

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**FORM 6-K**

REPORT OF FOREIGN ISSUER PURSUANT TO RULE 13a-16 AND 15d-16  
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of: September 2010

SEC File No. 000-53834

**RARE ELEMENT RESOURCES LTD.**

(Exact name of registrant as specified in its charter)

325 Howe St., #410, Vancouver, British Columbia, Canada V6C 1Z7

(Address of principal executive offices)

1. Exhibit 99.1 - Press Release, September 21, 2010
2. Exhibit 99.2 - Press Release, September 23, 2010
3. Exhibit 99.3 - Press Release, September 28, 2010
4. Exhibit 99.4 - Material Change Report, September 28, 2010
5. Exhibit 99.5 - Notice of Meeting and Record Date, dated 9/23/2010

Indicate by check mark whether the Registrant files annual reports under cover of Form 20-F or Form 40-F

Form 20-F xxx Form 40-F \_\_\_\_

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \_\_\_\_

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): \_\_\_\_

Indicate by check mark whether the Registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under Securities Exchange Act of 1934.

Yes \_\_\_\_ No xxx

---

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Form 6-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Rare Element Resources Ltd. -- SEC File No. 000-53834  
(Registrant)

Date: September 30, 2010

/s/ Winnie Wong

Winnie Wong, Corporate Secretary



**NEWS RELEASE**  
**RARE ELEMENT RESOURCES LTD**  
**AMEX: REE & TSX-V: RES**  
**September 23, 2010**  
**Ref: 23-2010**

### **Rare Element Presents to Key Wyoming Legislative Committee**

**Vancouver B.C. - Rare Element Resources Ltd. (AMEX: REE and TSX-V: RES)** is pleased to announce that the Company made a presentation on the Bear Lodge rare-earths project to the Wyoming Legislature's Joint Minerals, Business and Economic Development Interim Committee on September 21, 2010. The joint committee consists of many of the key senators and representatives in the state legislature. Rare Element presented at the Committee's request. The Committee's goals are to diversify the Wyoming economy, maintain a business-friendly State for existing businesses, and market Wyoming's vast natural resources.

The presentation by Rare Element Resources' President and CEO, Donald E. Ranta, PhD, was entitled, "The Bear Lodge Rare-Earths Project, Crook County, Wyoming." The Committee was introduced to the Bear Lodge Project, as well as sources and applications of rare-earth elements. The update covered the growing Bear Lodge rare-earths resource base, the status of current technical activities, and the increasing likelihood for Bear Lodge to become the United States' second primary rare-earths mine. Dr. Ranta also described other Company activities, including the encouraging 2010 drilling and metallurgical test results, the sequence of milestones required prior to a production decision, and the Company's continued community and statewide public relations and education program.

The Bear Lodge Project is now at the advanced exploration stage and moving into evaluation, permitting, and eventual development and construction. The Company will soon achieve its next significant milestone with the release of its forthcoming Scoping Study (Preliminary Economic Assessment) for the Bear Lodge Project.

**Rare Element Resources Ltd** (AMEX: REE & TSX-V: RES) is a publicly traded mineral resource company focused on exploration and development of rare-earth elements and gold on the Bear Lodge property.

Rare-earth elements are key components of the green energy technologies and other high-technology applications. Some of the major applications include hybrid automobiles, plug-in electric automobiles, advanced wind turbines, computer hard drives, compact fluorescent light bulbs, metal alloys, additives in ceramics and glass, petroleum cracking catalysts, and a number of critical military applications. China currently produces more than 95% of the 130,000 metric tonnes of rare-earths consumed annually worldwide, and China has been reducing its exports of

rare earths each year. The rare-earth market is growing rapidly, and is projected to accelerate if the green technologies are implemented on a broad scale.

ON BEHALF OF THE BOARD

*Donald E. Ranta, PhD, PGeo, President & CEO*

For information, refer to the Company's website at [www.rareelementresources.com](http://www.rareelementresources.com) or contact:

Mark T Brown, CFO, (604) 687-3520 ext 242 [mtbrown@pacificopportunity.com](mailto:mtbrown@pacificopportunity.com) .

Donald E Ranta, (604) 687-3520 [don@rareelementresources.com](mailto:don@rareelementresources.com)

Donald E. Ranta, PhD, PGeo, serves the Board of Directors of the Company as an internal, technically Qualified Person. Technical information in this news release has been reviewed by Dr. Ranta and has been prepared in accordance with Canadian regulatory requirements that are set out in National Instrument 43-101. This news release was prepared by Company management, who take full responsibility for content. Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.



