



Date Submitted: 20-Nov-13
Invoice No.: A13-13987
Invoice Date: 10-Jan-14
Your Reference: NA56-37B

Cantex Mine Development Corp
203-1634 Harvey Ave
Kelowna BC V1Y 6G2

ATTN: Shadi Morton

CERTIFICATE OF ANALYSIS

42 Pulp samples were submitted for analysis.

The following analytical package was requested: Code UT-7 Sodium Peroxide Fusion (ICP & ICPMS)

REPORT **A13-13987**

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Notes:

CERTIFIED BY :

A handwritten signature in black ink, appearing to be "Emmanuel Esemé", written over a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

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Activation Laboratories Ltd. Report: A13-13987

Analyte Symbol	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	0.01	5	10	3	3	2	0.01	2	0.8	0.2	30	0.1	2	0.3	0.1	0.1	0.05	0.2	0.1	0.7	10	0.2	0.2	0.1
Analysis Method	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2
KAR3	0.57	< 5	20	292	< 3	< 2	22.8	7	16.3	1.3	< 30	0.2	< 2	0.9	0.7	0.2	10.5	2.1	1.2	6.3	< 10	0.2	< 0.2	0.1
KAR4	0.64	< 5	30	39	< 3	< 2	22.3	< 2	35.2	2.6	< 30	0.2	< 2	1.7	1.2	0.5	7.34	2.3	2.3	0.8	< 10	0.4	< 0.2	0.1
KAR00024	0.11	129	< 10	238	< 3	< 2	14.3	416	7.3	4.9	< 30	0.4	32	0.5	0.3	0.1	3.93	1.2	0.5	100	< 10	< 0.2	< 0.2	< 0.1
KAR00043	1.56	488	120	37	< 3	< 2	0.05	< 2	2.9	3.7	40	0.5	27	1.0	0.6	0.2	40.3	4.5	0.9	10.4	< 10	0.2	< 0.2	0.9
KAR00047	0.92	226	50	96	< 3	< 2	0.06	< 2	3.4	2.1	< 30	0.4	< 2	0.5	0.4	< 0.1	35.4	3.0	0.4	9.6	< 10	< 0.2	0.3	0.5
KAR00049	1.19	1290	80	16	< 3	5	0.03	< 2	15.5	8.7	40	0.4	60	0.5	0.4	0.2	45.9	3.4	0.8	12.2	< 10	< 0.2	< 0.2	0.6
KAR60	0.09	< 5	< 10	12	< 3	< 2	7.05	< 2	1.2	0.8	330	0.4	886	1.4	0.9	0.1	2.79	0.7	0.9	4.7	< 10	0.3	0.3	< 0.1
KAR67	0.84	66	30	13	< 3	< 2	0.55	3	10.2	6.0	280	0.4	< 2	< 0.3	0.2	0.2	4.51	2.4	0.4	8.4	< 10	< 0.2	< 0.2	0.4
KAR00085	1.11	22	40	78	< 3	< 2	27.2	< 2	9.9	6.3	70	1.1	< 2	1.2	0.7	0.2	1.86	2.3	1.2	1.9	< 10	0.2	< 0.2	0.7
KAR00102	7.38	28	160	836	< 3	< 2	0.41	< 2	49.9	7.0	210	3.6	24	1.5	1.1	0.5	1.81	24.4	2.7	7.9	< 10	0.4	< 0.2	6.9
KAR00109	0.88	1470	40	24	< 3	8	1.42	< 2	13.0	11.3	< 30	0.5	160	1.1	0.9	0.4	26.7	2.9	1.3	11.1	< 10	0.3	0.8	0.4
KAR00125	2.32	33	110	183	< 3	< 2	15.6	< 2	21.0	16.5	< 30	1.4	26	2.0	1.3	0.5	14.0	7.2	2.2	8.0	< 10	0.4	0.2	1.3
KAR00131	0.76	17	20	279	< 3	< 2	26.0	< 2	28.0	15.0	< 30	0.5	20	2.5	1.1	1.4	9.07	2.4	5.3	1.8	< 10	0.5	< 0.2	0.4
KAR00134	1.53	13	10	39	< 3	< 2	7.47	< 2	29.1	8.6	340	0.9	20	2.8	1.5	0.9	4.88	4.4	3.6	4.0	< 10	0.6	< 0.2	0.3
KAR00148	0.08	< 5	< 10	35	< 3	< 2	15.5	< 2	6.8	6.5	110	0.3	3	13.9	8.0	1.9	7.20	0.8	10.6	3.2	< 10	3.0	< 0.2	< 0.1
KAR00157	2.04	< 5	30	104	< 3	3	1.67	< 2	17.3	8.6	340	1.4	12300	1.7	1.1	0.4	2.62	6.1	2.2	9.0	< 10	0.4	< 0.2	1.1
KAR00176	0.53	< 5	< 10	42	< 3	< 2	0.61	< 2	4.9	2.4	590	0.3	14	0.6	0.3	0.2	0.76	1.9	0.8	6.1	< 10	< 0.2	< 0.2	0.4
