2013 Assessment Report

Property comprising the following Claim:

K 92

Located in the:

Keno Hill Area

Mayo Mining District

Yukon Territory, Canada

N.T.S. 105M13

UTM NAD 83, Zone 8

Easting: 474,580

Northing: 7,086,090

Prepared For:

Alexco Keno Hill Mining Corp.

of

1150-200 Granville Street

Vancouver, B.C. V6C 1S4

Prepared By:

Jared Chipman

Alexco Resource Corp.

1150-200 Granville Street

Vancouver, B.C. V6C 1S4

Dates Work Performed: August 12th, 2013

Date of Report: December 30th, 2013

Table of Contents

List of Figures

List of Tables

List of Appendices

1.0 Summary

Ten soil samples were collected from the K 92 claim on the 12th of August 2013.

One elevated silver value was reported however the source of the sample is a seasonal creek bed of gravel and clay so it is unlikely to be representative of the surrounding ground.

2.0 Introduction

This report summarizes work carried out on the K 92 claim for Alexco Keno Hill Mining Corp. Ten soil samples were collected for the purpose of exploration assessment by Alexco Resource Corp. staff on August 12th, 2013.

3.0 Location and Access

The K 92 claim is located in the Mayo Mining District, central Yukon approximately 350 km north of Whitehorse (Figure 1). The claim lies on the northern flank of Galena Hill and access is 250 metres south off of the Silver Trail Highway approximately 300 metres west of Flat Creek Camp (Elsa townsite). The claim lies approximately 700 metres to the south of the historic Husky and Husky SW mines. 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 105M13 and the claim is located at 474,080 East and 7,086,000 North. All coordinates are in a UTM NAD 83, Zone 8 map projection datum.

Figure 1. General location of the K 92 claim, Yukon Territory.

4.0 Claim status

The K 92 claim is active. The claim was originally staked in June of 2007 and prior to current work had an expiry date of December 31st, 2013. No prior assessment reports have been located for the K 92 claim or ground that it covers.

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.

