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Concentrated Rare Earth Minerals Ltd. Blue Rock Prospect Monmouth Township Eastern Ontario Mining Division Ontario

Date: December 15, 1987.

H. Grant Harper, P.Eng. Economic Geologist.

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OM 87-9-C-165

Concentrated Rare Earth Minerals Ltd. Blue Rock Rare Earth Prospect Monmouth Township Eastern Ontario Mining Division Ontario

Introduction

A tremendous amount of research is now being undertaken by physicists in the field of super-conductivity, a group of phenomena which, when fully controlled, will revolutionize human existence to a greater extent than the industrial revolution. Certain of the Rare Earth group of elements appear to be essential to the creation of superconductive media and therefore there is a growing interest in the distribution and and amounts of Rare Earths in the accessible crustal rocks and in the development and mining of Rare Earth ore reserves.

Since the Bancroft Area is known to contain widely distributed occurrences of Rare Earths, and since Rare Earths are frequently associated with thorium and to a lesser extent uranium, it was decided to begin a sampling program to evaluate the Rare Earth elements known to occur on the Concentrated Rare Earth Minerals Ltd. Blue Rock claims.

At the present time the markets for Rare Earths are exceedingly limited. Yttrium is in the greatest demand for use in colour video screens. Europium is also used in this connection. The market for Yttrium amounts to some 500 tons per year at a price of about US\$52.50 per pound. Gadolinium is used as a highly efficient heat sink. Apparently it has the potential of eliminating the need for compressors in all refrigeration and air conditioning units. It is anticipated that the market for Gadolinium will double many times in the next 10 years. In their first quarter 1987 Report to Shareholders General Motors announced the opening of a new plant in Michigan to manufacture a new style of starter motor for cars and trucks. The starters will use magnets which contain Yttrium. Even more recently, General Motors has announced that their scientists are using Praesodynium and Neodynium in their research into super-conductivity.

A preliminary grab sampling program was carried out on the surface outcroppings the °C' Zone. This zone has been developed underground by an adit, a shaft. and three levels. The preliminary sampling program was restricted with respect to the number of samples taken; the reason being the high cost of assaying for Rare Earths and the decision that, prior to extensive sampling, a preliminary program would be completed in order to ascertain just where and how the Rare Earth values, if any, occurred. Sampling would be limited to the °C' Zone. Unfortunately there was a long delay in obtaining assay results and therefore it proved impossible to complete the extensive sampling program in 1987.

Twelve grab samples were collected from the °C Zone and submitted to X-Ray Assay Laboratories for analysis. Their Certificate of Analysis is attached to this report. The sample locations are plotted on the accompanying sketch map of the trenches on the °C' Zone. For Each sample, its number, description, and analysis are listed on the Grab Sample Record Sheet attached. A description of each sample follows.

Sample No.	Description
3719	brown peg + qtz. low rad.
3720	Pink peg, neg qtz - minor dk min.
3721	flesh peg + qtz - neģ dk min.
3722	brown peg + 10% qtz - cse gr. no rad.

_3723
724
3725
3726
3727
3728
3729
3730

Otz peg - low rad - pink flesh peg + low qtz - 5% dk min. Rad peg + dk min + qtz Peg + mag + qtz + dk min. Strong Rad - Iron peg - dk min - qtz. Otz peg + dk qtz Hi Thorium - pink peg - dk min. Mag? - pink peg - 20%dk min.

Discussion of Results

The preliminary surface grab sampling of the C^2 Zone trenches showed the presence of Rare Earths in noteworthy amounts in all samples collected. The Yttrium content ranges as high as 434 ppm (0.86 lbs. per ton) and the Gadolinium content appears to be considerably above average. The general Rare Earth content is much higher towards the east end of the trenches where the thorium content and hence the radioactivity is higher. This section also contains more magnetite, dark mineral, and the pegmatite has a brownish colour.

Conclusions and Recommendations

- 1. The preliminary sampling program clearly indicates that more detailed sampling of the 'C' Zone is warranted. This should take the form of more samples per trench as well as extending the zone eastward.
- 2.- Preliminary sampling programs should be undertaken on the Lake and Cliff Zones.

This report is respectfully submitted.

Toronto, Ontario. December 15, 1987.

11. G. Horpen.

H.G. Harper.

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X	R	A	L



CERTIFICATE OF ANALYSIS

Concentrated Ron Banth Minerali Ltd.