KAR00187	0.54	< 5	< 10	17	< 3	< 2	0.60	< 2	35.7	5.6	320	< 0.1	14	2.1	1.3	0.6	2.39	1.9	2.6	3.5	< 10	0.5	< 0.2	< 0.1
KAR00226	1.18	302	40	30	< 3	< 2	28.1	< 2	18.1	35.2	40	1.6	< 2	2.8	1.7	0.5	2.05	3.3	2.6	2.8	< 10	0.6	< 0.2	0.5
KAR00227	3.24	563	150	79	< 3	2	3.66	< 2	23.5	5.7	50	1.3	322	1.5	1.0	0.5	19.5	9.3	2.0	10.8	< 10	0.3	< 0.2	1.9
KAR00229	0.86	1490	50	52	< 3	2	0.13	< 2	2.5	1.1	< 30	0.3	41	0.6	0.4	0.2	27.3	3.0	0.6	12.5	< 10	< 0.2	< 0.2	0.6
KAR00230	0.79	2340	30	33	< 3	7	0.14	< 2	3.4	9.5	< 30	0.4	95	0.5	0.4	0.1	52.3	3.0	0.5	14.4	< 10	< 0.2	< 0.2	0.5
KAR00231	1.76	56	200	64	< 3	24	0.24	10	7.9	3.6	160	0.6	315	0.9	0.8	0.2	22.0	5.9	1.1	12.8	< 10	0.2	0.3	1.1
KAR00232	0.52	240	10	600	< 3	< 2	2.98	< 2	7.4	17.5	< 30	0.6	56	0.8	0.6	0.2	46.2	3.9	0.8	12.7	< 10	< 0.2	0.6	0.4
KAR00233	0.73	24	< 10	42	< 3	< 2	7.79	< 2	8.3	7.7	330	0.6	164	1.2	0.7	0.5	2.42	2.5	1.3	5.3	< 10	0.3	< 0.2	0.5
KAR00234	0.45	249	< 10	14	< 3	< 2	2.17	2	6.0	2.6	850	0.3	13800	0.8	0.5	0.2	1.66	1.3	0.9	12.9	< 10	< 0.2	< 0.2	0.3
KAR00237	1.78	52	90	123	< 3	< 2	20.7	17	19.1	13.8	< 30	1.3	89	3.5	2.2	0.9	6.22	4.9	3.5	7.2	< 10	0.8	< 0.2	1.0
KAR00238	0.96	120	30	321	< 3	6	2.07	149	16.3	13.7	< 30	1.7	266	1.7	1.2	0.6	38.5	3.8	1.8	22.7	< 10	0.4	0.6	0.6
KAR00240	1.56	18	40	71	< 3	< 2	0.34	3	7.6	5.7	40	1.0	57	0.9	0.6	0.3	34.7	5.3	1.1	12.0	< 10	< 0.2	0.6	0.9
KAR00241	0.51	25	30	163	< 3	< 2	0.39	< 2	< 0.8	2.2	< 30	0.4	4	0.5	0.3	0.1	49.4	3.8	0.4	12.4	< 10	< 0.2	0.6	0.3
KAR00270	0.72	403	20	212	< 3	40	1.21	2	3.8	5.0	< 30	0.4	264	1.2	0.8	0.2	46.2	4.3	1.0	10.9	< 10	0.2	0.7	0.4
KAR00271	4.20	127	130	104	< 3	2	0.16	< 2	45.2	7.4	50	1.3	84	1.9	1.2	0.5	34.4	14.0	2.5	9.5	< 10	0.4	0.5	2.4
KAR00045	1.00	1020	30	22	< 3	< 2	< 0.01	5	4.3	2.0	< 30	0.3	965	1.0	0.7	0.2	36.9	3.2	1.0	11.2	< 10	0.2	0.2	0.5
KAR00050	1.66	263	70	55	< 3	< 2	0.37	3	4.9	8.9	< 30	0.4	8	4.0	2.1	0.5	46.8	7.5	3.2	10.3	< 10	0.8	1.0	0.9
KAR00273	0.76	96	< 10	38	< 3	< 2	7.68	8	48.6	36.4	320	0.6	4370	3.9	1.8	1.5	2.09	2.9	5.0	6.8	< 10	0.7	0.3	0.4
KAR00005	7.28	< 5	< 10	465	< 3	< 2	6.26	< 2	103	51.8	70	0.3	39	6.4	2.9	2.8	11.1	21.9	9.3	3.9	< 10	1.1	< 0.2	0.7
KAR00008	0.82	209	350	73	< 3	10	0.02	88	4.0	3.9	< 30	0.2	263	1.8	1.0	0.4	39.3	5.4	2.0	12.9	< 10	0.3	0.5	0.3
KAR8491	4.53	< 5	130	294	< 3	< 2	8.70	< 2	45.3	8.2	50	2.8	19	2.3	1.3	0.6	2.01	13.7	2.9	5.7	< 10	0.5	< 0.2	4.0
KAR00281	2.80	< 5	90	225	< 3	< 2	12.5	< 2	49.8	16.1	< 30	0.6	13	3.2	1.7	0.9	2.23	5.4	3.9	3.2	< 10	0.6	< 0.2	2.7
KAR00295	0.67	70	20	94	< 3	< 2	21.6	< 2	20.2	42.5	< 30	0.4	33	2.9	1.4	0.6	6.25	1.9	3.2	2.5	< 10	0.5	< 0.2	0.5
KAR00351	4.36	33	110	73	< 3	8	6.39	< 2	48.0	55.6	80	0.9	12	2.2	1.4	0.7	6.52	12.4	2.8	4.9	< 10	0.5	< 0.2	2.6
KAR1110	0.35	101	< 10	11	< 3	< 2	0.29	< 2	3.0	2.7	560	0.3	56	< 0.3	0.2	< 0.1	0.71	0.9	0.3	4.5	< 10	< 0.2	< 0.2	0.2

Activation Laboratories Ltd.