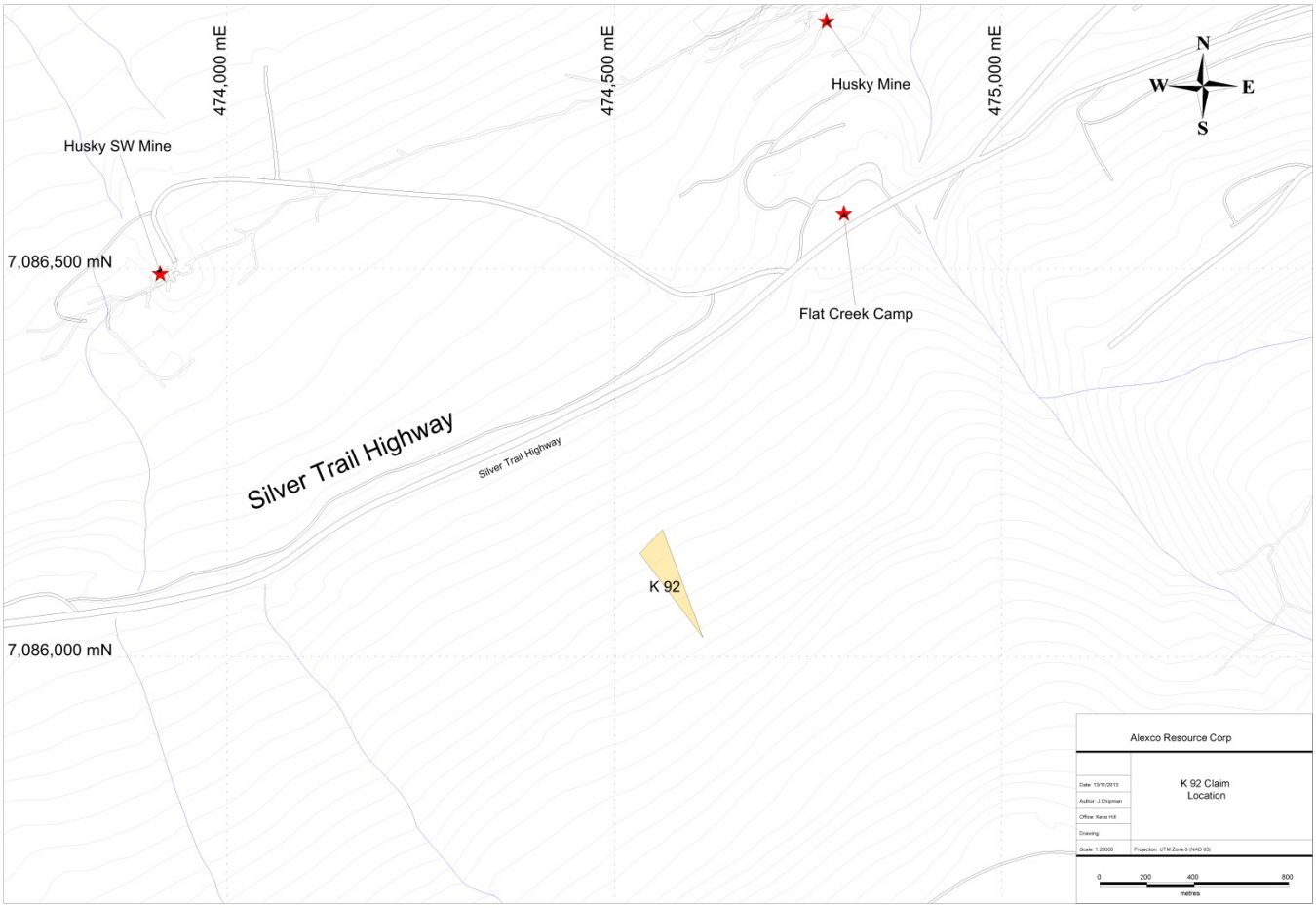

Figure 2. Location of the K 92 claim.

5.0 Regional Geology

The Keno Hill area containing the assessed claim is composed primarily of metasedimentary 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 regional 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 Groups that underlie the Keno Hill area and host most of the past producing silver deposits are the Mississippian Keno Hill Quartzite, the Devonian Earn Group, and Triassic meta-gabbroic sills.

6.0 Local Geology

No outcrop has been mapped on the K 92 claim as it lies on the northern flank of Galena Hill that is covered by deep overburden. The stratigraphic position can be interpreted from surrounding geology (McOnie and Read, 2009), regional trends, and the geology of the Husky Mine located 600 metres to the north. The area of the claim is interpreted to be underlain by the upper part Basal Quartzite Member (MKq) of the Keno Hill Quartzites. A stratigraphic column for the Keno Hill area is shown in Figure 3 (McOnie and Read, 2009).