**NEWS RELEASE**  
**RARE ELEMENT RESOURCES LTD**  
**TSX-V: RES & AMEX: REE**  
**September 21, 2010**  
**Ref: 22-2010**

### Rare Element Reports Initial Gold Assays

<b>Highlights:</b>			
<b>Hole</b>	<b>Intercept – meters</b>	<b>Grade – grams per ton</b>	<b>Including</b>
<b>SUN 60</b>	<b>85.4</b>	<b>0.89</b>	<b>44.2 meters at 1.3 grams per ton</b>
<b>SUN 62</b>	<b>143.3</b>	<b>0.74</b>	<b>15.2 meters at 1.6 grams per ton</b>
<b>SUN 64</b>	<b>77.7</b>	<b>0.66</b>	<b>7.6 meters at 1.7 grams per ton</b>

**Vancouver B.C. - Rare Element Resources Ltd. (TSX-V: RES and AMEX: REE)** is pleased to announce the assay results from the initial eight rotary (reverse circulation) holes (SUN-059 to SUN-066) drilled on the Sundance gold project, Wyoming (Table 1). Gold exploration activity during 2010 is focused on: 1) more detailed definition of known gold-mineralized targets with both in-fill and step-off drilling, and 2) discovery of higher grade gold mineralization. The majority of the drilling is being conducted on near-surface targets within oxide zone mineralization, especially at Smith, Carbon, and Taylor, with the goal of estimating a NI 43-101-compliant resources early in 2011.

### Drilling Results

A total of eight holes were drilled along the main trend of the Smith gold zone (Figure 1). The primary host rock is heterolithic breccia that is now traced along strike for nearly 1,000 meters and down dip for 300 meters. In drill-hole **SUN-060**, gold mineralization was penetrated along strike to the northwest in peripheral wall rock, which is now recognized as a new host rock for gold mineralization in the target. **SUN-062** effectively bridges a gap between the historic "Smith East and Smith West" gold-mineralized breccias, where a small historic resource was defined previously by FMC Gold, International Curator, and Coca Mines. **SUN-064** tests a nearer surface zone along strike to the southeast. **SUN-068** collared in a newly discovered off-axis zone of heterolithic breccia before penetrating a projection of the main zone at a depth of 250m; assays are pending on both of these prospective zones. Additional testing will be done to support the estimation of a mineral resource in accordance with the requirements of NI 43-101, once all assays are received and compiled from the remaining Smith drill holes (SUN-067 through SUN-070).

Drilling is now underway at the Carbon target area, where an initial three drill holes are completed (SUN-071 through SUN-073). Drilling will begin at the Taylor target following the completion of drilling on Carbon.

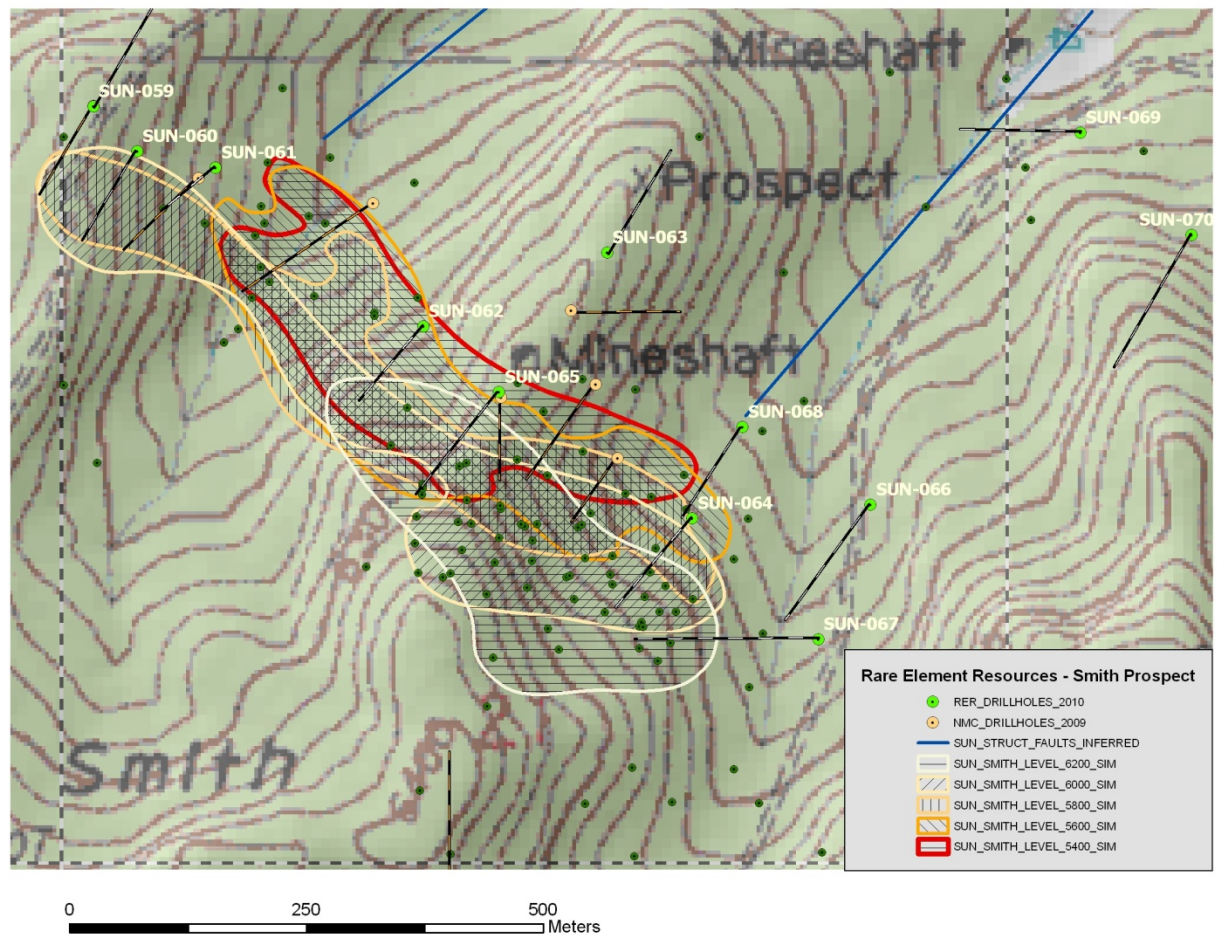
**Table 1:** Summary of significant gold mineralization at the Sundance Gold Project.