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Analyte Symbol	La	Li	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Se	Si	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti
Unit Symbol	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Detection Limit	0.4	3	0.01	3	1	2.4	0.4	10	0.005	0.8	0.1	0.4	0.01	2	0.8	0.01	0.1	0.5	3	0.2	0.1	6	0.1	0.01
Analysis Method	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	
KAR3	9.0	4	3.43	21900	< 1	< 2.4	6.9	< 10	< 0.005	2990	1.9	3.0	0.20	< 2	18.2	5.63	1.2	< 0.5	24	< 0.2	0.2	< 6	0.5	0.02
KAR4	19.8	4	6.51	19000	< 1	< 2.4	15.0	< 10	0.009	8.9	4.0	3.6	0.18	< 2	17.4	3.65	2.4	< 0.5	95	< 0.2	0.3	< 6	1.2	0.02
KAR00024	4.2	< 3	6.73	7340	< 1	< 2.4	3.1	20	< 0.005	21100	0.9	1.3	1.63	16	25.2	0.48	0.5	< 0.5	54	< 0.2	< 0.1	< 6	0.4	< 0.01
KAR00043	1.2	22	0.25	2850	3	2.4	1.9	< 10	0.029	359	0.4	31.1	0.03	7	5.8	12.8	0.6	< 0.5	< 3	< 0.2	0.2	< 6	1.9	0.09
KAR00047	1.9	15	0.20	12100	< 1	< 2.4	1.5	< 10	0.020	883	0.4	19.1	0.01	17	8.2	15.5	0.3	< 0.5	5	< 0.2	< 0.1	< 6	1.6	0.05
KAR00049	7.4	7	0.19	619	12	< 2.4	6.2	30	0.022	571	1.8	24.7	15.0	20	20.1	2.37	1.0	< 0.5	8	< 0.2	0.1	< 6	2.6	0.07
KAR60	0.5	4	2.51	4580	< 1	< 2.4	1.3	< 10	< 0.005	< 0.8	0.2	2.3	0.15	< 2	9.2	27.2	0.7	< 0.5	17	< 0.2	0.2	< 6	< 0.1	< 0.01
KAR67	5.8	4	0.33	510	< 1	< 2.4	4.8	20	0.007	578	1.2	19.1	0.08	3	9.0	42.3	0.7	< 0.5	8	< 0.2	< 0.1	< 6	1.9	0.07
KAR00085	5.0	7	1.20	1890	< 1	< 2.4	4.3	40	< 0.005	4.1	1.2	22.3	0.23	< 2	13.4	10.6	0.9	< 0.5	84	< 0.2	0.2	< 6	2.0	0.05
KAR00102	32.9	65	0.87	35	19	11.4	22.5	40	0.259	57.7	6.4	204	0.11	9	< 0.8	30.6	3.2	5.6	16	0.9	0.3	< 6	14.3	0.35
KAR00109	7.6	5	4.75	24600	< 1	< 2.4	6.8	20	0.014	258	1.7	17.7	0.54	15	< 0.8	9.19	1.4	1.4	12	< 0.2	0.2	< 6	2.0	0.04
KAR00125	12.3	17	1.54	14100	9	3.7	10.8	60	0.022	48.1	2.8	53.2	0.11	10	< 0.8	9.45	2.2	4.5	23	0.2	0.3	< 6	7.3	0.11
KAR00131	14.5	7	0.43	370	3	< 2.4	23.4	20	0.123	11.2	5.1	14.3	10.6	< 2	< 0.8	3.09	5.4	13.9	369	< 0.2	0.6	< 6	2.8	0.06
KAR00134	16.3	271	1.99	682	< 1	14.4	14.9	10	0.146	< 0.8	3.8	14.4	0.10	6	< 0.8	27.2	3.3	2.1	443	0.7	0.5	< 6	1.6	0.32
KAR00148	2.5	< 3	5.68	8900	< 1	< 2.4	7.2	30	0.007	2.4	1.3	1.8	0.11	< 2	< 0.8	10.6	5.0	< 0.5	106	< 0.2	2.3	< 6	< 0.1	< 0.01
KAR00157	9.1	12	0.73	2160	< 1	2.9	8.9	10	0.013	34.6	2.3	50.2	1.35	7	2.2	35.2	1.9	2.9	33	< 0.2	0.3	< 6	2.5	0.10
KAR00176	3.1	< 3	0.18	430	< 1	< 2.4	2.8	20	0.030	< 0.8	0.7	11.6	< 0.01	< 2	< 0.8	39.1	0.6	1.9	4	< 0.2	0.1	< 6	1.4	0.03
KAR00187	17.0	99	0.22	1510	< 1	< 2.4	12.9	10	0.266	5.2	3.6	1.7	0.20	< 2	< 0.8	42.2	2.2	< 0.5	31	< 0.2	0.4	< 6	4.6	0.05
KAR00226	9.7	4	0.34	3100	< 1	< 2.4	9.1	50	0.008	8.0	2.3	23.2	0.20	< 2	< 0.8	8.45	2.1	< 0.5	41	< 0.2	0.5	< 6	4.0	0.04
