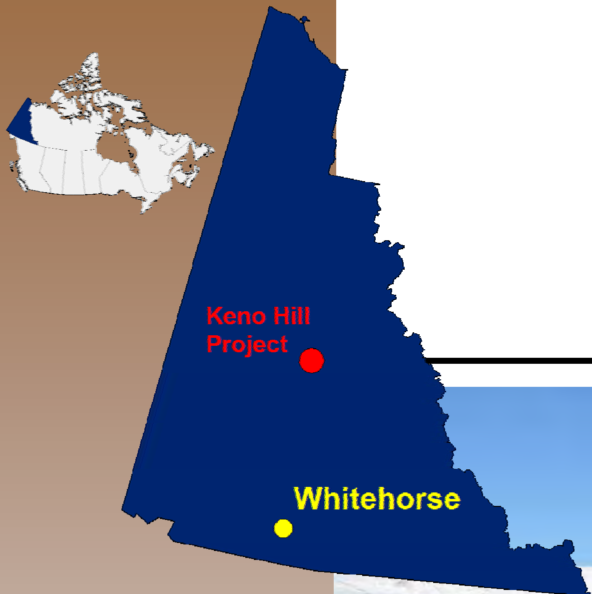
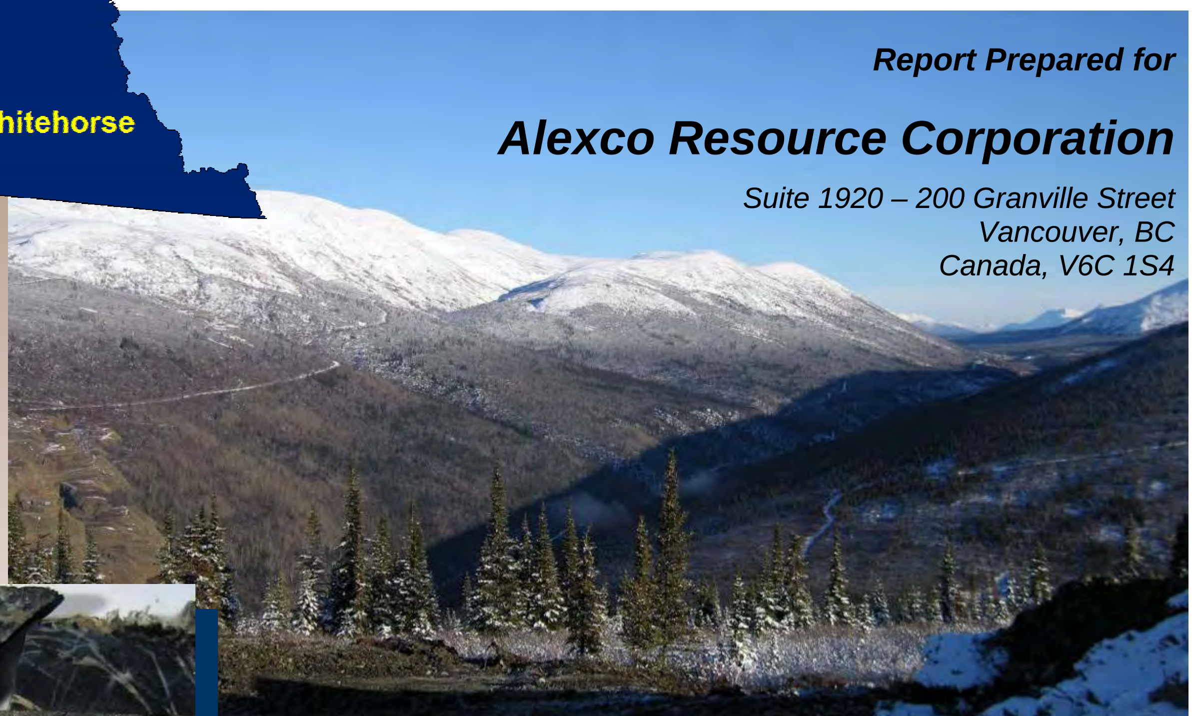
Alexco Resource Corporation

Mineral Resource Estimation Bellekeno Project, Yukon Territory, Canada





Report Prepared for

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Project Reference Number:
3CA-020.000
November 10, 2007

Mineral Resource Estimation Bellekeno Project, Yukon Territory, Canada

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Cover: Typical landscape in the vicinity of the Keno Hill District at the end of October. Insert. Composite section of the Bellekeno Southwest Zone in borehole K06-0016.l

Executive Summary

Introduction

The company Alexco Resource Corporation ("Alexco") was formed in 2005 to explore for precious metals and provide environmental management services throughout Canada and the United States. During 2005, Alexco was selected as the preferred purchaser of the assets of United Keno Hill Mines Limited and UKH Minerals Limited (together, "UKHM") in central Yukon. Shortly thereafter Alexco initiated exploration work at UKHM with the objective of validating and expanding historical silver resources as well as starting a broader district exploration program. The Bellekeno historical resource was considered an early priority and drilling began at Bellekeno in August 2006.

SRK Consulting (Canada) Inc. ("SRK") was retained by Alexco to conduct an independent technical audit of the Bellekeno and Husky SW exploration projects, review historical resources at Bellekeno and construct a mineral resource estimate for portions of the Bellekeno former mine. The main purposes of this technical report is to describe the work undertaken by SRK and support the mineral resource statement for the Bellekeno project following the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1.

Property Description, Location, Access and Physiography

The Keno Hill property is located in the Mayo Mining District approximately 350 kilometres north of Whitehorse, Yukon Territory. The project land controlled or expected to be under the control of Alexco, following issuance of a Care and Maintenance Water License, comprises 713 surveyed quartz mining leases, 794 unsurveyed quartz mining claims and 2 crown grants. The total area approximates 23,350 hectares. Mineral exploration at Keno Hill is permitted under the terms and conditions set out by the Yukon government in the Class III Quartz Mining Land Use Permit – LQ00186, issued on July 5, 2006 and valid until July 4, 2011.

The Bellekeno project area is part of the Keno Hill mining district that is located near Mayo and is accessible from Whitehorse via a 460 kilometre all weather road and by air via the Mayo airport. A gravel road connects Mayo to the project areas.

Central Yukon is characterized by a sub-arctic continental climate with cold winters and warm summers. Average temperatures in the winter are between minus fifteen and minus twenty degrees Celsius while summer temperatures average around fifteen degrees Celsius. Exploration and mining work can be carried out year-round. Annual precipitation averages 28 centimetres; half of this amount falls as snow from October to May or June. The landscape around the Bellekeno and Husky SW projects is characterized by rolling hills and mountains with a relief of up to 1,200 metres. Vegetation is abundant.

History

The Keno Hill mining camp area has a rich history of exploration and mining. Silver was first found in 1901 but small-scale mining only began during 1913. High silver prices at the end of the First World War renewed interest in the district and ultimately success at the Keno Mine led to a staking rush, resulting in the discovery of a number of rich silver deposits. During early 1920's the Treadwell Yukon Company Limited ("TYC") began it growing influence on the fate of the new mining district. By 1941, TYC had produced 1,381 tons of silver and 43,772 tons of lead, more than half from the Keno mine with significant production from the Sadie-Ladue, Lucky Queen, Silver King, Elsa, and Hector-Calumet mines. The 1950's proved to be the most successful time of the mining camp. In 1972, the Husky mine went into production. UKHM closed permanently in early 1989.

Between 1950 and 1990 it is estimated that the Keno Hill district produced over 6,650 tonnes of silver (214 million ounces), 323,000 tonnes of lead and 198,000 tonnes of zinc from about 40 different deposits, primarily from 10 mines. In 1997, the historical measured and indicated mineral resources for the Bellekeno project were estimated at 253,000 tons grading an average of 36.5 ounces of silver per ton and 12.4 per cent lead and 7.1 per cent zinc. The reader is cautioned that these historical figures have been estimated prior to the adoption of NI43-101. These figures should not be relied upon.

Extensive reclamation, remediation and exploration work undertaken at the Bellekeno, Husky SW and Silver King mines was conducted between 1990 and 1998 in unsuccessful attempts to reopen the mines. However, lack of funding, environmental liabilities and site maintenance costs drove UKHM into bankruptcy.

In June 2005, Alexco was selected as the preferred purchaser of the assets of UKHM by PricewaterhouseCoopers Inc., the court-appointed interim receiver and receiver-manager of Keno Hill. In February 2006, Alexco's purchase of UKHM's assets through a wholly-owned subsidiary was approved. Under the Keno Hill Subsidiary Agreement, the subsidiary is indemnified against all historical liability, has property access for exploration and future development and is not required to post security against pre-existing liabilities. The subsidiary has applied for a water license that is expected to be granted in late 2007 or early 2008, thereafter giving Alexco free and clear title to surface and subsurface claims, leases, free-hold land, buildings and equipment at Keno Hill. Alexco embarked on an aggressive surface exploration program during 2006.

Regional and Local Geological Setting

The Keno Hill mining camp is located in the north western part of the Selwyn Basin in an area where the Robert Service Thrust Sheet and the Tombstone Thrust Sheet are overlapping and trend north-westerly. The area is underlain by Upper Proterozoic to Mississippian rocks that were deposited in a shelf environment during the formation of the northern Cordilleran continental margin. The area underwent regional compressive tectonic stresses during the Jurassic and the Cretaceous producing thrusts, folds and penetrative fabrics of various scales.

The Robert Service Thrust Sheet in the south is composed of Late Proterozoic to Devonian clastic sandstone, minor limestone, siltstone, argillite, chert, and conglomerate. The Tombstone Thrust Sheet to the north consists of Devonian phyllite, felsic meta-tuffs and metaclastic rocks, overlain by Carboniferous quartzite that is the main host for the silver mineralization in the Keno Hill camp. Four intrusive suites intrude the layered rocks: Early Paleozoic diabase dikes and sills, mid-Triassic gabbro to diorite pods, Early Cretaceous Tombstone granite to granodiorite suite and Upper Cretaceous peraluminous porphyritic granite.

The local geology is characterized by three sedimentary rock units metamorphosed to greenschist facies assemblages during the Middle Cretaceous. The Lower Schist comprises Devonian to Mississippian graphitic, calcareous, and sericitic schists, quartzite and minor greenstone of Middle Triassic age. The lower contact of this unit has been cut off by the Tombstone Thrust Fault. The 700-metre thick Mississippian Central Quartzite (the Keno Hill Quartzite) consists of quartzite with minor schist, phyllite and greenstone horizons. It is the most important host to the silver mineralization at Keno Hill. The Upper Schists comprises Cambrian quartz-mica schist, quartzite, graphitic schist and minor limestone. The Robert Service Thrust Fault separates the Upper Schist from the younger Central Quartzite.

The rock units are intruded by quartz-feldspar porphyritic sills, commonly in the Lower and Upper Schists. They are correlated with the ninety three million year old Roop Lake granite (Mayo Lake pluton).

Four sets of faults are important. The oldest fault set consists of south dipping foliation-parallel structures related with the Tombstone Thrust Fault. The second fault set (“longitudinal veins”) comprises northeast to east-northeast steeply dipping sinistral faults with offset locally reaching more than 150 metres. These faults essentially carry all the silver mineralization that was mined in the Keno Hill district. The third fault set (“transverse faults”) includes north-west striking and steep north dipping structures, generally barren but filled with filled by quartz with trace to minor arsenopyrite, pyrite and jamesonite. They may represent dilatational zones between “en echelon” longitudinal faults. Late north to northeast trending cross faults displace (dextral and sinistral) veins or longitudinal faults by up to 2,000 metres.

Deposit Types and Mineralization

The Keno Hill District is a polymetallic silver-lead-zinc vein district with characteristics analogous to Kokanee Range (Slocan), British Columbia; Coeur d’Alène, Idaho; Freiberg and the Harz Mountains, Germany; and Príbram, Czech Republic. Common characteristics include the proximity to crustal-scale faults affecting thick clastic metasedimentary rocks intruded by felsic rocks that may have acted as a heat source driving the hydrothermal system. At Keno Hill, the largest accumulation of silver lead and zinc minerals occurred in structurally prepared competent rocks, such as the Central Quartzite.

In general, gangue minerals include manganiferous siderite, minor calcite, quartz and quartz. Silver occurs in argentiferous galena and argentiferous tetrahedrite. In supergene assemblages, silver can be native, in polybasite, or in stephanite, and pyrargyrite. Lead occurs in galena and zinc in iron-rich sphalerite. Other sulphides include minor pyrite, arsenopyrite, and chalcopyrite.

At the district scale, the hydrothermal system exhibits sharp lateral mineralogical changes equivocally associated to temperatures gradients around magmatic rocks. The hydrothermal veins also exhibit sharp vertical mineralogical zoning historically interpreted to be lead-rich at the top to more zinc rich at depth.

Exploration

Most past exploration work in the Keno Hill district was conducted as support to the mining activities until the mines closed in 1989. This historic work involved surface and underground drilling designed to explore areas surrounding the main underground working areas.

The current exploration conducted by Alexco is the first comprehensive exploration effort in the district since 1997. After indexing and digitizing historical archives Alexco drilled 42 surface boreholes (11,180 metres) in 2006 and 73 surface boreholes (21,754 metres) to the end of October 2007 to test the extensions of historic resources at Bellekeno, Husky SW, Silver King, Silver King East, Lucky Queen and several additional exploration targets.

Sampling Method, Approach and Analyses

Historical samples collected by previous project operators include underground chips, split core, reverse circulation and percussion drill cuttings. Sampling procedures are incompletely documented from project archives. Historical drill core samples were taken using procedures meeting industry best practices, reverse circulation and percussion drilling assay samples were taken from split recovered drill cuttings.

Information regarding historical assay procedures reviewed by SRK is limited. All assays were performed by the mine laboratory located in Elsa. SRK understands that gold was determined by fire assay, silver using an XRF procedure and lead and zinc analyses were performed by titration methods.

Alexco implemented industry best practice procedures for all aspects of the drilling, collar and downhole surveying, core description and sampling, sample preparation and assaying, database management.

Assay samples were collected on half core sawed lengthwise with sampling intervals honouring geological boundaries. Sample intervals vary from 0.1 to 1 metre in visibly mineralized core to equal 2-metre lengths otherwise.

Alexco used industry best practices assaying protocols including the use of commercial certified control samples, sample blanks and duplicates at an adequate frequency to monitor the accuracy of the primary laboratory ALS-Chemex in Vancouver that is accredited under ISO-170025 Standards Council of Canada.

Assay samples were dispatched to ALS-Chemex for preparation and assaying using adequate security protocols. All samples were prepared using standard preparation protocols by ALS-Chemex and each sample was assayed for gold by fire assay and atomic absorption spectrometry on 30 gram sub-samples and for a suite of 27 elements (including silver, lead and zinc) by four acids digestion and inductively coupled plasma atomic emission spectroscopy on 0.5 gram sub-samples. Elements exceeding concentration limits were re-assayed using methods suitable for high concentrations.

Data Verifications

In accordance with NI43-101, SRK visited the Keno Hill project on three occasions between March 2005 and August 2007 while active drilling was ongoing. SRK witnessed active drilling sites and was given full access to project data. SRK reviewed with Alexco personnel the historical work carried out at Bellekeno and Husky SW, including archived drawings, drill logs and assay sheets. SRK also reviewed the methodology used by former Bellekeno mine personnel to estimate mineral resources.

SRK did not conduct extensive verifications of historical data because of the extent and of the verifications completed by Alexco as part of the digitization of the archived paper records. By nature much of this information is difficult to verify, but SRK has no reason to believe that this information is unreliable. SRK has reviewed the limited quality control data available for the historical assays. After review and analysis of historical diamond drill hole data, SRK is of the opinion that the historical diamond drilling sample data are generally reliable for the purpose of estimating mineral resources. SRK considers that underground chip sample and percussion drilling data may be unreliable and biased.

Between January 2007 and October 2007, SRK periodically reviewed the analytical quality control data produced by Alexco. Alexco personnel used diligence in monitoring quality control assaying results, investigating potential failures and taking appropriate corrective measures when required. In the opinion of SRK, the quality control data collected by Alexco is comprehensive and despite the difficulties with some standards used, the assaying results delivered by ALS-Chemex is generally reliable for the purpose of resource estimation.

Mineral Processing and Metallurgical Testing

In 1996 Rescan Engineering Ltd. had metallurgical test work done on a blended 85 percent Bellekeno and 15 percent Silver King weighted ore composite as part of a feasibility study. The overall expected recovery based on the test work was 93 percent for lead and silver and 91.6 percent for Zinc.

Alexco has presented SGS-Lakefield with a metallurgical composite from the Bellekeno Southwest Zone and although a final report is not available at the time of writing this report the lock cycle test confirms the Rescan data albeit at better recovery for silver and lead and less for zinc.

Mineral Resource and Mineral Reserve Estimates

The Bellekeno deposit is sub-divided into three main zones: Southwest, 99 and East Zones. Alexco's initial exploration efforts focussed on validating and confirming the polymetallic silver mineralization in the Southwest Zone that exhibited the most promising potential. The Geological model for the Southwest Zone is complete allowing estimating mineral resources with confidence. The resource model for the Southwest Zone replaces the historical resources estimated by the previous project operators. For the 99 and East Zones, Alexco and SRK have audited the UHKM historical estimate and reclassified these estimates according to CIM definition guidelines.

Historical resources for Bellekeno Southwest, 99 and East Zones were published in 1997 by UKHM mine staff. The estimate is based on underground diamond drill core, chip samples and percussion drilling samples. A manual polygonal method was used to estimate silver, lead, zinc and gold grades for each block over minimum mining widths of 5 and 7 feet for shrink and mechanized drift and fill stopes, respectively. A tonnage factor of 10 cubic feet per ton was used to convert volumes into tonnages.

Alexco and SRK audited the UKHM resource calculations. Alexco audited the UHKM polygon estimate by recalculating 38 polygon blocks for mining levels 600, 500 and 400 using only blocks historically classified as "probable" and "proven" by UKHM. To validate Alexco audit findings SRK audited the calculations for 14 polygons re-calculated by Alexco. SRK found 20 calculations errors from over 1,500 checked calculations. Re-calculation of tonnages and grades suggest no significant change in tonnage and grade changes not exceeding 6 percent when compared to the Alexco audit.

SRK concludes that a portion of historical resources in the Bellekeno 99 and East Zones meet the CIM definition guidelines and therefore can be reclassified as an Inferred Mineral Resource (Table i) under the CIM Definition Standards for Mineral Resources and Mineral Reserves (December 2005) if historical resource blocks estimated using percussion drilling samples, 99 Zone blocks located in the first three levels and those not classified as "probable" or "proven" are omitted.

For the Bellekeno Southwest Zone, Alexco completed sufficient drilling to interpret with confidence the geology of the silver-rich polymetallic mineralization, and there is sufficient new reliable assaying data to support re-estimating the mineral resources using a geostatistical approach constrained by wireframes.

Table i. Mineral Resource Statement* for the Bellekeno 99 and East Zones, SRK Consulting, November 10, 2007.

Category	Zone	Tonnage [short tons]	Ag [oz/t]	Pb [%]	Zn [%]	Au [oz/t]
Inferred (Imperial)	99	61,400	46.5	11.1	5.5	0.00
	East	24,600	30.8	5.3	7.1	0.01
Total		**86,000**	**42.0**	**9.5**	**6.0**	**0.00**
		[Tonnes]	**[gpt]**	**[%]**	**[%]**	**[gpt]**
Inferred (metric)	99	55,700	1,593	11.1	5.5	0.0
	East	22,300	1,056	5.3	7.1	0.2
Total		**78,000**	**1,440**	**9.5**	**6.0**	**0.1**

* Reported at a cut-off of 15oz/t silver. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Audited by Alexco and SRK and converted to the metric system using conventional conversion factors. Silver grade capped at 100 oz/t. All figures have been rounded to reflect the relative accuracy of the estimates.

The drill hole databases for the Southwest Zone comprises 28 diamond core drill holes, 147 chip samples and 43 percussion holes. Alexco drilling data contains assay results for silver, gold lead and zinc, while UKHM diamond and percussion holes samples were assayed for silver, lead and zinc and occasionally for gold. UKHM chip samples were assayed silver, lead and zinc only. Alexco provided SRK with a geological interpretation as outlines on vertical sections for the Southwest Zone of the Bellekeno vein that is bounded by two distinctive lithology units. SRK snapped sectional strings to drill hole traces and then created a three dimensional solid representing the Southwest Zone of the Bellekeno vein in Datamine.

