CS25-RM046_056	474,928.65	4,631,946.05	1,813.86	0.42	CQM	RMP	3715	504	1034	3211	658	1591	174	670	118	264	12	93	12	60	11	27	3	19	3	1891	72	7
CS25-RM047_057	474,818.47	4,631,875.60	1,813.86	0.32	CQM	RMP	3938	549	1105	3389	688	1677	185	709	130	283	13	103	14	67	12	29	4	21	3	1770	76	10
CS25-RM048_058	474,885.26	4,631,883.47	1,808.68	0.78	CQM	RMP	4582	555	1327	4027	876	1904	230	871	146	286	12	109	14	66	12	28	4	21	3	1702	88	9
CS25-RM049_059	474,713.32	4,632,074.93	1,900.43	0.65	CQM	RMP	3279	541	939	2738	660	1215	156	598	109	290	12	94	13	63	12	29	4	21	3	2128	42	8
CS25-RM050_060	474,668.85	4,632,085.08	1,934.57	0.6	CQM	RMP	4139	521	1140	3618	803	1750	201	739	125	274	12	96	13	62	11	27	4	19	3	1911	66	8
CS25-RM051_061	474,665.62	4,632,133.50	1,918.41	1	CQM	RMP	3724	531	1038	3193	762	1468	176	672	115	284	12	94	13	62	12	28	4	19	3	1790	52	11

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Sample No	Easting	Northing	Surface Elev	Length	Lith Type	Unit ID	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	ThO2	UO2
CS25-RM052_063	474,677.17	4,632,182.65	1,936.70	1.02	CQM	RMP	2696	408	745	2288	503	1098	124	476	87	216	11	72	10	48	9	22	3	15	2	1763	48	6
CS25-RM053_064	474,630.69	4,632,278.63	1,982.42	0.85	CQM	RMP	3023	470	835	2553	544	1241	140	532	96	248	12	83	11	56	11	25	3	18	3	1655	45	6
CS25-RM054_065	474,630.95	4,632,329.03	1,997.05	0.8	CQM	RMP	3645	504	1048	3141	697	1468	178	682	116	265	13	93	12	60	11	26	3	18	3	1736	51	5
CS25-RM055_066	474,720.95	4,632,282.42	1,964.74	0.37	CQM	RMP	2740	408	764	2332	518	1108	128	489	89	215	12	71	10	48	9	21	3	16	3	1722	39	6
CS25-RM056_067	474,732.06	4,632,232.75	1,955.29	0.71	CQM	RMP	3708	466	1019	3242	721	1566	176	668	111	244	13	87	11	53	10	24	3	18	3	2060	61	8
CS25-RM057-D_069	474,726.57	4,632,181.14	1,944.32	0.88	Ylgd	GR	1613	405	414	1208	249	596	65	247	51	239	7	46	8	43	9	25	3	22	3	2006	29	6
CS25-RM057-L_068	474,726.57	4,632,181.14	1,944.32	0.82	CQM	RMP	3764	355	1017	3409	800	1640	187	679	103	184	9	71	9	39	7	18	2	14	2	1668	67	7
CS25-RM057-R_070	474,726.57	4,632,181.14	1,944.32	0.74	CQM	RMP	3624	432	1030	3192	762	1462	182	672	114	228	12	78	11	51	9	22	3	16	2	1729	65	9
CS25-RM058_071	474,732.29	4,632,132.16	1,911.10	0.78	CQM	RMP	3047	405	844	2642	592	1265	146	544	95	210	12	72	10	49	9	22	3	16	2	1776	54	7
CS25-RM059_072	474,731.08	4,632,331.34	2,069.29	0.91	CQM	RMP	3688	501	1082	3187	794	1382	187	703	121	264	14	92	12	59	10	26	3	18	3	1783	56	7
CS25-RM060_073	474,762.37	4,632,327.68	2,035.76	0.88	CQM	RMP	2493	425	714	2068	425	990	116	450	87	227	12	69	10	51	9	23	3	18	3	1756	47	7
CS25-RM061_074	474,787.80	4,632,287.06	2,011.07	0.97	CQM	RMP	3708	470	1029	3238	693	1585	176	667	117	245	13	83	12	57	10	25	3	19	3	1925	65	8