KAR00227	13.5	32	2.14	3080	< 1	5.3	12.0	10	0.032	1160	3.1	70.8	0.65	25	< 0.8	17.8	2.3	< 0.5	15	0.4	0.3	< 6	5.5	0.14
KAR00229	1.3	9	0.15	8650	3	< 2.4	1.6	< 10	0.027	218	0.3	18.0	0.02	10	< 0.8	22.4	0.5	0.7	12	< 0.2	0.1	< 6	1.5	0.04
KAR00230	1.9	5	0.20	903	17	< 2.4	1.5	20	0.023	657	0.4	17.9	0.22	26	1.8	2.67	0.4	3.3	4	< 0.2	< 0.1	< 6	1.5	0.04
KAR00231	4.6	12	0.38	24500	6	2.8	4.0	70	0.024	651	1.1	34.5	0.02	25	0.9	23.6	0.9	< 0.5	18	< 0.2	0.2	< 6	2.1	0.08
KAR00232	4.0	4	0.55	33300	16	< 2.4	3.5	20	0.014	405	1.0	13.9	0.02	13	< 0.8	3.35	0.9	1.6	25	< 0.2	0.1	< 6	0.6	0.02
KAR00233	3.9	8	4.38	1150	< 1	< 2.4	5.0	360	0.010	47.6	1.2	16.4	0.11	< 2	< 0.8	27.4	1.2	6.3	59	< 0.2	0.2	< 6	1.1	0.04
KAR00234	3.1	5	1.16	780	< 1	< 2.4	3.3	20	0.007	26.0	0.8	8.6	0.08	16	< 0.8	37.0	0.6	< 0.5	6	< 0.2	0.1	< 6	0.5	0.01
KAR00237	10.2	11	1.54	8730	< 1	< 2.4	10.7	40	0.013	128	2.6	34.5	0.14	21	< 0.8	10.3	2.8	4.1	38	< 0.2	0.6	< 6	6.0	0.07
KAR00238	10.0	7	0.42	23000	7	< 2.4	9.6	100	0.018	929	2.3	23.2	0.02	23	2.1	8.62	1.9	< 0.5	25	< 0.2	0.3	< 6	2.4	0.05
KAR00240	5.2	11	0.62	31300	< 1	2.5	4.6	10	0.031	439	1.1	38.0	< 0.01	3	< 0.8	13.8	0.9	8.5	29	< 0.2	0.2	< 6	2.0	0.07
KAR00241	< 0.4	4	0.36	43000	< 1	< 2.4	< 0.4	< 10	0.014	15.2	< 0.1	11.6	< 0.01	6	< 0.8	5.21	0.2	< 0.5	40	< 0.2	< 0.1	< 6	0.4	0.03
KAR00270	1.8	8	0.42	38800	5	< 2.4	2.1	10	0.020	478	0.5	17.5	0.02	61	1.9	5.28	0.7	< 0.5	38	< 0.2	0.2	< 6	1.2	0.03
KAR00271	25.0	33	0.84	34600	4	7.4	17.4	20	0.043	468	5.0	91.6	0.01	45	3.0	10.4	2.6	0.9	20	0.5	0.3	< 6	5.2	0.19
KAR00045	1.9	10	0.16	2950	2	< 2.4	2.4	< 10	0.038	635	0.5	19.9	< 0.01	5	1.8	17.3	0.8	< 0.5	< 3	< 0.2	0.2	< 6	1.6	0.04
KAR00050	2.3	9	0.94	53400	1	< 2.4	3.4	< 10	0.018	1190	0.7	33.5	0.25	6	1.2	2.76	1.9	< 0.5	25	< 0.2	0.6	< 6	1.8	0.06
KAR00273	23.8	5	4.09	1390	3	< 2.4	22.1	50	0.011	658	5.8	17.0	0.21	2	3.7	26.7	4.8	< 0.5	46	< 0.2	0.7	< 6	1.0	0.02
KAR00005	47.8	19	3.90	2080	< 1	40.3	52.4	40	0.066	17.8	12.6	11.3	0.20	< 2	< 0.8	4.61	10.0	< 0.5	650	0.9	1.1	< 6	4.9	2.06
KAR00008	1.5	< 3	0.28	64100	10	< 2.4	3.4	< 10	0.016	138000	0.7	14.5	0.60	157	1.3	1.38	1.3	< 0.5	10	< 0.2	0.3	< 6	1.7	0.05
KAR8491	22.5	58	5.44	1070	< 1	7.2	18.6	20	0.030	102	5.0	105	0.07	< 2	< 0.8	18.8	3.2	1.1	28	0.5	0.4	< 6	8.2	0.20
KAR00281	22.8	15	7.74	913	< 1	3.9	21.5	20	0.025	54.1	5.7	50.0	0.09	6	< 0.8	13.9	4.2	< 0.5	16	0.3	0.5	< 6	5.1	0.12
KAR00295	9.2	6	4.25	1130	< 1	< 2.4	11.1	40	0.009	49.9	2.7	17.1	0.14	9	1.5	7.44	2.9	< 0.5	13	< 0.2	0.5	< 6	1.9	0.03
KAR00351	25.4	21	4.01	795	< 1	< 2.4	19.7	40	0.050	12.8	5.4	90.2	4.45	6	< 0.8	1.42	3.4	2.0	19	< 0.2	0.4	< 6	9.1	0.20
KAR1110	1.4	13	0.18	250	1	< 2.4	1.6	20	0.006	1050	0.4	6.2	0.05	6	1.1	1.03	0.3	< 0.5	7	< 0.2	< 0.1	< 6	0.4	< 0.01