Assay data were composited to the full width of the Southwest vein to account for the narrow vein thickness. In this process each interval was weighted by core recovery, length of sample and pulp specific gravity of each sample interval. Core recovery weighting negatively impacts the resulting composited grade for poor core recover intervals, length weighting adjusts for the different length of samples and pulp specific gravity weighting accounts for the large variation in specific gravity of some portion of the vein. After analysis of cumulative probability plots, SRK is of the opinion that it is not necessary to cap high grade composites.

There are insufficient drill hole composites (28) to model useful variograms. For variography, SRK combined drill hole and chip sample composites across the entire Bellekeno vein (Southwest, 99 and East Zones) for variography. Pairwise relative variograms were modelled showing spatial continuity sub-parallel to the strike and along the dip of the vein.

The Southwest Zone block model was rotated to align with the principal directions of the modelled vein and contains three levels of sub-blocks to ensure that the volume of the vein volume is accurately represented. Parent block size was set at 5 metres X direction, 3 metres in the Y direction and 5 metres in the Z directions. The underground workings and mined out areas were removed from the block model.

SRK used an inverse distance estimator to interpolate grades and a pulp specific gravity into the block model from the drill hole composite file only. Chip samples and percussion drill data were not considered. Estimation was completed in two runs. The first estimation run used variography ranges and orientation except that the normal direction was set at 10 metres with a minimum of two and a maximum of 8 composites. The second estimation run used twice the variogram ranges to estimate blocks not estimated during the first run using a minimum of one and a maximum of eight composites. Octant search parameters were not used for either estimation runs.

SRK used the relationship between core specific gravity determination and pulp specific gravity to estimate a block specific gravity value.

SRK validated the resource model for the Southwest Zone by comparing with nearest neighbour estimates, inverse distance square estimates. The differences were found to be insignificant.

The mineral resources estimated for the Bellekeno Southwest Zone were classified according to "CIM Definition Standards for Mineral Resources and Mineral Reserves" (December 2005) by G. David Keller, P. Geo. a Qualified Person as defined by NI 43-101. In classifying the mineral resources SRK considered the uneven drill hole spacing, the high weight of three boreholes drilled by Alexco, the strong variation of density of the mineralization based on limited sampling and the variography completed on borrowed samples from chip samples and other zones. SRK is of the opinion that the mineral resources for the Bellekeno Southwest Zone are appropriately classified as Inferred Mineral Resources as indicted in Table ii.

Table ii. Mineral Resource Statement* for the Bellekeno Southwest Zone, SRK Consulting, November 10, 2007.

Category	Zone	Tonnage [Tonnes]	Ag [gpt]	Pb [%]	Zn [%]	Au [gpt]
Inferred	Southwest	278,000	1,683	23.4	5.9	0.4

* Reported at a cut-off of 500 gpt silver. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates.

The consolidated Mineral Resource Statement for the Bellekeno deposit is presented in Table iii.

Table iii. Consolidated Mineral Resource Statement* for the Bellekeno Deposit, SRK Consulting, November 10, 2007.

Category	Zone	Tonnage [Tonnes]	Ag [gpt]	Pb [%]	Zn [%]	Au [gpt]
Inferred	99**	55,700	1,593	11.1	5.5	0.0
	East**	22,300	1,056	5.3	7.1	0.2
	Southwest***	278,000	1,683	23.4	5.9	0.4
Total Inferred		**356,000**	**1,630**	**20.3**	**5.9**	**0.3**

* Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates.
** Reported at a cut-off of 15 oz/t silver. Silver grades capped at 100 oz/t.
*** Reported at a cut-off of 500 gpt silver. Silver grades not capped.

Conclusion and Recommendations

In 2006 and 2007, Alexco completed two drilling programs targetting the historical resource areas at the former Husky SW and Bellekeno mines. This drilling was successful in confirming historical information suggesting the existence of significant polymetallic silver mineralization at both areas.

The mineral resource model for the Southwest Zone does not consider assay results for three boreholes obtained after the preparation of this report. The mineral resource models for the Southwest Zone should be revised after all assays have been received. Several boreholes of the 2007 drilling program investigated the East zone. The information from these boreholes should be sufficient to allow estimating the mineral resource for the East Zone separately.

SRK considers that a better resource classification will require tight drill spacing that cannot be economically and technically achieved from surface drilling. SRK believes that this can only be effectively achieved through underground exploration. An underground exploration program would also allow re-sampling of historical workings to confirm historical chip sampling data that are considered problematic.

In September 2007, Alexco approved a plan to initiate underground exploration and development of the Bellekeno deposits. This plan includes a new 600-metre long access ramp and a 400-metre long decline to provide drilling stations to test the East Zone. The plan also includes the rehabilitation of the 625 Level to the portal as a secondary escape way, and the mechanized ramps to the 700 and 800 levels. Diamond drill stations will be built to allow investigating the Southwest and 99 Zones with tightly spaced drilling to support improving the classification of mineral resources to Indicated Mineral Resource category and their subsequent conversion to a Mineral Reserve. There is no guaranty that the proposed underground exploration program will be successful. The new underground development work is designed to be useable for production if the economics of the project are considered positive.

Alexco has initiated a scoping study that is expected to be completed by the end of December 2007. SRK has been retained to provide assistance for specific sections including resource and reserve estimates, mining methods, backfill and associated costs.

The proposed budget for this underground development is approximately CN$16.1 million. Of this total, the planned expenditures during 2008 are: CN$9.60 million for new underground access and rehabilitation of existing underground workings: CN$2.15 million for underground diamond drilling and CN$1.40 million for support costs and equipment.

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1 Introduction

The company Alexco Resource Corporation ("Alexco") was formed in 2005 to explore for precious metals, especially silver and provide environmental management services to unlock value at mature, closed or abandoned mine sites throughout Canada and the United States.

During 2005, Alexco was selected as the preferred purchaser of the assets of United Keno Hill Mines Limited and UKH Minerals Limited (together, "UKHM") in Yukon by PricewaterhouseCoopers Inc., court appointed interim receiver and receiver-manager of UKHM. Shortly thereafter Alexco initiated exploration work at UKHM with the objective amongst others to re-evaluate the historical silver resources at the Bellekeno, Silver King and Husky Southwest mines.

During 2006, SRK Consulting (Canada) Inc. ("SRK") was retained by Alexco to conduct an independent technical audit of the Bellekeno and Husky Southwest exploration projects, review historical resources at Bellekeno and construct a mineral resource estimate for the two former mines. The main purpose of this technical report is to describe the work undertaken by SRK and support the mineral resource statement prepared for the Bellekeno project.

Initial contacts were made between SRK and Clynt Nauman, President and CEO of Alexco, in September 2006. The work program was discussed and agreed through exchange of correspondence. During the fall of 2006, SRK conducted a technical audit of the exploration data in preparation of subsequent resource estimation work. In December of 2006 Alexco commissioned SRK to construct a mineral resource model for two polymetallic sulphide zones (Bellekeno and Husky SW) using a CIM "best practice" digital geostatistical approach. This report concerns the disclosure of mineral resources for the Bellekeno project. Mineral resources for the Husky SW deposit will be the subject of a future technical report.

Resource estimation work was carried out between the month of January and November of 2007.

1.1 Qualification of SRK

The SRK Group comprises over 500 professionals, offering expertise in a wide range of resource engineering disciplines. The SRK Group's independence is ensured by the fact that it holds no equity in any project and that its ownership rests solely with its staff. This permits SRK to provide its clients with conflict-free and objective recommendations on crucial judgment issues. SRK has a demonstrated track record in undertaking independent assessments of Mineral Resources and Mineral Reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies and financial institutions worldwide. The SRK Group has also worked with a large number of major international mining companies and their projects, providing mining industry consultancy service inputs.

This technical report was compiled by Dr. Lars Weiershäuser, P.Geo. (APGO#1504), Mr. David Keller, P.Geo. (APGO#1235) and Dr. Jean-François Couture, P.Geo. (APGO#0197).

Dr. Weiershäuser is a consulting geologist with SRK and has been employed by SRK since February 2007. Dr. Weiershäuser has not visited the property.

Mr. Keller is a Principal Resource Geologist with SRK and has been employed by SRK since 2004. He has been engaged in mineral deposit evaluations and resource estimates since 1986. Mr. Keller visited the property in March 2005 and again in August 2007.

Dr. Couture is a Principal Geologist with SRK and has been employed by SRK since 2001. He has been engaged in mineral exploration and mineral deposit studies since 1982. Since joining SRK, Dr. Couture has prepared independent technical reports on several exploration projects in Canada, United States, China, Kazakhstan, Northern Europe, West Africa and South Africa. Dr. Couture has visited the Bellekeno and Husky Southwest Projects on one occasion in October 2006.

1.2 Scope of work

The scope of work, as defined in the letter of engagement, includes the construction of a mineral resource model for those portions of the Bellekeno and Husky Southwest deposits investigated by Alexco and the preparation of an independent technical report in compliance with NI43-101 guidelines. This work typically involves an assessment of the following aspects of this project:

- Topography, landscape, access;
- Regional and local geology;
- History of exploration work in the area;
- Audit of historical resource estimation procedures at Bellekeno;
- Audit of exploration work carried out by Alexco;
- Mineral resource estimation for portions of the Bellekeno;
- Validation;
- Recommendations for additional work.

This technical report was prepared following the guidelines of the Canadian Securities Administrators National Instrument 43-101 and Form 43-101F1, and in conformity with generally accepted CIM “Exploration Best Practices” and “Estimation of Mineral Resource and Mineral Reserves Best Practices” guidelines.

1.3 Basis of the Technical Report

This report is based on information collected by SRK during the site visit and on additional information provided by Alexco Resource Corporation.

SRK conducted certain verifications of exploration data from archived files maintained by the Company. The information contained herein is based on information believed to be reliable.
This technical report is based on the following sources of information:

- Discussions with Alexco exploration personnel;
- Personal inspection the Keno Hill project and surrounding areas;
- Review of exploration work conducted by Alexco;
- Additional information obtained from public domain sources.

1.4 Site visit

In compliance with NI 43-101 guidelines, Dr. Couture visited the Keno Hill silver project between October 24 and 26, 2006. The purpose of the visit was to review exploration work carried out by Alexco during active drilling in preparation for resource estimation work to be competed by SRK on this project. In detail, the review included:

- Drilling procedures;
- Surveying procedures;
- Core handling, description and sampling procedures;
- Data entry and data management procedures;
- Compilation of historical mine and exploration data;
- Geological interpretations;
- Geological and structural setting of the silver and base metals sulphide mineralization.

A memorandum was submitted to Alexco immediately after the site visit to summarize work completed as well as initial findings.

Mr. Keller visited the Keno Hill property on March 22 and 23, 2005 and again from August 30, to September 6, 2007. During his second visit Mr. Keller verified the ongoing logging and discussed resource estimation strategies.

2 Reliance on other Experts and Declaration

SRK's opinion contained herein and effective **November 10, 2007**, is based on information provided to SRK by Alexco throughout the course of SRK's investigations, which in turn reflect various technical and economic conditions at the time of writing. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently actual results may be significantly more or less favourable.

This report includes technical information, which requires subsequent calculations to derive sub-totals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, SRK does not consider them to be material.

SRK is not an insider, associate or an affiliate of Alexco, and neither SRK nor any affiliate has acted as advisor to Alexco or its affiliates in connection with this project. The results of the technical review by SRK are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

The Bellekeno and Husky Southwest polymetallic silver projects are located within the historic Keno Hill mining camp. Minimal new surface disturbances have occurred within the project areas arising primarily from surface exploration activities such as drilling and prospecting. However, the project areas have been affected significantly throughout the history of the mining camp, which dates back as early as the late 1800's.

Potential environmental liabilities associated with the Bellekeno and Husky Southwest projects were excluded from the work program. As such, no verification was conducted by SRK and no opinion is expressed regarding the environmental aspect of this exploration project.

Alexco informed SRK that the land titles are in good standing and that project lands will be transferred to Alexco from PriceWaterhouseCoopers acting as receiver for the Federal Government, following issuance of a Care and Maintenance Water License. The total land package comprises 713 surveyed quartz mining leases, 794 unsurveyed quartz mining claims and 2 crown grants. The total area approximates 23,350 hectares. For the purpose of this assignment, SRK has not verified the status of the mining titles with the Government authorities and has relied on information provided by Alexco

SRK was informed by Alexco that there are no known litigations potentially affecting the Bellekeno and Husky Southwest polymetallic Ag-Pb-Zn projects.

3 Property Description and Location

The Keno Hill property is located in the Mayo Mining District approximately 350 kilometres north of Whitehorse, Yukon Territory. The area is covered by NTS map sheets 105M/13 and 105M/14. The project land controlled or expected to be under the control of Alexco, following issuance of a Care and Maintenance Water License, comprises 713 surveyed quartz mining leases, 794 unsurveyed quartz mining claims and 2 crown grants. The total area approximates 23,350 hectares. UKHM claims may be subject to unknown or unregistered royalties and/or agreements (Figure 1).

Ownership details are as follows:

- 650399 BC Ltd. (AlexcoSub) is the registered owner (100%) of 37 quartz mining leases and 673 quartz claims (full size and fractional). A small number of these claims and leases are subject to option or successor agreements and/or future mineral royalty payments (Springmount acquisition and McQuesten AOI with Eagle Plains);
- UKHM with court appointed PriceWaterhouseCoopers administrator is 100% owner of 673 quartz mining leases, 2 crown grants and 85 quartz mining claims;
- UKHM with court appointed PriceWaterhouseCoopers administrator is 50% owner of 3 quartz mining leases;
- UKHM with court appointed PriceWaterhouseCoopers administrator is 70% owner of 29 quartz mining claims;
- UKHM with court appointed PriceWaterhouseCoopers administrator is 65% owner of 7 quartz mining claims.

Neighbouring and Adjacent Claims not under the control of Alexco include:

- Bardusan Placers - Placer claims overlapping some quartz claims;
- StrataGold Aurex property and Yukon Gold Mount Hinton project;
- Several claim blocks as inliers owned by various individuals and companies.

Mineral exploration at Keno Hill is permitted under the terms and conditions set out by the Yukon government in the Class III Quartz Mining Land Use Permit – LQ00186, issued on July 5, 2006 and valid until July 4, 2011.

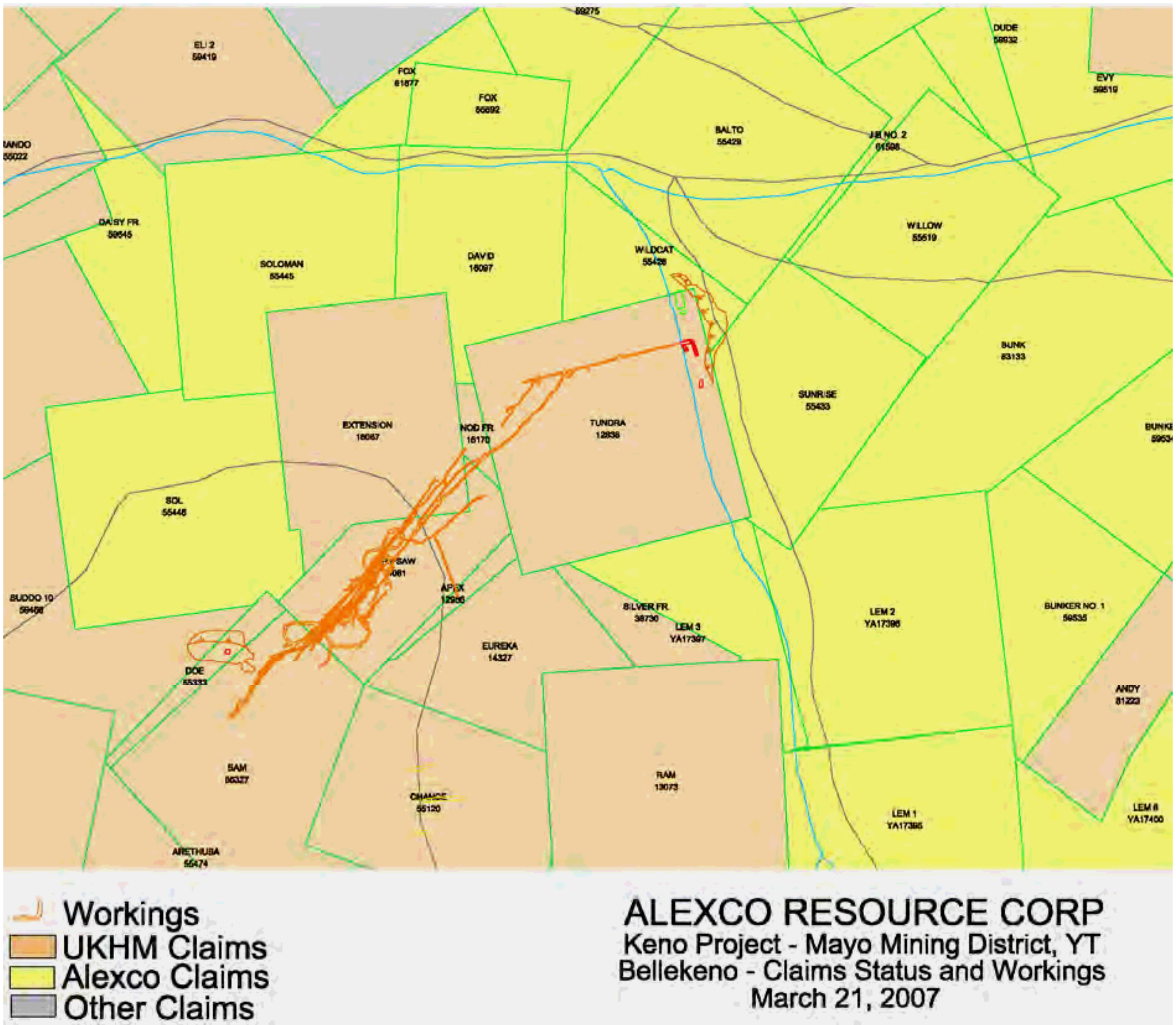


Figure 1: Claim status and location of underground workings in the Bellekeno area.

4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Bellekeno and Husky SW project areas are part of the historic Keno Hill mining camp, located in central Yukon Territory (Figure 2). The closest town is Mayo, located on the Steward River, circa fifty five kilometres to the south. Mayo is accessible from Whitehorse via a 460 kilometre all weather road; the town is also serviced by Mayo airport, which is located just to the north. A gravel road leads from Mayo to the project areas. Historically, the mining camp was linked by river route to the outside world; since 1950 the all weather highway, which was also used for transporting the ore, is the main link

The central Yukon Territory is characterized by a sub-arctic continental climate with cold winters and warm summers. Average temperatures in the winter are between minus fifteen and minus twenty degrees Celsius but can reach minus sixty degrees Celsius. The summers are moderately warm with average temperatures in July around fifteen degrees Celsius.
Exploration and mining work can be carried out year-round.

Because of its northern latitude, winter days are short; north-facing slopes experience ten weeks without direct sunlight around the winter solstice. Conversely, summer days are very long, especially in early summer around the summer solstice. Annual precipitation averages twenty eight centimetres; half of this amount falls as snow, which starts to accumulate in October and remains into May or June.

Three phase power is available in many parts of the district as well as limited telephone service. A large number of roads constructed for past mining operations are still serviceable. The old company town of Elsa, located toward the western end of the district, comprises several buildings that are currently being used for storage, maintenance work and housing. A new man camp and kitchen have been constructed at Flat Creek, just west of Elsa.

The landscape around the Bellekeno and Husky Southwest projects is characterized by rolling hills and mountains with a relief of up to 1,200 metres (see cover photo). The highest elevation is Keno Hill with 1975 metres. Slopes are gentle except the north slopes of Keno Hill and Sourdough Hill. Vegetation is abundant.