CS25-RM062_075	474,823.31	4,632,282.05	2,000.40	0.67	CQM	RMP	2990	411	837	2579	579	1222	144	539	95	216	12	71	10	49	9	22	3	17	2	1844	51	8
CS25-RM063_076	474,813.02	4,632,328.61	1,973.88	0.79	CQM	RMP	3997	484	1131	3513	819	1634	196	741	123	251	14	88	12	59	10	25	3	19	3	1824	69	8
CS25-RM064_077	474,870.90	4,632,333.18	1,948.89	0.74	CQM	RMP	2402	296	674	2106	489	985	118	439	75	155	9	53	7	35	6	15	2	12	2	1302	51	8
CS25-RM065_078	474,927.03	4,632,334.65	1,924.20	1.2	CQM	RMP	3479	385	978	3094	733	1437	173	646	105	198	13	73	9	45	8	20	2	15	2	1979	65	7
CS25-RM066_079	474,989.37	4,632,332.43	1,891.89	0.74	CQM	RMP	3442	392	977	3050	710	1419	172	643	106	204	12	73	10	46	8	20	2	15	2	1972	63	6
CS25-RM067_080	475,024.81	4,632,329.97	1,881.23	0.79	CQM	RMP	3131	354	898	2777	640	1290	157	593	97	180	12	68	9	42	7	18	2	14	2	2283	55	6
CS25-RM068_081	475,069.22	4,632,328.15	1,861.41	0.79	BHS	RMP	2727	298	766	2429	572	1133	135	507	82	148	12	58	7	35	6	15	2	13	2	1945	50	12
CS25-RM069_083	475,135.30	4,632,181.70	1,702.31	0.56	BHS	RMP	3050	287	859	2763	643	1302	155	573	90	141	12	58	7	34	6	14	2	11	2	1810	61	5
CS25-RM070_084	475,084.79	4,632,173.99	1,722.42	0.69	CQM	RMP	3060	354	874	2706	630	1253	153	576	94	181	12	67	9	42	7	18	2	14	2	1837	56	6
CS25-RM071_085	475,083.90	4,632,227.62	1,727.30	0.62	BHS	RMP	2639	286	749	2353	563	1082	132	495	81	142	12	55	7	34	6	15	2	11	2	1709	49	6
CS25-RM072_086	475,122.29	4,632,237.81	1,715.72	0.5	CQM	RMP	2938	312	828	2626	607	1235	148	549	87	157	11	60	8	36	6	16	2	14	2	2040	59	7
CS25-RM073_087	475,128.90	4,632,276.87	1,734.31	0.77	BHS	RMP	3184	295	897	2889	677	1357	161	602	92	144	12	60	8	34	6	15	2	12	2	1979	64	6
CS25-RM074_088	475,030.34	4,632,084.14	1,748.33	0.64	CQM	RMP	3593	433	1026	3160	741	1456	179	670	114	222	12	81	11	52	9	23	3	17	3	1972	61	7
CS25-RM075_089	474,982.01	4,632,079.65	1,758.70	0.72	CQM	RMP	3734	482	1084	3252	746	1492	187	704	123	250	12	90	12	58	10	25	3	19	3	2087	64	9
CS25-RM076_090	474,944.94	4,632,067.45	1,773.94	0.62	CQM	RMP	3932	493	1131	3439	778	1603	194	736	128	254	13	91	13	60	10	26	3	20	3	1952	72	8
CS25-RM077_091	474,880.05	4,632,078.34	1,859.58	0.9	CQM	RMP	3440	476	972	2964	636	1425	164	624	115	251	12	84	12	57	10	25	3	19	3	1918	65	8
CS25-RM078_092	474,835.21	4,632,078.61	1,867.51	0.75	CQM	RMP	3838	534	1119	3304	771	1492	190	723	128	283	13	96	13	65	11	28	3	19	3	1776	69	12
CS25-RM079_093	474,767.82	4,632,131.03	1,913.23	0.84	CQM	RMP	3396	439	962	2957	665	1394	166	623	109	232	11	77	11	53	9	23	3	17	3	1729	71	7
CS25-RM080-S_095	474,777.78	4,632,177.52	1,907.44	0.48	Ylgd	GR	439	139	117	300	62	139	17	65	17	84	2	15	3	15	3	8	1	7	1	409	62	12
CS25-RM080-U_094	474,777.78	4,632,177.52	1,907.44	1	CQM	RMP	3007	412	859	2595	607	1187	147	555	99	220	9	73	10	48	9	22	3	16	2	1520	60	6
