

## ANALYTICAL SUMMARY REPORT

September 17, 2012

Rare Element Resources Inc  
225 Union Blvd Ste 250  
Lakewood, CO 80228-1574

Workorder No.: G12080073

Project Name: Bear Lodge

Energy Laboratories Inc. Gillette WY received the following 12 samples for Rare Element Resources Inc on 8/2/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
G12080073-001	AMS #2 Continuous 5/11/12	05/11/12 9:42	08/02/12	Filter	Metals on air filter by ICP/ICPMS Digestion, Total Metals Nitric acid-extraction Radium 226 Thorium, Isotopic
G12080073-002	AMS #3 Continuous 5/21/12	05/21/12 11:45	08/02/12	Filter	Same As Above
G12080073-003	AMS #4 Continuous 5/24/12	05/24/12 15:15	08/02/12	Filter	Same As Above
G12080073-004	AMS #1 Continuous 6/1/12	06/01/12 9:20	08/02/12	Filter	Same As Above
G12080073-005	AMS #2 Continuous 6/8/12	06/08/12 11:35	08/02/12	Filter	Same As Above
G12080073-006	AMS #3 Continuous 6/15/12	06/15/12 12:55	08/02/12	Filter	Same As Above
G12080073-007	AMS #4 Continuous 6/25/12	06/25/12 12:15	08/02/12	Filter	Same As Above
G12080073-008	AMS #1 Continuous 6/29/12	06/29/12 11:20	08/02/12	Filter	Same As Above
G12080073-009	AMS #2 Continuous 7/6/12	07/06/12 14:15	08/02/12	Filter	Same As Above
G12080073-010	AMS #3 Continuous 7/13/12	07/13/12 10:15	08/02/12	Filter	Same As Above
G12080073-011	AMS #4 Continuous 7/25/12	07/25/12 15:00	08/02/12	Filter	Same As Above
G12080073-012	AMS #1 Continuous 7/30/12	07/30/12 15:00	08/02/12	Filter	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 400 W. Boxelder Rd., Gillette, WY 82718, unless otherwise noted.

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these tests results, please call.

Report Approved By:



**CLIENT:** Rare Element Resources Inc

**Project:** Bear Lodge

**Sample Delivery Group:** G12080073

**Report Date:** 09/17/12

## CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-001  
**Client Sample ID** AMS #2 Continuous 5/11/12

**Report Date:** 09/17/12  
**Collection Date:** 05/11/12 09:42  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	12	ug/filter		1	0.4	E200.8	08/07/12 18:56 / eli-b
Lanthanum	6	ug/filter		1	0.4	E200.8	08/07/12 18:56 / eli-b
Thorium	2	ug/filter		1	0.02	E200.8	08/07/12 18:56 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 18:56 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	0.6	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.4	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	0.37	pCi/Filter	U			E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.34	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.55	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-002  
**Client Sample ID** AMS #3 Continuous 5/21/12

**Report Date:** 09/17/12  
**Collection Date:** 05/21/12 11:45  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	18	ug/filter		1	0.4	E200.8	08/07/12 19:01 / eli-b
Lanthanum	9	ug/filter		1	0.4	E200.8	08/07/12 19:01 / eli-b
Thorium	2	ug/filter		1	0.02	E200.8	08/07/12 19:01 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:01 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.1	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	1.4	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.56	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.57	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
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ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-003  
**Client Sample ID** AMS #4 Continuous 5/24/12

**Report Date:** 09/17/12  
**Collection Date:** 05/24/12 15:15  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	17	ug/filter		1	0.4	E200.8	08/07/12 19:06 / eli-b
Lanthanum	8	ug/filter		1	0.4	E200.8	08/07/12 19:06 / eli-b
Thorium	2	ug/filter		1	0.02	E200.8	08/07/12 19:06 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:06 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	0.9	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.4	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	0.75	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.44	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.58	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-004  
**Client Sample ID** AMS #1 Continuous 6/1/12