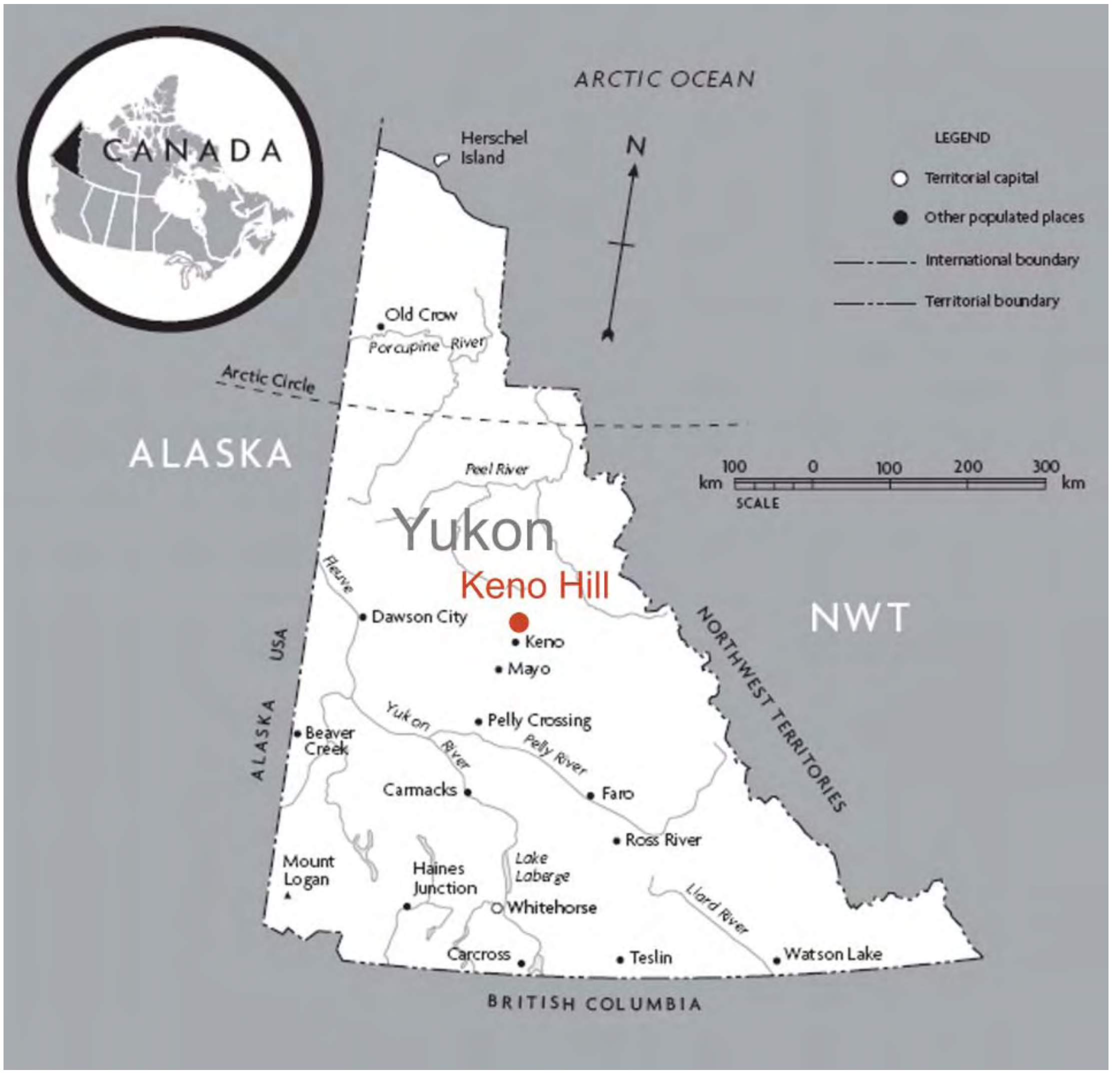


Figure 2: General location of the Keno Hill Mining Camp in central Yukon Territory (Modified from company's annual report 2006).

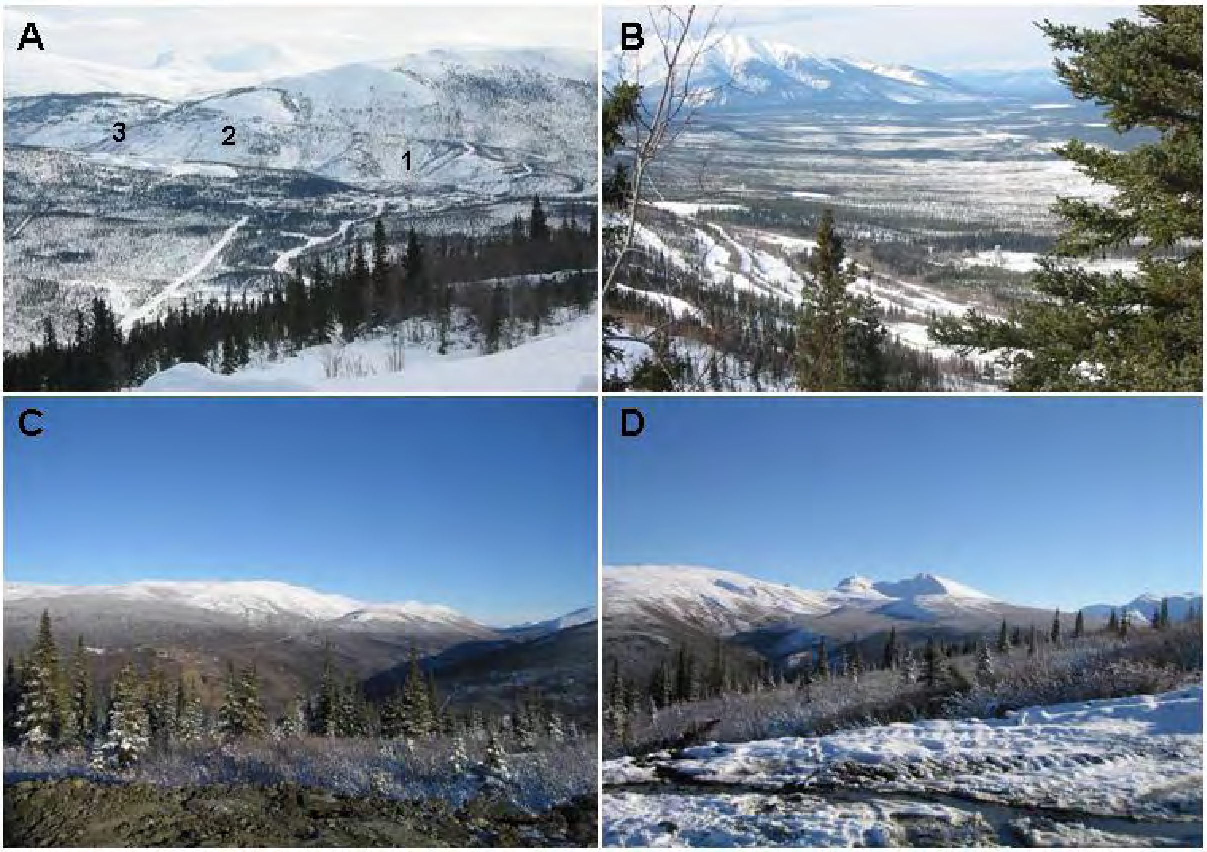


Figure 3: Typical landscape in the Keno Hill District. A. Photo taken from Galkeno 300, looks southeast at (1) Keno City, (2) Lightning Creek valley, (3) Bellekeno 600 adit is just out of sight from this view angle B. View from road above Elsa, looking northwest. C and D. Views looking North from the drilling sites at Bellekeno.

5 History

The history of the Keno Hill mining camp is well described in Cathro (2006); the information presented in this section draws heavily from that source.

The Keno Hill mining camp area has a rich history of exploration and mining dating back to the beginning of the 1900's. Earliest prospectors had been working the area around Mayo for gold, especially after the Klondike gold rush of 1898. The first silver was found in 1901; however, interest was low due to the prospector's interest in gold alone despite an assay from 1905 yielding more than 10kg/t Ag. Small-scale mining finally commenced in 1913 with a first shipment of 55 tons of ore to a smelter in San Francisco. Due to a shallow depth of the deposit and the First World War, interest in the area had dwindled by 1917.

The end of the First World War and high silver prices led to renewed and ultimately successful exploration activity in the area with the Yukon Gold Company and later Keno Hill Limited as the first truly commercial operators. Success at the Keno Mine led to a staking rush, resulting in the discovery of a number of rich deposits.

In the early 1920's the Treadwell Yukon Company Limited ("TYC"), became interested in the Keno Hill area and, under the leadership of Livingston Wernecke, acquired a number of claims and started mining. By 1941, in just under 18 years, when Wernecke died in an accident, TYC had produced 1,381 tons of silver and 43,772 tons of lead. More than half of that amount came from the Keno Hill mine. By this time a number of mines were in production, including: Sadie-Ladue, Lucky Queen, Silver King, Elsa, and Hector-Calumet; combined, about 85 per cent of the camp's production came from these mines. Interestingly, no zinc was recovered.

Wernecke's death and the Second World War resulted in a sharp decline in activity in the Keno Hill camp until a new company, Keno Hill Mining Company Ltd., later United Keno Hill Mines Ltd., spearheaded by Thayer Lindsley, purchased all TYC properties and started production. Very good results led to another staking rush and the formation of a large number of junior exploration companies, including the successful Bellekeno Mines Ltd., which was later purchased by UKHM.

The 1950's proved to be the most successful time of the mining camp. Starting in the early 1960's, new discoveries and addition to ore reserves lagged production. In 1972 the Husky mine went into production, and in 1977 open pit operations were introduced into the camp in mainly order to recover crown pillars. From 1982 – 1985 (Sadie-Ladue and Shamrock mines) and 1989-1990 (Shamrock, Silver King, Hector-Calumet, Lucky Queen and Keno mines) float trains were mined on a small scale basis. UKHM closed permanently in early 1989.

Table 1 shows a summary of production between 1900 and 1990. It must be noted, however, that reported production of zinc does not reflect actual amounts of zinc present in the mineralized rock (mined and unmined) since zinc was recovered only from 1950-1977 and from 1986-1988. The remote location of the mining camp and the low price for zinc compared to silver and lead led to a situation where zinc-rich mineralized rock was not mined or not shipped to a smelter.

Table 1. Reported production from 1950 to 1990. Modified from Cathro (2006).

Mine	imperial tons	Ag ounces per ton	Pb percent	Zn percent	Ag ounces	Pb pounds	Zn pounds
Hector-Calumet	2721288	35.4	7.5	6.1	96,219,690	406,912,502	334,570,797
Elsa	491,009	61.4	4.9	1.4	30,158,040	47,708,019	13,484,869
Husky	429,367	41.7	3.9	0.4	17,889,418	33,290,002	3,309,284
Sadie-Ladue	244,330	52.1	6.5	4.5	12,725,633	31,923,607	22,029,310
Keno	283,762	44.4	10.7	3.7	12,602,298	60,549,038	21,189,428
Lucky Queen	123,590	89.2	7	2.7	11,019,368	17,223,250	6,653,462
Silver King	207,618	53	7.7	0.8	10,995,915	31,917,957	3,510,383
No Cash	166,530	29.8	3.6	1.9	4,969,107	11,912,346	6,188,199
Galkeno	167,063	27.2	5.2	2.7	4,544,142	17,437,410	8,999,204
Bermingham	186,266	20.3	4.2	0.6	3,777,932	15,575,525	2,157,714
Bellekeno	40,502	42.6	9.8	2.3	1,724,371	7,966,619	1,828,776
Black Cap	48,576	27.4	1.6	0.3	1,331,131	1,560,359	269,402
Onek	95,290	13.6	5.5	3.4	1,299,333	10,456,254	6,452,107
Ruby	40,652	25.2	3	1.3	1,024,141	2,420,577	1,022,818
Shamrock	5,336	180.3	37.6	0.3	962,396	4,013,179	36,523
Comstock	22,863	39.7	10.7	3.8	907,176	4,891,434	1,719,131
Dixie	23,872	20.2	3.8	5.1	481,942	1,813,155	2,455,694
Husky Southwest	10,461	39.6	0.3	0.1	414,261	56,193	17,300
Townsite	18,570	16.4	4.3	2	305,423	1,583,393	730,014
Mt. Keno (Runer)	1,588	139.3	17.7		221,152	561,770	
Miller (UN & Dragon)	9,390	15.1	2.2	0.7	141,358	419,702	139,638
Ram	423	225	45		95,175	380,700	
Yukeno	340	148.9	11.1		50,620	75,365	
Gambler	246	190.1	56.2		46,762	276,265	
Flame & Moth	1,590	18.3	1.1	0.9	29,120	35,363	28,895
Elsa Mill Tailings 1950's	1,884	14.4	3	0.8	27,216	112,462	29,423
Stone	149	126	30.3		18,832	90,495	
Caribou Hill	87	177.1	71.6	0.3	15,402	124,524	522
Vanguard	48	305.8	55.3	0.4	14,651	52,976	360
Duncan	15	744.3	22.4		10,822	6,500	
Lookout (Mt. Haldoan)	30	93.9	53.6		2,769	31,628	
Croesus	10	238.9			2,461		
Silver Basin	12	167.8	41.1		2,089	10,227	
Coral & Wigwam	8	258	61		1,935	9,150	
Silver Basin	247	6.8	2.1	0.7	1,676	10,374	3,458
Wayne	6	134	56		804	6,720	
Klondike-Keno	6	124.8	49.7		714	5,680	
Cobalt Hill	5	65	80		325	8,000	
Cream-Jean	60						
TOTAL (Imperial)	**5,343,088**	**40.1**	**6.7**	**4.1**	**214,035,599**	**711,428,720**	**436,826,711**
TOTAL (metric)	metric tonnes	grams per tonne	percent	percent	kilograms	metric tonnes	metric tonnes
	4,847,164	**1,373**	**6.7**	**4.1**	**6,657,234.9**	**322,698.4**	**198,141.1**

Between 1990 and 1998 The Dominion Mineral Resources and Sterling Frontier Properties Company of Canada Limited (“Dominion”), after acquiring 32 per cent interest in UKHM, carried out extensive reclamation, remediation and exploration work at the Bellekeno, Husky Southwest and Silver King mines in order to reopen the camp. Lack of financing forced Dominion to abandon its rights in effect reverting back the rights to UKHM. Environmental liabilities and site maintenance costs drove UKHM into bankruptcy; the Federal Government inherited the assets.

Records indicate the Bellekeno mine produced 42,000 tons (38,102 tonnes) of ore averaging 42.6 ounces per ton of silver (1,461 g/tonne silver) with approximately 11 percent lead and 7 percent zinc (Table).

In March 1997, estimated remaining resources at Bellekeno were published by Keno Hill mine staff (Table 2). This estimate considers samples that were collected by underground percussion drilling, core drilling and chip sampling; silver assays were capped at 100 ounces of silver per ton (3,429 g/tonne silver). Manual polygonal estimation methods were used and, where necessary, the veins were diluted to a minimum mining width of 5 feet (1.52 metres). These historical resources were classified according to the CIM Mineral Resource/Reserve Classification reporting guidelines (February 1996). Although believed to be relevant by Alexco management, these historical resources were prepared before the development of NI 43-101, and therefore should not be relied upon.

Table 2. Estimated Remaining Historical Resources* from the Bellekeno Mine, Keno Hill Property, March 1997.

Resource Category	Tonnage	Ag	Au	Pb	Zn	Ag Eq**	Ag Eq*
	(Tons)	(oz/ton)	(oz/ton)	(%)	(%)	(oz/ton)	(Moz)
(Imperial original reporting units)							
Measured & Indicated	253,300	36.5	0.01	12.4	7.1	64.4	16.3
Inferred	38,000	23.0	0.01	6.0	4.0	37.9	1.4
(Metric converted units)							
	(Tonnes)	(g/tonne)	(g/tonne)	(%)	(%)		
Measured & Indicated	229,900	1,251	0.34	12.4	7.1		
Inferred	34,400	789	0.34	6.0	4.0		

* Historical mineral resource estimate prepared by Keno Hill mine staff before the development of NI43-101. This historical resource estimate that is considered relevant should not be relied upon. Alexco does not consider this estimate current. Reported at a 15 oz/t silver cut-off.

** Silver (Ag) equivalent calculated based on metal prices of US$525/oz Au, US$8.00/oz Ag, US$0.45/lb Pb, and US$0.75/lb Zn; metallurgical recoveries not considered.

In June 2005, Alexco was selected as the preferred purchaser of the assets of UKHM by PricewaterhouseCoopers Inc., the court-appointed interim receiver and receiver-manager of Keno Hill. In February 2006, following lengthy negotiations with both, the Federal and Territory Governments, the Supreme Court of the Yukon Territory approved Alexco's purchase of UKHM's assets through Alexco's wholly-owned subsidiary, Elsa Reclamation & Development Company Ltd. ("ERDC").

Interim closing of the Keno Hill transaction was completed on April 18, 2006, and an agreement governing management and future reclamation of the Keno Hill district was signed. Under the Keno Hill Subsidiary Agreement, ERDC is indemnified against all historical liability, has property access for exploration and future development and is not required to post security against pre-existing liabilities. ERDC will also be reimbursed for its future environmental reclamation activities - estimated at more than CN$50 million - while itself contributing CN$10 million to cleanup of the Keno Hill district. ERDC has also assumed responsibility for ongoing environmental care and maintenance of the site under contract to the Yukon Territory Government, and is actively conducting a baseline environmental assessment and site characterization program.

To finalize the Keno Hill acquisition, ERDC has applied for a water license that should be granted in late 2007 or early 2008. Upon receipt of the license, ERDC will have free and clear title to surface and subsurface claims, leases, free-hold land, buildings and equipment at Keno Hill.

During 2006, Alexco embarked on an aggressive exploration program targeting the historical resources at Bellekeno and Husky SW and subordinately other former mines in the district.

6 Geological Setting

6.1 Regional Geology

The historic Bellekeno and Husky Southwest polymetallic silver deposits are two of several old mines within the historic Keno Hill mining camp located in central Yukon Territory, Canada.

The Keno Hill mining camp is located in the north western part of the Selwyn Basin in an area characterized by the Robert Service Thrust Sheet and the Tombstone Thrust Sheet; these thrust sheets are overlapping and trend north-westerly. The area is underlain by Upper Proterozoic to Mississippian rocks that were deposited in a shelf environment during the formation of the northern Cordilleran continental margin (Figure 4). A compressional regime that possibly existed during the Jurassic, but certainly during the Cretaceous produced thrusts, folds and penetrative fabrics of various scales. Early large scale deformation (D_1) produced recumbent folds, resulting in local structural thickening of strata. A second(and possibly third, D3, Roots, 1997), deformational event (D_2) produced gentle south westerly plunging syn- and antiform pairs; layering in these structures are axial planar to the D_1 recumbent folds.

The Robert Service Thrust Sheet in the south is composed of Late Proterozoic to Cambrian sandstone, locally with interbedded limestone and argillite, a Cambrian to Middle Devonian succession of siltsone, limestone and chert, and Upper Devonian argillite, chert, and chert pebble conglomerate. The latter unit unconfomably overlies the lower units.

The Tombstone Thrust Sheet to the north consists of Devonian phyllite, felsic meta-tuffs and metaclastic rocks, overlain by Carboniferous quartzite. This latter rock unit is locally thickened due to folding and or thrusting and hosts the mineralization of the Keno Hill camp.

Intrusive rocks formed during four episodes of plutonism. Early Paleozoic fine-grained diabase occurs as metre-scale dikes and sills in the Upper Proterozoic to Lower Cambrian rocks. During the Mid-Triassic, gabbros to diorites formed pods of various sizes, primarily in the Devonian and Mississippian rocks of the Tombstone thrust sheet. A third phase of plutonism took place around ninety two million years ago in the early Cretaceous and resulted in widespread and voluminous Tombstone intrusions of commonly granitic to granodioritic composition. The youngest magmatic activity occurred around sixty five million years ago in the Upper Cretaceous and resulted in the formation of peraluminous megacrystic potassium feldspar granite.