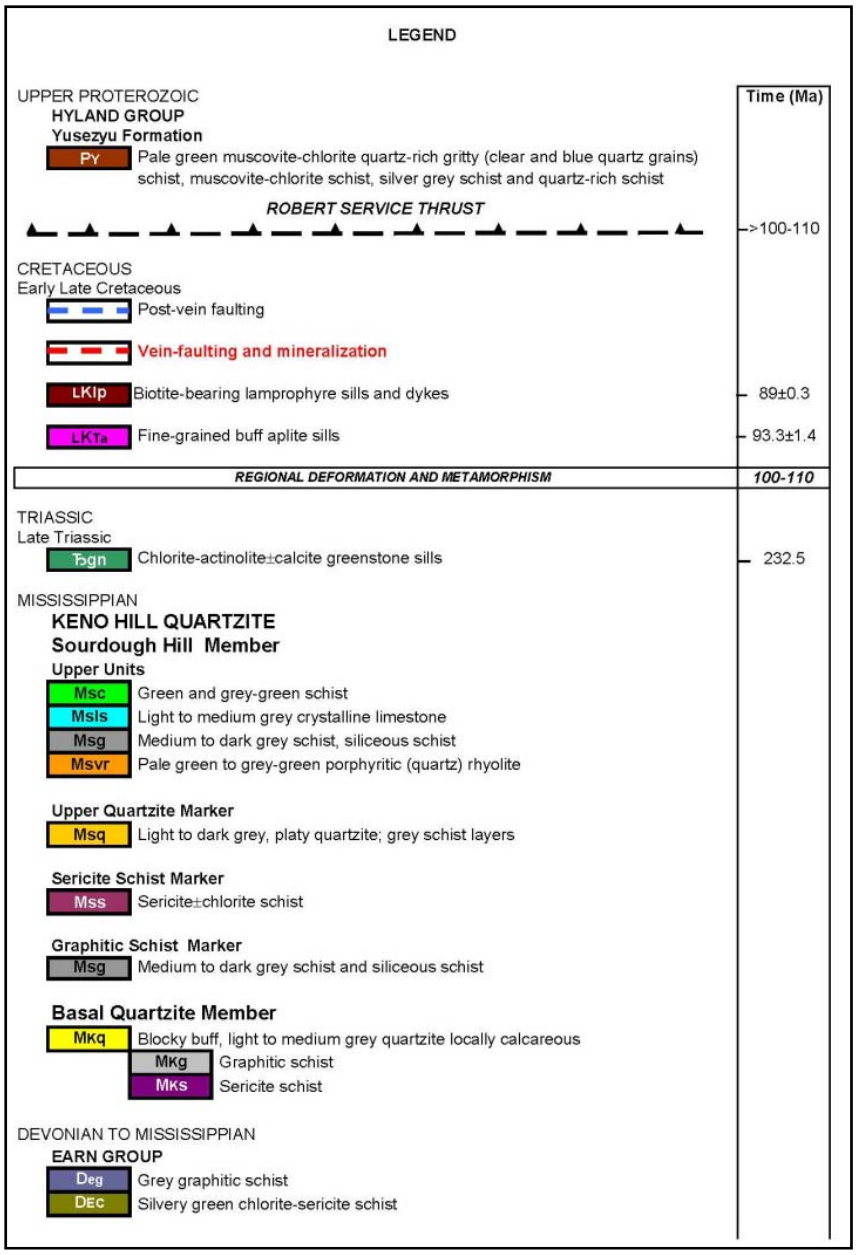

Figure 3. District Stratigraphy and legend for the Keno Hill area (McOnie & Read, 2009).

7.0 Soil Assessment and Results

One line of soil samples was collected on the K 92 claim (Figure 4 & 5). In total ten samples were taken at 10 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 WH13163141 (finalized on the 23rd of September, 2013) is shown in Appendix 5.

Results

Soil sample assay results are considered to be anomalous if the value 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:

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

One of the ten soil samples (E020170) returned a silver value above defined background levels (0.77 ppm). The only other elevated/anomalous value to note is manganese which came from the same sample with a value of 14300 ppm. The sample was taken from a seasonal stream bed of gravel and clay lenses (see Appendix 4).

The location of the samples is shown in Figure 4 with the elevated silver value highlighted in Figure 5. Table 1 shows the range of geochemical values received.

Table 1. Range of Geochemical Soil Values for the K 92 Claim.

Element	Minimum	Maximum	Mean	SD	Percentile25	Percentile50	Percentile75	Percentile90
Au_ME_MS41L_ppm	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Ag_ME_MS41L_ppm	0.30	0.77	0.43	0.13	0.38	0.41	0.45	0.50
Al_ME_MS41L_pct	0.40	0.95	0.77	0.18	0.65	0.82	0.90	0.95
As_ME_MS41L_ppm	8.08	50.30	18.99	12.75	12.00	15.18	17.59	33.38
B_ME_MS41L_ppm	-10.00	-10.00	-10.00	0.00	-10.00	-10.00	-10.00	-10.00
Ba_ME_MS41L_ppm	157.00	1105.00	409.40	269.79	254.00	332.50	437.50	609.10
Be_ME_MS41L_ppm	0.16	0.35	0.26	0.05	0.24	0.27	0.28	0.30
Bi_ME_MS41L_ppm	0.08	0.21	0.15	0.04	0.12	0.15	0.19	0.20
Ca_ME_MS41L_pct	0.78	4.03	1.96	1.19	1.11	1.43	2.58	3.86
Cd_ME_MS41L_ppm	0.17	1.22	0.48	0.29	0.36	0.46	0.53	0.62
Ce_ME_MS41L_ppm	5.25	19.35	14.19	4.92	10.86	16.53	17.04	18.00
Co_ME_MS41L_ppm	5.70	26.20	10.07	6.08	6.45	8.21	10.34	13.78
Cr_ME_MS41L_ppm	6.02	19.20	14.61	4.19	12.34	16.35	16.94	18.71
Cs_ME_MS41L_ppm	0.18	0.67	0.46	0.15	0.37	0.51	0.57	0.59
Cu_ME_MS41L_ppm	12.25	45.30	32.61	10.99	27.05	34.10	41.40	44.85
Fe_ME_MS41L_pct	1.25	2.99	1.74	0.50	1.41	1.67	1.79	2.16
Ga_ME_MS41L_ppm	0.95	2.99	2.30	0.67	1.95	2.53	2.76	2.99
Ge_ME_MS41L_ppm	0.03	0.05	0.04	0.01	0.03	0.03	0.04	0.04
Hf_ME_MS41L_ppm	0.03	0.05	0.04	0.01	0.04	0.04	0.04	0.05
Hg_ME_MS41L_ppm	0.04	0.13	0.07	0.02	0.06	0.06	0.07	0.09
In_ME_MS41L_ppm	0.01	0.03	0.02	0.01	0.02	0.02	0.02	0.02
K_ME_MS41L_pct	0.01	0.04	0.03	0.01	0.02	0.03	0.04	0.04
La_ME_MS41L_ppm	3.17	9.65	7.10	2.18	5.68	8.16	8.31	8.48
Li_ME_MS41L_ppm	1.50	12.30	8.27	3.46	6.03	9.40	10.48	11.40
Mg_ME_MS41L_pct	0.31	0.52	0.39	0.06	0.37	0.40	0.41	0.42
Mn_ME_MS41L_ppm	287.00	14300.00	2616.60	4353.52	543.00	921.50	1797.25	6083.00
Mo_ME_MS41L_ppm	0.35	5.15	1.18	1.44	0.53	0.72	0.98	1.93
Na_ME_MS41L_pct	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01
Nb_ME_MS41L_ppm	0.26	0.45	0.37	0.06	0.31	0.38	0.41	0.43
Ni_ME_MS41L_ppm	11.55	55.70	21.21	12.42	15.98	19.10	19.54	23.75
P_ME_MS41L_pct	0.06	0.11	0.08	0.02	0.07	0.07	0.09	0.10