**Report Date:** 09/17/12  
**Collection Date:** 06/01/12 09:20  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	17	ug/filter		1	0.4	E200.8	08/07/12 19:10 / eli-b
Lanthanum	8	ug/filter		1	0.4	E200.8	08/07/12 19:10 / eli-b
Thorium	2	ug/filter		1	0.02	E200.8	08/07/12 19:10 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:10 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	0.8	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	0.50	pCi/Filter	U			E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.43	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.68	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

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U - Not detected at minimum detectable concentration

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-005  
**Client Sample ID** AMS #2 Continuous 6/8/12

**Report Date:** 09/17/12  
**Collection Date:** 06/08/12 11:35  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	12	ug/filter		1	0.4	E200.8	08/07/12 19:15 / eli-b
Lanthanum	6	ug/filter		1	0.4	E200.8	08/07/12 19:15 / eli-b
Thorium	1	ug/filter		1	0.02	E200.8	08/07/12 19:15 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:15 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.2	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	0.43	pCi/Filter	U			E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.35	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.54	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-006  
**Client Sample ID** AMS #3 Continuous 6/15/12

**Report Date:** 09/17/12  
**Collection Date:** 06/15/12 12:55  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	15	ug/filter		1	0.4	E200.8	08/07/12 19:20 / eli-b
Lanthanum	7	ug/filter		1	0.4	E200.8	08/07/12 19:20 / eli-b
Thorium	2	ug/filter		1	0.02	E200.8	08/07/12 19:20 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:20 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.0	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	0.62	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.38	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.49	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-007  
**Client Sample ID** AMS #4 Continuous 6/25/12

**Report Date:** 09/17/12  
**Collection Date:** 06/25/12 12:15  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	22	ug/filter		1	0.4	E200.8	08/07/12 19:45 / eli-b
Lanthanum	11	ug/filter		1	0.4	E200.8	08/07/12 19:45 / eli-b
Thorium	6	ug/filter		1	0.02	E200.8	08/07/12 19:45 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:45 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	0.9	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 13:34 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	0.93	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.44	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.49	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-008  
**Client Sample ID** AMS #1 Continuous 6/29/12

**Report Date:** 09/17/12  
**Collection Date:** 06/29/12 11:20  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	30	ug/filter		1	0.4	E200.8	08/07/12 19:50 / eli-b
Lanthanum	16	ug/filter		1	0.4	E200.8	08/07/12 19:50 / eli-b
Thorium	4	ug/filter		1	0.02	E200.8	08/07/12 19:50 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:50 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.1	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	1.0	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.47	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.52	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
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ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-009  
**Client Sample ID** AMS #2 Continuous 7/6/12

**Report Date:** 09/17/12  
**Collection Date:** 07/06/12 14:15  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	81	ug/filter		1	0.4	E200.8	08/07/12 19:55 / eli-b
Lanthanum	47	ug/filter		1	0.4	E200.8	08/07/12 19:55 / eli-b
Thorium	28	ug/filter		1	0.02	E200.8	08/07/12 19:55 / eli-b
Uranium	3	ug/filter		1	0.00008	E200.8	08/07/12 19:55 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	3.5	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 precision (±)	0.8	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	1.6	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.58	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.49	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-010  
**Client Sample ID** AMS #3 Continuous 7/13/12

**Report Date:** 09/17/12  
**Collection Date:** 07/13/12 10:15  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	19	ug/filter		1	0.4	E200.8	08/07/12 19:59 / eli-b
Lanthanum	10	ug/filter		1	0.4	E200.8	08/07/12 19:59 / eli-b
Thorium	5	ug/filter		1	0.02	E200.8	08/07/12 19:59 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 19:59 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	0.8	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
- For Ra226 sample matrix interference resulted in high chemical recoveries which has likely biased the results low.							
<b>RADIOCHEMICAL</b>							
Thorium 230	1.5	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.56	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.56	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
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MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
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## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-011  
**Client Sample ID** AMS #4 Continuous 7/25/12

