

2013 Assessment Report

Property comprising the following Claims:

K 93 and K 94

Located in the:

Keno Hill Area

Mayo Mining District

Yukon Territory, Canada

N.T.S. 105M14

UTM NAD 83, Zone 8

Easting: 484,800

Northing: 7,086,830

Prepared For:

Alexco Keno Hill Mining Corp.

of

1150-200 Granville Street

Vancouver, B.C. V6C 1S4

Prepared By:

Jared Chipman

Alexco Resource Corp.

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Dates Work Performed: August 19th, 2013

Date of Report: December 30th, 2013

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1.0 Summary

Eleven soil samples were collected from the K 93 claim on the 19th of August 2013. Two of these samples returned elevated silver values but no anomalous values were obtained.

2.0 Introduction

This report summarizes work carried out on the K 93 claim for Alexco Keno Hill Mining Corp. Eleven soil samples were collected for the purpose of exploration assessment by Alexco Resource Corp. staff on August 19th, 2013.

3.0 Location and Access

The K 93 and K 94 claims are located in the Mayo Mining District, central Yukon approximately 350 km north of Whitehorse (Figure 1). The claims lie at the base of Keno Hill in the western portion of Keno City, accessed by the Silver Trail Highway. The base of operations for Alexco from which the work was carried out was Elsa, an abandoned mining town located 14 km west of Keno City on the Silver Trail Highway.

The claim location is shown in Figure 2. The area is covered by NTS map sheet 105M14 and is located at approximately 484,800 East and 7,086,830 North. All coordinates are in a UTM NAD 83, Zone 8 map projection datum.