Entire Hole					Selected intervals (metres)				Which includes (metres)			
Hole	Target Area	Depth (m)	Average of entire hole Au g/t	Highest Assay in hole Au g/t	From	To	Thick-ness (m)	Au g/t	From	To	Thick-ness (m)	Au g/t
SUN-059	Smith NW	182.9	0.17	0.70	16.8	29.0	12.2	0.40				
SUN-060	Smith NW	152.4	0.57	2.74	67.1	152.4	85.4	0.89	73.2	117.4	44.2	1.3
SUN-061	Smith NW	210.4	0.19	1.19	3.0	12.2	9.1	0.47				
					30.5	39.6	9.1	0.41				
					135.7	141.8	6.1	0.51				
SUN-062	Smith Central	274.4	0.44	6.44	131.1	274.4	143.3	0.74	158.5	173.8	15.2	1.6
									253.0	268.3	15.2	1.4
SUN-063	Smith North	182.9	0.10	0.41	126.5	132.6	6.1	0.27				
SUN-064	Smith SE	182.9	0.36	2.24	39.6	117.4	77.7	0.66	74.7	82.3	7.6	1.7
					132.6	138.7	6.1	0.25				
					158.5	167.7	9.1	0.22				
					172.3	178.4	6.1	0.49				
SUN-065	Smith Central	283.5	0.23	2.07	0.0	15.2	15.2	0.36				
					29.0	44.2	15.2	0.62				
					62.5	99.1	36.6	0.28				
					114.3	120.4	6.1	0.24				
					141.8	163.1	21.3	0.28				
					176.8	193.6	16.8	0.23				
					199.7	205.8	6.1	0.42				
					239.3	259.1	19.8	0.50				
					277.4	283.5	6.1	0.48				
SUN-066	Smith SE	182.9		1.04	85.4	91.5	6.1	0.32				
					141.8	147.9	6.1	0.34				
					167.7	175.3	7.6	0.60				

Gold exploration manager, John Ray, states that “the drilling of the Smith target shows good continuity of the known gold mineralization and should provide sufficient drill hole density for a reliable resource estimate. Finding good mineralization in the gap between two historic gold mineralized areas in the East Breccia and the West Breccia helps to demonstrate and extend that continuity.”

Illustrated in Figure 1 is the general shape of the gold mineralized zone through a succession of level plans that outline the gold mineralization. Note that mineralization in the near-surface level plan (6,200 feet elevation) occurs furthest to the southwest, and each succeeding deeper level plan is located further to the northeast. The figure indicates that the gold mineralized zone has an overall northwesterly strike and a steep dip to the northeast.

**Figure 1:** Plan map of Smith Target area showing location of 2010 angle drill holes, 2009 NMC holes, and older vertical holes. Level plans are outlines around drill intercepts containing greater than 0.3 g/t (300ppb) gold.



### Geophysical Survey – CSAMT

A CSAMT (Controlled Source Audio-Magnetotelluric Technique) survey along four lines totaling 8.6 line km was designed by Condor Consultants and completed by Zonge Engineering in August to cover the Taylor gold and Bull Hill REE targets. This type of survey was successful in defining a relative conductive structure in the Smith gold zone that harbors the bulk of the known gold mineralization. The results of this year's survey will be utilized in further definition of the Taylor gold resource and the search for high-grade feeder zones, as well as guiding further exploration of carbonatite-hosted REE mineralization at Bull Hill.

**Rare Element Resources Ltd (TSX-V: RES: AMEX: REE)** is a publicly traded mineral resource company focused on exploration and development of rare-earth elements and gold on the Bear Lodge property.

Rare-earth elements are key components of the green energy technologies and other high-technology applications. Some of the major applications include hybrid automobiles, plug-in electric automobiles, advanced wind turbines, computer hard drives, compact fluorescent light bulbs, metal alloys, additives in ceramics and glass, petroleum cracking catalysts, and a number of critical military applications. China currently produces more than 95% of the 130,000 metric tonnes of rare-earths consumed annually worldwide, and China has been reducing its exports of rare earths each year. The rare-earth market is growing rapidly, and is projected to accelerate if the green technologies are implemented on a broad scale.

ON BEHALF OF THE BOARD

*Donald E. Ranta, PhD, PGeo, President & CEO*

For information, refer to the Company's website at [www.rareelementresources.com](http://www.rareelementresources.com) or contact:

Mark T Brown, CFO, (604) 687-3520 ext 242 [mtbrown@pacificopportunity.com](mailto:mtbrown@pacificopportunity.com) .