TO: NORLODE-RECOURCES-ING. C/O GRANT HARPER P.O. BOX 2038 20 EGLINTON AVE. W., SUITE 404 TORONTO, ONTARIO M4R 1K8

CUSTOMER No. 1523

DATE SUBMITTED 9-Oct-87

REPORT 2567

REF. FILE 29886-J1

24 ROCKS

WERE ANALYSED AS FOLLOWS:

	METHOD	DETECTION LIMIT
Y PPM	ICPMS	1.000
LA PPM	ICPMS	0.100
CE PPM	ICPMS	0.100
PR PPM	ICPMS	0.100
ND PPM	ICPMS	0.100
SM PPM	ICPMS	0.100
EU PPM	ICPMS	0.050
GD PPM	ICPMS	0.100
TB PPM	ICPMS	0.100
DY PPM	ICPMS	0.100
HO PPM	ICPMS	0.050
ER PPM	ICPMS	0.100
TM PPM	ICPMS	0.100
YB PPM	ICPMS	0.100
LU PPM	ICPMS	0.050

X-RAY ASSAY LABORATORIES LIMITED

DATE 12-NOV-87

and a second second	XR	AL	12-NOV	-87	REPORT	2567
		MPLE	Y PPM	LA PPM	CE PPM	PR PI
		3707	9	10.1	22.7	3
11		3708	117	150.	311.	37
		3709	53	85.0	175.	20
		3710	41	61.4	125.	15

REF.FILE 29886-J1

	GD PPM	EU PPM	SM PPM	ND PPM	PR PPM	CE PPM	LA PPM	Y PPM	MPLE
	1.4	0.44	2.0	11.8	3.0	22.7	10.1	9	3707
	18.2	4.51	21.6	143.	37.7	311.	150.	117	3708
	8.3	2.22	11.3	73.7	20.3	175.	85.0	53	3709
	7.3	2.06	9.5	57.2	15.5	125.	61.4	41	3710
	2.1	0.72	2.9	16.1	4.2	37.8	18.1	11	3711
	4.3	1.29	5.4	30.6	7.6	54.9	24.0	22	3712
	5.4	1.42	6.7	34.7	8.8	61.2	23.7	25	3713
	5.5	1.48	7.3	38.3	9.4	57.2	24.4	27	3714
	5.0	1.30	6.4	37.0	8.9	68.6	27.4	24	3715
Norlode.	1.6	0.57	3.0	23.0	7.5	80.8	43.0	11	3716
	14.2	0.87	12.9	\$4.5	13.2	131.	37.3	113	3717
•	0.9	0.27	0,9	4.9	1.3	7,5	6.3	7	3718
	32.5	1.22	25.8	108.	30.5	271.	129.	260	3719
	4.0	0.46	3.3	14.8	3.8	28,4	17.0	24	3720
VC.R.E.M.	4.4	0.46	6.0	38.0	12.0	130,	57.9	23	3721
	6.0	0.40	3.7	12.8	3.6	33.0	18.9	88	3722
	1.5	0.38	1.5	8.2	2.4	23.3	10.4	12	3723
	18.6	1.15	24.4	149.	45.7	419.	207.	92	3724
	28.9	1.12	17.6	59.6	16.5	138.	65.8	304	3725
	39.5	1.35	24.2	77.9	20.8	174.	78.0	434	3726
	19.8	0.97	21.2	122.	35.6	320.	154.	142	3727
	6.4	0.69	5.7	27.7	7.6	56.7	36.9	56	3728
	24.1	1.17	24.8	143.	42.5	401.	190.	239	3729
	43.0	1.71	55.0	335.	96.9	888.	423.	203	3730

X-RAY ASSAY LABORATORIES LIMITED 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (418)445-4152 Tix 06-986947