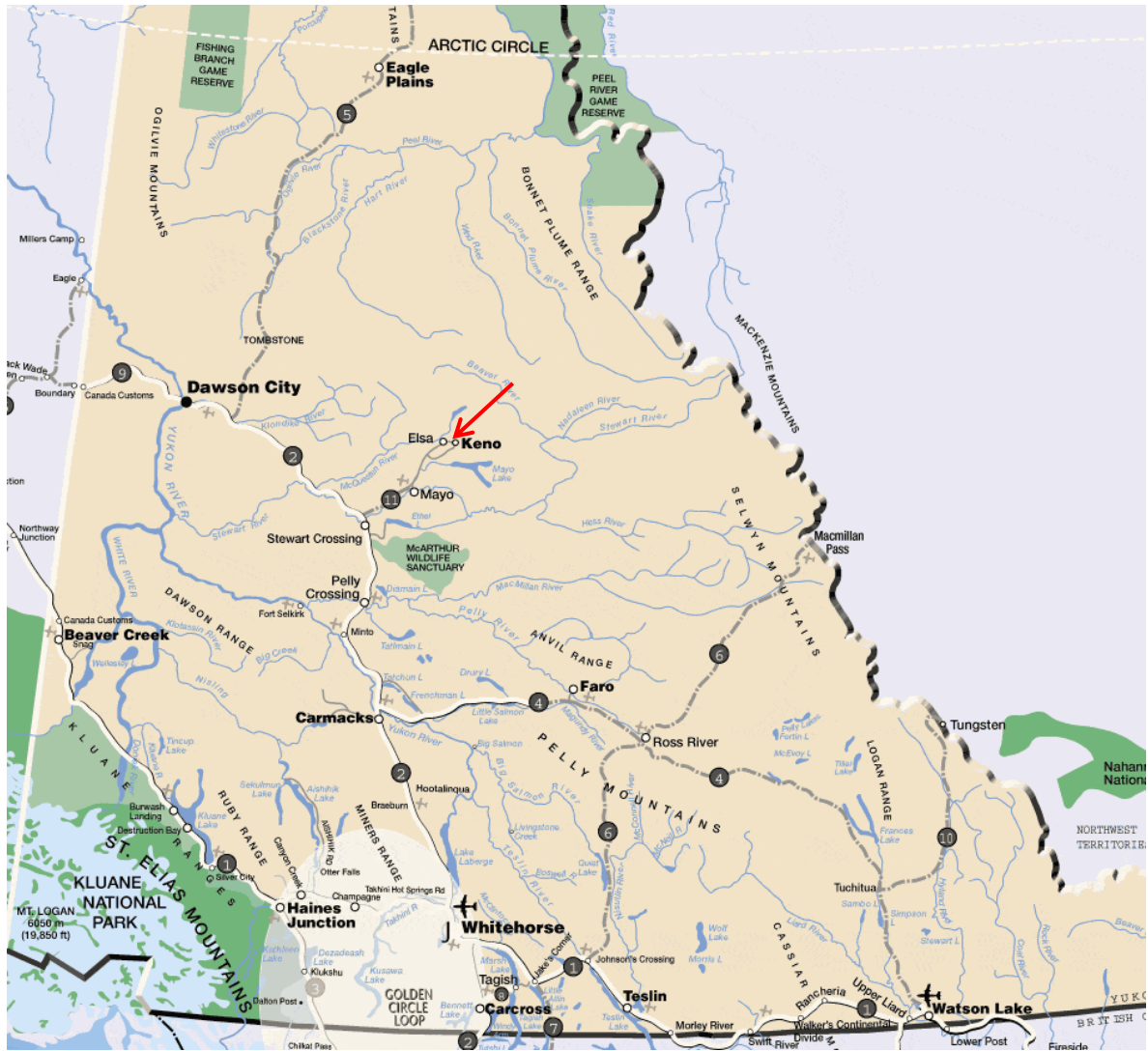


Figure 1. General location of the K 93 and K 94 claims, Yukon Territory.

4.0 Claim status

The K 93 and K 94 claims are active. The claims were originally staked in June of 2007 and prior to current work had an expiry date of December 31st, 2014. No prior assessment reports have been located for the K 93 or K 94 claims or for the ground they cover.

The details for the claim can be found in Appendix 1. A list of personnel and work expenditures are included in Appendices 2 and 3 respectively.