Donald E Ranta, (604) 687-3520 [don@rareelementresources.com](mailto:don@rareelementresources.com)

Donald E. Ranta, PhD, PGeo, serves the Board of Directors of the Company as an internal, technically Qualified Person. Technical information in this news release has been reviewed by Dr. Ranta and has been prepared in accordance with Canadian regulatory requirements that are set out in National Instrument 43-101. This news release was prepared by Company management, who take full responsibility for content. Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.



	Case 1 (Base Case)	Case 2
	3-year trailing average prices <sup>1</sup>	Estimated long-term prices <sup>2</sup>
Production Rate (tpd)	1,000	1,000
Mine Life (Years)	15	15
Initial Capital (US\$)	\$87 million	\$87 million
Operating Cost (US\$/ton)	\$245	\$245
Life of mine sustaining capital (US\$)	\$88 million	\$88 million
REO recoveries to concentrates	80%	80%
Annual REO contained in concentrates (tons)	11,400	11,400
Annual Payable Value of REO (US\$)	\$143 million	\$178 million
Annual Operating Cash Flow (US\$)	\$50 million	\$80 million
Internal rate of return (IRR)	40%	60%
After-tax Life-of-mine Cash Flow (US\$) (Undiscounted)	\$598 million	\$978 million
After-tax Net Present Value (US\$) (At 10% discount rate)	\$213 million	\$380 million
After-tax Net Present Value (US\$) (At 15% discount rate)	\$131 million	\$251 million
Payback (years)	3.1	2.4



1. Rare-earth bulk concentrate prices are used in the Study and are based on historic three-year average concentrate prices from Metal-Prices and assembled by the Industrial Minerals Company of Australia ("IMCOA").
2. Estimated long term prices of bulk concentrates represent a price increase of 25% over the historic three year average concentrate price.

"The preliminary economic assessment completed on Rare Element's Bear Lodge rare-earths deposit demonstrates a potentially robust case, without any government support or incentives," stated Don Ranta, Rare Element's President & CEO. "The Bear Lodge Project is expected to significantly contribute to employment, revenues, and the economy of the State of Wyoming. Work is continuing to advance the project towards a production decision and a number of opportunities to further enhance the already robust project economics are being evaluated."

## **Scoping Study (PEA)**

The Study was prepared by independent consultant, John T. Boyd Company ("Boyd"), with the assistance of consultants Mountain States R&D International ("MSRDI") and Ore Reserves Engineering ("ORE"). New NI 43-101-compliant inferred mineral resource estimates for two of the four known mineralized zones at Bear Lodge (Bull Hill Southwest and Bull Hill Northwest deposits) were prepared by ORE and were announced on May 26, 2010. A summary table is reproduced (Table 4) for convenience at the end of this news release. The Study provides an initial development model and a preliminary economic analysis of the project based on the resources estimated for the two deposits. The final NI 43-101-compliant technical report is nearly completed and will be filed on SEDAR within 45 days.

The Study was commissioned by the Company in 2009 to evaluate the potential economic viability of recovering rare-earth elements ("REE") in concentrate, with a future goal to recover individual rare-earth oxides ("REO"), from the resources in the Bull Hill area of the Bear Lodge project. This was in response to growing demand for these elements in environmental and other applications where the REE are vital to the new technologies developed for fuel efficient ("hybrid") automobiles and plug-in electric vehicles. Many hybrid cars use rechargeable nickel-metal-hydride (Ni-M-H) batteries that contain lanthanum along with electric motors and generators that require high-strength permanent magnets containing neodymium, praseodymium, dysprosium, and terbium. Substantial quantities of all five of these rare-earth elements would be produced by a mine at Bear Lodge, and the five would represent nearly 65% of potential saleable products' value.

## **Rare Earths – Markets and Pricing**

For an independent analysis of REE markets, including supply and demand forecasts, Boyd relied on a recent confidential report and supporting data produced by IMCOA, an independent industrial minerals research firm based in Perth, Australia and led by Dudley J. Kingsnorth. This report was requested by the Company and provided to Boyd as a basic reference. The IMCOA report forecasts growth in global demand for REE at a rate of nearly 10% per year until 2020, from approximately 125,000 tonnes in 2010 to 200,000 tonnes by 2015 to 280,000 tonnes by 2020, expressed as "TREO" (total rare-earth oxides or the sum of all 14 REE plus yttrium). During this period, primary supply sources located mainly in China are not expected to increase production significantly, creating a growing supply/demand gap. China has been reducing its exports of rare earths for several years and announced a major reduction in exports in early July 2010. These policies have already caused significant price increases for most REE and created opportunities for new primary suppliers to enter the market. Boyd concludes that the Bear Lodge

REE resources, which require significant further work to bring them to the feasibility level of analysis, represent an attractive potential mine development opportunity for the Company.

### **Bear Lodge – Low-cost Open Pit Mining**

The development model utilized by Boyd and its associates for the Study contemplates conventional truck and shovel open-pit mine production from the near-surface oxide inferred resources in the Bull Hill SW and NW deposits, which would provide an initial mine life of 15 years. Recent drilling has successfully intersected REE outside the known resources and may support an eventual increase of mine life beyond that contemplated in the Study. All of the mineral resources at Bear Lodge are currently categorized as inferred mineral resources.