**Report Date:** 09/17/12  
**Collection Date:** 07/25/12 15:00  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	15	ug/filter		1	0.4	E200.8	08/07/12 20:04 / eli-b
Lanthanum	8	ug/filter		1	0.4	E200.8	08/07/12 20:04 / eli-b
Thorium	3	ug/filter		1	0.02	E200.8	08/07/12 20:04 / eli-b
Uranium	ND	ug/filter		1	0.00008	E200.8	08/07/12 20:04 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	0.8	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 precision (±)	0.5	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 MDC	0.6	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
<b>RADIOCHEMICAL</b>							
Thorium 230	0.65	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 precision (±)	0.41	pCi/Filter				E908.0	08/24/12 08:22 / eli-c
Thorium 230 MDC	0.57	pCi/Filter				E908.0	08/24/12 08:22 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## LABORATORY ANALYTICAL REPORT

Prepared by Gillette, WY Branch

**Client:** Rare Element Resources Inc  
**Project:** Bear Lodge  
**Lab ID:** G12080073-012  
**Client Sample ID** AMS #1 Continuous 7/30/12

**Report Date:** 09/17/12  
**Collection Date:** 07/30/12 15:00  
**DateReceived:** 08/02/12  
**Matrix:** Filter

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By
<b>METALS IN AIR</b>							
Cerium	32	ug/filter		1	0.4	E200.8	08/07/12 20:09 / eli-b
Lanthanum	18	ug/filter		1	0.4	E200.8	08/07/12 20:09 / eli-b
Thorium	4	ug/filter		1	0.02	E200.8	08/07/12 20:09 / eli-b
Uranium	1	ug/filter		1	0.00008	E200.8	08/07/12 20:09 / eli-b
<b>RADIONUCLIDES - TOTAL</b>							
Radium 226	1.9	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 precision (±)	0.7	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
Radium 226 MDC	0.7	pCi/Filter				E903.0	09/06/12 15:10 / eli-c
<b>RADIOCHEMICAL</b>							
Thorium 230	0.52	pCi/Filter	U			E908.0	08/24/12 08:23 / eli-c
Thorium 230 precision (±)	0.42	pCi/Filter				E908.0	08/24/12 08:23 / eli-c
Thorium 230 MDC	0.65	pCi/Filter				E908.0	08/24/12 08:23 / eli-c

**Report Definitions:**  
RL - Analyte reporting limit.  
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.  
U - Not detected at minimum detectable concentration

MDL - Method detection limit  
QCL - Quality control limit.  
MDC - Minimum detectable concentration