Analyte Symbol	Tl	Tm	U	V	W	Y	Yb	Zn
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.1	5	0.7	0.1	0.1	30
Analysis Method	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2
KAR3	0.4	< 0.1	< 0.1	< 5	0.8	9.1	0.5	1910
KAR4	< 0.1	0.2	< 0.1	< 5	< 0.7	15.5	1.1	360
KAR00024	3.2	< 0.1	0.1	< 5	2.5	4.4	0.3	168000
KAR00043	< 0.1	< 0.1	6.7	9	< 0.7	6.8	0.6	1650
KAR00047	< 0.1	< 0.1	4.4	< 5	< 0.7	3.5	0.5	250
KAR00049	< 0.1	< 0.1	12.3	< 5	< 0.7	3.8	0.4	1760
KAR60	< 0.1	0.1	< 0.1	< 5	< 0.7	7.5	0.8	< 30
KAR67	< 0.1	< 0.1	0.5	< 5	< 0.7	1.2	0.2	810
KAR00085	< 0.1	< 0.1	0.2	< 5	< 0.7	8.3	0.6	300
KAR00102	1.0	0.2	6.7	255	2.2	10.7	1.8	120
KAR00109	< 0.1	0.1	1.0	< 5	5.7	7.7	0.8	140
KAR00125	0.3	0.2	22.1	13	1.1	13.1	1.4	540
KAR00131	0.4	0.1	8.9	< 5	< 0.7	15.8	0.7	30
KAR00134	< 0.1	0.2	0.5	63	5.6	13.7	1.2	50
KAR00148	< 0.1	1.1	< 0.1	< 5	< 0.7	83.5	6.4	30
KAR00157	0.2	0.2	0.8	< 5	< 0.7	9.8	1.0	130
KAR00176	0.2	< 0.1	0.6	14	0.8	3.9	0.3	< 30
KAR00187	< 0.1	0.2	1.7	< 5	< 0.7	14.6	1.1	< 30
KAR00226	< 0.1	0.2	6.2	< 5	< 0.7	19.1	1.5	150
KAR00227	0.2	0.1	4.9	18	1.2	8.8	1.1	1100
KAR00229	< 0.1	< 0.1	10.4	< 5	< 0.7	3.7	0.5	380
KAR00230	< 0.1	< 0.1	13.6	< 5	< 0.7	3.3	0.5	960
KAR00231	0.1	0.1	5.4	5	0.9	5.6	1.0	2650
KAR00232	0.1	0.1	28.9	< 5	< 0.7	4.4	0.9	1260
KAR00233	< 0.1	< 0.1	0.5	< 5	< 0.7	7.1	0.6	50
KAR00234	0.1	< 0.1	1.9	< 5	< 0.7	5.9	0.4	160
KAR00237	1.1	0.3	4.4	< 5	< 0.7	19.6	2.0	6000
KAR00238	0.3	0.2	12.9	7	< 0.7	9.8	1.4	30000
KAR00240	0.2	0.1	10.5	11	0.9	5.5	0.7	890
KAR00241	< 0.1	< 0.1	7.7	< 5	< 0.7	2.9	0.5	140
KAR00270	< 0.1	0.1	12.0	< 5	< 0.7	6.8	0.7	700
KAR00271	0.2	0.2	4.5	44	2.1	10.6	1.3	210
KAR00045	< 0.1	0.1	19.3	< 5	< 0.7	5.4	0.8	540
KAR00050	< 0.1	0.3	4.0	< 5	0.8	22.0	1.8	690
KAR00273	0.2	0.2	1.2	8	< 0.7	23.0	1.2	1380
KAR00005	0.1	0.4	1.1	368	< 0.7	27.8	2.2	200
KAR00008	0.1	0.1	20.3	< 5	2.2	13.1	1.0	23800
KAR8491	0.6	0.2	1.8	29	0.7	12.3	1.4	220
KAR00281	0.3	0.2	2.1	11	< 0.7	15.6	1.5	< 30
KAR00295	1.2	0.2	0.9	< 5	< 0.7	15.3	1.1	< 30
KAR00351	0.3	0.2	2.9	37	1.9	11.9	1.4	< 30
KAR1110	< 0.1	< 0.1	0.3	< 5	< 0.7	2.2	0.2	250