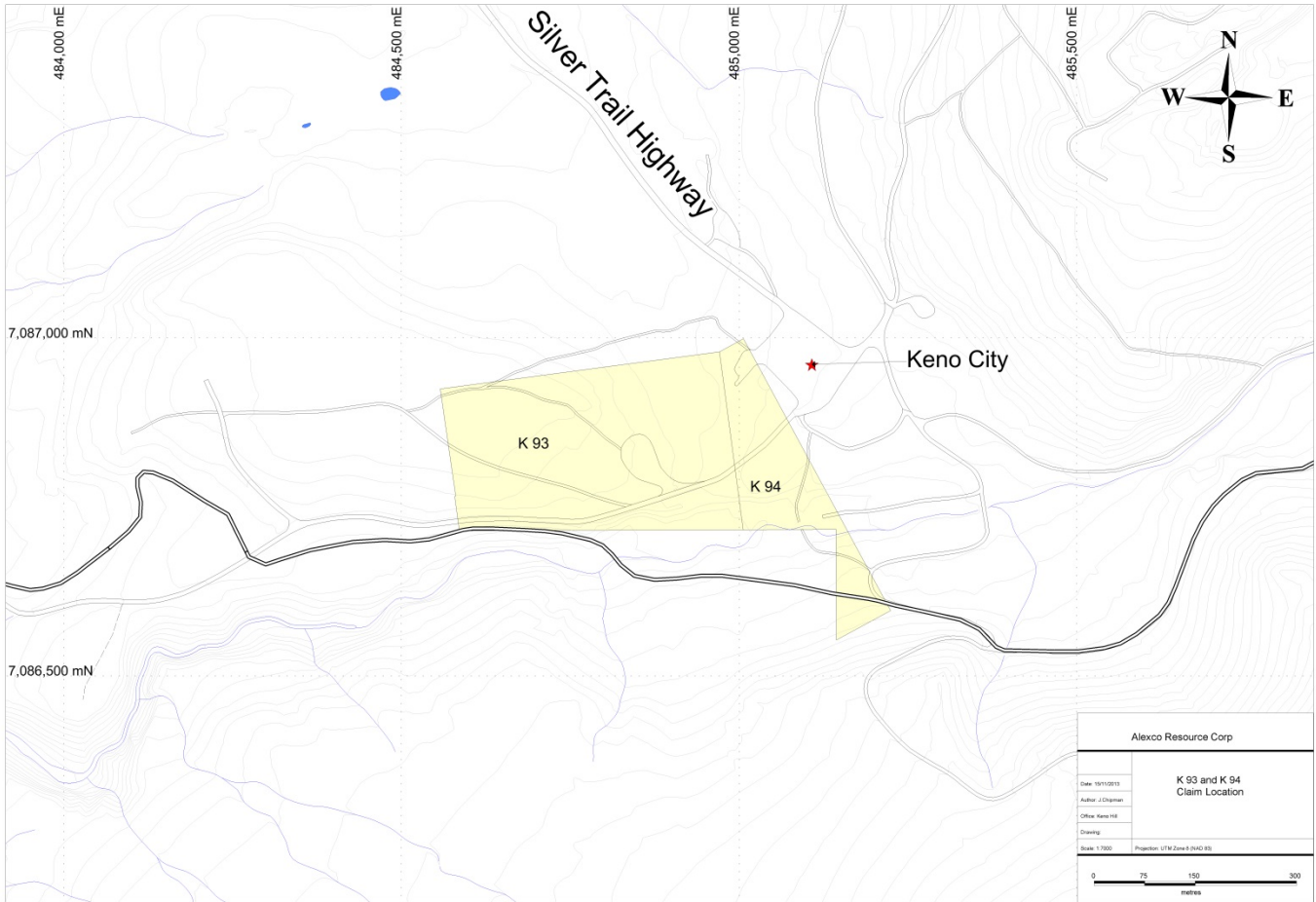


Figure 2. Location of the K 93 and K 94 claim.

5.0 Regional Geology

The Keno Hill area containing the assessed claim is composed primarily of sedimentary rocks deposited on the Neoproterozoic to Paleozoic continental margin located on the western margin of the Selwyn Basin (Murphy, 1997). These sediments were subject to greenschist facies metamorphism during the Jurassic and Cretaceous periods when compressional tectonics produced extensive folding, and imbricated thrust sheets. In the mid-Cretaceous these rocks were subject to further tectonic activity resulting in extensive brittle deformation and emplacement of igneous intrusives. The rocks that underlay the Keno hill camp and host most of the past producing silver mines are the Mississippian Keno Hill Quartzite, the Devonian Earn Group schists, and the Triassic meta-gabbroic sills.

6.0 Local Geology

Although no outcrop has been mapped on the K 93 or K94 claim due to the presence of fluvio-glacial cover, its stratigraphic location is well defined from outcrop to the immediate south-west and the north-east. The claims lie in the upper part of the Basal Quartzite Member (MKg) of the Keno Hill Quartzite Group (Figure 3). A stratigraphic column for the Keno Hill area is shown in Figure 4.