**Mineral Resources that are not mineral reserves do not have demonstrated economic viability. Mineral resource estimates do not account for mineability, selectivity, mining loss and dilution. These mineral resource estimates include inferred mineral resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is also no certainty that these inferred mineral resources will be converted to measured and indicated categories through further drilling, or into mineral reserves, once economic considerations are applied. Also there is no certainty that this Preliminary Economic Assessment will be realized.** An economic assessment will almost certainly change as new information is generated on the mineral resources, mine plan, and processing methodology.

### **Bear Lodge – REE Production**

In the base case scenario, a conservative production rate beginning at 500 tons per day of mineralized material will progressively increase to 1,000 tons per day by year three. Once full production is achieved, the TREO produced each year would be approximately 11,400 tons (10,400 metric tonnes) in bulk rare-earth concentrates. Discounted cash flow analysis of this scenario, using 2008 through 2010 REE bulk mixed concentrate prices and capital and operating costs, yields a 40% Internal Rate of Return (IRR) and a Net Present Value (NPV) of US\$213 million at a 10% discount rate or a US\$131 million NPV at a 15% discount rate on an after-tax basis over a mine life of 15 years. With this Study the Company is contemplating the sale of concentrates in North America to potential refiners/processors, several of which have contacted Rare Element already.

Hydrometallurgical tests for extraction and separation of individual rare-earth oxides are progressing, and the ultimate goal is the production and sale of high-purity oxides of cerium, lanthanum, neodymium, praseodymium, and possibly europium, dysprosium, terbium, and other REO. These products may be sold individually as oxides, or in various combinations such as “Didymium” (Neodymium and Praseodymium), “SEG” (Samarium, Europium and Gadolinium), or as mischmetal (a mix of the rare earth elements).

### **Bear Lodge – Rare Earth Prices**

The prices used in this study are based on historic three-year average concentrate prices. It is important to note the following:

1. REO concentrate prices are lower than refined REO prices.

2. Historic REO concentrate prices are significantly lower than the current REO concentrate prices as quoted in Metal Pages. For the Bear Lodge distribution of rare earths, current prices have recently increased approximately 360% from the three-year historic average due to the reduction in exports of REE products from China during the third quarter of 2010, however, it is unknown if the current higher prices are sustainable.
3. A 10% change in the price of REO concentrate would change the Base Case NPV of the project on an after-tax basis by approximately \$58 million at a 10% discount rate, and \$42 million at a 15% discount rate.
4. The sale of concentrates from Bear Lodge would likely be subject to a long-term supply contract for which a price would be set in the contract with one or more buyers. These long-term prices can differ substantially from quoted spot prices for metal with smaller markets such as rare-earth elements.

The price assumptions used by Boyd for the REO concentrates are based on compilations of the past three years that range from US\$4.59 (2008), to \$3.65 (2009), to \$7.54/kg (2010). These concentrates contain approximately 43.5% REO and were derived from deposits that have a similar, but slightly less valuable, REO distribution compared to the Bear Lodge deposits. The 2010 concentrate price is based on Metal-Pages' data through August 31, 2010.

A recent price quote for REE concentrates on an FOB China basis, as reported on September 2, 2010 by Metal-Pages.com, is \$33.25/kg. The elements needed for high-strength permanent REE magnets include neodymium, praseodymium, dysprosium and terbium; prices were quoted by Metal-Pages (September 2, 2010) at US\$56.75, \$55.75, \$288 and \$595/kg, respectively for those elements (Table 2). Current REE producers seek to increase production of neodymium, praseodymium, dysprosium and terbium to meet the growing demand from magnet manufacturers. This underlines the need for new producers with mineral resources having an REE distribution that is more reflective of current market demand, such as that indicated for the bastnasite-group minerals at Bear Lodge. A complete list of historic prices used will be provided in the Technical Report to be filed on SEDAR.

The economic model suggested by IMCOA and tested by Boyd envisions a 5% market share capture (10,400 tonnes of a 200,000-tonne REO market) specifically for cerium, lanthanum, neodymium and praseodymium. This assumes that 2 other mines, one in the USA and one in Australia, will go into production prior to Bear Lodge, and that IMCOA's projections of market growth will allow additional producers of the light and heavy rare earths to successfully market their products by 2015.

REE pricing over the past three years and the current prices are shown in Table 2. This information is shown only to indicate the recent increases in prices for individual rare-earth oxides and its potential effect if Bear Lodge progresses into individual REO production. There is no certainty the current prices will be maintained for the duration of the operating life of the Bear Lodge project.