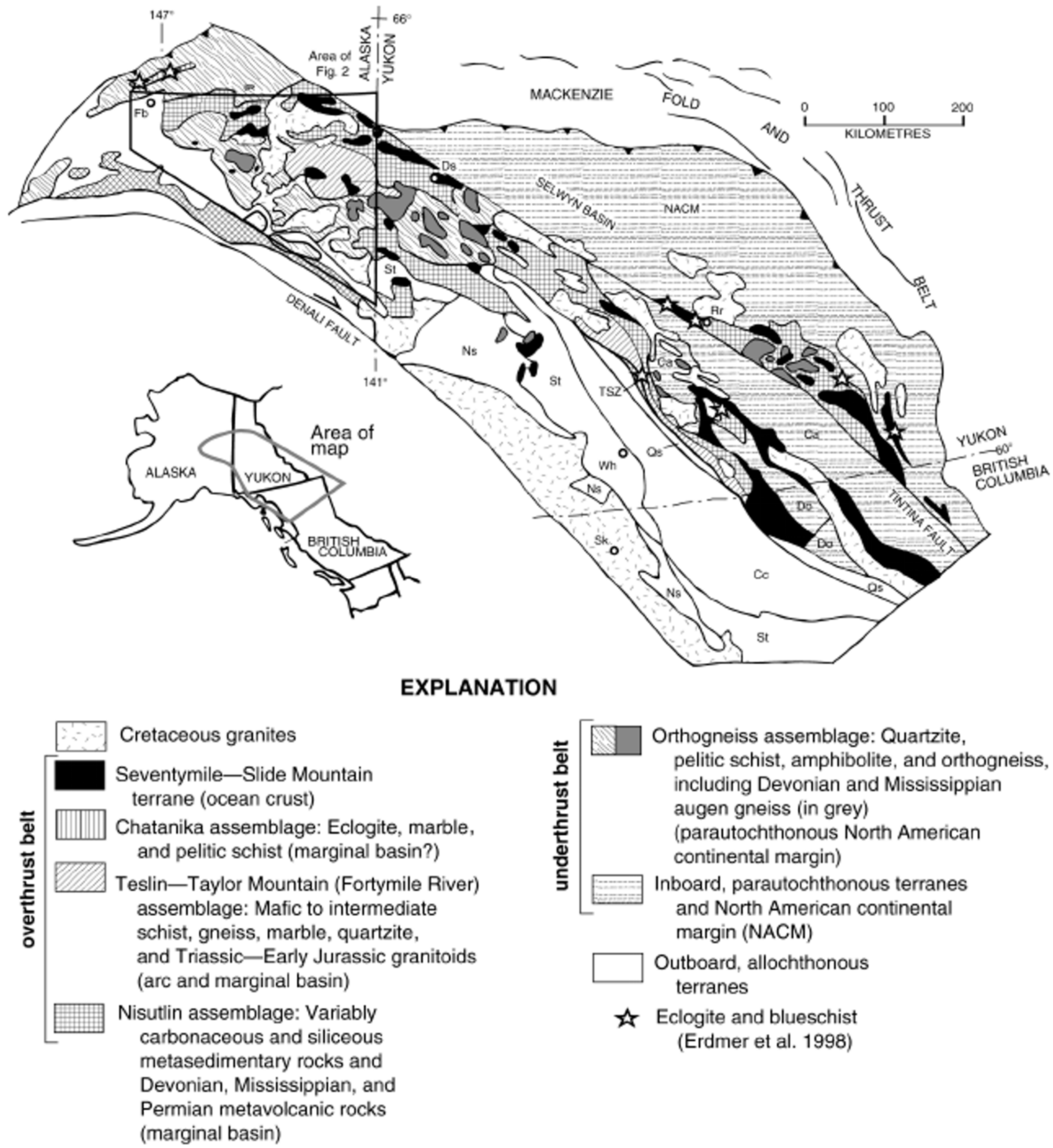


Figure 4: General geology of the Selwyn basin area. Image from Dusel-Bacon et al. (2002).

In addition to the Keno Hill silver mining camp, where polymetallic veins were exploited, the area hosts a number of occurrences, and showings of tungsten, copper, gold, lead, zinc, antimony and barite.

Tin, tungsten, and molybdenite occurrences are possibly related to the suite of Cretaceous intrusion, whereas lead, zinc, and barite occur in stratiform calcareous sedimentary rocks of early to mid-Paleozoic age typical of sediment-hosted deposits.

6.2 Property Geology

The local geology is characterized by three sedimentary rock units: Lower Schist, Central Quartzite, and Upper Schist (Figure 5). Individual layers are thought to be conformal and are metamorphosed to greenschist facies assemblages. Regional metamorphism is believed to have occurred in the Middle Cretaceous, about 105 million years ago.

The Lower Schist is of Devonian to Mississippian age and is composed of graphitic, calcareous, and sericitic schist, thin and locally thick-bedded quartzite and minor greenstone of Middle Triassic age. The greenstone forms sills and / or boudins and consist of metadiorite and metagabbro. The sills and boudins form bodies up to one kilometre long and thirty metres thick. They occur primarily on Keno Hill. Weathering of the Lower Schist is pronounced and results in small silica fragments supported by a clay matrix. The fast weathering prevents outcrops from forming. The lower contact of this unit has been cut off by the Tombstone Thrust Fault.

The Mississippian Central Quartzite, also known as the Keno Hill Quartzite, has a structural thickness of approximately 700 metres and consists of bedded and massive quartzite with minor schist and phyllite layers as well as greenstone horizons, which occur most commonly in the lower half of the Central Quartzite. The thickness of this unit is especially great in the Keno Hill area; which is likely due to the presence of a D1 fold nose and accompanied structural thickening in the Keno Hill area. Underground exposure has revealed tight isoclinal folding. Internal fracturing leaves the unit prone to weathering, resulting in the formation of felsenmeer downslope, where large slabs of quartzite accumulate. This unit is the most important host to mineralization of the Keno Hill camp.

A package of Cambrian quartz-mica schist, quartzite, graphitic schist and minor limestone comprise the Upper Schist. The Robert Service Thrust Fault separates the Upper Schist from the younger Central Quartzite.

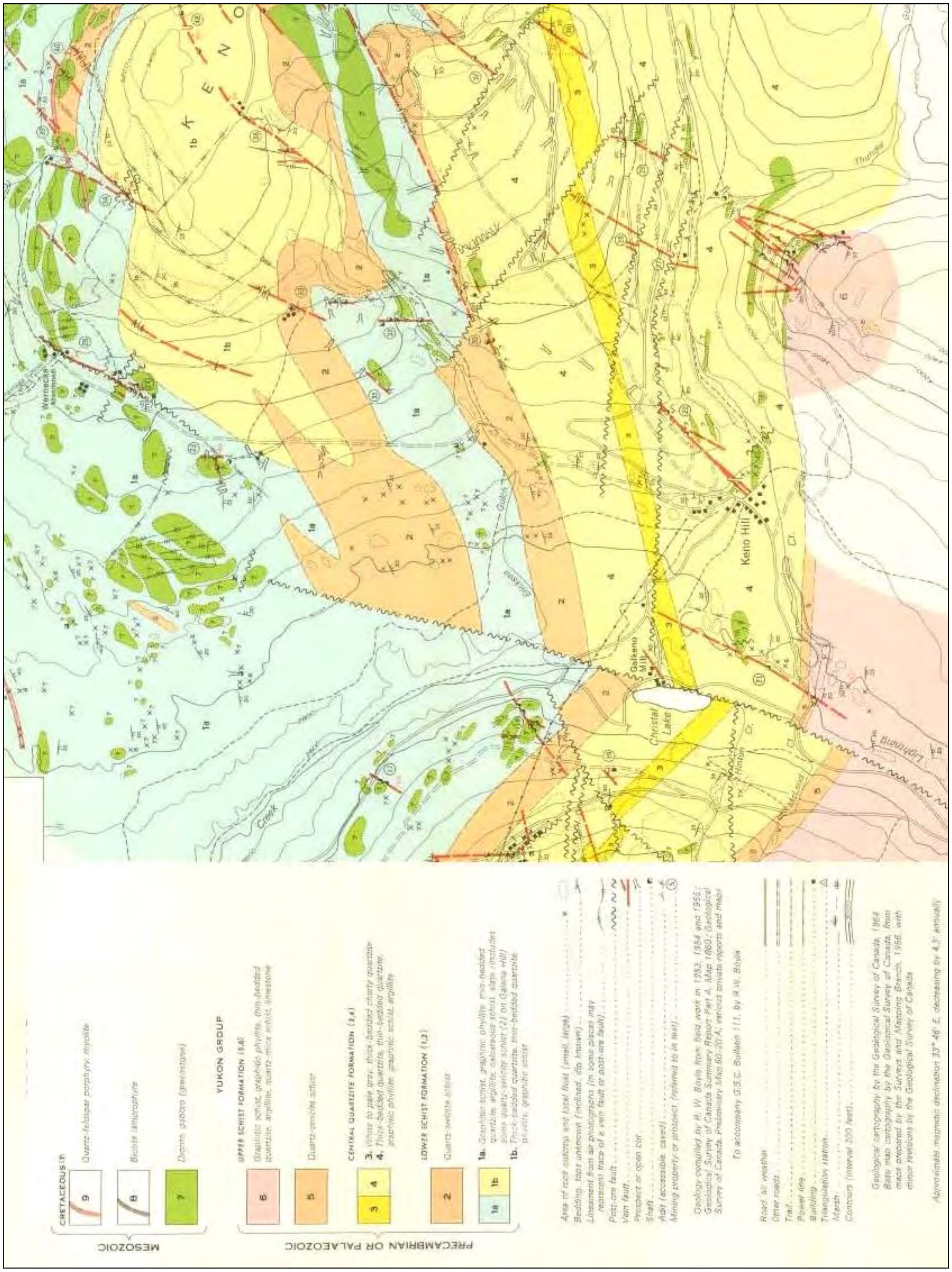


Figure 5: Local geology of the Keno Hill Camp. (Image modified from a GSC map).

A number of quartz-feldspar porphyritic sills have intruded the stratigraphy parallel to schistosity. The sills are most common in the Lower and Upper Schists and can reach thicknesses of up to 50 metres; reports of occurrences in the Central Quartzite are inconclusive and vague. The quartz-porphyry sills are believed to be related to the ninety three million year old Roop Lake granite (also known as Mayo Lake pluton), which is located southeast of the camp.

Structurally, the property is characterized by four sets of faults; many of which have been filled by hydrothermal minerals, forming veins. The oldest fault set consist of south dipping structures that are generally parallel to foliation and are apparently associated with the Tombstone Thrust Fault since movement was contemporaneous or slightly later. Locally, brittle deformation has been observed along these structures. A second fault set, known as "longitudinal veins" strikes north east to east northeast and dips steeply southeast. The latest movement along these faults is sinistral with offsets locally reaching more than 150 metres; however, more than one episode of movement commonly is indicated. Depending on the competency of the host rock, longitudinal veins can be up to thirty metres wide in an anastomosing system of sub-veins. Essentially all mineralized rock was mined from these longitudinal veins. A third set of faults, known as "transverse faults", is north-west striking and dips steeply to the north. Transverse faults commonly do not contain silver and lead mineralization but are commonly filled by quartz with trace to minor arsenopyrite, pyrite and jamesonite. Vein thicknesses can reach five metres. Transverse faults are believed to be dilational zones between en echelon longitudinal faults.

A younger set of faults, known as cross faults, strike north to north east with a dip of 60 degrees west to south west and offset vein or longitudinal faults by up to 2,000 metres. In the western part of the camp, dextral movement is the most recent event along these structures, whereas in the eastern part of the camp sinistral movement with less magnitude prevails.

7 Deposit Types

The Keno Hill Mining camp has long been recognized as a polymetallic silver-lead-zinc vein district with characteristics possibly similar to other well known mining districts in the world.; Examples of this type of mineralization include the Kokanee Range (Slocan), British Columbia; Coeur d'Alène, Idaho; Freiberg and the Harz Mountains, Germany; and Príbram, Czech Republic.

The common characteristics of these locals are the proximity to crustal-scale faults, the occurrence in a package of monotonous clastic metasedimentary rocks, which have been intruded by plutons. Even though the mineralization is not likely related to the intrusions, they may have acted as a heat source for hydrothermal circulation. Mineral precipitation occurred where metal-laden hydrothermal fluids with a temperature of 250 to 300 degrees Celsius traveled through open fractures caused by a local tensional stress regime in an otherwise compressional environment and precipitated metals as pressure and temperature changed.

The metals were likely leached from crustal rocks by hot circulating fluids. Mineral precipitation likely occurred at an average depth of about six kilometres. Fluid mixing of hydrothermal fluid with meteoric fluid is common as is boiling. Multiple fluid pulses result in a repetition of the mineral sequence precipitated as well as recrystallization and modification of the existing mineral assemblage.

At Keno Hill, the largest accumulation of ore minerals occurred in structurally prepared competent rocks, such as the Central Quartzite, resulting in areas of increased fluid flow. Incompetent rocks like phyllites tend to produce fewer and smaller, if any, open spaces, limiting fluid flow and resulting mineral precipitation.

8 Mineralization

Good summaries of the mineralogy of the Keno Hill can be found in Cathro (2006), Murphy (1997), and Roots, (1997). Mineralization in the Keno Hill camp is of the polymetallic silver-lead-zinc vein type. Mineralization of this type ideally exhibits a succession of hydrothermally precipitated minerals from the vein wall towards the vein center. However, at Keno Hill multiple pulses of hydrothermal fluids traveling through the same structure are very likely to modify the original succession of precipitated minerals by recrystallization and/or repetition of the original succession. Supergene alteration can further change the mineralogy in a vein. In the Keno Hill area, supergene alteration reached a maximum depth of about 200 metres shortly after vein emplacement. Due to glacial erosion, much of the supergene zone has been removed.

In general, common gangue minerals include manganiferous siderite and to a lesser extent quartz and quartz breccia as well as calcite. Silver occurs in argentiferous galena and argentiferous tetrahedrite (freibergite). In supergene assemblages, silver is further found as native silver, in polybasite, stephanite, and pyrargyrite. Lead occurs in galena and zinc in sphalerite, which is iron-rich. This type of sphalerite is also known as marmatite and contains approximately seven per cent less zinc than “normal” sphalerite. Furthermore, sphalerite can contain approximately 7,000 to 10,000 grams per tonne of cadmium and up to 800 grams per tonne (non-recoverable) tin. Other sulphides include pyrite, arsenopyrite, and chalcopyrite. Pyrite and arsenopyrite are locally gold-bearing. Roots (1997) gives a general paragenetic sequence for minerals in the Keno Hill camp (Figure 6).

In addition to a lateral zoning mentioned above, veins exhibit a vertical change in mineralogy. According to Cathro (2006, p. 112), “A typical oreshoot displays a predictable vertical zoning from lead-rich at the top to zinc-rich at the bottom. Mineralogically, the ore changes with increasing depth from galena to galena-freibergite, to galena-freibergite-sphalerite-siderite, to sphalerite-freibergite-galena-siderite, to sphalerite-siderite, to siderite-pyrite-sphalerite”. Due to this zonation, individual veins have historically been interpreted to have a silver-poor sphalerite-rich lower zone. Historically, it was also believed that economic mineralization in the Keno Hill camp was restricted to a shallow zone of about 120 metres thickness; the discovery of the Number 3 Vein below the 400 level in the Hector-Calumet mine in 1948 showed that silver-rich veins exist deeper than historically believed and that known veins exhibit depth potential.

In addition to the local changes in mineralogy, a camp-scale zonation from high gold to copper and iron to zinc ratios of tetrahedrite in the west of the camp to lower ratios in the east has been recognized. It is believed that the Roop Lakes Granite, located ten to fifteen kilometres west of the camp, acted as a heat source for the hydrothermal system that resulted in the precipitation of the vein minerals. With increasing distance to from the granite, hydrothermal fluids would have experienced a general decrease in temperature, leading to the observed change in metal ratios. Murphy (1997) points out, however, that the geometry between intrusion and mineralized veins might not reflect the geometry during the time of hydrothermal activity. Since the timing of mineralizing events and deformation is poorly constrained, the apparent zoning could be the result of other, as of yet unknown, factors.

Despite the above mentioned uncertainties, a generally lower fluid temperature along the western edge of the camp could be responsible for the epithermal character of the ore from the Husky, Husky Southwest, and possibly the higher levels of the Bellekeno deposits. These deposits contained higher gold grades than other deposits of the camp. Gold occurs as electrum, in pyrite, and in arsenopyrite. Sulphide mineralogy at Husky and Husky Southwest is also different from the bulk of the mines; the main sulphide is pyrite, which amounts for one to five per cent. Galena is rare and not argentiferous; instead silver occurs as microscopic crystals of native silver and argentite.

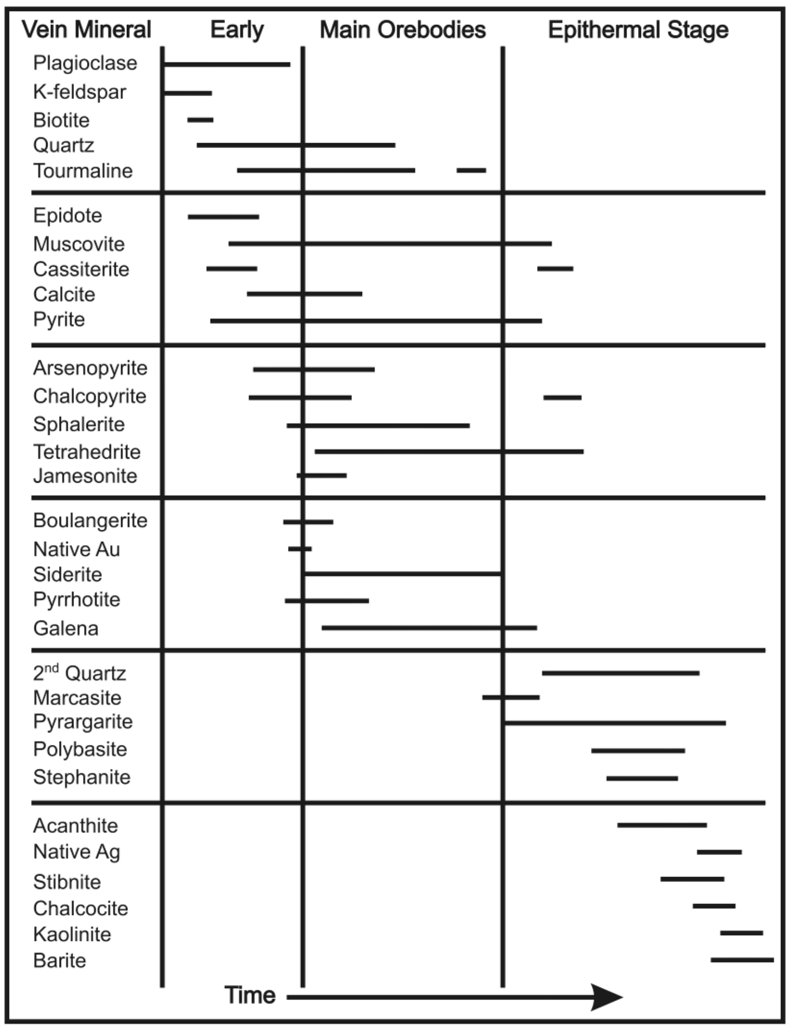


Figure 6: Paragenetic sequence of the Bellekeno area. Redrafted from Roots, 1997.

The Bellekeno vein system consists of at least eleven individual veins with variable strike, dip and thickness recognized in three distinct mineralized zones (Figure 7). The average strike is approximately 030 degrees azimuth with an average dip of 60 to 80 degrees to the east or west. Reported thickness ranges from just a few centimetres to several metres. Faults, originally exposed underground, show intense iron carbonate alteration and local brecciation. Mineralized zones are largely composed of siderite and limonite. Ore minerals include freibergite and galena, and sphalerite. Accessory minerals are anglesite, cerrussite, smithsonite, malachite, aresonopyrite, pyrite, chalcopyrite, and azurite.

Similar to other mineralized vein systems in the Keno Hill Camp, individual veins have a silver-lead-rich top, becoming increasingly zinc-richer and silver/lead-poorer with increasing depth. Veins occur as stacked systems with different metals occurring at various depths within a vein system (but zoned in individual veins).