Quality Control																										
Analyte Symbol	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Dy	Er	Eu	Fe	Ga	Gd	Ge	Hf	Ho	In	K		
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%		
Detection Limit	0.01	5	10	3	3	2	0.01	2	0.8	0.2	30	0.1	2	0.3	0.1	0.1	0.05	0.2	0.1	0.7	10	0.2	0.2	0.1		
Analysis Method	FUS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-MS-Na2O2	FUS-Na2O2		
GXR-1 Meas	3.43	469	< 10	689	< 3		0.96	< 2	14.9	8.2	< 30	3.2	1220	4.7		0.7	26.0	14.4	4.4		< 10		1.0			
GXR-1 Cert	3.52	427	15.0	750	1.22		0.960	3.30	17.0	8.20	12.0	3.00	1110	4.30		0.690	23.6	13.8	4.20		0.960		0.770			
GXR-1 Meas	3.27	448	< 10	677	< 3		0.90	2		8.1	< 30	3.2	1200	4.9		0.6	25.1	14.0	4.3		< 10		0.9			
GXR-1 Cert	3.52	427	15.0	750	1.22		0.960	3.30		8.20	12.0	3.00	1110	4.30		0.690	23.6	13.8	4.20		0.960		0.770			
GXR-1 Meas	3.35	458	< 10	672	< 3		0.89	< 2		8.1	< 30	3.5	1150	4.6		0.6	25.4	13.3	4.1		< 10		0.9			
GXR-1 Cert	3.52	427	15.0	750	1.22		0.960	3.30		8.20	12.0	3.00	1110	4.30		0.690	23.6	13.8	4.20		0.960		0.770			
GXR-4 Meas	7.38	107	< 10	1630	< 3	21	0.98	< 2	105	14.4	40	2.6	6680	3.0		1.5	2.93	20.2	5.3		< 10		0.2	4.0		
GXR-4 Cert	7.20	98.0	4.50	1640	1.90	19.0	1.01	0.860	102	14.6	64.0	2.80	6520	2.60		1.63	3.09	20.0	5.25		6.30		0.270	4.01		
GXR-4 Meas	7.64	104	< 10	1670	< 3	19	1.03	< 2	107	14.4	50	2.7	6760	2.8		1.5	3.17	20.7	5.3		< 10		0.2	4.3		
GXR-4 Cert	7.20	98.0	4.50	1640	1.90	19.0	1.01	0.860	102	14.6	64.0	2.80	6520	2.60		1.63	3.09	20.0	5.25		6.30		0.270	4.01		
GXR-4 Meas		88	< 10	1710	< 3	20		< 2	109	14.7	50	2.6	6830	2.7		1.6		21.0	5.2		< 10		0.2			
GXR-4 Cert		98.0	4.50	1640	1.90	19.0		0.860	102	14.6	64.0	2.80	6520	2.60		1.63		20.0	5.25		6.30		0.270			
GXR-4 Meas			< 10	1640	< 3	17		< 2		14.3	60		6550	2.8		1.5		19.3	5.1		< 10		0.2			
GXR-4 Cert			4.50	1640	1.90	19.0		0.860		14.6	64.0		6520	2.60		1.63		20.0	5.25		6.30		0.270			
NIST 696 Meas	27.5										290															
NIST 696 Cert	28.9										321.0															
NIST 696 Meas	27.3										300															
NIST 696 Cert	28.9										321.0															
NIST 696 Meas	29.2										290															
NIST 696 Cert	28.9										321.0															
MP-1b Meas		23600				1040	2.55	564					30600				7.64						592			
MP-1b Cert		23000.00				954.0000	2.47	527.0000					30690.000				8.19						565			
MP-1b Meas		23900				925	2.35	566					31100				7.67						588			
MP-1b Cert		23000.00				954.0000	2.47	527.0000					30690.000				8.19						565			
MP-1b Meas		23800				1020	2.43	561					30900				7.98						595			
MP-1b Cert		23000.00				954.0000	2.47	527.0000					30690.000				8.19						565			
MP-1b Meas		24600				992	2.38	564					32400				7.83						603			
MP-1b Cert		23000.00				954.0000	2.47	527.0000					30690.000				8.19						565			
MP-1b Meas		23500				1020	2.52	557					29500				8.32						573			
MP-1b Cert		23000.00				954.0000	2.47	527.0000					30690.000				8.19						565			
OREAS 101a (Fusion) Meas									1300	46.1			413	31.4	19.7	8.1	10.8		40.4			6.7		2.3		
OREAS 101a (Fusion) Cert									1396	48.8			434	33.3	19.5	8.06	11.06		43.4			6.46		2.34		
OREAS 101a (Fusion) Meas																	10.3							2.1		
OREAS 101a (Fusion) Cert																	11.06							2.34		
KAR00102 Orig	7.35	27	160	839	< 3	< 2	0.43	< 2	49.6	6.9	210	3.7	23	1.5	1.1	0.5	1.81	24.4	2.6	7.8	< 10	0.3	< 0.2	6.9		
KAR00102 Dup	7.41	29	160	833	< 3	< 2	0.40	< 2	50.3	7.0	210	3.6	26	1.5	1.1	0.5	1.81	24.5	2.7	7.9	< 10	0.4	< 0.2	7.0		
KAR00227 Orig	3.27	553	150	78	< 3	2	3.74	< 2	23.4	5.6	50	1.3	318	1.5	1.0	0.5	19.9	9.1	2.0	10.9	< 10	0.3	< 0.2	1.9		
KAR00227 Dup	3.21	572	150	79	< 3	2	3.58	< 2	23.7	5.7	50	1.3	326	1.5	1.1	0.5	19.1	9.5	2.0	10.7	< 10	0.4	< 0.2	1.9		
KAR00241 Orig	0.52	20	30	166	< 3	< 2	0.39	< 2	< 0.8	2.2	< 30	0.4	5	0.5	0.3	0.1	49.0	3.8	0.4	12.7	< 10	< 0.2	0.6	0.3		
KAR00241 Dup	0.51	30	30	160	< 3	< 2	0.39	< 2	< 0.8	2.2	< 30	0.4	4	0.5	0.4	0.1	49.8	3.9	0.4	12.0	< 10	< 0.2	0.6	0.3		
KAR00295 Orig	0.68	71	20	94	< 3	< 2	22.0	< 2	20.1	43.1	< 30	0.4	34	3.0	1.4	0.6	6.36	1.9	3.2	2.7	< 10	0.5	< 0.2	0.5		
KAR00295 Dup	0.66	69	20	95	< 3	< 2	21.2	< 2	20.2	41.8	< 30	0.4	32	2.9	1.4	0.6	6.14	1.9	3.3	2.3	< 10	0.6	< 0.2	0.4		
Method Blank		< 5	< 10	< 3	< 3	< 2		< 2	< 0.8	< 0.2	< 30	< 0.1	< 2	< 0.3	< 0.1	< 0.1		< 0.2	< 0.1	< 0.7	< 10	< 0.2	< 0.2			
Method Blank	0.02	< 5	< 10	< 3	< 3	< 2	0.01	< 2	< 0.8	< 0.2	< 30	< 0.1	< 2	< 0.3	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.7	< 10	< 0.2	< 0.2	< 0.1		
Method Blank	< 0.01	< 5	< 10	< 3	< 3	< 2	< 0.01	< 2	< 0.8	< 0.2	< 30	< 0.1	< 2	< 0.3	< 0.1	< 0.1	< 0.05	< 0.2	< 0.1	< 0.7	< 10	< 0.2	< 0.2	0.1		
Method Blank	< 0.01						0.02										< 0.05							< 0.1		
Method Blank	< 0.01						< 0.01										< 0.05							< 0.1		