Pb_ME_MS41L_ppm	3.67	19.40	13.31	4.76	10.89	14.40	16.05	18.82
Pd_ME_MS41L_ppm	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Pt_ME_MS41L_ppm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rb_ME_MS41L_ppm	1.06	5.18	3.91	1.34	3.30	4.40	4.76	5.07
Re_ME_MS41L_ppm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S_ME_MS41L_pct	0.03	0.18	0.09	0.05	0.05	0.08	0.11	0.17
Sb_ME_MS41L_ppm	0.49	1.37	0.93	0.26	0.73	0.93	1.10	1.19
Sc_ME_MS41L_ppm	0.39	2.48	1.55	0.69	1.18	1.76	1.90	2.26
Se_ME_MS41L_ppm	0.50	1.50	1.07	0.30	1.00	1.10	1.28	1.32
Sn_ME_MS41L_ppm	0.09	0.21	0.17	0.04	0.16	0.19	0.20	0.20
Sr_ME_MS41L_ppm	26.20	106.00	53.92	27.35	34.75	42.45	65.63	95.38
Ta_ME_MS41L_ppm	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01
Te_ME_MS41L_ppm	0.01	0.06	0.03	0.01	0.02	0.03	0.04	0.04
Th_ME_MS41L_ppm	0.13	1.89	1.00	0.64	0.43	1.10	1.43	1.77
Ti_ME_MS41L_pct	0.01	0.02	0.02	0.00	0.01	0.02	0.02	0.02
Tl_ME_MS41L_ppm	0.03	0.10	0.07	0.02	0.06	0.09	0.09	0.09
U_ME_MS41L_ppm	0.38	1.29	0.79	0.30	0.58	0.74	0.91	1.22
V_ME_MS41L_ppm	10.80	32.10	21.72	6.27	18.48	22.70	24.33	28.05
W_ME_MS41L_ppm	0.05	0.38	0.13	0.10	0.08	0.10	0.12	0.21
Y_ME_MS41L_ppm	4.03	7.63	5.48	1.03	4.83	5.59	5.83	6.33
Zn_ME_MS41L_ppm	36.20	81.40	65.62	13.38	63.50	67.55	72.40	79.87
Zr_ME_MS41L_ppm	1.09	1.69	1.39	0.16	1.34	1.38	1.45	1.56

8.0 Conclusions and Recommendations

Given the sample medium, the assay results for E020170 may not be representative of the immediate surrounding area of the K92 claim.

With the complete lack of outcrop and the location of the claim being on the lower northern flank of Galena Hill the probability of deep overburden, as seen elsewhere in the district, is high so the lack of results is not unexpected.

It is recommended a program be put together to test the overburden depth and to determine the bedrock lithology beneath the claim.