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Rare Element Resources Inc

**Project:** Bear Lodge

**Report Date:** 08/09/12

**Work Order:** G12080073

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E200.8					Analytical Run: ICPMS203-B_120807A				
<b>Sample ID:</b> QCS	Initial Calibration Verification Standard							08/07/12 12:54	
Cerium	0.0493	mg/L	0.0010	99	90	110			
Lanthanum	0.0483	mg/L	0.0010	97	90	110			
Thorium	0.0196	mg/L	0.0010	98	90	110			
Uranium	0.0190	mg/L	0.0010	95	90	110			
<b>Method:</b> E200.8					Batch: 64380				
<b>Sample ID:</b> MB-64380	Method Blank							Run: ICPMS203-B_120807A 08/07/12 17:57	
Cerium	0.006	ug/filter	0.0004						
Lanthanum	0.009	ug/filter	0.0004						
Thorium	0.01	ug/filter	0.002						
Uranium	0.01	ug/filter	7E-06						
<b>Sample ID:</b> G12080073-012ADUP	Sample Duplicate							Run: ICPMS203-B_120807A 08/07/12 20:14	
Cerium	30.9	ug/filter	1.0				3.8	20	
Lanthanum	17.6	ug/filter	1.0				2.0	20	
Thorium	3.43	ug/filter	1.0				4.4	20	
Uranium	1.11	ug/filter	1.0				6.7	20	
<b>Sample ID:</b> LFB-64380	Laboratory Fortified Blank							Run: ICPMS203-B_120807A 08/07/12 20:19	
Cerium	10.3	ug/filter	1.0	103	80	120			
Lanthanum	10.3	ug/filter	1.0	103	80	120			
Thorium	9.26	ug/filter	1.0	92	80	120			
Uranium	10.6	ug/filter	1.0	106	80	120			
<b>Sample ID:</b> LFB-64380	Laboratory Fortified Blank Duplicate							Run: ICPMS203-B_120807A 08/07/12 20:24	
Cerium	10.1	ug/filter	1.0	101	80	120			
Lanthanum	10.2	ug/filter	1.0	102	80	120			
Thorium	9.76	ug/filter	1.0	98	80	120			
Uranium	10.4	ug/filter	1.0	104	80	120			
<b>Sample ID:</b> G12080073-003AMS	Sample Matrix Spike							Run: ICPMS203-B_120807A 08/07/12 20:58	
Cerium	328	ug/filter	1.0	104	70	130			
Lanthanum	321	ug/filter	1.0	104	70	130			
Thorium	329	ug/filter	1.0	109	70	130			
Uranium	328	ug/filter	1.0	109	70	130			
<b>Sample ID:</b> G12080073-003AMSD	Sample Matrix Spike Duplicate							Run: ICPMS203-B_120807A 08/07/12 21:03	
Cerium	322	ug/filter	1.0	102	70	130	1.9	20	
Lanthanum	314	ug/filter	1.0	102	70	130	2.1	20	
Thorium	322	ug/filter	1.0	107	70	130	2.1	20	
Uranium	319	ug/filter	1.0	106	70	130	2.7	20	
<b>Sample ID:</b> G12080073-012AMS	Sample Matrix Spike							Run: ICPMS203-B_120807A 08/07/12 21:08	
Cerium	346	ug/filter	1.0	105	70	130			

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Rare Element Resources Inc

**Report Date:** 08/09/12

**Project:** Bear Lodge

**Work Order:** G12080073

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method:</b> E200.8							Batch: 64380		
<b>Sample ID:</b> G12080073-012AMS	Sample Matrix Spike				Run: ICPMS203-B_120807A			08/07/12 21:08	
Lanthanum	334	ug/filter	1.0	105	70	130			
Thorium	332	ug/filter	1.0	110	70	130			
Uranium	331	ug/filter	1.0	110	70	130			
<b>Sample ID:</b> G12080073-012AMSD	Sample Matrix Spike Duplicate				Run: ICPMS203-B_120807A			08/07/12 21:12	
Cerium	329	ug/filter	1.0	99	70	130	5.1	20	
Lanthanum	316	ug/filter	1.0	99	70	130	5.5	20	
Thorium	317	ug/filter	1.0	104	70	130	4.7	20	
Uranium	313	ug/filter	1.0	104	70	130	5.5	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rare Element Resources Inc

**Report Date:** 09/10/12

**Project:** Bear Lodge

**Work Order:** G12080073

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E903.0</b>							Batch: 34605		
<b>Sample ID: LCS-34605</b>	Laboratory Control Sample				Run: TENNELEC-3_120829B		09/06/12 13:34		
Radium 226	13.6	pCi/Filter	112		70	130			
<b>Sample ID: G12080073-012BMS</b>	Sample Matrix Spike				Run: TENNELEC-3_120829B		09/06/12 15:10		
Radium 226	74.4	pCi/Filter	86		70	130			
<b>Sample ID: G12080073-012BMSD</b>	Sample Matrix Spike Duplicate				Run: TENNELEC-3_120829B		09/06/12 15:10		
Radium 226	85.4	pCi/Filter	99		70	130	14	23.6	
<b>Sample ID: MB-34605</b>	Method Blank				Run: TENNELEC-3_120829B		09/06/12 15:10		
Radium 226	0.2	pCi/Filter							
Radium 226 precision ( $\pm$ )	0.2	pCi/Filter							
Radium 226 MDC	0.2	pCi/Filter							