Quality Control																									
Analyte Symbol	La	Li	Mg	Mn	Mo	Nb	Nd	Ni	P	Pb	Pr	Rb	S	Sb	Se	Si	Sm	Sn	Sr	Ta	Tb	Te	Th	Ti	
Unit Symbol	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
Detection Limit	0.4	3	0.01	3	1	2.4	0.4	10	0.005	0.8	0.1	0.4	0.01	2	0.8	0.01	0.1	0.5	3	0.2	0.1	6	0.1	0.01	
Analysis Method	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS- Na2O2	
GXR-1 Meas	7.7	9	0.22	917	16	< 2.4		40	0.063	768		3.0	0.28	133	17.7		3.0	52.9	293	< 0.2	0.8	14	2.5		
GXR-1 Cert	7.50	8.20	0.217	852	18.0	0.800		41.0	0.0650	730		14.0	0.257	122	16.6		2.70	54.0	275	0.175	0.830	13.0	2.44		
GXR-1 Meas	7.6	8	0.21		17	< 2.4		40	0.066	791		3.1	0.26	113	18.1		2.7	49.3	294	< 0.2	0.8	14	2.7		
GXR-1 Cert	7.50	8.20	0.217		18.0	0.800		41.0	0.0650	730		14.0	0.257	122	16.6		2.70	54.0	275	0.175	0.830	13.0	2.44		
GXR-1 Meas	7.3	9	0.21			< 2.4		40	0.060	793			0.26		18.1				295	< 0.2	0.8	13	2.6		
GXR-1 Cert	7.50	8.20	0.217			0.800		41.0	0.0650	730			0.257		16.6				275	0.175	0.830	13.0	2.44		
GXR-4 Meas	65.1	12	1.69	162	321	10.4	44.1	30	0.129	56.5		147	1.75	4	5.9		6.6	5.8	232	< 0.2	0.5	< 6	24.7	0.28	
GXR-4 Cert	64.5	11.1	1.66	155	310	10.0	45.0	42.0	0.120	52.0		160	1.77	4.80	5.60		6.60	5.60	221	0.790	0.360	0.970	22.5	0.29	
GXR-4 Meas	65.6	12	1.78	153	326	9.2	45.0	40		48.4		148	1.84	5	5.7		6.6	5.9	223	< 0.2	0.6	< 6	22.9	0.29	
GXR-4 Cert	64.5	11.1	1.66	155	310	10.0	45.0	42.0		52.0		160	1.77	4.80	5.60		6.60	5.60	221	0.790	0.360	0.970	22.5	0.29	
GXR-4 Meas	67.3	12		155	336		44.3	30		54.1		154		< 2			6.7	5.9	240	0.7	0.6	< 6	24.1		
GXR-4 Cert	64.5	11.1		155	310		45.0	42.0		52.0		160		4.80			6.60	5.60	221	0.790	0.360	0.970	22.5		
GXR-4 Meas	64.9	12			321		43.5					145					6.5	5.1	227	0.3	0.6	< 6			
GXR-4 Cert	64.5	11.1			310		45.0					160					6.60	5.60	221	0.790	0.360	0.970			
NIST 696 Meas																	6.60	5.60	221	0.790	0.360	0.970			
NIST 696 Cert																									
NIST 696 Meas																									
NIST 696 Cert																									
NIST 696 Meas																									
NIST 696 Cert																									
MP-1b Meas					288					21700			12.8	54		16.2		14200							
MP-1b Cert					285					20910.000			13.79	54.0		16.79		16100.000							
MP-1b Meas					289					19300			13.0	54		16.5									
MP-1b Cert					285					20910.000			13.79	54.0		16.79									
MP-1b Meas					293					21000			13.3	54		17.2									
MP-1b Cert					285					20910.000			13.79	54.0		16.79									
MP-1b Meas					306					21700			12.9	54		15.7									
MP-1b Cert					285					20910.000			13.79	54.0		16.79									
MP-1b Meas					285					20900			13.7			17.1									
MP-1b Cert					285					20910.000			13.79			16.79									
OREAS 101a (Fusion) Meas	764		1.21				379		0.115		128						48.6				5.7		36.9	0.40	
OREAS 101a (Fusion) Cert	816		1.23				403		0		134						48.8				5.92		36.6	0.395	
OREAS 101a (Fusion) Meas			1.10						0.047															0.36	
OREAS 101a (Fusion) Cert			1.23						0															0.395	
KAR00102 Orig	32.5	65	0.86	35	17	11.3	22.3	40	0.258	57.2	6.3	205	0.11	9	< 0.8	30.9	3.1	3.7	16	0.9	0.2	< 6	14.1	0.34	
KAR00102 Dup	33.3	65	0.87	35	22	11.5	22.7	40	0.260	58.1	6.4	203	0.11	9	< 0.8	30.2	3.3	7.5	15	0.9	0.3	< 6	14.5	0.35	
KAR00227 Orig	13.3	31	2.16	3020	< 1	5.2	11.8	10	0.032	1150	3.1	69.7	0.66	24	< 0.8	18.1	2.3	3.9	14	0.4	0.3	< 6	5.4	0.14	
KAR00227 Dup	13.6	32	2.12	3130	< 1	5.4	12.1	10	0.032	1170	3.2	71.9	0.65	25	< 0.8	17.5	2.2	< 0.5	16	0.4	0.3	< 6	5.6	0.14	
KAR00241 Orig	< 0.4	4	0.36	43000	< 1	< 2.4	0.4	< 10	0.015	15.2	< 0.1	11.7	< 0.01	7	< 0.8	5.17	0.2	< 0.5	40	< 0.2	< 0.1	< 6	0.4	0.03	
KAR00241 Dup	< 0.4	4	0.36	43100	< 1	< 2.4	< 0.4	< 10	0.013	15.2	< 0.1	11.6	0.01	6	< 0.8	5.25	0.2	4.5	41	< 0.2	< 0.1	< 6	0.4	0.03	
KAR00295 Orig	9.2	6	4.35	1150	< 1	< 2.4	11.0	40	0.009	49.6	2.7	17.4	0.14	10	1.2	7.61	2.9	< 0.5	14	< 0.2	0.5	< 6	1.9	0.03	
KAR00295 Dup	9.2	6	4.15	1120	< 1	< 2.4	11.1	40	0.009	50.2	2.7	16.8	0.14	9	1.8	7.28	2.8	< 0.5	11	< 0.2	0.5	< 6	1.9	0.03	
Method Blank	< 0.4	< 3		< 3	< 1	< 2.4	< 0.4	< 10		< 0.8	< 0.1	< 0.4		< 2	< 0.8		< 0.1	< 0.5	< 3	< 0.2	< 0.1	< 6	< 0.1		
Method Blank	< 0.4	< 3	< 0.01	< 3	< 1	< 2.4	< 0.4	< 10	< 0.005	< 0.8	< 0.1	< 0.4	0.01	< 2	< 0.8	< 0.01	< 0.1	< 0.5	< 3	< 0.2	< 0.1	< 6	< 0.1	< 0.01	
Method Blank	< 0.4	< 3	< 0.01	< 3	< 1	< 2.4	< 0.4	< 10	< 0.005	< 0.8	< 0.1	< 0.4	< 0.01	< 2	< 0.8	< 0.01	< 0.1	< 0.5	< 3	< 0.2	< 0.1	< 6	< 0.1	< 0.01	
Method Blank			< 0.01						< 0.005				< 0.01			< 0.01								< 0.01	
Method Blank			< 0.01						< 0.005				< 0.01			< 0.01								< 0.01	