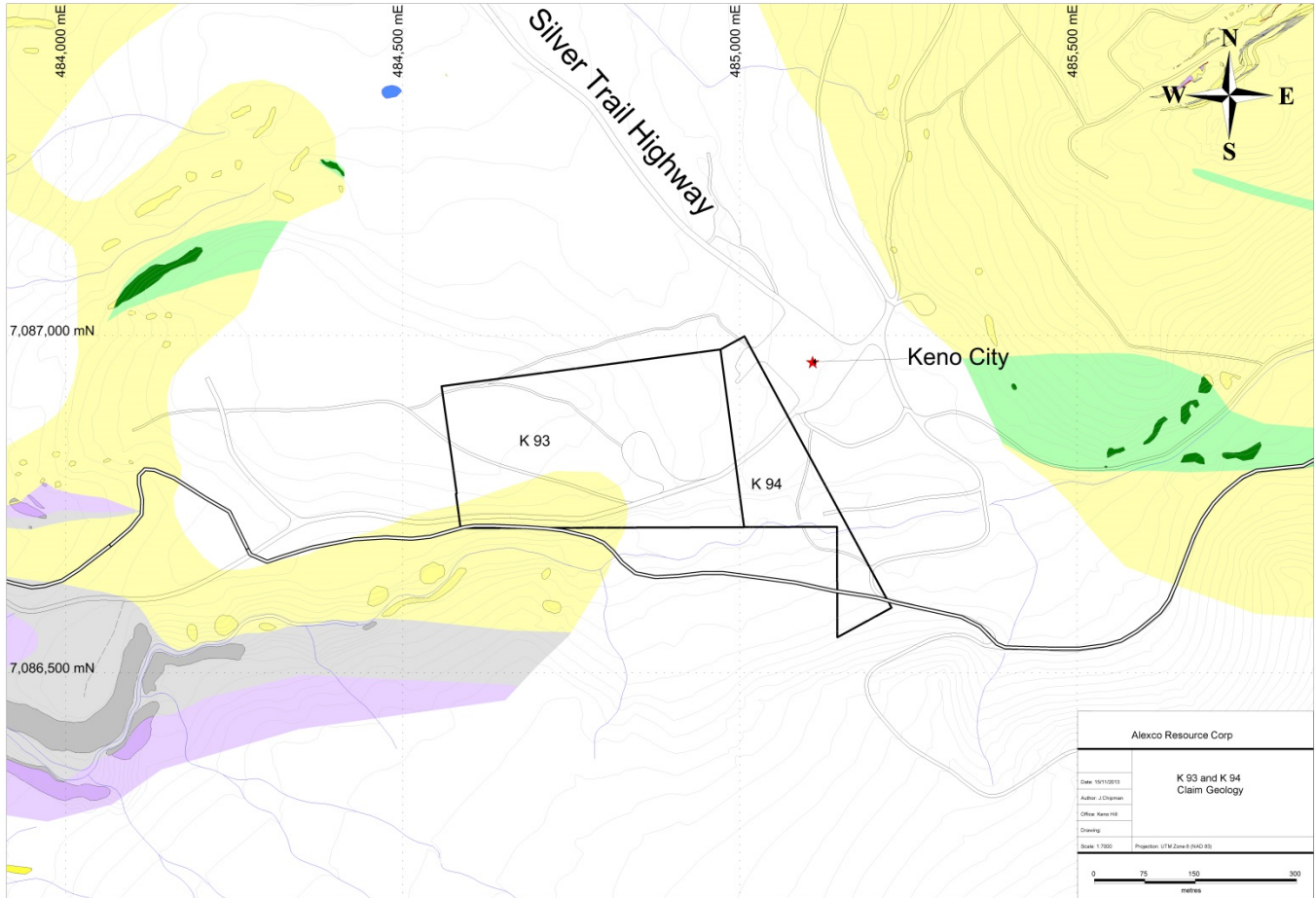


Figure 3. Local geology of the K 93 and K 94 claims. Geology from McOnie & Read, 2009. For legend see Figure 4.

7.0 Soil Assessment and Results

Two lines of soil samples were collected on the K 93 claim (Figure 5). In total eleven samples were taken at 20 metre centers with the best attempt made to sample the more prospective “B” soil horizon. Samples were taken using a combination of shovels and or trowels and placed in paper sample bags for storage, each marked with its own sample number. All relevant data for each sample was recorded in the field then transferred to a digital format as shown in Appendix 4.

All samples were assayed for a 51 trace element analysis by Aqua regia, ICP-MS and ICP-AES by ALS Minerals Laboratory, North Vancouver, BC.

A copy of results, from certificate WH13163142 (finalized on the 23rd of September, 2013) is shown in Appendix 6.

Results

For the soil results received a value is considered to be anomalous if it is equal to or exceeds twice the established background level for that element. Background element values generally associated with mineralization for the Keno Hill area are listed below:

Ag.....	0.5 ppm
Au.....	50 ppb
Pb.....	40 ppm
Zn.....	100 ppm
Cu.....	35 ppm
As.....	50 ppm
Sb.....	5 ppm

No anomalous soil assays are reported from the K 93 suite however two of the eleven samples did return elevated silver values of 0.55 and 0.53 ppm.

A map showing the location of all samples, highlighting the above background levels of silver, arsenic, copper, and zinc is shown in Figure 5. Table 1 shows the range of geochemical values received.

Pt_ME_MS41L_ppm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rb_ME_MS41L_ppm	2.80	8.73	5.86	1.92	4.41	6.43	6.65	8.58
Re_ME_MS41L_ppm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S_ME_MS41L_pct	-0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02
Sb_ME_MS41L_ppm	0.67	1.33	1.04	0.25	0.86	1.06	1.28	1.31
Sc_ME_MS41L_ppm	1.85	3.84	2.55	0.52	2.21	2.58	2.71	2.76
Se_ME_MS41L_ppm	0.50	1.30	0.83	0.24	0.65	0.80	0.95	1.10
Sn_ME_MS41L_ppm	0.16	0.34	0.27	0.05	0.24	0.26	0.32	0.33
Sr_ME_MS41L_ppm	13.00	21.00	15.97	2.74	13.80	15.20	18.08	18.90
Ta_ME_MS41L_ppm	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01
Te_ME_MS41L_ppm	0.02	0.06	0.04	0.01	0.03	0.04	0.05	0.06
Th_ME_MS41L_ppm	1.80	3.78	3.20	0.52	3.12	3.21	3.45	3.66
Ti_ME_MS41L_pct	0.02	0.04	0.02	0.01	0.02	0.02	0.02	0.03
Tl_ME_MS41L_ppm	0.06	0.11	0.08	0.01	0.07	0.09	0.09	0.10
U_ME_MS41L_ppm	0.34	1.03	0.49	0.20	0.39	0.40	0.49	0.60
V_ME_MS41L_ppm	23.90	38.70	32.03	4.47	30.65	32.20	33.65	38.30
W_ME_MS41L_ppm	0.10	0.17	0.13	0.02	0.11	0.13	0.13	0.15
Y_ME_MS41L_ppm	2.44	8.92	5.61	1.77	4.99	6.00	6.25	6.67
Zn_ME_MS41L_ppm	74.30	146.00	109.15	20.17	97.45	104.50	118.25	135.00
Zr_ME_MS41L_ppm	1.03	2.69	1.86	0.65	1.36	1.58	2.57	2.66