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration



## QA/QC Summary Report

Prepared by Casper, WY Branch

**Client:** Rare Element Resources Inc

**Project:** Bear Lodge

**Report Date:** 09/10/12

**Work Order:** G12080073

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E908.0</b>									Batch: 34605
<b>Sample ID: G12080073-007BMS</b>	Sample Matrix Spike					Run: ALPHANALYST_120822C			08/24/12 08:22
Thorium 230	114	pCi/Filter	110		70	130			
<b>Sample ID: G12080073-007BMSD</b>	Sample Matrix Spike Duplicate					Run: ALPHANALYST_120822C			08/24/12 08:22
Thorium 230	107	pCi/Filter	104		70	130	5.7	30.4	
<b>Sample ID: LCS-34605</b>	Laboratory Control Sample					Run: ALPHANALYST_120822C			08/24/12 08:23
Thorium 230	10.7	pCi/Filter	109		80	120			
<b>Sample ID: MB-34605</b>	Method Blank					Run: ALPHANALYST_120822C			08/24/12 08:23
Thorium 230	0.1	pCi/Filter							U
Thorium 230 precision ( $\pm$ )	0.09	pCi/Filter							
Thorium 230 MDC	0.1	pCi/Filter							

### Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

# Standard Reporting Procedures

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

## Workorder Receipt Checklist

Rare Element Resources Inc

G12080073

Login completed by: Amanda Alley

Date Received: 8/2/2012

Reviewed by: BL2000\kscottruff

Received by: kls

Reviewed Date: 8/3/2012

Carrier Hand Del  
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temp Blank received?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Container/Temp Blank temperature:	°C NA		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Contact and Corrective Action Comments:

None



**PLEASE PRINT (Provide as much information as possible.)**

Company Name:

*AEK*

Project Name, PWS, Permit, Etc.

Report Mail Address:

*Bealidge, Baseline S&P*

Sample Origin  
State: *WY*

EPA/State Compliance:  
Yes ☐ No ☐

Invoice Address:

*Kristen Johnson 307-283-3500 KJohnson@energylab.com*

State: *WY*

Signature: *Callie Taylor*

Special Report/Formats:

☐ DW  
☐ POTW/MWTP  
☐ State: \_\_\_\_\_  
☐ Other: \_\_\_\_\_  
☒ EDD/EDT (Electronic Data)  
Format: \_\_\_\_\_  
☐ LEVEL IV  
☐ NELAC

Number of Containers  
Sample Type: A W S V B O DW  
Air Water Soils/Solids  
Vegetation Bioassay Other  
DW - Drinking Water

**ANALYSIS REQUESTED**

SEE ATTACHED

Standard Turnaround (TAT)

**R U S H**

Contact ELI prior to RUSH sample submittal for charges and scheduling - See Instruction Page

Comments:

Shipped by: *Hand*

Receipt temp: *14* °C

On Ice: *Y* *N*

Custody Seal

On Bottle *Y* *N*

On Cooler *Y* *N*

Intact *Y* *N*

Signature *Y* *N*

Match *Y* *N*

**LABORATORY USE ONLY**

*12080073*

SAMPLE IDENTIFICATION  
(Name, Location, Interval, etc.)

Collection Date

Collection Time

MATRIX

*AMS#4 cont. 7-25-12*  
*AMS#1 cont. 7-30-12*

*15:00*  
*15:00*

*Cella, U, Th*  
*Pa-226*  
*Th-230*

*X*  
*X*  
*X*  
*X*  
*X*  
*X*  
*X*  
*X*  
*X*  
*X*

*X*

*12080073*

**Custody Record MUST be Signed**

Relinquished by (print): *Callie Taylor*

Date/Time: *8-2-12 16:41*

Signature: *Callie Taylor*

Sample Disposal: Return to Client:

Lab Disposal:

Received by Laboratory:

Date/Time:

Signature:

Received by (print):

Date/Time:

Signature:

Received by (print):

Date/Time:

Signature:

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.