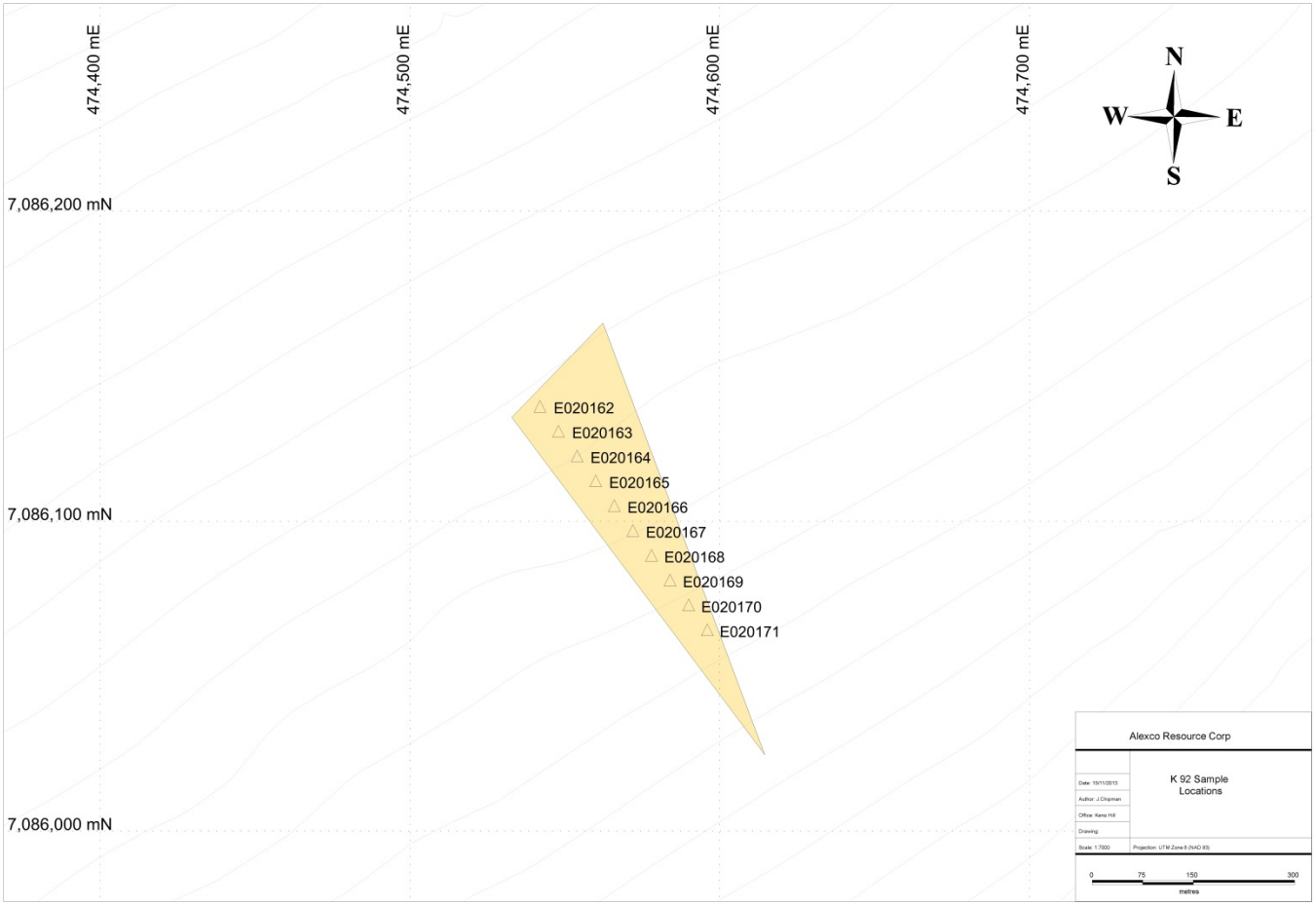

Figure 4. Location and sample numbers for the ten soil samples taken on the K 92 claim.