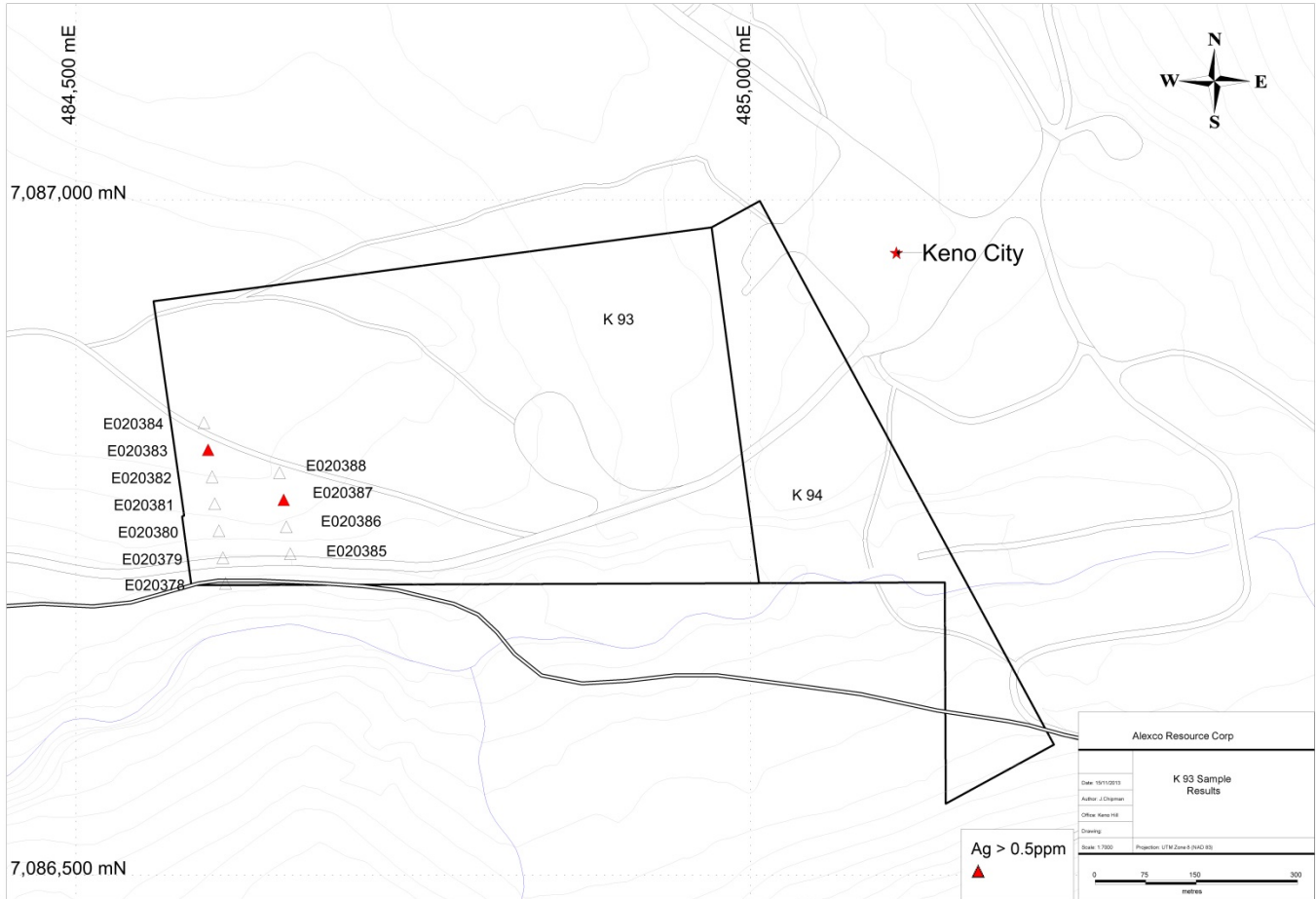


Figure 5. Soil assay results from K 93 claim samples. Highlighted symbols show elevated silver results.