**Table 2 REO Prices 2008 through 2010 and Current Prices (9-2-10)**

Rare Earth Oxide	Bear Lodge Oxide Zone	2008 Price	2009 Price	2010 Price (8 months)	Current Price (Sept. 2, 2010)
<u>REO</u>	<u>REO%</u>	<u>\$/kg</u>	<u>\$/kg</u>	<u>\$/kg</u>	<u>\$/kg</u>
Ce <sub>2</sub> O <sub>3</sub>	1.66	4.35	4.2	8.14	36
La <sub>2</sub> O <sub>3</sub>	1.06	7.75	5.9	9.65	37
Nd <sub>2</sub> O <sub>3</sub>	0.52	27	14.85	32.32	56.75
Pr <sub>2</sub> O <sub>3</sub>	0.16	27	14.75	31.69	55.75
Sm <sub>2</sub> O <sub>3</sub>	0.088	4.5	4.5	8	33.25
Gd <sub>2</sub> O <sub>3</sub>	0.045	9.75	6.5	11.45	40
Y <sub>2</sub> O <sub>3</sub>	0.032	15.25	13.5	13.5	34.5
Eu <sub>2</sub> O <sub>3</sub>	0.021	475	465	551.25	585
Dy <sub>2</sub> O <sub>3</sub>	0.018	110	105	195	288
Tb <sub>2</sub> O <sub>3</sub>	0.0075	650	350	494.37	595
Others	0.0085				
<b>TOTAL</b>	<b>3.62%</b>				

For the purposes of this Study, the Company has also shown a case that uses a 25% increase from the three-year trailing average prices used in the Base Case scenario. The Company believes these may more realistically reflect long-term pricing for REO based on market outlook information available at this time. As with the current pricing for REO, there is no certainty these prices will be maintained for the duration of the operating life of the Bear Lodge Project.

### **Bear Lodge – Capital Costs**

Capital cost estimates for the Bear Lodge project are lower than many other rare-earth projects for two principal reasons: 1) infrastructure in the project vicinity is already well established with an excellent road and highway system, nearby railroads, nearby power lines, available water source, and skilled labor within several local communities; and 2) the metallurgical preconcentration of rare-earth minerals is a very simple and low-cost process that upgrades the mineralized material for further hydrometallurgical concentration.

The capital cost estimate for the base-case production is \$87 million in construction capital and \$88 million in sustaining capital. This scenario involves development of the Bull Hill deposit at a mining rate of 1000 tons per day (tpd) or 360,000 tons per year (tpy). Operating costs for the project are estimated at \$245 per ton of material milled, with the most significant single cost being reagent consumption in hydrometallurgical processing. The model assumes mining by open pit methods and processing of the mineralized material on site to produce mineral concentrates by crushing, attritioning with water, and size separation methods. REE recoveries of 90% are assumed for the preconcentration based on preliminary bench-scale testwork, however these results have yet to be confirmed with pilot-scale tests. The model further assumes construction of a hydrometallurgical plant at the mine site where there is access to low-cost power (estimated at approximately 3 cents per kwh) for the processing of the REE mineral concentrates in order to produce a bulk mixed rare-earth concentrate. Metallurgical

recovery to a concentrate is estimated at 90% from the preconcentrate, for overall recoveries of 90% times 90% or approximately 80% into the concentrate. All of these process stages are being tested currently for optimization and reduction of operating costs, and significant progress is being made with potential reduction of reagent costs.

Further testwork is ongoing to extract and separate individual rare-earth oxide products to 99+% purity levels. The Company's ultimate goal is the production and sale of individual high-purity rare-earth oxides (REO), which would require additional capital costs.

### **Bear Lodge – REO Distribution**

The REE mineral resources at Bear Lodge are of potentially significant interest to the market because of their relatively high proportions of contained neodymium, praseodymium, europium, dysprosium and terbium. Demand is increasing for these elements in the magnet production and other industries, but they typically occur in lower concentrations in the majority of known REE deposits.

**Table 3 REO Distribution in Oxide Zone of the Bear Lodge Deposits**

Element	Ce	La	Nd	Pr	Sm	Gd	Y	Eu	Dy	Tb	Er	Yb	Lu	Ho	Tm
Assay REO %	1.66	1.06	0.52	0.16	0.088	0.045	0.032	0.021	0.018	0.0075	0.0020	0.0012	0.00016	0.00100	0.00015
Distribution Oxide %	45.86	29.28	14.36	4.42	2.43	1.24	0.88	0.58	0.50	0.21	0.055	0.033	0.004	0.027	0.004
Relative Value %	15.5	20.4	25.4	7.7	1.1	0.8	0.6	17.5	5.3	5.6	-	-	-	-	-

Total Assay REO% = 3.62% for oxide zone mineralization; Ce - cerium, La - lanthanum, Nd - neodymium, Pr - praseodymium, Sm - samarium, Gd - gadolinium, Y - yttrium, Eu - europium, Dy - dysprosium, Tb - terbium, Er - erbium, Yb - ytterbium, Lu - lutetium, Ho - holmium, Tm - thulium.

### **Bear Lodge – PEA Summary**

The results of the Scoping Study (PEA) demonstrate that the Bear Lodge REE project can achieve acceptable after-tax returns on invested capital and therefore warrants further investment to advance the project to a prefeasibility level of analysis. Increased rates of return are potentially achievable through any combination of higher prices, increased product sales, higher resource/reserve grades, lower operating costs, or higher metal recoveries. Boyd recommends that the Bear Lodge project proceed to a Preliminary Feasibility level analysis. The recommended work includes completion of bulk sampling, pilot plant testing, further drilling of the Bull Hill SW and NW deposits to upgrade more of the REE resources to Measured or Indicated categories of confidence, REO extraction and separation testwork on both the Bull Hill SW and NW deposits, environmental studies, mine permitting, and continuing community engagement.