CS25-RM081_096	474,822.40	4,632,234.43	1,920.24	0.78	CQM	RMP	3425	416	976	3009	706	1388	170	637	108	215	12	77	11	50	9	21	3	16	2	1621	67	9
CS25-RM082_097	474,878.03	4,632,235.78	1,912.62	1	CQM	RMP	3527	438	1007	3089	715	1431	175	656	112	224	13	82	11	53	9	23	3	17	3	1844	61	8
CS25-RM083_098	474,842.35	4,632,194.50	1,901.65	0.71	CQM	RMP	3422	488	982	2934	678	1345	166	630	115	258	13	86	12	59	10	25	3	19	3	1905	58	9
CS25-RM084_099	474,886.55	4,632,179.91	1,891.28	1.13	CQM	RMP	3045	395	872	2650	588	1247	149	566	100	204	12	72	10	47	8	21	3	16	2	1824	56	8
CS25-RM085_100	474,870.82	4,632,145.10	1,871.47	0.84	CQM	RMP	2984	376	800	2608	541	1321	137	517	92	199	9	65	9	45	8	20	3	16	2	1587	67	9
CS25-RM086_101	474,925.46	4,632,124.59	1,857.76	0.92	CQM	RMP	3621	456	1028	3165	741	1462	177	670	115	239	12	82	11	55	9	24	3	18	3	1675	63	11
CS25-RM087_102	474,981.64	4,632,115.62	1,844.34	0.57	CQM	RMP	3369	429	915	2940	589	1499	157	589	106	220	12	78	11	52	9	23	3	18	3	1871	63	6
CS25-RM088_103	474,984.92	4,632,271.05	1,840.69	0.82	CQM	RMP	3298	357	933	2941	666	1394	164	614	103	179	13	70	9	43	7	18	2	14	2	1648	62	6
CS25-RM089_104	474,998.71	4,632,178.40	1,840.08	0.91	CQM	RMP	2697	318	735	2379	495	1196	125	481	82	161	10	60	8	39	7	16	2	13	2	1682	48	5
CS25-RM090_105	474,985.87	4,632,234.52	1,853.79	0.89	CQM	RMP	2921	331	806	2590	586	1247	140	530	87	167	11	63	8	41	7	17	2	13	2	1776	53	4
CS25-RM091_106	474,884.49	4,632,278.40	1,901.34	1.04	CQM	RMP	3429	370	920	3059	670	1523	161	605	100	188	12	70	9	45	8	20	2	14	2	1830	62	6
CS25-RM092_107	474,920.26	4,632,276.16	1,878.18	1.03	CQM	RMP	3049	341	826	2708	588	1345	142	542	91	172	11	64	9	42	7	18	2	14	2	1938	57	6
CS25-RM093_108	474,978.84	4,632,288.06	1,841.60	0.82	CQM	RMP	3076	355	854	2721	617	1302	147	561	94	180	12	66	9	43	8	19	2	14	2	1871	54	6
CS25-RM094_109	475,015.09	4,632,280.27	1,835.20	1.02	CQM	RMP	3353	365	931	2988	668	1443	161	616	100	184	11	70	9	45	8	19	2	15	2	2242	62	6
CS25-RM095_110	475,064.70	4,632,270.32	1,824.53	0.37	CQM	RMP	3064	320	833	2744	624	1333	146	552	89	159	11	62	8	38	7	17	2	14	2	2019	64	6
CS25-RM-096-D	474,723.72	4,631,929.86	1,873.01	1	GR	RMDK	1857	342	495	1515	307	758	79	313	58	197	8	46	7	38	7	19	2	16	2	1309	28	5
CS25-RM-096-L	474,723.72	4,631,929.86	1,873.01	1	CQM	RMP	3431	446	948	2985	663	1437	158	624	103	244	11	74	11	52	9	23	3	17	2	1803	59	6
CS25-RM-096-R	474,723.72	4,631,929.86	1,873.01	1	CQM	RMP	3436	510	968	2926	664	1364	158	633	107	284	11	84	12	58	11	25	3	19	3	1743	55	8
CS25-RM-097	474,527.15	4,632,073.18	1,895.78	1	CQM	RMP	8368	1228	2415	7140	1560	3341	390	1586	263	684	16	201	29	147	27	65	8	45	6	5268	119	16
CS25-RM-098	474,527.80	4,632,072.53	1,895.78	1	CQM	RMP	3689	585	1041	3104	687	1456	169	677	115	326	14	92	13	67	13	31	4	22	3	2317	49	6
