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TSX-V: RA
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RARE EARTH METALS RELEASES NEW RESOURCE ESTIMATE FOR TWO TOM

Inferred Mineral Resource: 40.6 Million Tonnes Averaging 1.18% TREO with 0.26% Nb2O5 and 0.18% BeO.

December 13, 2011 - Thunder Bay, ON – Rare Earth Metals Inc. ("**Rare Earth Metals**", "**RA"** or the "**Company**") (**TSX-V: RA**; **OTCQX: RAREF, PINK SHEETS: RAREF**) is pleased to announce the first NI 43-101 compliant independent resource estimate for the Two Tom REE –Niobium – Beryllium Deposit at the Red Wine property, located approximately 110 kilometres northeast of Churchill Falls in west central Labrador. The resource estimate was prepared by Tetra Tech Wardrop (Tetra Tech) of Toronto, Ontario who recommends that additional drilling be conducted to further investigate and develop the known Two Tom deposit and determine continuity of the mineralized syenite and REE-Nb-Be grades. RA is earning a 100% interest in the Two Tom property which is subject to two option agreements. The northwest half of the zone is optioned from Zimtu Capital Corp. and the southeast half is optioned from Roland and Eddie Quinlan.

Highlights:

- 40.635 million tonnes grading at 1.18% total rare earth oxide (TREO), 0.26% Niobium Oxide (Nb205) and 0.18% Beryllium oxide (BeO) at a 0.60% TREO cut-off grade in the inferred category
- **Neodymium content is 15.9% of the TREO**

- Calculation is based on over 5,140 m of drilling in 22 holes, and 4 trenches (44.2m), and 2,647 assay samples covering approximately 1,200 metres of strike length to an average depth 200 meters
- Resource areas open along multiple directions and to depth
- Additional drilling recommended for next phase of drilling

The Company presently has three advanced projects in Ontario and Newfoundland and Labrador, exhibiting multi element potential (REEs, Niobium, Beryllium, Zirconium and Iron Ore), and highly favourable mineralogy for extractive metallurgical processing. 2011 has been a busy year for Rare Earth Metals with the completion of a very successful drilling campaign (**1.65% TREO over 90.2 metres and 1.51%TREO OVER 124 metres** with the **Neodymium** percentage of these particular drill holes at about 14% of the TREO – see previous press release dated Sept 15, 2011) on its highly prospective Springer - Lavergne prospect in the Sudbury Mining District of Ontario, and the discovery of heavy rare earths (**1.55% TREO with HREO/TREO of 42.1% over 21.0 metres within a wider intersection of 1.11% TREO with HREO/TREO of 41% over 42.9 metres –** see previous press release dated Sept 6, 2011) on the Dory Pond prospect in the new emerging Red Wine rare earth mineral belt of Labrador. On its Clay Howells property a new resource estimate for its Clay Howells deposit (**8.5 Million Tonnes Averaging 0.73% TREO with 44.15% Fe2O3 –** see previous press release dated Sept 27, 2011) was released.

Commented Mr. Michael Stares, President and CEO, “We are extremely pleased with the results of Tetra Tech’s evaluation which gives us an excellent base to work from at the Red Wine Project. We will continue to work with Tetra Tech and develop a drill program to enhance the tonnage and grade of the deposit and to initiate metallurgical work on the zone.”

Mineral resources were modeled by Tetra Tech and reported at eight different Total Rare Earth Oxide (TREO) cut-off grades, with a base-case resource estimated using a TREO cut-off of 0.60%. At this cut-off, Two Tom hosts an Inferred Mineral Resource of 40.6 million tonnes grading 1.18% TREO, .26% Nb205 and 0.18% BeO, with 6.0% of the TREO being the HREO (heavy rare earth oxides).

Resource Estimate Summary for the Two Tom Deposit

	TREO%	Volume	Density	Tonnage	NB2O5	BEO	LREO	HREO	TREO	HREO:TREO
	Cut-off	M**3 (x000)	T per M**3	T (x 000t)	Grade	Grade	Grade	Grade	Grade	
TWOTOM	**1.40%**	4,493	2.91	13,060	0.26	0.22	1.556	0.095	1.651	6%
	1.20%	6,327	2.90	18,321	0.26	0.21	1.459	0.091	1.551	6%
	1.00%	8,531	2.88	24,568	0.27	0.21	1.348	0.086	1.434	6%
	0.90%	9,859	2.87	28,306	0.28	0.20	1.287	0.083	1.370	6%
	0.80%	11,356	2.86	32,494	0.27	0.20	1.223	0.080	1.303	6%
	0.70%	12,818	2.85	36,564	0.27	0.19	1.164	0.078	1.241	6%
	0.60%	14,285	2.84	40,635	0.26	0.18	1.107	0.075	1.182	6%
	0.50%	15,607	2.84	44,300	0.26	0.18	1.058	0.072	1.130	6%