The estimated cost of this work program is \$15 million with the work to be conducted in two phases. Phase 1 comprises of preparation of an updated mineral resources estimate that includes 2010 drilling results, continued metallurgical testing, and a pilot plant test, which is anticipated to start in the spring of 2011. Phase 1 would include work to be conducted on samples and analyses from the 2010 drilling program. Phase 2 will include another drilling

program for further resource expansion, resource definition, and collection of metallurgical samples that will be used in a subsequent full feasibility study. The Phase 2 program will then proceed to more detailed metallurgical testwork and engineering studies, leading to final process design and commercial testing, market studies, environmental studies and mine permitting, community consultation, engineering design, and economic modeling. Phase 2 work is planned to commence in the late spring of 2011, subject to positive results from Phase 1 and arranging additional financing for the project.

## **Risks & Opportunities**

The principal risks for the Bear Lode project are identified as follows:

1. Permitting and regulatory timelines and outcomes;
2. Changes in metallurgical recoveries as testwork continues;
3. Future pricing of REO;
4. Changes to capital and operating costs as studies continue;

The principal opportunities for the project are identified as follows:

1. Drilling in 2010 has intersected significant grades of REO outside the limits of the mineral resources used in the PEA, which could result in increased mineral resources and potentially extend the mine life and/or support a higher production level.
2. Optimization work is advancing and has had some success in developing a more cost-effective and efficient metallurgical processing method than is being announced in this Scoping Study by Rare Element for the Bull Hill area mineralization, which information was not available in time for this Study.
3. Hydrometallurgical tests for extraction and separation of individual rare-earth oxides is progressing, and the ultimate goal is the production and sale of high-purity oxides of neodymium, praseodymium, dysprosium, terbium, europium, lanthanum, cerium, and other REO.
4. Drilling has encountered large areas of low-grade (1.0-1.5% REO) oxide mineralization adjacent to the higher grade dikes. These areas are not included in the resource estimates and will be the subject of some drilling and metallurgical testing to determine if the material can be upgraded with a simple inexpensive process of screening or washing.

## **Qualified Persons**

Michael P. Richardson, P.E. is the independent qualified person from John T. Boyd Company responsible for the Scoping Study (Preliminary Economic Assessment) as well as mine planning, capital and operating cost estimation, and developing the economic models. He also reviewed and approved this news release as well as all sections of the Scoping Study. Alan C. Noble, P.E. of Ore Reserves Engineering, is the independent qualified person responsible for resource estimation. Dr. Ron Roman, P.E. of Mountain State R&D International is the metallurgical engineer and an independent qualified person responsible for the metallurgy, process development, and estimation of the mill capital and operating costs. Dr. James G. Clark, L.Geo., who has direct experience with the project dating back to 1986, is responsible for

the geologic, drilling, and sampling data on behalf of the Company; these data and descriptions were reviewed and approved by Mr. Richardson. The full Study will be accessible on SEDAR and the Executive Summary will be available on the Company's website within 45 days.

**Rare Element Resources Ltd (TSX-V: RES & AMEX: REE)** is a publicly traded mineral resource company focused on exploration and development of rare-earth elements and gold on the Bear Lodge property.

Rare-earth elements are key components of the green energy technologies and other high-technology applications. Some of the major applications include hybrid automobiles, plug-in electric automobiles, advanced wind turbines, computer hard drives, compact fluorescent light bulbs, metal alloys, additives in ceramics and glass, petroleum cracking catalysts, and a number of critical military applications. China currently produces more than 95% of the 130,000 metric tonnes of rare-earths consumed annually worldwide, and China has been reducing its exports of rare earths each year. The rare-earth market is growing rapidly, and is projected to accelerate if the green technologies are implemented on a broad scale.

#### ON BEHALF OF THE BOARD

*Donald E. Ranta, PhD, PGeo, President & CEO*

For information, refer to the Company's website at [www.rareelementresources.com](http://www.rareelementresources.com) or contact:

Mark T Brown, CFO, (604) 687-3520 ext 242 [mtbrown@pacificopportunity.com](mailto:mtbrown@pacificopportunity.com) .

Donald E Ranta, (604) 687-3520 [don@rareelementresources.com](mailto:don@rareelementresources.com)

Donald E. Ranta, PhD, PGeo, serves the Board of Directors of the Company as an internal, technically Qualified Person. Technical information in this news release has been reviewed by Dr. Ranta and has been prepared in accordance with Canadian regulatory requirements that are set out in National Instrument 43-101. This news release was prepared by Company management, who take full responsibility for content. Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.



## Mineral Resources

The mineral resources for the Bear Lodge project were estimated by Alan C. Noble, P.E. of Ore Reserves Engineering, an independent Qualified Person as defined by National Instrument 43-101 ("NI 43-101") and were reported in a news release dated May 26, 2010, but are summarized below for convenience. Readers should review that news release for additional information, including the contribution of each deposit to the overall mineral resource, the mineral resource estimates at different cut-off grades, the parameters used in the estimate and the required NI 43-101 disclosure.