CS25-RM099	474,518.86	4,632,311.26	2,126.00	0.8	CQM	RMP	4909	558	1347	4351	985	2101	233	903	129	293	14	98	13	69	12	31	4	21	3	1898	78	
CS25-RM100	474,505.86	4,632,235.26	1,931.00	0.8	CQM	RMP	3426	596	1051	2830	602	1265	162	684	117	316	15	103	14	74	13	32	4	22	3	2290	62	
CS25-RM101	474,505.86	4,632,193.26	1,920.00	0.9	CQM	RMP	4208	578	1278	3630	789	1652	205	849	135	293	16	107	15	74	13	32	4	21	3	2404	75	
CS25-RM102	474,505.86	4,632,149.26	1,910.00	1	CQM	RMP	7530	1142	2266	6388	1396	2899	356	1493	244	602	19	206	28	145	25	63	7	41	6	5700	136	
CS25-RM103	474,535.86	4,632,090.26	1,905.00	0.8	CQM	RMP	4433	632	1307	3801	848	1738	214	867	134	334	15	109	15	77	14	35	4	25	4	1824	87	
CS25-RM104	474,543.86	4,632,048.26	1,892.00	0.75	CQM	RMP	4088	1314	1380	2774	434	1155	176	821	188	735	18	197	30	165	30	75	9	48	7	5579	62	
CS25-RM-105	475,752.52	4,632,504.11	1,753.00	1	CQM	RMP	3995	482	1138	3513	760	1683	185	757	128	257	14	84	11	57	10	24	3	19	3	1979	60	7
CS25-RM-106	475,761.42	4,632,509.52	1,754.00	1	CQM	RMP	5264	556	1525	4708	1118	2144	250	1037	159	292	15	105	13	66	11	27	3	21	3	2053	76	8
CS25-RM-107	475,772.09	4,632,522.92	1,753.00	1	CQM	RMP	4666	349	1228	4317	896	2242	214	842	123	176	13	70	8	41	7	16	2	14	2	2452	78	6
CS25-RM-108	475,762.03	4,632,517.07	1,753.00	1	CQM	RMP	4826	519	1361	4307	944	2076	227	914	146	273	14	94	12	62	11	26	3	21	3	2141	73	7
CS25-RM-109	475,755.23	4,632,495.44	1,753.00	1	CQM	RMP	5549	598	1638	4951	1139	2260	272	1107	173	315	16	110	15	71	13	28	4	23	3	1992	79	7

Sample No	Easting	Northing	Surface Elev	Length	Lith Type	Unit ID	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ZrO2	ThO2	UO2
CS25-RM-110	474,505.18	4,632,098.55	1,893.00	1	CQM	RMP	4316	589	1205	3727	842	1763	195	791	136	326	13	94	13	70	13	30	4	23	3	3080	53	13
CS25-RM-111	474,518.49	4,632,083.18	1,899.00	1	CQM	RMP	13816	1630	4199	12186	2580	5638	692	2846	430	897	20	287	38	193	35	80	10	61	9	11711	227	24
CS25-RM-112	474,535.87	4,632,068.79	1,897.00	1	CQM	RMP	5334	627	1462	4707	1068	2266	243	974	156	344	14	104	14	75	13	32	4	24	3	2850	71	12
CS25-RM-113	474,562.33	4,632,038.72	1,888.00	1	CQM	RMP	3475	1157	1189	2318	298	991	139	709	181	679	14	158	24	136	26	61	8	45	6	5822	47	16
CS25-RM-114	474,518.78	4,632,281.91	1,946.86	1	CQM	RMP	2040	468	586	1572	298	754	84	359	77	268	10	63	10	56	10	25	3	20	3	1824	39	8
CS25-RM-115	474,499.31	4,632,200.16	1,908.35	1	CQM	RMP	7187	765	1988	6422	1448	3096	336	1336	206	411	15	136	18	92	16	38	5	30	4	3404	104	9
CS25-RM-116	474,585.52	4,631,997.78	1,876.78	1	CQM	RMP	9411	1741	2905	7670	1507	3513	445	1849	356	974	18	280	40	215	39	90	11	65	9	6362	150	24

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