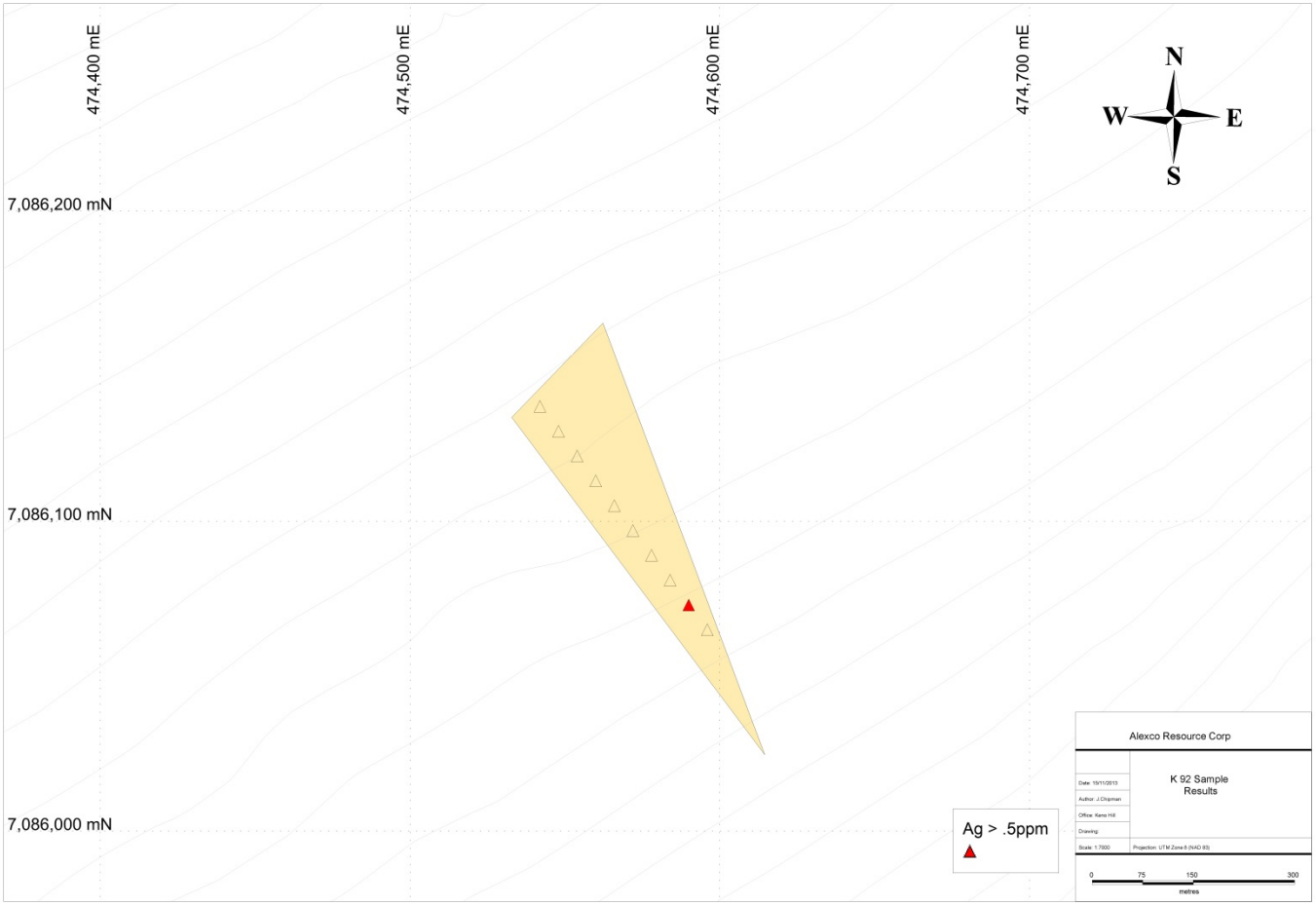

Figure 5. Highlighted symbol shows the one assay from ten that has an above background silver value.

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_cla	Grant_numb	Drafting_t	Regulation	Tenure_sta	Claim_labe	Owner_name	Staking_da	Recorded_d	Expiry_dat	District_n
185211609	YC56119	Quartz	Q	Active	K 92	Alexco Keno Hill Mining Corp. - 100%	11-Jun-07	13-Jun-07	31-Dec-13	Mayo

Appendix 2

List of Personnel

Jared Chipman

541 Saunders Road

Deerfield, Nova Scotia

B5A 5N7

Dave Slocombe

#306 – 1685 West 13th Ave

Vancouver, BC

Matthew McMahon

25 Gadsby Ave

Welland, Ont

L3C 1A8

Appendix 3

Statement of Expenditures

Claim name	Grant numb	Owner	Field Staff and Reporting	Camp Overhead	Vehicles - support	Analytical	Est. Total
K 92	YC56119	Alexco Keno Hill Mining corp.	$533.00	$342.00	$110.00	$332.00	$1,317.00

Appendix 4

Soil Sample Descriptions

Sample Number	East	North	Claim	Depth (cm)	Horizon	Color	Silt%	Clay%	Organic%	Gravel%	Sand%	Comments
E020162	474542	7086137	K92	50	B	Brown	25	25	30	0	20	Deep Muskeg
E020163	474548	7086129	K92	50	A	Brown-red	10	10	60	10	10	Deep Muskeg / permafrost
E020164	474554	7086121	K92	30	B	Brown-grey	25	30	10	10	25	Gravel under muskeg, above B
E020165	474560	7086113	K92	30	B	Grey-brown	20	30	10	10	30	Clay gravel lens in muskeg
E020166	474566	7086105	K92	30	B	Brown-grey	20	35	15	5	25	Clay gravel lens in muskeg
E020167	474572	7086097	K92	40	B	Brown	30	20	25	5	20	Clay gravel lens in muskeg
E020168	474578	7086089	K92	35	B	Brown-grey	20	40	20	0	20	Clay gravel lens in muskeg
E020169	474584	7086081	K92	40	B	Brown	40	20	35	0	5	Clay gravel lens in muskeg
E020170	474590	7086073	K92	40	B	Brown-grey	25	25	20	10	20	Dried up creek bed/Gravel clay lenses
E020171	474596	7086065	K92	30	B	Brown	30	20	35	5	10	Dried up creek bed/Gravel clay lenses