Quality Control

Analyte Symbol	Tl	Tm	U	V	W	Y	Yb	Zn
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.1	5	0.7	0.1	0.1	30
Analysis Method	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2	FUS-MS- Na2O2
GXR-1 Meas	0.4	0.4	36.4	76		29.5	2.5	820
GXR-1 Cert	0.390	0.430	34.9	80.0		32.0	1.90	760
GXR-1 Meas	0.4	0.4	34.2	76		28.8	2.3	830
GXR-1 Cert	0.390	0.430	34.9	80.0		32.0	1.90	760
GXR-1 Meas	0.4	0.4	34.6			30.7		
GXR-1 Cert	0.390	0.430	34.9			32.0		
GXR-4 Meas	3.3	0.2	6.3	81	31.3	13.8	1.3	90
GXR-4 Cert	3.20	0.210	6.20	87.0	30.8	14.0	1.60	73.0
GXR-4 Meas	3.3	0.2	6.5	78	33.1	13.9	1.3	70
GXR-4 Cert	3.20	0.210	6.20	87.0	30.8	14.0	1.60	73.0
GXR-4 Meas	3.5	0.2	6.5		32.9	14.3	1.4	70
GXR-4 Cert	3.20	0.210	6.20		30.8	14.0	1.60	73.0
GXR-4 Meas	3.3	0.2	5.8			14.1	1.2	
GXR-4 Cert	3.20	0.210	6.20			14.0	1.60	
NIST 696 Meas				374				
NIST 696 Cert				403.0000				
NIST 696 Meas				381				
NIST 696 Cert				403.0000				
NIST 696 Meas				372				
NIST 696 Cert				403.0000				
MP-1b Meas					1110			172000
MP-1b Cert					1100.000			166700.00
MP-1b Meas					1080			157000
MP-1b Cert					1100.000			166700.00
MP-1b Meas					1220			165000
MP-1b Cert					1100.000			166700.00
MP-1b Meas					1210			175000
MP-1b Cert					1100.000			166700.00
MP-1b Meas					1020			164000
MP-1b Cert					1100.000			166700.00
OREAS 101a (Fusion) Meas		2.9	435	52		177	18.0	
OREAS 101a (Fusion) Cert		2.90	422	83		183	17.5	
OREAS 101a (Fusion) Meas								
OREAS 101a (Fusion) Cert								
KAR00102 Orig	1.0	0.2	6.6	253	2.2	10.7	1.8	120
KAR00102 Dup	1.0	0.2	6.7	258	2.1	10.6	1.8	130
KAR00227 Orig	0.2	0.1	4.8	13	1.1	8.6	1.1	1090
KAR00227 Dup	0.2	0.1	4.9	22	1.3	9.0	1.0	1110
KAR00241 Orig	< 0.1	< 0.1	7.8	< 5	< 0.7	2.9	0.5	140
KAR00241 Dup	< 0.1	< 0.1	7.7	< 5	< 0.7	2.9	0.5	130
KAR00295 Orig	1.2	0.2	0.9	< 5	< 0.7	15.5	1.1	< 30
KAR00295 Dup	1.1	0.2	1.0	< 5	< 0.7	15.1	1.0	< 30
Method Blank	< 0.1	< 0.1	< 0.1	< 5	< 0.7	< 0.1	< 0.1	< 30
Method Blank	< 0.1	< 0.1	< 0.1	< 5	< 0.7	< 0.1	< 0.1	< 30
Method Blank	< 0.1	< 0.1	< 0.1	< 5	< 0.7	< 0.1	< 0.1	< 30
Method Blank								
Method Blank								