Epithermal features, which are not common in the camp, are best developed in the Husky and Husky Southwest mines. While most of the Husky mineralization consists of typical argentiferous galena hosted by siderite breccia, another unusual assemblage is also present in places. Pyrargyrite stockwork in siderite and quartz-encrusted cavities, together with acanthite, native silver, barite, kaolinite, and museum-quality specimens of polybasite and stephanite were noted (Cathro, 2006 and references therein). Similar epithermal characteristics were noted locally by mine geologists in the Bellekeno mine.

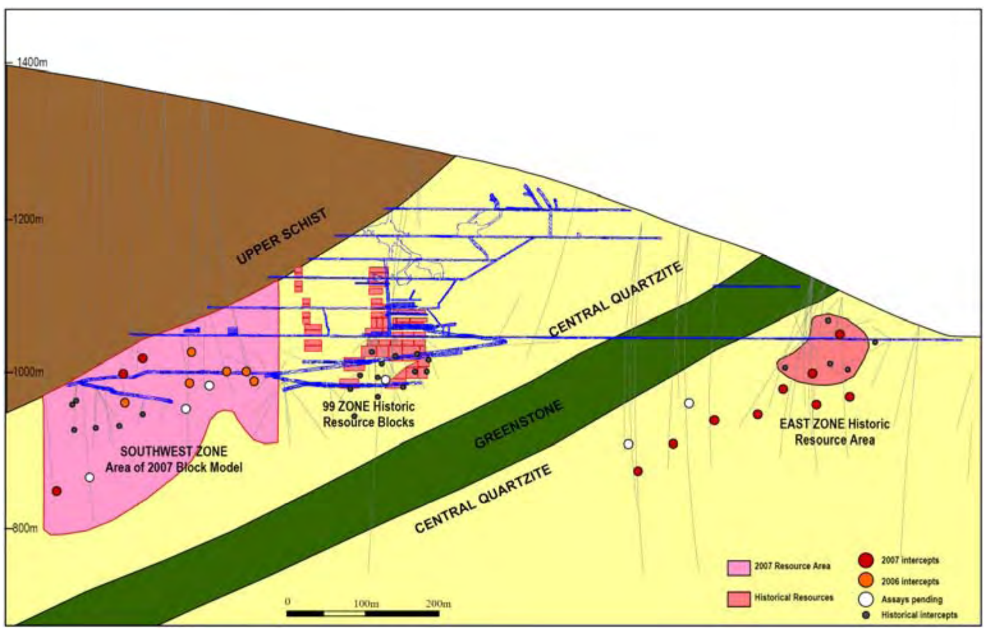


Figure 7: Schematic longitudinal section of the Bellekeno area showing the three distinct mineralized zones in relation to the local geology, historical mine workings in blue.

9 Exploration

Most past exploration work in the Keno Hill district was conducted as support to the mining activities until the mines closed in 1989. A good summary of the early exploration work is provided by Cathro (2006). This historic work involved surface and underground drilling designed to explore areas surrounding the main underground working areas. It is beyond the scope of this report to describe all historical exploration work completed in the Keno Hill district. Only the relevant historical work completed at properties of current interest to Alexco is included below.

The current exploration conducted by Alexco is the first comprehensive exploration effort in the district since 1997, with exploration being led by a geological team from NovaGold Resources Inc. During the initial phase of Alexco's involvement at Keno Hill, a program of geologic data compilation, aero geophysical surveying (conducted by McPhar Geophysics) and surface diamond drilling was completed.

Past operator UKHM, accumulated a huge number of paper maps and documents relating to nearly 70 years of district mining, but the documentation and data were never assembled into a coherent database that could be used to decipher the geology on a district scale. Beginning in late 2005 and continuing throughout 2006 and 2007, Alexco has converted over 100 gigabytes of this historic data to digital form by scanning and data entry.

Two diamond drilling rigs were mobilized to the district during the summer of 2006 and 42 drill holes completed for the season totalling 11,180 metres. The holes were primarily directed toward verification and extension of historic resources at Bellekeno, Husky SW and Silver King. However, a few widely spaced holes were also drilled on other targets considered promising such as Silver King East and Lucky Queen. As a routine procedure, all diamond drill core sampled was analyzed for 33 elements with analyses of these geochemical data being used to gain a better understanding of the distribution of mineralizing fluids on both a district and local scale.

Diamond drilling resumed in March of 2007 with emphasis again being placed on Bellekeno, Husky SW and the Silver King/Silver King East areas. In addition, targets were drilled on several under-explored veins in the vicinity of Elsa town site. Lucky Queen was revisited and the Onek mine area saw substantial amounts of work. During 2007 approximately 21,754 metres of drilling has been completed year-to-date in 85 drill holes.

Three geophysical techniques have been used over parts of the property i.e. aeromagnetic, aeroelectromagnetic and ground IP (induced potential). The high quality results generated by these surveys were successful in helping to identify possible hidden structures and covered stratigraphy. There was, however, no obvious signature unique to known mineralization. During 2007, a ground IP geophysical survey was completed on the Husky SW to Silver King trend by contractor Aurora Geoscience.

10 Drilling

10.1 Historical Drilling

Available information about historical drilling is probably incomplete but reaches back to 1974 for the Husky SW area and to 1975 for the Bellekeno area. The available information is summarized in Appendix A.

For the Bellekeno area historical drilling information is available from 1975 onwards. UKHM and WGM drilled a total of 13,006 metres, consisting of underground and surface holes. Both companies drilled diamond drill holes as well as percussion or reverse circulation holes. Similar to the situation at Husky SW, very little information is available about azimuths and dips of these historical holes. Hence, no information about intersected mineralization and its true thickness is available.

SRK briefly reviewed and discussed with former UKHM staff drill core sampling procedures that had been undertaken during mine operations. Surface and underground diamond and percussion drilling was completed by UKHM for the Bellekeno deposit. Chip sampling was conducted along mining drifts and raise for the Bellekeno East and 99 veins and to a limited extent in the Southwest Zone.

Diamond drilling procedures used by UKHM appear to be reasonable based on limited information about historical procedures. UKHM reported significant losses of silver mineralization in the course of drilling as finely mineralized sulphosalts were washed out of core material by drilling fluids particularly in the Silver King deposit. To accommodate this problem, drill hole assays were augmented by sludge samples to adjust for this loss during the estimation of historical resources. Sludge samples are affected by many factors from drilling technique to mud density and the size, shape and weight of drill cuttings. SRK considers sludge samples as poor quantitative indicator of metal losses.

Historical percussion drilling drill cuttings were assayed and analysed to determine grade and contacts of mineralization. UHKM used procedures such as:

- Logging of penetration rates and drill fluid colour to assist identification of mineralized zones;
- Flushing of hole after each 4-foot sample interval to reduce “run-on” contamination; and
- Careful analysis of chip samples under binocular microscope to identify first appearance of mineralized and unmineralized lithologies.

Despite the procedures, percussion samples are considered by SRK fundamentally biased because they do not represent a continuous and regular volume of rock. Sample contamination from percussion hole sidewalls remain a possibility despite flushing the hole between 4-foot samples.

Historical chip sampling has been established in the mining industry as a sampling procedure prone to bias. Bias in chip sampling can result from many sources but the primary bias results from a discontinuous and irregular volume of rock taken along the sampled surface. Other sources of error may result from sampler bias where only mineralized surfaces or surfaces that are easy to chip are sampled.

10.2 2006/2007 Alexco Drilling

Alexco conducted surface diamond drilling programs in 2006 and 2007. The 2006 campaign, starting in July 2006 and ending in December, consisted of 42 drill holes totalling 11,180 metres. The 2007 campaign consists of 85 drill holes totalling 21,754 metres.

The drilling was designed to confirm and test historic reserve/resource blocks and extend known mineralization at various past producing mines within the Keno Hill district. Drilling to date has focused on the following past producing mines/prospects: Bellekeno Mine, Silver King Mine, Husky SW Mine, Husky Mine, Lucky Queen Mine, Ruby Mine, Shamrock Mine, Onek Mine, Silver King East prospect, Tic Vein, Schoolhouse Vein, RCMP/Pool Vein and Townsite Vein. See Figure 8 for locations and orientation of the boreholes drilled in the vicinity of the Bellekeno project.

In 2006, diamond drilling was performed by Peak Diamond Drilling based out of Courtney, British Columbia utilizing two skid mounted drill rigs, a LF-70 drill and an EF-90 drill. Drilling was done by the wireline method using N-size equipment (NQ2). In 2007 diamond drilling was performed by Quest Diamond Drilling based out of Abbotsford, British Columbia utilizing four skid mounted drill rigs, two LF-70 drills and two LF-90 drills. Drilling was done by the wireline method using H-size equipment (HQ). For both campaigns the drilling was well supervised, the drill sites were clean and safe, and the work was efficiently done. Diamond drill operational safety inspections were conducted on each drill rig at various times throughout the drilling programs.

For the majority of the drill program, roads and trails constructed by previous mining and exploration programs were utilized to access drill sites. Approximately 1,000 metres of new access roads were constructed to reach drill sites.

Drill hole collars were located respective to UTM coordinates. Proposed drill hole collars were located using a Garmin GPS. Final and completed collars were surveyed with an Ashtech GPS utilizing post-processing software for +/- 0.1 metre accuracy. Final coordinates were also recorded in the UTM coordinate system.

Drill holes ranged in length from 67 metres to 600 metres, averaging 259 metres. Most holes were drilled on a north westerly azimuth with a declination of between 45 and 90 degrees. In most cases the drill holes were designed to intercept the mineralized zones perpendicular to the strike direction to give as close as possible a true thickness to the mineralized interval. Down hole surveys were taken approximately every 60 metres (2006) or 30 metres (2007) using a reflex survey tool.

Standard logging and sampling conventions were used to capture information from the drill core. The core was logged in detail using paper forms with the resulting data entered into a commercial computerized logging program either by the logging geologist or a technician. Four sets of data were captured in separate tables: Lithology and Structure, Mineralization, Alteration and Geotechnical. Any remarks were also captured. Lithology was documented by a 1 to 4 letter alpha code with additional modifiers. Structural data consisting of type of structure and measurements relative to core axis were recorded within the Lithology table. The Mineral table captured visual percentage veining (by type), sulphide (galena, sphalerite, pyrite, arsenopyrite, stibnite, chalcopyrite, freibergite and native silver), and oxide (limonite, sulphosalts and wad). Specific alteration features including silica, carbonate and FeOx alteration were also captured using a qualitative weak to strong scale. The Geotechnical table records percentage Recovery and RQD for the entire hole and fracture intensity where warranted. Specific gravity, magnetic susceptibility and point load test were performed on selected holes.

Drill core was found to be well handled and maintained. Data collection was competently done and found to be consistent from hole to hole and between different core loggers.

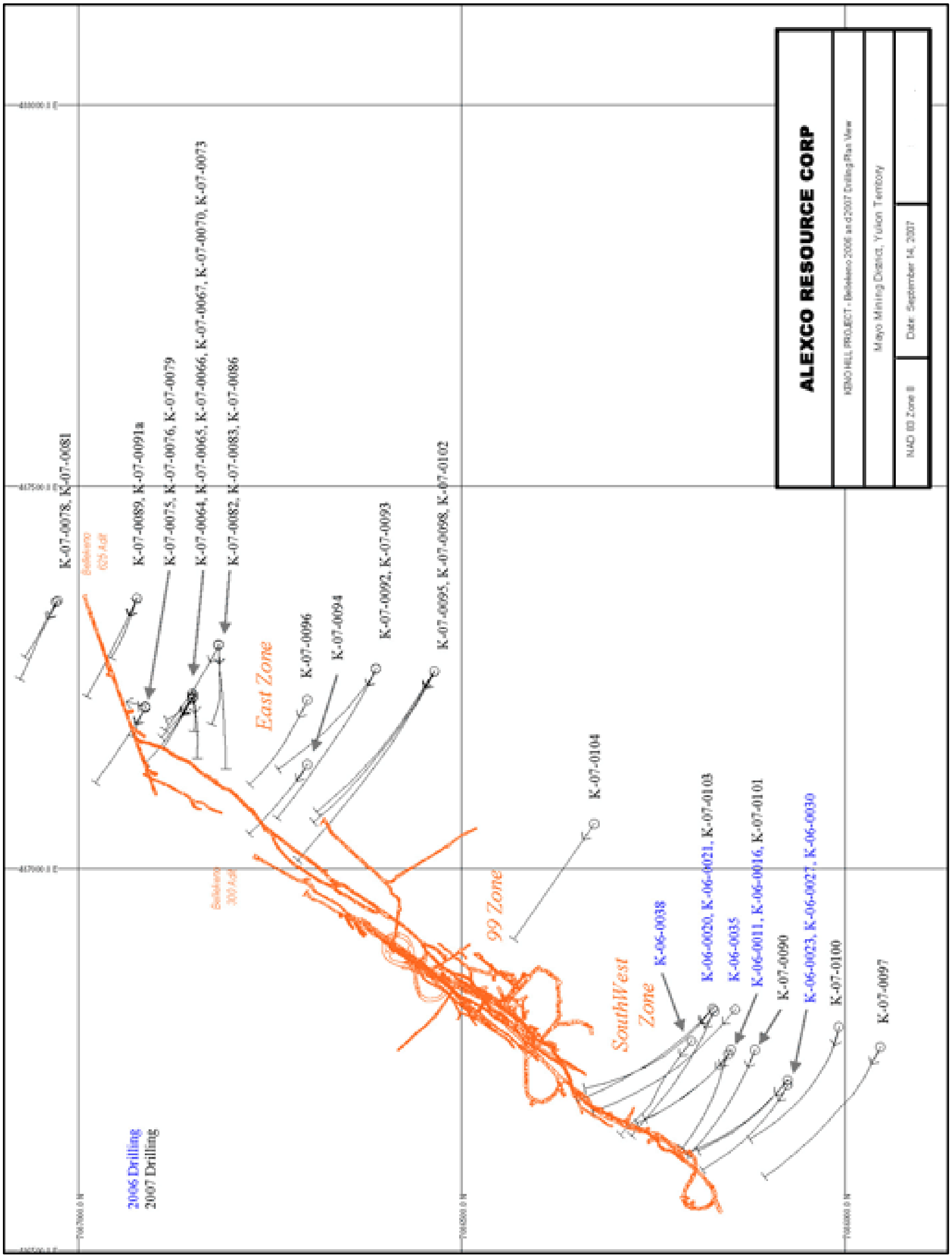


Figure 8: Location of 2006 and 2007 drill holes in the Bellekeno area. Also shown are historical underground workings and drill hole traces.

11 Sampling Approach and Methodology

11.1 Historical

Information about the historical sampling approach and methodology is scarce but some information could be retrieved from old documents.

A 1965 UKHM document outlines the sampling procedures for a newly purchased percussion drill. It was found that in most cases the frozen ground gave sufficient support for the drill hole without additional casing. In a few cases where the ground was not frozen, casing was advanced with the drill bit. Drill cuttings were collected using a locally designed cone-shaped deflector with a catch pan shaped to fit around the casing. During drilling operations cuttings were blown upwards between the drill rod and the casing, hit the deflector and were caught by the catch pan. Runs were five feet (1.5 metres) in length, and provided ten to fifteen pounds of sample material. At the end of each shift several hundred grams were split from each sample in the geochemical laboratory; the remainder of the sample material was screened to minus 14 mesh. Constituents of the fine and coarse fraction were identified separately.

Two separate documents dated 1974 and 1994 by WGM outline sampling procedures for the reverse circulation drilling. Two samples were to be collected for each five foot interval. One sample was sent to the laboratory while the other sample stayed at the drill for reference. The samples were collected in porous plastic bags and were dried prior to analysis. The document stresses cleanliness during the sampling procedure in order to avoid contamination.

A 1996 UKHM “Geological Procedure” manual outlines the core sampling procedure. Once the core was logged, the geologist was to mark sample intervals on the core with a crayon and blue flagging. The core was then photographed with footage tags clearly visible and lithological contacts clearly marked by flagging. Sample bags were marked with the sample tag number and two sample tags were to be placed in the bag (one tag stayed with the reject the other with the pulp). Following sample bag preparation the core was split so that half of the core could be retained. All samples from one hole were listed on a sampling record sheet of which copies were distributed to the chief geologist and the bucking room.

The manual also contains underground chip sampling guidelines. Geologists were urged to sample all active faces of advancing workings that contained vein material in order to obtain a complete record of grade distribution. Individual chip sample length was not to exceed 3 feet (90 centimetres) but no minimum length was listed. If possible vein material was to be sampled separately from wall rock. Total sample length had to be at least five feet (1.5 metres), representing the minimum mining width. In case of small parallel veins, wall rock between individual veins was sampled separately to a minimum width of one foot (30 centimetres). A typical sample size was approximately 2 kilograms.

An undated UKHM document outlines underground chip sample procedures as well. In addition to the above information, emphasis is put on clean faces in order to prevent sample contamination from previous blasting activities. Samples were to be taken within a 1.5 feet (50 centimetres) wide area across the rock face. In addition to separate samples per rock type, this undated document requires separate samples for a change in structure. The sample location was to be measured from the nearest survey station; the resulting distance measurement was used to plot the samples (and assay results) on level plans. More detailed information was listed regarding the direction in which samples were to be taken for various kinds of underground openings.

11.2 Alexco 2006-2007

The sampling protocol for both the 2006 and 2007 Alexco programs has been the same. The logging geologist marks the sample intervals on the core. Samples are typically 2 metre in length within major rock types. Sample intervals are broken at lithological contacts and at significant mineralization changes. Sample intervals within mineralized zones range from 0.10 metre to 1 metre, based on consistency of mineralization. In 2006 holes were sampled top to bottom, while in 2007 some intervals of unmineralized material were not sampled for holes in close proximity to previously entirely sampled 2006 or 2007 holes.

After logging, the core was digitally photographed and sawn in half lengthwise with a diamond saw. Attention is paid to core orientation. One half was returned to the core box for storage at site and the other bagged for sample shipment. No further on-site processing is performed.

12 Sample Preparation, Analyses and Security

12.1 Historical Samples

Information regarding historical assay procedures reviewed by SRK was limited. Reviewed reports and documents provide only a general description of assay techniques and procedures. Equipment at the mine laboratory in Elsa included two atomic absorption instruments, a fire assay unit and a colourimetric wet lab. SRK understands that only gold was fire assayed. Silver was analysed by XRF analysis with lead and zinc analyses conducted using titration methods.

12.2 Alexco 2006 – 2007 Exploration Programs

The sample shipment procedure for 2006 and 2007 is generally the same except where noted. Approximately 4-5 individual samples are placed in rice bags (grain sacks) for shipment. Beginning in 2007 each rice bag includes a numbered security tag. Bags are then placed on pallets and wrapped for shipping. In 2006 samples were sent to Whitehorse, YT via Kluane Transport then to the ALS Chemex facility in North Vancouver, B.C. for preparation and analysis via Manitoulin Transport. In 2007 samples are transported to the Canadian Freightways facility in Whitehorse, Yukon by Alexco personnel. Canadian Freightways then trucked the samples to the ALS Chemex facility in Terrace, B.C. for preparation. Pulverized splits are then sent to the ALS Chemex facility in North Vancouver, British Columbia for analysis.

The ALS Chemex Vancouver laboratory is accredited to ISO 17025 by Standards Council of Canada for a number of specific test procedures, including fire assay for gold and silver with atomic absorption and gravimetric finish, multi-element inductively coupled plasma optical emission spectroscopy and atomic absorption assays for silver, copper, lead and zinc. ALS-Chemex laboratories also participate in a number of international proficiency tests, such as those managed by CANMET and Geostats.

Sample preparation and analyses is consistent for both the 2006 and the 2007 Alexco programs.

Sample preparation (method code Prep-31) consists of initial fine crushing of the sample to better than 70 percent passing 2 millimetres. A nominal 250 grams split of this material is then pulverized to greater than 85 percent passing 75 micron for analyses. Duplicate samples are prepared by preparation facility by collecting a second 250 grams split from the crushed material taken from the preceding sample when noted.

Samples are analyzed for gold by fire assay and atomic absorption spectrometry (method code Au-AA25) on thirty gram sub-samples and for a suite of twenty-seven elements by four acids digestion and inductively coupled plasma atomic emission spectroscopy ("ICP-AES"; method code ME-ICP61) on 0.5 gram sub-samples. Elements exceeding concentration limits of ICP-AES were re-assayed by single element four acid digestion and atomic emission spectroscopy (method code element-AA62). Silver results exceeding ICP-AES limits are re-assayed by fire assay and gravimetric finish (method code Ag-Grav21) on thirty grams sub-samples.