Resource Estimate including all REOs for the Two Tom Deposit

	TREO%	Volume	Density	Tonnage	NB2O5	BEO	LA2O3	CE2O3	PR2O3	ND2O3_C	SM2O3	EU2O3	GD2O3	TB2O3	DY2O3	HO2O3	ER2O3	TM2O3	YB2O3	LU2O3	Y2O3	LREO	HREO	TREO
	Cut-off	M**3 (x000)	(x000)	T (x 000t)	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade
TWOTOM	**1.40%**	4,493	2.91	13,060	0.26	0.22	0.419	0.765	0.078	0.254	0.040	0.004	0.025	0.003	0.010	0.001	0.003	0.000	0.001	0.000	0.049	1.556	0.095	1.651
	1.20%	6,327	2.90	18,321	0.26	0.21	0.392	0.717	0.073	0.240	0.039	0.004	0.023	0.002	0.010	0.001	0.003	0.000	0.001	0.000	0.046	1.459	0.091	1.551
	1.00%	8,531	2.88	24,568	0.27	0.21	0.358	0.662	0.068	0.224	0.037	0.003	0.022	0.002	0.009	0.001	0.003	0.000	0.001	0.000	0.044	1.348	0.086	1.434
	0.90%	9,859	2.87	28,306	0.28	0.20	0.340	0.632	0.065	0.215	0.036	0.003	0.022	0.002	0.009	0.001	0.002	0.000	0.001	0.000	0.042	1.287	0.083	1.370
	0.80%	11,356	2.86	32,494	0.27	0.20	0.321	0.600	0.062	0.205	0.034	0.003	0.021	0.002	0.009	0.001	0.002	0.000	0.001	0.000	0.041	1.223	0.080	1.303
	0.70%	12,818	2.85	36,564	0.27	0.19	0.304	0.572	0.059	0.196	0.033	0.003	0.020	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.039	1.164	0.078	1.241
	0.60%	14,285	2.84	40,635	0.26	0.18	0.288	0.544	0.056	0.188	0.032	0.003	0.019	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.038	1.107	0.075	1.182
	0.50%	15,607	2.84	44,300	0.26	0.18	0.274	0.519	0.054	0.180	0.031	0.003	0.019	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.037	1.058	0.072	1.130

Resource Estimate including all REOs for the Two Tom Deposit

	TREO%	Volume	Density	Tonnage	NB2O5	BEO	LA2O3	CE2O3	PR2O3	ND2O3_C	SM2O3	EU2O3	GD2O3	TB2O3	DY2O3	HO2O3	ER2O3	TM2O3	YB2O3	LU2O3	Y2O3	LREO	HREO	TREO
	Cut-off	M**3 (x000)	T per M**3	T (x 000)	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade	Grade
SOUTH	**1.40%**	2,287	2.91	6,644	0.33	0.25	0.398	0.749	0.076	0.253	0.042	0.004	0.025	0.003	0.010	0.001	0.003	0.000	0.001	0.000	0.048	1.518	0.096	1.614
	1.20%	3,492	2.89	10,097	0.32	0.23	0.370	0.697	0.071	0.237	0.040	0.004	0.024	0.003	0.010	0.001	0.003	0.000	0.001	0.000	0.045	1.414	0.091	1.505
	1.00%	5,140	2.87	14,759	0.34	0.22	0.332	0.634	0.065	0.220	0.038	0.003	0.023	0.002	0.009	0.001	0.002	0.000	0.001	0.000	0.042	1.289	0.085	1.374
	0.90%	6,161	2.86	17,626	0.34	0.22	0.313	0.602	0.062	0.210	0.036	0.003	0.022	0.002	0.009	0.001	0.002	0.000	0.001	0.000	0.041	1.223	0.081	1.304
	0.80%	7,409	2.85	21,108	0.33	0.21	0.293	0.567	0.059	0.199	0.035	0.003	0.021	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.039	1.151	0.078	1.229
	0.70%	8,544	2.84	24,274	0.32	0.20	0.276	0.537	0.056	0.189	0.033	0.003	0.020	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.037	1.092	0.075	1.167
	0.60%	9,675	2.83	27,419	0.31	0.19	0.261	0.509	0.053	0.180	0.032	0.003	0.019	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.036	1.035	0.072	1.107
	0.50%	10,747	2.83	30,399	0.30	0.18	0.247	0.484	0.050	0.172	0.030	0.003	0.019	0.002	0.007	0.001	0.002	0.000	0.001	0.000	0.035	0.983	0.070	1.053
NORTH	**1.40%**	2,206	2.91	6,416	0.19	0.20	0.441	0.781	0.079	0.255	0.039	0.004	0.024	0.002	0.010	0.001	0.003	0.000	0.001	0.000	0.049	1.595	0.095	1.690
	1.20%	2,835	2.90	8,225	0.18	0.19	0.419	0.742	0.075	0.242	0.037	0.003	0.023	0.002	0.010	0.001	0.003	0.000	0.001	0.000	0.048	1.515	0.092	1.607
	1.00%	3,391	2.89	9,809	0.18	0.18	0.397	0.703	0.071	0.230	0.036	0.003	0.022	0.002	0.009	0.001	0.003	0.000	0.001	0.000	0.046	1.437	0.088	1.525
	0.90%	3,698	2.89	10,680	0.18	0.18	0.384	0.681	0.069	0.223	0.035	0.003	0.021	0.002	0.009	0.001	0.003	0.000	0.001	0.000	0.045	1.392	0.086	1.478
	0.80%	3,947	2.88	11,386	0.17	0.17	0.373	0.663	0.067	0.218	0.034	0.003	0.021	0.002	0.009	0.001	0.003	0.000	0.001	0.000	0.044	1.355	0.085	1.439
	0.70%	4,273	2.88	12,290	0.17	0.17	0.359	0.639	0.065	0.210	0.033	0.003	0.020	0.002	0.009	0.001	0.003	0.000	0.001	0.000	0.043	1.306	0.082	1.388
	0.60%	4,610	2.87	13,217	0.17	0.16	0.345	0.615	0.062	0.203	0.032	0.003	0.019	0.002	0.009	0.001	0.003	0.000	0.001	0.000	0.042	1.256	0.080	1.336
	0.50%	4,860	2.86	13,902	0.17	0.16	0.334	0.597	0.060	0.197	0.031	0.003	0.019	0.002	0.008	0.001	0.002	0.000	0.001	0.000	0.041	1.220	0.078	1.298