Appendix 5

Soil Sample Assays

Sample Number	Wt_WEI21_kg	Au_ME_MS41L_ppm	Ag_ME_MS41L_ppm	Al_ME_MS41L_pct	As_ME_MS41L_ppm	B_ME_MS41L_ppm	Ba_ME_MS41L_ppm	Be_ME_MS41L_ppm	Bi_ME_MS41L_ppm	Ca_ME_MS41L_pct	Cd_ME_MS41L_ppm	Ce_ME_MS41L_ppm	Co_ME_MS41L_ppm	Cr_ME_MS41L_ppm	Cs_ME_MS41L_ppm	Cu_ME_MS41L_ppm	Fe_ME_MS41L_pct	Ga_ME_MS41L_ppm	Ge_ME_MS41L_ppm	Hf_ME_MS41L_ppm
E020162	0.16	0.0025	0.429	0.91	8.08	-10	293	0.27	0.154	1.52	0.359	16.5	10.35	16.95	0.544	32.2	1.52	2.71	0.027	0.042
E020163	0.12	0.0022	0.374	0.62	15.05	-10	388	0.28	0.118	3.84	0.439	7.49	6.15	10	0.279	45.3	1.25	1.595	0.034	0.041
E020164	0.23	0.0023	0.408	0.95	15.3	-10	241	0.21	0.207	1.01	0.184	19.35	5.87	18.65	0.674	19.75	1.7	2.99	0.03	0.036
E020165	0.16	0.0141	0.298	0.64	13.2	-10	157	0.16	0.117	0.78	0.173	17.1	5.7	13.8	0.416	12.25	1.37	2.01	0.032	0.05
E020166	0.14	0.0023	0.402	0.79	17.55	-10	237	0.24	0.152	1.05	0.364	16.85	7.84	15.9	0.531	26.7	1.71	2.44	0.034	0.045
E020167	0.23	0.0023	0.463	0.86	17.6	-10	314	0.29	0.169	1.33	0.554	15.7	10.3	16.9	0.577	36	1.81	2.62	0.042	0.043
E020168	0.15	0.0034	0.472	0.95	9.72	-10	554	0.26	0.196	1.27	0.531	16.55	12.4	19.2	0.579	28.1	1.63	2.99	0.037	0.042
E020169	0.12	0.0023	0.304	0.4	31.5	-10	454	0.28	0.078	4.03	0.489	5.25	8.57	6.02	0.178	38.7	2.07	0.953	0.035	0.033
E020170	0.25	0.0041	0.769	0.85	50.3	-10	1105	0.35	0.195	1.94	1.215	17.85	26.2	16.8	0.482	42.3	2.99	2.78	0.047	0.039
E020171	0.16	0.0025	0.388	0.68	11.6	-10	351	0.25	0.129	2.79	0.534	9.25	7.35	11.85	0.359	44.8	1.35	1.93	0.036	0.052