12.3 Quality Assurance and Quality Control Programs

Quality control measures are typically set in place to ensure the reliability and trustworthiness of exploration data. This includes written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management and database integrity. Appropriate documentation of quality control measures and regular analysis of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implement during exploration.

Analytical control measures typically involve internal and external laboratory control measures implemented to monitor the precision and accuracy of the sampling, preparation and assaying. They are also important to prevent sample mix-up and monitor the voluntary or inadvertent contamination of samples. Assaying protocols typically involve regular duplicate and replicate assays and insertion of quality control samples to monitor the reliability of assaying results throughout the sampling and assaying process. Check assaying is typically performed as an additional reliability test of assaying results. This typically involves re-assaying a set number of sample rejects and pulps at a secondary umpire laboratory.

12.3.1 Historical Exploration

Information about historical quality control measures is limited. SRK believes that in most cases data and documentation suffice to verify assay results in order to include these historical data in this resource estimation.

Historical silver assays were primarily analysed using XRF techniques. Quality control procedures described for the lab included routine submission of blanks, duplicates, and spike samples. Independent tests with outside labs are noted in documents starting in the 1980s but not substantiated by SRK. A document details procedures for the preparation of samples for atomic absorption assaying. A sample amount of 200 milligram was used to analyze for silver, lead, zinc, cadmium, and copper. Very limited historical re-assay data for diamond drill core and chip samples indicate a reasonable correlation for silver analysis. Reviewed quality control data includes re-assay data reported until the 1980s.

After review and analysis of historical diamond drill hole data, SRK is of the opinion that the historical diamond drilling sample data are generally reliable for the purpose of estimating mineral resources. However chip sample assay data are considered to be appropriate for use in variography but not for grade estimation. SRK considers that percussion drilling data are inappropriate for resource estimation because of the unreliable and biased nature of this type of sampling.

12.3.2 Alexco 2006 – 2007 Exploration Programs

Alexco surveys all borehole collars as well as the borehole path. Surveying data is acquired using differential GPS and stored in both mine grid and UTM grid systems. Downhole surveys are acquired using standard Easy Shot readings on 30 to 60 metre intervals. For the current program, downhole surveys suggest that in general borehole trajectories deviate much more than initially anticipated. This is not necessarily problematic as with experience, targeting will adapt to this pattern if it remains more or less constant. It may be wise to test the downhole deviation data with another monitoring device to ensure that the Easy Shot readings provide a reliable estimate of the borehole trajectories, especially for the longer course drill holes.

Alexco inserts blank, duplicate and standard control samples into the general sample stream. The location of control samples in the sample stream is defined by the logging geologist. Control samples consist of commercial Standard Reference Material (“SRM”), a blank and a duplicate for each batch of 20 samples submitted for assaying.

Control samples are inserted when the core is sawn. The SRM is already processed to a pulp and is inserted as ~50-100 gram amounts. The blank is commercially purchased “landscape rock”, either dolomite or basalt. Approximately 350 grams to 1.5 kilograms of this material is inserted. An empty sample bag is inserted at the location of the duplicate which is prepared during sample preparation at the ALS Chemex prep facility. The duplicate consists of a coarse reject split of the preceding sample.

Assay results for quality control samples are monitored on an ongoing basis. Potential failures of standards are investigated and entire batches of samples are re-assayed when necessary. These new data are then input into the data base.

13 Data Verification

13.1 Verifications by Alexco

During almost 100 years of exploration and mining in the Keno Hill area a large amount of data and documents were produced; much of this material is accessible to Alexco.

All accessible diamond drill hole logs were transcribed onto a standardized spreadsheets as close to verbatim as possible; the original logs were scanned and file names and numbers were recorded in the new spreadsheets as well. These first spreadsheets were then inspected by geologists for consistency. The next step was to “normalize” the original transcribed data in order to match current nomenclature; data verification was ongoing. Collar information, as well as survey, assay and recovery data were then verified by a person other than the original data entry person; the final step was to amalgamate separate spreadsheet into one global database.

Large amounts of data were scanned by Alexco; however, documents were labelled with the location (e.g. file cabinet number and drawer) before being moved from the storage sites to the scanning facility. The scans of large maps and sections are stored as image files (commonly in joint photographic experts group (jpeg) format) where the file name contains original title block information. Individual files are stored in directories that mimic the physical storage location. Smaller maps and reports were scanned and saved as Adobe® pdf files. Naming convention and file hierarchy are the same as for the large maps. Each file is also given a five digit number that is added in front of the file name. These numbers are listed in an Excel spreadsheet which also contains the file name, the file extension, the file size, the scanning date as well as the directory location. Finally, scans are reviewed and a key word index is created for each file.

13.2 Verifications by SRK

13.2.1 Site Visit

In accordance with NI43-101 guidelines, SRK visited the Keno Hill project on several occasions between March 2005 and August 2007 while active drilling was ongoing. The purpose of the site visit was to inspect and ascertain the geological setting for the Bellekeno and Husky projects, witness the extent of historical exploration work carried out on the property and assess logistical aspects and other constraints relating to conducting exploration work in this area. SRK was given full access to project data.

SRK reviewed with Alexco personnel the historical work carried out at Bellekeno and Husky SW, including archived drawings, drill logs and assay sheets. SRK also reviewed the methodology used by former Bellekeno mine personnel to estimate mineral resources.

SRK examined core from selected boreholes drilled by Alexco at Bellekeno and Husky SW. SRK also interviewed NovaGold personnel about field procedures and geological interpretation derived from the exploration drilling. SRK was given full access to project data. In the opinion of SRK, the exploration work carried out by Alexco is conducted under the supervision of appropriately qualified personnel using procedures that meet or exceed industry best practices.

13.2.2 Verification of Historical Data

SRK did not conduct extensive verifications of historical data because of the extent of the verifications completed by Alexco as part of the digitization of the archived paper records. By nature much of this information is difficult to verify, but SRK has no reason to believe that this information is unreliable.

SRK has reviewed the limited quality control data available for the historical assays, as made available by Alexco.

Quality control data exist for underground sample duplicate assays collected between 1984 and 1988. Duplicate assays were performed at a rate of 12 percent (1 in 8.5 samples) for the chip samples and at a rate of 5 percent (1 in 20 samples) for grab samples. The duplicate sample database contains 319 chip samples silver assay pairs that were analyzed by SRK using bias charts (Appendix B). Except for a small number of outliers, reproducibility from the chip samples is acceptable as the majority of duplicate samples are within ten per cent of the original assay value.

13.2.3 Verification of Alexco Quality Control Data

Alexco implemented standard procedures to ensure high assay data quality. Along with each batch of samples submitted for assaying control samples (standard, blank, and duplicate samples) were inserted at a rate of approximately five percent. The duplicate sample was prepared by the preparation laboratory from the coarse sample rejects. Alexco personnel used diligence in monitoring quality control assaying results, investigating potential failures and taking appropriate actions when required.

The quality control data collected by Alexco in 2006 and 2007 includes control samples assay results for five separate standard materials and blank samples, duplicate sample pairs.

Between January 2007 and October 2007, SRK periodically reviewed the analytical quality control data produced by Alexco. Duplicate sample pairs were analyzed using bias charts and control samples were examined using time series plots. For plotting purposes assay results below detection limit were changed to one half the detection limit. Bias charts and time series plots for the control samples assayed in 2006 are presented in Appendix C while those for the 2007 drilling program are presented in Appendix D.

Two control samples (PB116 and Pm1108) were found to be problematic, consistently yielding assay results exceeding the expected value. These two standards were replaced during the 2007 drilling program after it was uncovered that the problem is related with the standards themselves not with the laboratory. Other standards inserted within batches containing PB116 and Pm1108 samples returned assay results within two standard deviations of the expected value. SRK supports this view and concludes that actions taken by Alexco are sufficient and appropriate. Assays from standard PB111 yielded consistent values, generally within two standard deviations from the expected value. Results from standard PB112 were less consistent with a number of potential failures outside the threshold of three standard deviations from the expected value. This standard was also abandoned in 2007. Standard Pm1107 was used most extensively during the 2006 drilling program; the majority of assays yielded values within a three standard deviation envelope around the expected value. Alexco is aware of assay inconsistencies and has taken steps to remedy the above problems. Assays of blank material yielded acceptable results; however, a small number of blank samples yielded anomalous high values suggesting possible contamination. All samples in batches affected by abnormal blank assays were reassayed by Alexco; the results of reassays are acceptable.

SRK uncovered a number of potential failures of quality control assays. Each potential failure was investigated by Alexco and appropriate remedy action were taken, including the reassaying of batches containing abnormal quality control samples. In some instances the potential failures occurred in batches of samples outside potentially mineralized areas. In such cases no remedy actions were taken.

Analysis of bias charts and time series plots (Appendix C and D) for the quality control data suggests that assay results delivered by ALS-Chemex are generally reliable. In the opinion of SRK, the quality control data collected by Alexco is comprehensive and despite the difficulties with some standards used, the assaying results delivered by ALS-Chemex is generally reliable for the purpose of resource estimation.

13.2.4 Other Verifications

In validating the Bellekeno database SRK uncovered minor issues with sample type labelling (i.e. type of standard or duplicate). Alexco fixed all the issues identified by SRK.

SRK also verified assay data in the database against original assay certificates for two boreholes (K06-016 and K07-037). Approximately ten percents of the 2006 and 2007 assay data were also checked at random against assay certificates. Minor irregularities noted by SRK were corrected by Alexco personnel. These irregularities commonly were caused by a skipped line resulting in a shift of the remaining data in that particular data set.

14 Adjacent Properties

There are no adjacent properties considered relevant to this technical report.

15 Mineral Processing and Metallurgical Testing

In August 2007, Alexco shipped approximately 59 kilograms of half core samples to SGS Lakefield, Lakefield, Ontario for scoping-level metallurgical testing. This core was recovered from the Bellekeno Southwest Zone during the 2006 drill program with half the core submitted to ALS Chemex for routine assays. The estimated composite grades based on the ALS Chemex analyses are: 968.84 g/t Ag, 7.42% Pb, 11.45% Zn, 1.029 g/t Au.

The proposed program includes the following tests.

- Chemical and mineralogic characterization of ore;
- Bond Work Index ("BWI") and grind curve tests;
- Lead, zinc and silver flotation rougher and cleaner tests;
- Locked cycle tests.

The majority of the work plan has been completed but a draft report is yet to be received by Alexco. Preliminary communication from SGS, however, suggests the following.

- The Bond Work Index at a closing mesh size of 150 mesh: 8.6 kW/t (imperial), 9.5 kW/t (metric);
- Recoveries from the rougher tests are typically in the mid-90 percent range (consistently above 95 percent) for lead and 56 percent for zinc at a 175 micron grind;
- The initial locked cycle tests resulted in very good recoveries for lead and silver (97 percent and 94 percent, respectively). Zinc recoveries averaged approximately 73 per cent.

In 1996 Rescan Engineering Ltd. had metallurgical test work done on a blended 85 percent Bellekeno/15 percent Silver King weighted ore composite as part of a feasibility study. The overall expected recovery based on the test work was 93 percent for lead and silver and 91.6 percent for zinc (Table 3).

Table 3. Recovery rates from 1966 Rescan feasibility study.

Testing Product		Grade								Recovery		
	Wt %	Ag oz/t	Pb %	Zn %	Cu %	Au oz/t	Fe %	S %	C %	Ag %	Pb %	Zn %
Bellekeno Composite		28.90	14.60	6.48	0.09	0.01	6.80	7.20	0.11			
Silver King Composite		335.50	4.50	0.04	0.05	0.02	4.30	4.80	0.74			
Base Composite	100.00	32.60	13.60	4.51	0.08	0.02	5.90	6.30	0.25	100.00	100.00	100.00
Ag/Pb Concentrate	14.70	184.50	77.90	0.84						93.20	93.20	2.80
Zinc Concentrate	7.70	5.70	1.90	52.10						1.50	1.20	91.60
Tailing	77.60	2.00	0.90	0.30						5.30	5.60	5.60

16 Mineral Resource and Mineral Reserve Estimates

16.1 Introduction

In its initial exploration efforts on the Keno Hill project, Alexco has targeted the historical resources documented at the Bellekeno deposit by validating and confirming the existence of the polymetallic silver mineralization, particularly around the areas where previous operators have reported historical resources. At the time of writing this report the interpretation and the majority of assay results for the Bellekeno Southwest Zone have been received. Complete assay results have not been received for the boreholes investigating the Bellekeno 99 and East Zones in addition to three holes subsequently drilled in the Southwest Zone. The geological model is not finalized for the 99 and East Zones.

Alexco and SRK have audited the UHKM historical estimate for the Bellekeno Zones for the purposes of providing an interim resources estimate for the 99 and East Zones. The Geological model for the Southwest Zone is complete allowing estimating mineral resources with confidence. The resource model for the Southwest Zone replaces the historical resources estimated by the previous project operators. The mineral resources for Zones 99 and East will be revised when Alexco drilling results are finalized.

16.2 Bellekeno Historical Resource Estimate

16.2.1 Historical Polygon Estimate Procedures

In March 1997, the remaining resources at Bellekeno Southwest, 99 and East Zones were published by UKHM mine staff. The estimate is based on underground diamond drill core, chip samples and percussion drilling samples. A manual polygonal method was used to estimate silver, lead, zinc and gold grades for each block.

Comprehensive UKHM procedures and standards for estimating resource blocks have not been located by Alexco in the mine archives. Ancillary data was used to determine the approximate methodology from the 11080-UKHM Elsa Mine Project Feasibility Study (Rescan, 1996) and various reports authored by D. Tenney in 1997.

Alexco understands that the polygonal estimates were based on using individual drill holes or face samples composited into a length and width weighted average grade for the face. Drill hole intersections or sampled faces were located in plan, longitudinal section, detailed stope and raise maps.

Detailed geologic face maps were produced coincident with face sampling and plotted as a face record. Samples were sent to the lab, analyzed and recorded onto a daily assay sheet. Composites grades for each face were calculated using length weighted averages for the width of mineralization and a minimum width where the width of mineralization was limited. Minimum mining widths used by UHKM were:

- 5 feet for shrink stopes;
- 7 feet for square set and mechanized drift and fill stopes.

Final composites were plotted on longitudinal sections for the mine. The range of influence of each chip, drill hole or percussion hole samples was based on half the horizontal distance to next sample or geologic cut-off both in plan and section. The total block was calculated by summing up each composite in cubic feet and dividing by the tonnage factor (10 cubic feet per ton). Contained silver, lead and zinc were then divided by the total tons to derive the overall average grade for each metal.

16.2.2 Alexco Audit of Historical Resources

Alexco audited the UHKM polygon estimate by recalculating 38 polygon blocks for mining levels 600, 500 and 400 using only blocks historically classified as “probable” and “proven” by UKHM. These polygons represent approximately 14 percent of the total historic resource. Assay data used for this audit comprised principally of UHKM chip sample daily log sheets recovered by Alexco. Daily log sheet composites where checked by re-compositing intervals from original assay data contained in mine assay certificates where available. Chip sample locations on UHKM plans and long sections were also confirmed by locating sample location from survey points, timber sets and other points. Minimum compositing widths used by UKHM were also used by Alexco.

Polygon tonnages for each block were calculated by summing composite tonnages in or adjacent to the block. Composite tonnages were calculated by multiplying: the distance of mid-points to adjacent samples or block boundaries (area of influence), with composite length (width), and the vertical block height at the composite point.

Polygon grades were calculated using a tonnage weighting procedure. Metal grades for each composite where multiplied by the composite tonnage (as calculated above) summed to arrive at a contained metal value for the entire polygon. The contained metal values for silver, lead and zinc were then divided by the total tonnage calculated for the polygon block resulting in averaged grades for each polygon block.

Tonnages for each zone were calculated by summing polygon tonnages. Block grades were calculated tonnage weighted average metal grades of polygon blocks.

In the course of the audit Alexco found minor transcription, calculation and measurement errors in the UKHM polygonal tonnes and grade calculation that were corrected. Errors uncovered by Alexco are considered minor and not believed to affect the tonnage and grade estimates significantly. A comparison of historical to Alexco recalculated polygon tonnage and grade for three levels of the Bellekeno mine is shown in Table 4.

The audit establishes that while tonnage estimates are close, grade estimates vary from less than 1 percent to 25 percent with an average silver grades about 6 percent higher in the UHKM estimate and zinc grades significantly underestimated by UKHM by an average of 11 percent (Table 4). The differences in the two calculations may not be solely attributable to errors found by Alexco. Some differences may result from changes in the UKHM calculation procedures or assay data that has not been recovered by Alexco.

Table 4. Bellekeno Historical Resource Calculation Audit. Alexco Calculations Compared to UKHM Calculations.

	Relative difference in calculation			
Level	**Tonnage**	**Silver Grade**	**Lead Grade**	**Zinc Grade**
548	0.00%	1.69%	12.65%	-25.38%
648	0.00%	16.62%	7.40%	-13.37%
748	0.00%	0.78%	-21.15%	4.28%
Average	**0.00%**	**6.36%**	**-0.37%**	**-11.49%**

Negative indicates Alexco recalculation is higher than UKHM calculation.

16.2.3 SRK Audit of Historical Resources

To validate Alexco audit findings SRK chose to review and attempt to replicate calculations for 14 polygons re-calculated by Alexco. SRK used the same procedures and data used by Alexco. SRK found 20 calculations errors in a database that exceeds 1,500 checked calculations. Errors ranged from minor transcription errors, composite grade and composite width errors. Re-calculation of tonnages and grades suggest no significant change in tonnage and grade changes not exceeding 6 percent when compared to the Alexco audit.

The confidence level of the UHKM estimate is limited by the following factors:

- Bulk of estimate is based on chip sampling which may be biased because the sample is not a continuous volume of rock;
- Polygon estimates are prone to some level of error due to transcription errors, rounding, manual calculations and measurements;
- Percussion hole sampling often results in smearing of grade and represents a significant potential for biased sampling;
- Representation of a curvilinear vein as a linear vein or block may result in the overestimation of tonnages.

The possible bias of chip samples is reduced by limiting grade interpolation to distinct polygon blocks with horizontal ranges from 2 to 10 metres and vertical ranges up to from 20 to 50 metres. Errors inherent to manual polygon methods have been found but are considered probably not to have a major effect on the calculation of tonnages and grades. Percussion data is likely to be unsuitable for polygon estimates and therefore should be excluded. In SRK's experience manual errors can have a partial cancelling effect on deposit scale. Similarly differences in the Alexco and UHKM estimates while significant at level to level basis, average lower over three levels and presumably would follow the same trend over the entire deposit. This contention is supported by Alexco and SRK not finding systematic errors in auditing the polygon estimate.

SRK has established that a portion of historical resources in the for the Bellekeno 99 and East Zones meet the CIM definition guidelines and therefore can be reclassified as mineral resources. The basis of this conversion is that:

- Two audits of the UKHM polygon estimate for the Bellekeno 99 and East Zones indicate grade and tonnages are reasonably similar to original estimates;
- The silver polymetallic mineralization exhibits good geological continuity;
- There is a high density of sampling for the UKHM historical resource blocks classified as "probable" and "proven".

However, in converting the historical resource blocks any blocks estimated using percussion drilling samples and those not classified as "probable" or "proven" were omitted. Historical polygon blocks located in the upper three levels of the 99 Zone have also been excluded because accessibility may be problematic due extensive mining by UKHM in the area. The historical resource estimates for the 99 and East Zones of the Bellekeno deposit can be reclassified as an Inferred Mineral Resources under the CIM Definition Standards for Mineral Resources and Mineral Reserves (December 2005). The mineral resource statement for the 99 and East Zones is presented in Table 5.

Table 5. Mineral Resource Statement* for the Bellekeno 99 and East Zones, SRK Consulting, November 10, 2007.