8.0 Conclusions and Recommendations

Although sampling did not return any anomalous results, the K 93 and K 94 claims are underlain by very prospective geology. Elsewhere in the district, the package of Basal Quartzite Member (MKg) near the contact with the overlying Sourdough Hill Member Graphitic (Msg) and Sericite (Mss) Schist Markers, is host to mineralization and past producing mines.

It is recommended a program be put together to test the overburden depth and identify any possible structures that may cross the claims

9.0 List of References

McOnie, A and P.B. Reid. 2009. Stratigraphy, Structure, and Exploration Opportunities Sourdough, Galena and part of Keno Hills, Keno Hill Mining Camp, Central Yukon. Internal Report Alexco Resource Corp.

Murphy, D.C., 1997. Geology of the McQuesten River Region, Northern McQuesten and Mayo Map Areas, Yukon Territory (11P/14, 15, 16; 105M/13,14).
Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Bulletin 6.

Appendix 1

List of claims

Quartz claim	Grant number	Drafting	Regulation	Tenure	Claim label	Owner	Staking date	Recorded date	Expiry date	District
185040032	YC56120	Quartz	Q	Active	K 93	Alexco Keno Hill Mining Corp. - 100%	13-Jun-07	13-Jun-07	31-Dec-14	Mayo
185072520	YC56121	Quartz	Q	Active	K 94	Alexco Keno Hill Mining Corp. - 100%	13-Jun-07	13-Jun-07	31-Dec-14	Mayo

Appendix 2

List of Personnel

Jared Chipman

541 Saunders Road
Deerfield, Nova Scotia
B5A 5N7

Annie Greenfield

6906 Lowes Crt SW,
Calgary, AB
T3E 6G7

Rich Benson

73 Coburg St.
New Westminster, BC
V3L 2E7

Appendix 3

Statement of Expenditures

Claim name	Grant numb	Owner	Field Staff and Reporting	Camp Overhead	Vehicles - support	Analytical	Est. Total
K 93	YC56120	Alexco Keno Hill Mining corp.	\$1,000.00	\$342.00	\$110.00	\$365.00	\$1,817.00

Appendix 4

Soil Sample Descriptions

Sample Number	East	North	Claim	Depth (cm)	Horizon	Color	Silt %	Clay %	Organic %	Gravel %	Sand %	Comments
E020378	484611	7086716	K93	15	B	brown grey	73	5	10	10	2	on the side of a road cut (road build up material?).
E020379	484609	7086735	K93	20	B	brown	73	0	10	15	2	
E020380	484606	7086755	K93	15	B	brown grey	63	2	20	10	5	
E020381	484603	7086775	K93	20	B	grey brown	55	5	20	10	10	
E020382	484601	7086795	K93	15	B	brown grey	53	2	15	10	20	
E020383	484598	7086815	K93	12	B	brown	55	5	20	20	0	Side of road. Thin organic layer.
E020384	484595	7086835	K93	10	B	grey brown	68	2	10	10	10	Side of road. Thin organic layer.
E020385	484659	7086738	K93	15	B	brown grey	75	0	10	10	5	
E020386	484656	7086758	K93	15	B	brown grey	65	10	10	5	10	
E020387	484654	7086778	K93	5	B	brown grey	25	0	10	20	45	3-4m away from location due to road buildup.
E020388	484651	7086798	K93	20	B	grey brown	48	2	10	20	10	