Sample Number	Hg_ME_MS41L_ppm	In_ME_MS41L_ppm	K_ME_MS41L_pct	La_ME_MS41L_ppm	Li_ME_MS41L_ppm	Mg_ME_MS41L_pc	Mn_ME_MS41L_pp	Mo_ME_MS41L_pp	Na_ME_MS41L_pct	Nb_ME_MS41L_ppm	Ni_ME_MS41L_ppm	P_ME_MS41L_pct	Pb_ME_MS41L_ppm	Pd_ME_MS41L_ppm	Pt_ME_MS41L_ppm	Rb_ME_MS41L_ppm	Re_ME_MS41L_ppm	S_ME_MS41L_pct	Sb_ME_MS41L_ppm	Sc_ME_MS41L_ppm
E020162	0.062	0.015	0.04	8.18	10.6	0.4	633	0.35	0.01	0.42	18.7	0.065	15	0.001	-0.002	5.18	0.001	0.06	0.977	1.72
E020163	0.071	0.013	0.02	4.14	4.4	0.41	979	0.9	0.013	0.301	19.55	0.11	8.96	0.005	-0.002	2.35	-0.001	0.18	1.365	0.533
E020164	0.131	0.022	0.04	9.65	12.3	0.41	371	0.52	0.012	0.451	15.1	0.069	19.4	0.002	-0.002	5.06	-0.001	0.03	0.777	2.48
E020165	0.04	0.017	0.03	8.34	8.5	0.31	287	0.37	0.008	0.373	11.55	0.058	11.45	-0.001	-0.002	4.36	0.001	0.07	0.488	1.63
E020166	0.049	0.015	0.03	8.22	10.1	0.36	915	0.58	0.009	0.395	16.5	0.067	14.15	-0.001	-0.002	4.43	-0.001	0.09	0.701	1.795
E020167	0.06	0.019	0.03	7.91	10.1	0.39	513	0.55	0.008	0.427	19.5	0.068	14.65	-0.001	-0.002	4.72	-0.001	0.09	0.882	1.935
E020168	0.074	0.031	0.04	8.14	11.3	0.41	5170	1.57	0.01	0.397	20.2	0.064	16.4	-0.001	-0.002	4.77	-0.001	0.05	0.715	2.23
E020169	0.064	0.008	0.01	3.17	1.5	0.32	2070	1	0.011	0.259	15.8	0.092	3.67	0.005	-0.002	1.055	0.001	0.17	1.175	0.389
E020170	0.08	0.021	0.03	8.35	8.7	0.52	14300	5.15	0.008	0.298	55.7	0.085	18.75	0.003	-0.002	4.15	0.001	0.05	1.115	1.79
E020171	0.059	0.016	0.02	4.93	5.2	0.39	928	0.85	0.009	0.334	19.5	0.094	10.7	-0.001	0.002	3.02	-0.001	0.11	1.06	1.03

Sample Number	Se_ME_MS41L_ppm	Sn_ME_MS41L_ppm	Sr_ME_MS41L_ppm	Ta_ME_MS41L_ppm	Te_ME_MS41L_ppm	Th_ME_MS41L_ppm	Ti_ME_MS41L_pct	Tl_ME_MS41L_ppm	U_ME_MS41L_ppm	V_ME_MS41L_ppm	W_ME_MS41L_ppm	Y_ME_MS41L_ppm	Zn_ME_MS41L_ppm	Zr_ME_MS41L_ppm	Ag_Ag_OG46_ppm	Certificate	Date Received	Date Finalized
E020162	1.2	0.19	43.3	-0.005	0.01	1.01	0.017	0.093	1.29	21.1	0.125	5.88	70.6	1.38	0	WH13163141	03/09/2013	23/09/2013
E020163	1	0.14	94.2	-0.005	0.03	0.183	0.01	0.053	0.911	14.1	0.058	4.75	67.2	1.45	0	WH13163141	03/09/2013	23/09/2013
E020164	0.7	0.2	32.2	-0.005	0.03	1.89	0.02	0.096	0.563	27.6	0.381	5.53	67.9	1.33	0	WH13163141	03/09/2013	23/09/2013
E020165	0.5	0.16	26.2	-0.005	0.01	1.76	0.019	0.057	0.376	21.7	0.075	4.03	66.2	1.09	0	WH13163141	03/09/2013	23/09/2013
E020166	1	0.18	33.4	-0.005	0.02	1.495	0.018	0.087	0.641	23.7	0.196	5.65	62.6	1.43	0	WH13163141	03/09/2013	23/09/2013
E020167	1.3	0.2	38.8	-0.005	0.04	1.195	0.018	0.086	0.89	24.4	0.091	6.19	73	1.69	0	WH13163141	03/09/2013	23/09/2013
E020168	1.2	0.21	41.6	-0.005	0.04	1.225	0.017	0.088	0.526	24.1	0.092	5.68	81.4	1.38	0	WH13163141	03/09/2013	23/09/2013
E020169	1.5	0.09	106	-0.005	0.03	0.127	0.009	0.034	0.626	10.8	0.046	4.34	36.2	1.27	0	WH13163141	03/09/2013	23/09/2013
E020170	1.3	0.19	54	-0.005	0.06	0.767	0.015	0.091	0.838	32.1	0.111	7.63	79.7	1.36	0	WH13163141	03/09/2013	23/09/2013
E020171	1	0.16	69.5	-0.005	0.03	0.319	0.013	0.064	1.215	17.6	0.123	5.07	51.4	1.55	0	WH13163141	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