Category	Zone	Tonnage [short tons]	Ag [oz/t]	Pb [%]	Zn [%]	Au [oz/t]
Inferred (Imperial)	99	61,400	46.5	11.1	5.5	0.00
	East	24,600	30.8	5.3	7.1	0.01
Total		**86,000**	**42.0**	**9.5**	**6.0**	**0.00**
		[Tonnes]	**[gpt]**	**[%]**	**[%]**	**[gpt]**
Inferred (metric)	99	55,700	1,593	11.1	5.5	0.0
	East	22,300	1,056	5.3	7.1	0.2
Total		**78,000**	**1,440**	**9.5**	**6.0**	**0.1**

* Reported at a cut-off of 15oz/t silver. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. Audited by Alexco and SRK and converted to the metric system using conventional conversion factors. Silver grade capped at 100 oz/t.

16.3 Bellekeno Southwest Zone Resource Estimate

For the Bellekeno Southwest Zone, Alexco completed sufficient drilling to interpret with confidence the geology of the silver-rich polymetallic mineralization and there is sufficient new reliable assaying data to support re-estimating the mineral resources using a geostatistical approach constrained by wireframes. The sections below summarize the resource models constructed by SRK.

As an aid to modelling, all Bellekeno data was rotated to align the general strike of the deposit along an east-west axis. Datamine rotation parameters are:

- Rotation about Z-axis -52.5 degrees;
- Translation Coordinates: X = 486,600, Y = 7,086,150, Z = 0.0 in both unrotated and rotated coordinate systems.

16.3.1 Specific Gravity Measurements

Alexco systematically measures core specific gravity for all drill core. Specific gravity is measured using a balance and measuring the weight of core pieces in air and in water. Core weighted in water is not covered by wax or plastic film. Core volume is determined by measuring the length of each core sample and multiplying by core diameter. Specific gravity measurements are taken systematically over entire drilled interval and are not restricted to mineralized areas. Some mineralized intervals consist of friable “galena sands” that cannot be measured. Alexco has taken 422 core specific gravity measurements during the 2006 and 2007 drilling programs at Bellekeno.

The specific gravity database also contains 60 determinations made by ALS-Chemex on pulverized assay samples by pycnometry.

16.3.2 Data

The drill hole databases used in the preparation of the Southwest Zone interpretation included 28 diamond core drill holes, 147 chip samples and 43 percussion holes, details are listed in Table 6. The database included assays for silver, gold lead and zinc for all Alexco holes. UKHM diamond and percussion holes contained silver, lead and zinc assays but not all intervals were assayed for gold. UKHM chip samples were assayed silver, lead and zinc only.

Geological data in the drillhole database used in the interpretation of zone contacts consisted of vein mineralogy data for Alexco holes only. Limited and vein geology data was available for UKHM holes diamond holes. No geological data was available for percussion and chip samples.

The database contained core recovery data for Alexco drill holes and UKHM drill holes (Table 6). Recovery data is not relevant for chip and percussion holes. Alexco recovery data was based on drilling runs with an average run length of 3-metre runs. Recovery was not measured for each sampled interval. Recovery is calculated by core recovered over run length. The basis of UKHM recovery data could not been established from historical data. In the database all recoveries are expressed a percentage.

Specific gravities for sample pulps were measured by ALS-Chemex for 59 sample pulps from Alexco drill core within the Bellekeno Southwest Zone. No pulp specific gravities were taken by UKHM.

Table 6. Summary of Database used For Modelling the BelleKeno Southwest Zone.

Sample Type	**Number of Boreholes**	**Number of Samples**
Percussion	43	193
Chips	147	445
Historical Core	17	105
Alexco Core	11	185

16.3.3 Geological Interpretation

Alexco provided SRK with a geological interpretation of the Southwest Zone of the Bellekeno vein. The Southwest Zone mineralization is bounded on top by the lower contact of the Schist unit and at the bottom by the upper contact of the Greenstone unit (Figure 9). The Bellekeno vein can be traced through these units but historical economic mineralization has not been found within these units.

The interpretation consisted of sectional outlines over the zone spaced at approximately 10 metre intervals. The interpretation was restricted to the main Bellekeno vein and not including stringer mineralization in the footwall, vein splays, and minor veins sub-parallel to the Bellekeno vein as data spacing was sufficient to define these features. The interpretation was based on UHKM and Alexco drill holes, chip samples and percussion holes. UKHM chip sample data was converted to drill hole data by Alexco. Good geological data was available for Alexco holes but limited geological information was available for UKHM diamond and percussion holes. No geological data was available for chip samples. As the Alexco interpretation was not snapped to drill holes, SRK modified the Alexco outlines by snapping sectional strings to drill hole data and in some cases adding additional sectional strings. SRK sectional strings were then wireframed using Datamine to create a three dimensional solid representing the Southwest Zone of the Bellekeno vein.

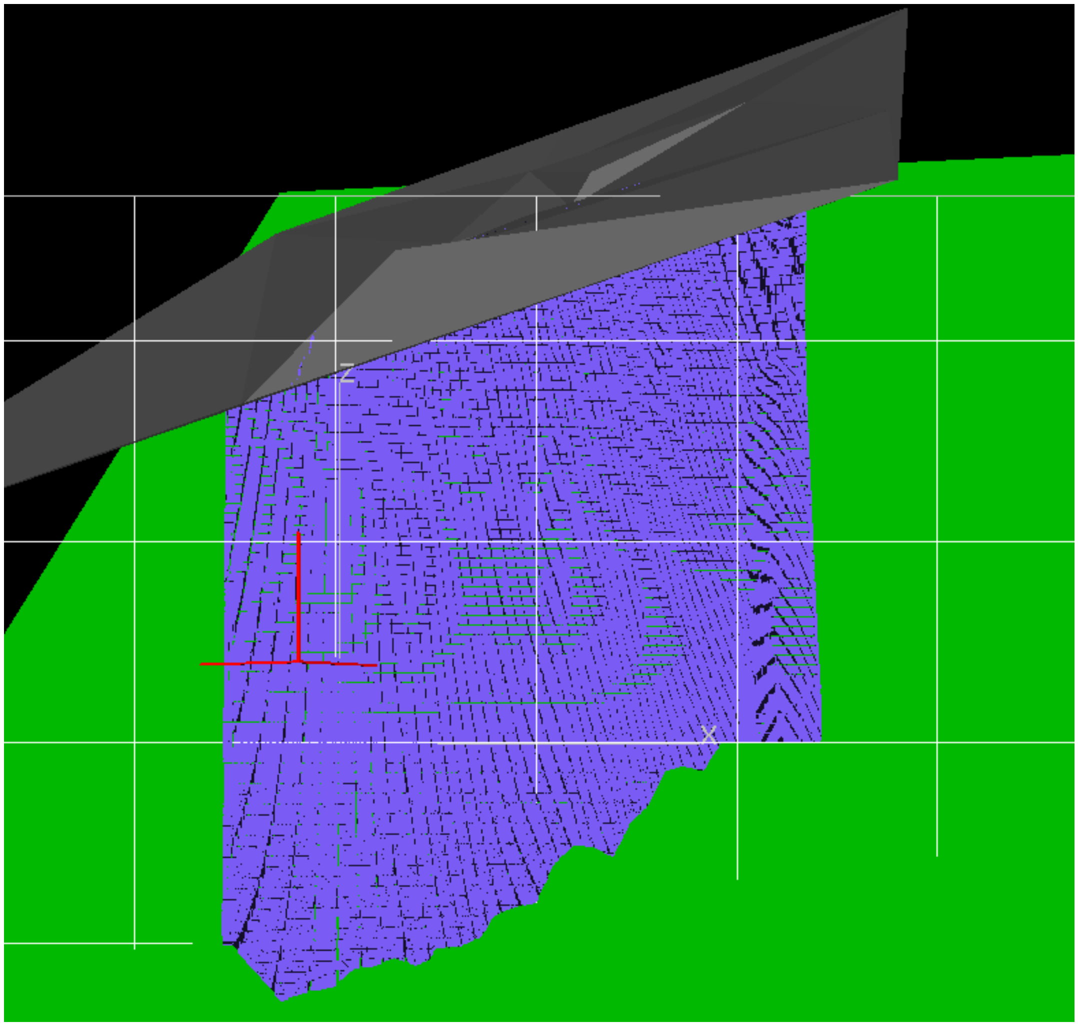


Figure 9: Southwest Zone geological boundaries looking northwest. Schist unit lower contact (gray), Greenstone unit upper contact (green), Bellekeno Southwest Zone Model (blue). The white grid is aligned along the East-West of the model and lines are spaced by 100 metres.

SRK inferred vein footwall and hanging wall contacts for the Alexco drill holes on the basis of a combination of geological and assay criteria noted below:

- Appearance of siderite in mineralogy data;
- Sharp increases in zinc grades;
- Significant silver and lead grades;
- Alexco gross metal value variable greater than 20.

Limited vein data from structural and mineralogy tables was available for the UKHM drill holes. Mainly grade data was used to infer the footwall and hanging wall contacts. Grade criteria used to determine contacts were:

- Sharp increases of zinc grades;
- Significant elevated silver and lead grades;
- GVM values greater than 20.

The resolution of interpreted sections was not sufficient to capture chip sample contacts spaced at small intervals from 1 to 3 metres. In these areas chip sample contacts were approximated over distances of 5 to 10 metres.

Percussion holes were found to have limited utility in defining geological boundaries. Some percussion holes collars were located outside of existing underground development and therefore considered not valid. A comparison of correctly located percussion holes with diamond drill hole and chip sampling data indicates a substantial smearing of metal grades beyond vein boundaries determined by other sampling or drilling.

16.3.4 Drill Hole Database

SRK considered the percussion drill hole samples not suitable for metal grade analysis or resource estimation because this type of drilling is always associated with some degree of sample contamination from drill hole walls and most likely other sources. Although UKHM appears to have taken measures to minimize this contamination SRK considers these samples biased. As noted above, percussion holes often smeared the grades beyond the confines of the vein mineralization defined by the latter.

Using the SRK drill hole intervals that intersected the wireframe solid for the Southwest Zone two drill hole databases were generated. One database was comprised of chip sample data and drill core data and a second data base comprised of drill hole data only (including both Alexco and UHKM holes).

Blank grade intervals, primarily in the UKHM drill core data were represent missing or unassayed intervals. Some of these intervals were not assayed because of the absence of silver mineralization. As the reason for absent assays is difficult to determine, SRK chose to take a conservative approach in assigning blank assay low metal grades as below:

- Silver: 1.00gpt
- Gold: 0.02 gpt
- Lead: 10.00 ppm
- Zinc: 30.00 ppm

Assays results for boreholes K-07-0100, K-07-0103 and K-07-106 have not been received and validated by Alexco in time for inclusion in the resource database. These drill holes were excluded from the resource database.

Core recovery data for diamond drill holes were reported as percentages in the drill hole database. Alexco core recovery was measured on a run length basis. Core recovery for each sample interval was not determined by Alexco. UKHM core recovery data is largely complete. SRK set all undefined core recovery values and those exceeding 100 percent to a value of 100. All core recovery values less than 0 percent were set to 0.

The Bellekeno deposit has very significant specific gravity changes that can occur over small distances (less than 5 metres). The primary source of this variation is the presence of galena mineralization than can be localized to massive veins over 1 metre long. Core specific gravity measurements range from 2.56 to 7.07. In deposits of this nature it is important to model or account for specific gravity changes of the ranges in the deposit. Measuring core specific gravities can have limited utility in this deposit because highly mineralized sections of the zone may be comprised of highly broken or friable sections of massive galena that cannot be used in core measurements. As an alternative to specific gravity of sample pulps can be readily analysed for assayed intervals. Pulp specific gravity cannot replace core specific gravity measurements because they do not account for voids, fractures or vugs in core. However as a measure of density variations these specific gravity measurements are useful.

The existing pulp specific gravity data is insufficient to factor grades or give an indication of possible variations of specific gravity for the deposit. Using a regression analysis of metal grades versus pulp specific gravity SRK found that a reasonable correlation between silver and lead grades with pulp specific gravity. Silver grades were slightly better correlated than lead grades, 0.59 compared to 0.50. Because of the higher correlation the linear regression formula for silver and pulp specific gravities were used to estimate pulp specific gravity for intervals without this measurement. The regression plot is presented in Figure 10. The regression formula used to estimate pulp specific gravities (“PSG”) is:

PSG=0.000446*AG+3.267319, where AG is interval silver grade

The regression estimate was capped at the upper and lower limits of correlation at 6.8 and 2.7 respectively.

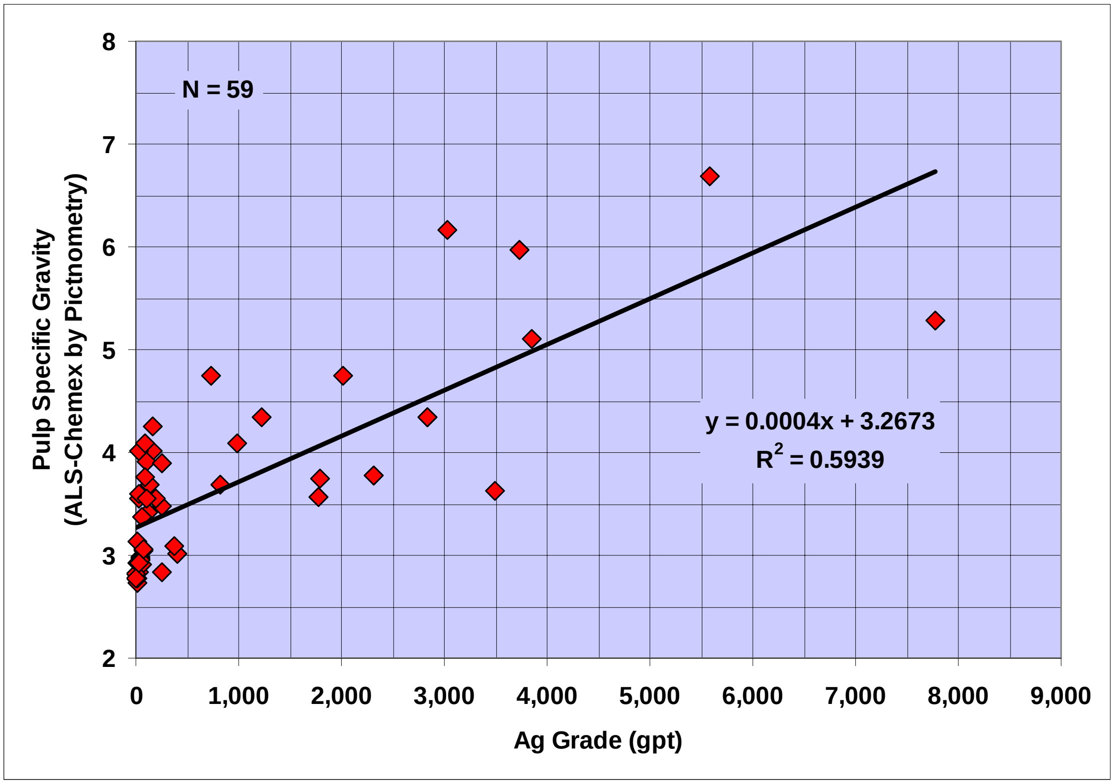


Figure 10: Relationship between silver grades and pulp specific gravity.

16.3.5 Statistical Analysis and Compositing

Metal assay statistics for the Southwest Zone chip with drill core and drill core only are presented in Table 7 and Table 9. These data sets represent data that has been process according to the previous section. That is blank assay values have been replaced with low values, missing recovery numbers have been replaced or set to lower and upper bounds, and intervals with out any pulp specific gravity measurements have been estimate by a linear regression formula. Statistics indicate a highly skewed distribution for gold and silver that is typical of precious metal deposits. Lead and zinc follow a similar grade distribution. A high dispersion of grades is quite evident in both data sets with a particularly high dispersion of silver grades occurring in the chip plus core sample data set. Silver assay means range from approximately 877 gpt in the chip plus core data set and to a lower value of 637 gpt in the core only data set. In either case this indicates a relatively high grade distribution of silver assays. Gold assays are relatively low with means ranging from 0.2 gpt to 0.5 gpt. Average lead grades vary from 9 percent to 7 percent with zinc average grades at 4 percent to 6 percent for the two data sets.

Table 7. Statistics for Southwest Zone chip and core samples.

STATISTICS	AU	AG	PB	ZN	RECOV	PSG
TOTAL NUMBER OF RECORDS	735	735	735	735	735	735
NUMBER OF SAMPLES	735	735	735	735	735	735
NUMBER OF MISSING VALUES	0	0	0	0	0	0
NUMBER OF VALUES > TRACE	735	735	735	735	735	735
MAXIMUM	8.32	12041.28	828300	650700	100	6.8
MINIMUM	0.003	0.03	10	30	8	2.73
RANGE	8.317	12041.25	828290	650670	92	4.07
TOTAL	152.668	644620.3	66374576	32525884	69957.93	2673.921
MEAN	0.2077	877.0344	90305.55	44252.9	95.1809	3.638
VARIANCE	0.5289	2.69E+06	3.50E+10	5.66E+09	165.8	0.5609
STANDARD DEVIATION	0.7273	1641	1.87E+05	7.53E+04	12.88	0.749
STANDARD ERROR	2.68E-02	60.54	6905	2776	0.475	2.76E-02
COEFFICIENT OF VARIATION	3.501685	1.871078	2.072962	1.700453	0.135321	0.205882
SKEWNESS	7.367	2.679	2.354	3.197	-3.796	2.093
KURTOSIS	68.99	8.636	4.456	12.81	16.21	4.261
GEOMETRIC MEAN	0.0122	97.2268	5729.261	10435.9	93.5538	3.5758
SUM OF LOGS	-3241.15	3364.129	6360.206	6800.96	3335.824	936.5343
MEAN OF LOGS	-4.4097	4.577	8.6533	9.253	4.5385	1.2742
LOGARITHMIC VARIANCE	4.5485	6.8691	8.2634	4.634	0.0503	0.0313
LOG ESTIMATE OF MEAN	0.1182	3015.78	356837.1	105873.8	95.9381	3.6321

Table 8. Statistics for Southwest Zone core samples.

STATISTICS	AU	AG	PB	ZN	RECOV	PSG
TOTAL NUMBER OF RECORDS	290	290	290	290	290	290
NUMBER OF SAMPLES	290	290	290	290	290	290
NUMBER OF MISSING VALUES	0	0	0	0	0	0
NUMBER OF VALUES > TRACE	290	290	290	290	290	290
MAXIMUM	8.32	7770	828300	650700	100	6.69
MINIMUM	0.003	0.03	10	30	8	2.73
RANGE	8.317	7769.97	828290	650670	92	3.96
TOTAL	151.333	184942.5	20828716	16477584	25457.93	1019.603
MEAN	0.5218	637.7327	71823.16	56819.26	87.786	3.5159
VARIANCE	1.178	1.71E+06	3.20E+10	9.59E+09	329.9	0.5182
STANDARD DEVIATION	1.085	1309	1.79E+05	9.79E+04	18.16	0.7198
STANDARD ERROR	6.37E-02	76.84	1.05E+04	5749	1.067	4.23E-02
COEFFICIENT OF VARIATION	2.08E+00	2.05E+00	2.49E+00	1.72E+00	2.07E-01	2.05E-01
SKEWNESS	4.738	2.599	2.809	2.595	-2.168	2.181
KURTOSIS	27.81	7.306	6.809	7.446	4.735	5.248
GEOMETRIC MEAN	0.1041	31.1271	1796.093	7446.337	84.4609	3.4565
SUM OF LOGS	-656.081	997.043	2173.077	2585.489	1286.524	359.6749
MEAN OF LOGS	-2.2623	3.4381	7.4934	8.9155	4.4363	1.2403
LOGARITHMIC VARIANCE	3.9118	9.2217	10.6883	7.7708	0.1103	0.0309
LOG ESTIMATE OF MEAN	0.7361	3130.487	376070.8	362528.9	89.2499	3.5104

Statistical analysis and geostatistical analysis of grade distributions requires that the sample data set has common support. This is often undertaken by compositing drill holes to a common interval length. The underlying premise is that each composited interval represents approximately an assay from a similar and continuous volume of sample. For core samples of common support is straight forward. Although core size for this project ranges from HQ to NQ and BQ for the historical boreholes, this difference is considered to be significant in particular with the large drill spacing. Chip samples do not represent a continuous volume of sample and therefore may not provide common support when compared to drill core samples. Chip sampling can also be biased because by nature this sampling technique will have a tendency to sample preferentially soft or loose rock relative to hard wallrock. Problems with chip sample bias has been extensively documented and researched.