Appendix 5

Soil Sample Assays

Sample Number	Wt_WEI2 1 kg	Au_ME_M S41L_ppm	Ag_ME_M S41L_ppm	Al_ME_M S41L_pct	As_ME_M S41L_ppm	B_ME_MS 41L_ppm	Ba_ME_M S41L_ppm	Be_ME_M S41L_ppm	Bi_ME_M S41L_ppm	Ca_ME_M S41L_pct	Cd_ME_M S41L_ppm	Ce_ME_M S41L_ppm	Co_ME_M S41L_ppm	Cr_ME_M S41L_ppm	Cs_ME_M S41L_ppm	Cu_ME_M S41L_ppm	Fe_ME_M S41L_pct	Ga_ME_M S41L_ppm	Ge_ME_M S41L_ppm	Hf_ME_M S41L_ppm
E020378	0.38	0.002	0.467	0.78	32.1	-10	148.5	0.24	0.155	0.37	0.428	21.2	8.24	16.8	0.562	36.9	2.22	2.37	0.04	0.061
E020379	0.37	0.0008	0.276	1.03	28.6	-10	512	0.23	0.196	0.48	0.356	16.5	6.43	17.8	0.424	29.3	2.29	3.16	0.021	0.033
E020380	0.41	0.0024	0.361	0.86	33.2	-10	169.5	0.29	0.17	0.32	0.665	23.8	8.58	18	0.575	39.7	2.37	2.56	0.038	0.06
E020381	0.34	0.0012	0.094	1.02	31.8	-10	193.5	0.27	0.217	0.26	0.447	25.9	8.42	21	0.837	19.8	2.29	4.11	0.043	0.044
E020382	0.3	0.0026	0.378	1.26	57.2	-10	344	0.53	0.289	0.46	0.554	26.5	10.3	25.1	0.75	47.4	3.06	3.84	0.054	0.067
E020383	0.32	0.0027	0.547	1.09	42.6	-10	235	0.35	0.24	0.47	0.589	25.4	9.02	20.6	0.689	38	2.68	3.54	0.045	0.024
E020384	0.37	0.0269	0.259	0.99	26.8	-10	206	0.32	0.195	0.44	0.285	26.7	8.87	20.4	0.598	28.5	2.29	3.25	0.046	0.045
E020385	0.3	0.0015	0.232	1.12	24.4	-10	322	0.43	0.15	0.43	0.476	21.9	7.97	18.9	0.418	35.1	2	3.24	0.037	0.062
E020386	0.44	0.0025	0.252	1.1	28.1	-10	196.5	0.34	0.185	0.39	0.31	24.9	8.57	19.9	0.775	34	2.71	3.13	0.05	0.052
E020387	0.47	0.0028	0.525	0.98	41.3	-10	170.5	0.27	0.182	0.31	0.84	23	11.3	21.8	1.005	55	2.52	3.12	0.054	0.056
E020388	0.42	0.0024	0.318	1.01	30.8	-10	223	0.33	0.219	0.38	0.466	26.6	8.6	21	0.702	31.7	2.21	3.32	0.052	0.037

Sample Number	Hg_ME_M S41L_ppm	In_ME_M S41L_ppm	K_ME_MS 41L_pct	La_ME_M S41L_ppm	Li_ME_MS 41L_ppm	Mg_ME_ MS S41L_ppm	Mn_ME_ MS S41L_ppm	Mo_ME_ MS S41L_ppm	Na_ME_M S41L_pct	Nb_ME_M S41L_ppm	Ni_ME_M S41L_ppm	P_ME_MS 41L_pct	Pb_ME_M S41L_ppm	Pd_ME_M S41L_ppm	Pt_ME_M S41L_ppm	Rb_ME_M S41L_ppm	Re_ME_M S41L_ppm	S_ME_MS 41L_pct	Sb_ME_M S41L_ppm	Sc_ME_M S41L_ppm
E020378	0.038	0.03	0.04	10.7	11.7	0.38	253	1.38	0.008	0.416	22.3	0.083	25.7	0.002	-0.002	3.65	-0.001	0.01	1.26	2.25
E020379	0.02	0.025	0.04	8.32	14.8	0.34	232	1.43	0.005	0.546	18.05	0.025	14.65	0.002	-0.002	6.52	-0.001	0.01	0.689	1.845
E020380	0.047	0.039	0.04	11.95	13.2	0.4	349	1.55	0.007	0.459	25.4	0.064	24.1	0.002	-0.002	3.75	-0.001	-0.01	1.305	2.41
E020381	0.015	0.029	0.05	13	14.3	0.38	320	2.17	0.006	0.747	18.85	0.048	18.3	0.001	-0.002	8.73	-0.001	0.01	0.672	2.17
E020382	0.06	0.034	0.06	13.75	16.7	0.48	469	2.52	0.007	0.511	31.7	0.08	24.9	0.002	-0.002	8.58	-0.001	0.02	1.305	3.84
E020383	0.059	0.033	0.05	12.75	14.3	0.43	407	2.11	0.01	0.534	24.4	0.08	24.7	0.002	-0.002	6.43	-0.001	0.02	1.06	2.65
E020384	0.057	0.021	0.04	13.45	14.2	0.45	364	1.54	0.01	0.547	21.9	0.104	16.55	0.001	-0.002	5.07	-0.001	0.01	0.855	2.58
E020385	0.028	0.045	0.03	11.2	11.7	0.38	213	1.4	0.01	0.43	20.5	0.051	24.9	-0.001	-0.002	2.8	-0.001	0.01	1.015	2.68
E020386	0.025	0.03	0.05	12.3	15.7	0.42	285	2.29	0.011	0.511	21.2	0.084	19.7	0.001	-0.002	6.69	-0.001	0.01	1.1	2.13
E020387	0.036	0.026	0.05	11.1	13.4	0.48	533	1.51	0.009	0.545	25.7	0.077	39.5	0.004	-0.002	6.6	-0.001	0.01	1.33	2.73
E020388	0.053	0.027	0.04	13.65	14.1	0.41	346	1.54	0.007	0.583	22.6	0.085	20.1	0.002	-0.002	5.59	-0.001	0.01	0.865	2.76