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	MPLE	TB PPM	DY PPM	HO PPM	ER PPM	TM PPM	YB PPM	LU PPM	
) -	3707	0.2	1.4	0.37	0.9	0.1	2.0	0.38	
	3708	2.7	19.4	4.40	14.4	2.3	0.1	1.54	
	3709	1.3	8.7	2.02	6.4	1.1	4 R	1.14	
	3710	1.1	7.6	1.64	5.2	0.0	1.0	0.32	
	3711	0.3	2.4	0.50	1.3	Ų.2	1.7	0150	
		0.6	4.6	0.99	2.8	0.5	4.4	0.84	
	3712	0.0	5 1	1.06	3.2	0.7	5.3	1.09	
	3713	0.0	55	1.18	3.5	0.6	5.5	1.15	
	3714	0.0	J.J 4 5	0.98	2.8	0.4	4.0	0.76	
	3715 3716	0.2	1.8	0.43	1.5	0.2	2.1	0.29	A Norlude
	3717	2.8	21.5	5.05	15.9	2.6	17.9 0.6	2.43 0.10	
	3718	0.1	1.0	0.23	<u> </u>	7 5	41.5	4,56	
	3719	7.1	57.0	14.8	21.2	1.5	2.9	0.37	
	3720	0.6	4.8	1.12	3.4	0.4	3.2	0.42	
	3721	0.7	4.8	1.10	5.5		5.2		C.R.L.M.
	7700	1.5	13.0	3.62	15.0	2.3	14.5	1.82	
	3722	0.2	2.0	0.50	1.5	0.2	1.3	0.18	,
	3724	2.9	20.0	4,42	13.9	1.8	10.4	1.30	
	3725	6.8	57.6	15.7	58.8	9.0	53.3	6.28	
	3726	9.8	81.5	22.2	84.9	12.8	73.8	8.47	
	3727	3.2	23.5	5.87	19.9	2.7	15.4	1.76	
	3728	1.1	8.7	2.15	7.0	0.9	5.7	0.70	
	3729	4.3	33.1	8.89	32.5	. 4.9	32.0	4.14	
	3730	6.1	41.5	8.85	27.1	3.5	19.4	2.36	

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Property:	Blue	Rock.	· · · ·				(Comp		Concer	treted	Rox	- Low	TL M	ucreti	Ltd.	Hole	M.		 D	
Claim No	o.:		Loce	tion:	BI	ve R	och	Mir	ie -		Zone	7	Detc:	Fel	1 19	87	(ira	6 20	njk	Keco	
Sampk	Sample	D	Sample							A	537	Da	itz		M	thod	:				
Foo tiges	Widtl	Description	No.	% 1308	40 ThO2	La	Ce	Prparts	Né	SAN	Eumil	Gd	TB	Dy	Ho	Ēr-	Tm	76	La	Y	
Lalge Zure.	Brown	pra+stz - low red	3719			(29	271	30.5	108	25.8	1.22	32.5	7.1	57.0	14.8	51.2	7.5	41.5	4.56	260	
и -	Pintop	eg, neggte minor demi	3720			17.0	28.4	3.8	14.8	3.3	.46	4.0	0.6	4.8	1.12	3.4	0.4	2.9	0.37	24	
•,	flesh	cg+9t2 - hegdk Min	3721			57.9	130	12.0	38.0	6.0	.46	4.4	0.7	4-8	1.10	3.3 _	0.4	3.2	0.42	23	ļ
I.	Brown	ca +10% ale csegr	3722	ļ		18.9	33.0	3.6	12.8	3.7	0.40	6.0	1.5	13.2	3.62	15.0	2.3	14.5	1.82	88	
•,	012p	en - low rod - pink	3723	Į		10.4	23.3	2.4	8.2	1.5	0.38	1.5	Ø.2	2.0	6.50	1.5	0.2	1.3	0.18	12	
•1	flesh pe	-lowg 12 - 5% dle min	3724	<u> </u>		207	419	45.7	149	24.4	1.15	18.6	2.9	20.0	4.42	13.9	1.8	10.4	1.30	92	
···	Kart. J	rg + dk Min + gtz	3725	ļ	 	65.8	138	16.5	59.6	17.6	1.12	28.9	6.8	57.6	15.7	58.8	90	53.3	6.28	304	
	Pegt	mag + gt2 + dk min	3726			78.0	174	20.8	17.9	24.2	1.35	39.5	9.8	81.5	22.2	84.9	12.8	73.8	8.47	434	
^	STron	Kad - Ironpeg + demin	3727			154	320	35.6	122	21.2	0.97	19.8	3.2	23.5	5.87	19.9	2.7	15.4	1.76	142	·
	Q121	egt dh Qti	3728		·	56.9	56.7	7.6	27.7	5.7	0.69	6.4	1.1	8.7	2.15	7.0	0.9	5.7	0.70	56	
h.	thi Th	Or pink peg tch min	3729		<u> </u>	190	401	42.5	143.	24.8	1.17	24.1	4.3	33.1	8.89	32.5	14.9	32.0	4.14	239	.
h	Imag?	pind peg 20% de min	3730			423	888	96.9	335	55.0	11-7]	43.0	6.1	41.5	8.85	27.1	3.5	19.4	2-56	203	
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