Notes:

- Light Rare Earth Oxides (LREO) includes: La2O3,Ce2O3, Pr2O3, Nd2O3, Sm2O3
- Heavy Rare Earth Oxides (HREO) includes: Eu2O3, Gd2O3, Tb2O3, Tb2O3, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3, Lu2O3, Y2O3
- Total Rare Earth Oxides (TREO) includes: La2O3,Ce2O3, Pr2O3, Nd2O3, Sm2O3, Eu2O3, Gd2O3, Tb2O3, Tb2O3, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3, Lu2O3, Y2O3
- The resource estimate has been classified as an Inferred Resource based on drill hole spacing and sample population
- The effective date of the Resource Estimate is December 8, 2011

The Resource Estimate is based on:

- A database of 26 drill holes totalling 5,518.65 m of diamond drilling; of which 22 drill holes intersect the Two Tom deposit

- Samples were composited on 3.0 m lengths.
- Average specific gravity 2.85 g/cc
- Geological models are constrained by two 0.5% TREO gradeshells.
- Block model was estimated by Ordinary Kriging interpolation method on blocks 25m x 25m x 10m. No recoveries have been applied to the interpolated estimates.

The "qualified person" as such term is defined in NI 43-101, who prepared the mineral resource estimates disclosed in this press release, is Mr. Paul Daigle, P.Geo. Mr. Daigle is an employee of Tetra Tech, and registered with the Association of Professional Geoscientists of Ontario. Mr. Daigle has reviewed and approved the sections of this press release relating to the resource calculation. Reg Felix, P.Geo., is a qualified person as defined in National Instrument 43-101, and has reviewed and approved the background information described in this release.

About Rare Earth Metals Inc.

Rare Earth Metals is a well-funded company with a focus on exploring for Rare Earth Element deposits. The Company's shares are listed on the TSX-V exchange under the symbol RA and the OTCQX exchange under the symbol RAREF. The Company presently has two advanced projects in Ontario and Newfoundland and Labrador, both exhibiting multi element potential (REEs, Niobium, Beryllium, Zirconium and Iron Ore) and proximity to available infrastructure. Its flagship properties are the Clay-Howells Prospect and the Red Wine Project. The Company has recently acquired additional properties in the Coldwell Complex near Marathon, Ontario and the Lavergne-Springer REE Prospect near Sturgeon Falls, Ontario. Additional information concerning the Company is contained in documents filed by the Company with securities regulators, available under the Company's profile at www.sedar.com. For more information please visit the Rare Earth Metals website at www.rareearthmetals.ca.

ON BEHALF OF THE BOARD OF DIRECTORS OF RARE EARTH METALS INC.:
"Michael Stares"
President and CEO

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