Sample Number	Se_ME_M S41L_ppm	Sn_ME_M S41L_ppm	Sr_ME_M S41L_ppm	Ta_ME_M S41L_ppm	Te_ME_M S41L_ppm	Th_ME_M S41L_ppm	Ti_ME_MS 41L_pct	Tl_ME_MS 41L_ppm	U_ME_MS 41L_ppm	V_ME_MS 41L_ppm	W_ME_M S41L_ppm	Y_ME_MS 41L_ppm	Zn_ME_M S41L_ppm	Zr_ME_M S41L_ppm	Ag_Ag_O G46_ppm	Certificate	Date Received	Date Finalized
E020378	0.6	0.16	14	-0.005	0.03	3.37	0.025	0.059	0.398	23.9	0.1	6.12	114	2.57	0	WH13163142	03/09/2013	23/09/2013
E020379	0.5	0.26	14.05	-0.005	0.03	1.795	0.015	0.079	0.387	33.9	0.125	2.44	74.3	1.12	0	WH13163142	03/09/2013	23/09/2013
E020380	0.6	0.24	13	-0.005	0.06	3.78	0.024	0.066	0.393	25.8	0.108	6.38	146	2.69	0	WH13163142	03/09/2013	23/09/2013
E020381	0.8	0.33	13.05	-0.005	0.03	3.13	0.024	0.108	0.341	38.7	0.129	3.19	98	1.4	0	WH13163142	03/09/2013	23/09/2013
E020382	1.3	0.31	21	-0.005	0.04	3.13	0.015	0.095	1.03	38.3	0.131	8.92	135	1.99	0	WH13163142	03/09/2013	23/09/2013
E020383	0.8	0.34	17.45	-0.005	0.04	3.1	0.02	0.091	0.494	33.4	0.138	5.83	117.5	1.03	0	WH13163142	03/09/2013	23/09/2013
E020384	1	0.24	18.7	-0.005	0.02	3.4	0.024	0.08	0.494	30	0.119	5.94	104	1.56	0	WH13163142	03/09/2013	23/09/2013
E020385	1.1	0.33	16.75	-0.005	0.04	3.09	0.017	0.067	0.367	31.9	0.112	6.08	91.4	2.56	0	WH13163142	03/09/2013	23/09/2013
E020386	0.9	0.24	15.2	-0.005	0.06	3.21	0.02	0.093	0.386	31.3	0.165	4.15	104.5	1.58	0	WH13163142	03/09/2013	23/09/2013
E020387	0.7	0.26	13.6	-0.005	0.02	3.66	0.038	0.093	0.467	32.9	0.113	6	119	2.66	0	WH13163142	03/09/2013	23/09/2013
E020388	0.8	0.3	18.9	-0.005	0.05	3.5	0.022	0.087	0.599	32.2	0.148	6.67	96.9	1.31	0	WH13163142	03/09/2013	23/09/2013

Appendix 6
Statement of Qualifications

Jared Chipman

I Jared Chipman do hereby certify the following:

1. That I am a professional geologist registered with the Association of Professional Geoscientists of Nova Scotia (APGNS). Member # 180
2. That I am employed as a geologist by Alexco Resource Corp.
3. That I am a graduate in geology holding a BSc (Hons) from Saint Mary's University in Nova Scotia, Canada and an MSc from Queens University in Ontario, Canada.
4. That I have been practicing geology in Canada for approximately 7 years.
5. That I am a member of the Society of Economic Geologists.
6. That I was involved in the supervision of this work conducted in August of 2013.
7. That I have no interest in the property described herein, nor do I expect to receive any such interest.

Dated at Elsa, Yukon on this _____ day of _____, 2014