**Table 4 Total Inferred Tons and Grade of the Various Oxidation Zones at a Range of Cut-Off Grades (% REO)**

<b>Cutoff Grade<sup>1,3</sup></b>	<b>Oxide</b>		<b>Transitional</b>		<b>Sulfide</b>		<b>Total</b>	
	<b>Tons</b>	<b>Grade<sup>1</sup></b>	<b>Tons</b>	<b>Grade<sup>1</sup></b>	<b>Tons</b>	<b>Grade<sup>1</sup></b>	<b>Tons</b>	<b>Grade<sup>1</sup></b>
1.0	13,700,000	2.63	4,300,000	2.52	9,600,000	2.70	27,600,000	2.64
<b>1.5<sup>(3)</sup></b>	<b>8,000,000</b>	<b>3.62</b>	<b>2,600,000</b>	<b>3.39</b>	<b>6,900,000</b>	<b>3.29</b>	<b>17,500,000</b>	<b>3.46</b>
2.0	5,600,000	4.45	1,700,000	4.23	4,600,000	4.05	11,900,000	4.26
2.5	4,400,000	5.06	1,300,000	4.93	3,900,000	4.37	9,600,000	4.76
3.0	3,300,000	5.84	930,000	5.71	3,000,000	4.88	7,200,000	5.42
3.5	2,700,000	6.42	800,000	6.13	2,200,000	5.53	5,600,000	6.04
4.0	2,300,000	6.90	690,000	6.50	1,470,000	6.33	4,400,000	6.65
4.5	1,900,000	7.52	570,000	6.96	1,200,000	6.79	3,600,000	7.19
5.0	1,600,000	7.88	460,000	7.48	1,000,000	7.24	3,100,000	7.61

1. REO (rare-earth oxides) include Ce<sub>2</sub>O<sub>3</sub>, La<sub>2</sub>O<sub>3</sub>, Nd<sub>2</sub>O<sub>3</sub>, Pr<sub>2</sub>O<sub>3</sub>, Sm<sub>2</sub>O<sub>3</sub>, Gd<sub>2</sub>O<sub>3</sub>, Y<sub>2</sub>O<sub>3</sub>, Eu<sub>2</sub>O<sub>3</sub>, Dy<sub>2</sub>O<sub>3</sub>, and Tb<sub>2</sub>O<sub>3</sub>, listed in relative order of decreasing abundance in the deposits, plus minor quantities of other REO.
2. The resource estimate is classified as Inferred Mineral Resources as defined by CIM and referenced in NI 43-101.
3. ORE considers a range of 1.0 to 2.5 per cent REO cut-off grade to be reasonable in preliminary estimation of potentially economic resources. A cutoff grade of 1.5% REO was selected as the base case during resource estimation and it is highlighted; a cutoff grade closer to 2% REO is used for the Scoping Study but, with further optimization work, will potentially be reduced; a cutoff grade of 3.0% REO is also highlighted to show the higher-grade tons above the cutoff.
4. The Scoping Study is focused on the Oxide mineralization at approximately 2.0% cutoff grade.

**FORM 51-102F3  
MATERIAL CHANGE REPORT**

**Item 1      Name and Address of Company**

Rare Element Resources Ltd.  
410 - 325 Howe Street  
Vancouver, British Columbia  
V6C 1Z7

(the "Company")

Telephone Number: 604-687-3520

**Item 2      Date of Material Change**

September 28, 2010

**Item 3      News Release**

The news release was disseminated on September 28, 2010 through Marketwire.

**Item 4      Summary of Material Change**

The Company announced the results of a Scoping Study on the rare-earth resources delineated on its 100% owned Bear Lodge project, located in northeastern Wyoming, USA.

**Item 5      Full Description of Material Change**

Please see the attached news release.

**Item 6      Reliance on subsection 7.1(2) or (3) of National Instrument 51-102**

Not applicable.

**Item 7      Omitted Information**

Not applicable.

**Item 8      Executive Officer**

For further information, contact:

Mark Brown, Chief Financial Officer  
Telephone: (604) 687-3520

**Item 9            Date of Report**

September 29, 2010



510 Burrard St, 3rd Floor  
Vancouver BC, V6C 3B9  
[www.computershare.com](http://www.computershare.com)

Date: 23/09/2010

To: All Canadian Securities Regulatory Authorities

**Subject: RARE ELEMENT RESOURCES LTD**

Dear Sirs:

We advise of the following with respect to the upcoming Meeting of Security Holders for the subject Issuer:

Meeting Type :	Annual General and Special Meeting
Record Date for Notice of Meeting :	18-10-2010
Record Date for Voting (if applicable) :	18-10-2010
Beneficial Ownership Determination Date :	18-10-2010
Meeting Date :	01-12-2010
Meeting Location (if available) :	410-325 Howe Street

**Voting Security Details:**

<b>Description</b>	<b>CUSIP Number</b>	<b>ISIN</b>
COMMON SHARES	75381M102	CA75381M1023

Sincerely,

**Computershare Trust Company of Canada /  
Computershare Investor Services Inc.**

Agent for RARE ELEMENT RESOURCES LTD