As a test of this contention SRK has used quantile-quantile ("Q-Q") plots to compare grade distributions of chip and core samples, these plots are presented in Figure 11. The Q-Q plots for silver indicate a significant over estimation of chip silver grades ranging up to 1,000 gpt. Similarly significant overestimating of lead grades by chip sampling is indicated up to approximately 300,000ppm. Interestingly the zinc Q-Q plot shows a fairly similar grade distribution for chip and core samples with a slight underestimation of chip zinc grades compared to core grades around 100,000 ppm. Potential bias of chip samples metal grades is inherent in the sampling technique and is indicated by Q-Q plot for silver and lead grades. Consequently the chip sample data are considered not appropriate for grade estimation using geostatistical methods.

SRK considers that full intersection width is the most appropriate method for compositing as:

- Vein widths range from 1 to 10 metres with and average of about 5 metres;
- Some of the mineralized vein material is very friable and may cause support problems if selective mining with in the vein is used;
- Variability of mineralization assemblages is much smaller than the current data resolution of the vein mineralization.

In the compositing process each interval was weighted by core recovery, length of sample and pulp specific gravity. Core recovery weighting resulted in sample grades being reduced by the core recovery value for each drill run, where missing core was assumed to be at zero metal grades. This weighting had the effect of a negative weighting on intervals with missing core. Length weighting adjusts for the different length of samples in each composite. Pulp specific gravity weighting result in intervals with higher specific gravity values being assigned a higher grade weighting factor for the particular interval when composite grades are calculated. Table 9 and Table 10 present the full intersection width composites statistics for drill core and chip sample plus drill core, respectively.

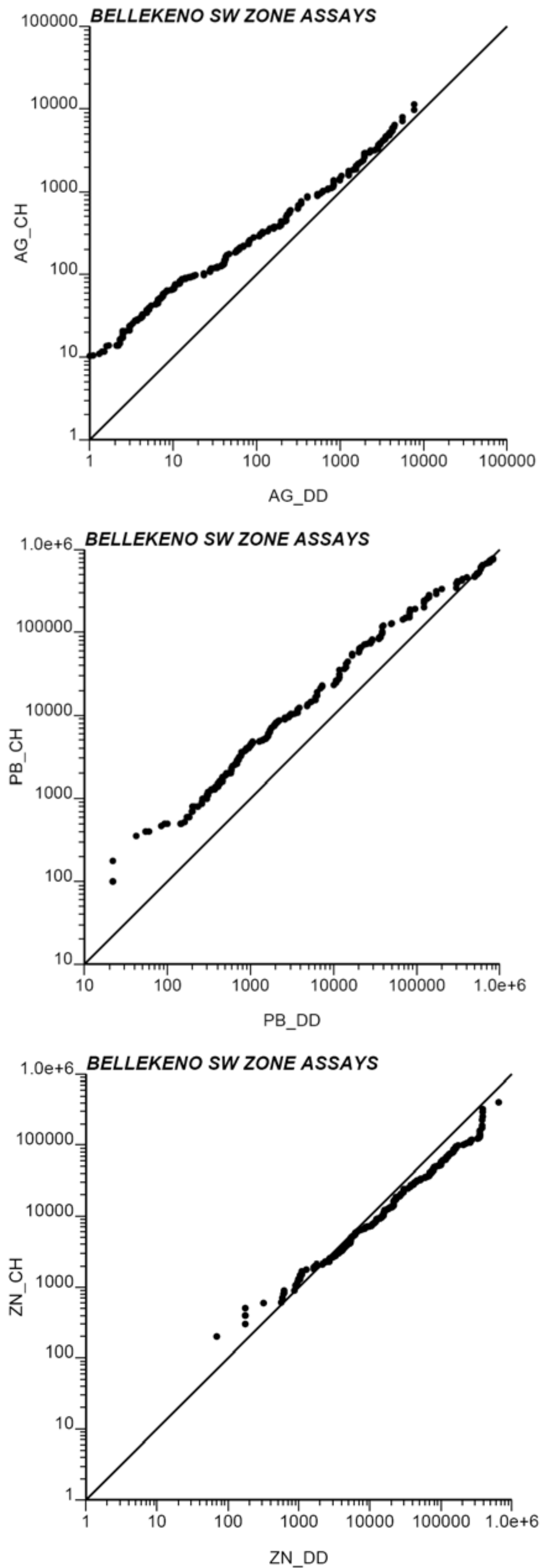


Figure 11: Top. Q-Q plots comparing Chip and Core samples. Top: Silver grade, Middle, Lead Grade, Bottom Zinc Grade.

Table 9. Summary Statistics for Southwest Zone Drill Core Composites

STATISTICS	AU	AG	PB	ZN	RECOV	PSG
TOTAL NUMBER OF RECORDS	175	175	175	175		175
NUMBER OF SAMPLES	175	175	175	175		175
NUMBER OF MISSING VALUES	0	0	0	0		0
NUMBER OF VALUES > TRACE	175	175	175	175		175
MAXIMUM	1.0889	8016.897	548917.2	218652.6		5.6813
MINIMUM	0.003	0.8665	8.6651	25.9952		2.9
RANGE	1.0859	8016.031	548908.5	218626.6		2.7813
TOTAL	8.1267	159349	15323591	5775914		628.7418
MEAN	0.0464	910.5658	87563.38	33005.22		3.5928
VARIANCE	2.45E-02	1.62E+06	1.60E+10	9.75E+08		0.2124
STANDARD DEVIATION	0.1565	1274	1.26E+05	3.12E+04		0.4609
STANDARD ERROR	1.18E-02	96.28	9557	2361		3.48E-02
COEFFICIENT OF VARIATION	3.37E+00	1.40E+00	1.44E+00	9.46E-01		1.28E-01
SKEWNESS	4.494	2.271	1.722	1.719		1.802
KURTOSIS	21.55	6.259	2.193	5.878		3.297
GEOMETRIC MEAN	0.0054	270.8083	16960.55	16022.45		3.5667
SUM OF LOGS	-915.331	980.247	1704.263	1694.306		222.539
MEAN OF LOGS	-5.2305	5.6014	9.7386	9.6817		1.2717
LOGARITHMIC VARIANCE	2.1531	3.8561	5.7397	2.5978		0.0137
LOG ESTIMATE OF MEAN	0.0157	1862.102	299085.5	58725.92		3.5913

Table 10. Summary statistics for Southwest Zone Chip and Drill Core Composites

STATISTICS	AU	AG	PB	ZN	RECOV	PSG
TOTAL NUMBER OF RECORDS	28	28	28	28		28
NUMBER OF SAMPLES	28	28	28	28		28
NUMBER OF MISSING VALUES	0	0	0	0		0
NUMBER OF VALUES > TRACE	28	28	28	28		28
MAXIMUM	1.0889	3168.111	548917.2	104746.5		5.0168
MINIMUM	0.005	0.8665	8.6651	25.9952		2.9
RANGE	1.0839	3167.245	548908.5	104720.5		2.1168
TOTAL	7.6857	13682.51	1727819	937808.7		95.3323
MEAN	0.2745	488.6612	61707.82	33493.17		3.4047
VARIANCE	9.12E-02	7.28E+05	1.80E+10	1.13E+09		0.2175
STANDARD DEVIATION	0.302	853.3	1.34E+05	3.37E+04		0.4664
STANDARD ERROR	5.71E-02	161.3	2.54E+04	6364		8.81E-02
COEFFICIENT OF VARIATION	1.10E+00	1.75E+00	2.18E+00	1.01E+00		1.37E-01
SKEWNESS	1.23	2.229	2.589	0.5606		2.046
KURTOSIS	0.6047	3.816	5.594	-1.174		4.035
GEOMETRIC MEAN	0.1116	61.9341	2997.787	8014.068		3.3773
SUM OF LOGS	-61.3872	115.53	224.1576	251.6907		34.0778
MEAN OF LOGS	-2.1924	4.1261	8.0056	8.989		1.2171
LOGARITHMIC VARIANCE	2.4692	6.8523	10.4476	6.3797		0.0151
LOG ESTIMATE OF MEAN	0.3837	1904.923	556517.5	194616.2		3.4029

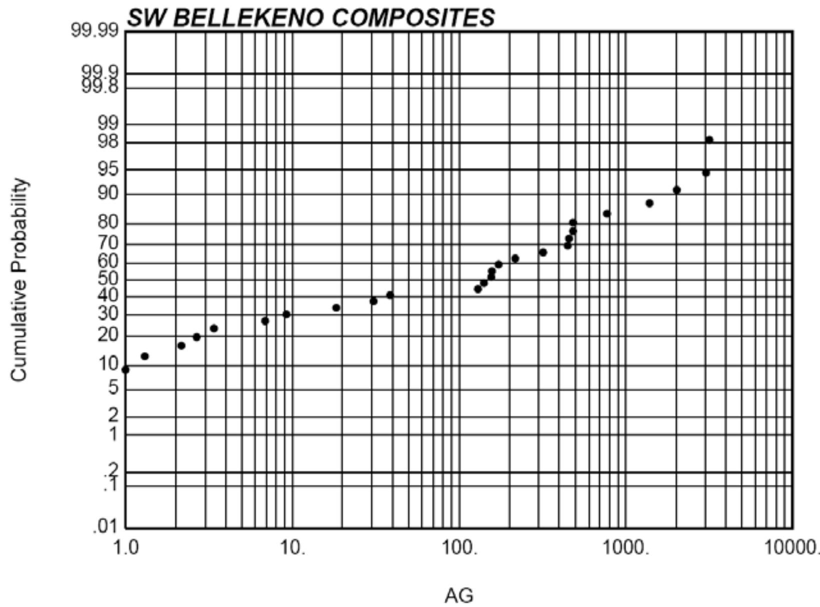
A separate composite file was created for calculating pulp specific gravity values for each composite. These composites were weighted by interval length only. These values are recorded in the summary statistic tables.

16.3.6 Grade Capping

The compositing process has significantly reduced the variability of grade distributions for silver and lead. However variability remains high for lead at a coefficient of variation ("COV") of 2.18 for lead and 1.75 for silver. In some cases this would indicate that grade capping may be required. A cumulative probability plot of silver and lead grade distributions for the drill core data is presented in Figure 12. These plots indicate there are a distinct high grade tails or domains in each of these grade distributions. An examination of high grade silver and lead values in drill hole plots within the Southwest Zone show that high grade values in the zone result from three Alexco drill holes:

- K-06-0011
- K-07-0090
- K-07-0101

These three drill holes occur adjacent to each other may belong to a high grade shoot or distinct grade domain. Since these high grade values do not occur in isolation with lower grades these grades are not considered high grade outliers and therefore capping is not considered appropriate to this data set. This contention is supported by historical capping of silver at approximately 3,428 gpt (100 oz/short ton). Gold and zinc grade variability is considered low enough not to require capping. Gold and zinc cumulative probability plots are presented in Appendix E.



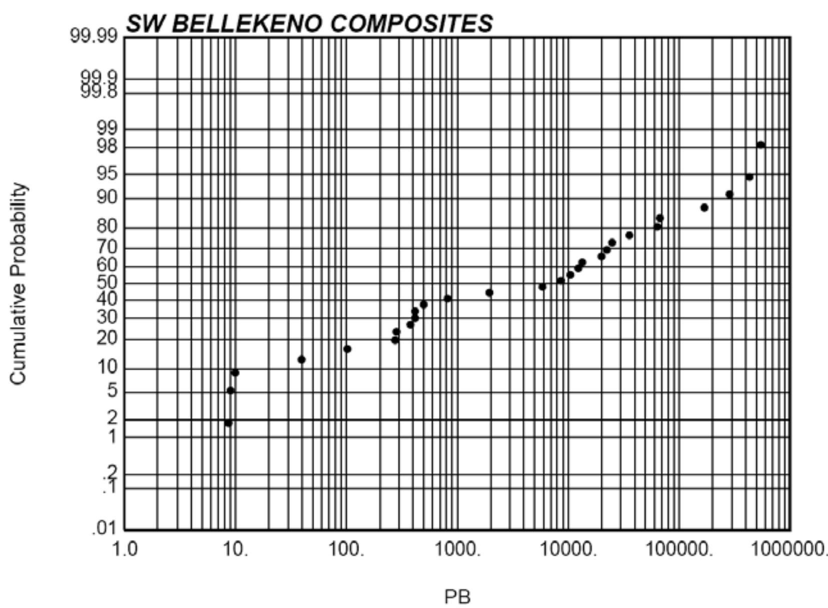


Figure 12: Cumulative Probability Plots for Drill Core Composite Samples. Top. Silver Composites. Bottom Lead Composites.

16.3.7 Variography

Composited drill data provides only 28 data points which are insufficient for generating usable variograms. SRK next considered using a combination of chip and drillcore composites with a total of 175 drill hole composites. SRK was unable to define any readable variograms with this dataset. SRK next considered using a combined database of all available drill hole and chip sample composites (full intersection composited) for the entire Bellekeno vein including Zones 99, East and Southwest. Data sets from the 99 and East Zones were limited to composites within a preliminary outline of the contiguous Bellekeno vein.

With the combined set of composites SRK was able to develop variogram models using pairwise relative variograms. Variograhy indicated spatial continuity oriented sub-parallel to the general strike (090^o) and dip (70^o)of the Bellekeno vein (rotated coordinates). Variography appears insensitive to plunge direction with greater continuity at parallel to strike and dip direction. Gold variography did not provide any readable variograms. Silver variograms for the strike dip direction are presented in Figure 13. Other variograms models for lead and zinc are presented in Appendix F. Variogram ranges determined from variography are summarized in Table 11.

Table 11. Variogram Ranges.

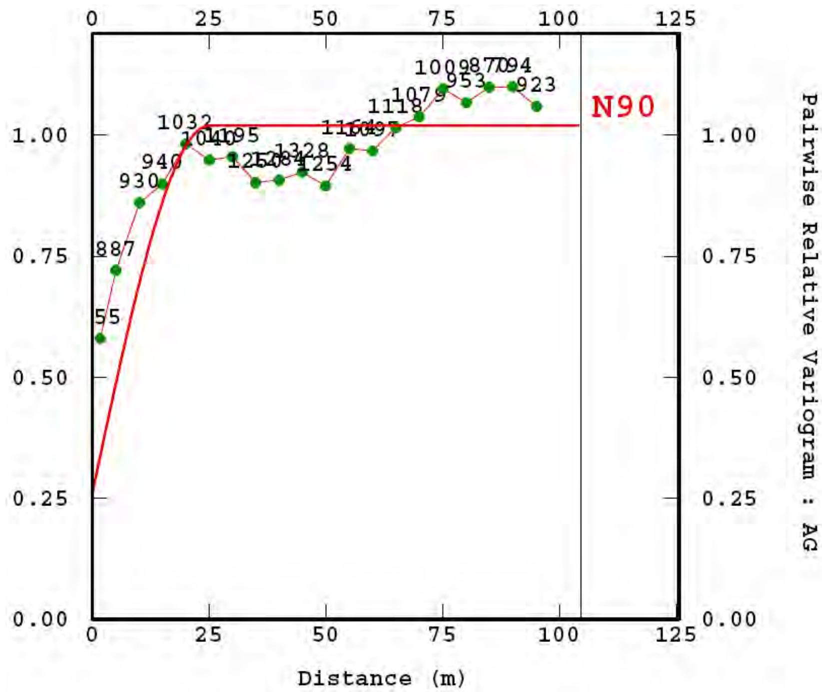
	Variogram Direction Ranges [metres]		
Metal	Strike	Dip Direction	Normal
Silver	25	25	15
Lead	25	25	5
Zinc	15	20	10

16.3.8 Block Model

A block model was developed based on the wireframe solid of the Southwest Zone. Block model parameters are given in Table 12. The block model size was based primarily on likely smallest mining unit for the deposit and a block sized that models the vein dimensions in a reasonable manner. The block model was developed with three levels of sub-blocks to ensure that the volume of the vein volume is accurately represented. Like the wireframe model the block model was limited by the lower contact of the Schist unit and the upper contact of the Greenstone unit.

Table 12. Characteristic of the Bellekeno Southwest Block Model.

Type	X Direction	Y Direction	Z Direction
Origin	486,200	7,085,400	0
Block Size [metre]	5	3	5
Number of Blocks	280	333	280



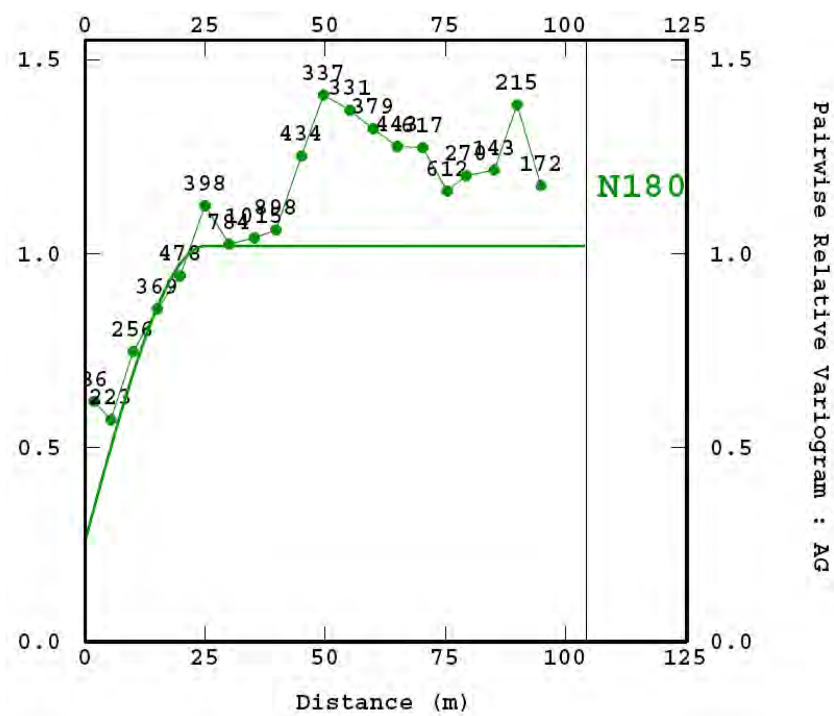


Figure 13: Variograms Modelled by SRK for the Silver Composites. Top. Parallel to Strike. Bottom. Parallel to the Dip Direction.

Alexco provided SRK with wireframes of underground development and stoped out areas in the Southwest Zone. SRK modified these wireframes into wireframe solids representing mined out areas in the Southwest Zone area. These wireframe solids were the used to remove mined out areas from the block model.

16.3.9 Estimation

SRK considers the inverse distance approach a robust estimation methodology that is appropriate for estimating grades for the Bellekeno Southwest Zone. Silver, lead, and zinc grades only from drill core composites within the defined Southwest Zone solid were used for estimating grades.

Estimation strategy consisted of two estimation runs. The first estimation run utilized an estimation ellipse based on variogram ranges and orientations for each metal with the exception of normal estimation ranges for lead, zinc and gold, Normal direction ranges for these metals were assumed to be 10 metres. A minimum of two composites were required to estimate a block grade with a maximum of 8 composites for this run. Octant search parameters were not used. Estimation ranges for length weighted pulp specific gravity values were assumed to the same as silver estimation ranges.

The second estimation run consisted of using twice the variogram ranges with the same orientations; only blocks that were not estimated in the previous run were updated. Normal direction estimation ranges were assumed to be 20 metres for lead, zinc and gold. A minimum of one composite was required to make an estimate with a maximum of eight composites. Octant search parameters were not used. Estimation ranges for length weighted pulp specific gravity values were assumed to twice the silver estimation ranges.

SRK has established that core specific gravity varies significantly in the Southwest Zone. However the distribution of core specific gravity measurements is not sufficient to estimate specific gravity values for each block. There is a probable relationship between grade and specific gravity which has not been established because of limited data. Using 20 intervals that had both core specific gravity and pulp specific gravity measurements SRK determined a linear regression between the two values. This regression has a correlation of about 0.58. This regression relationship (Figure 14) was used to estimate specific gravity values for each block with a pulp specific gravity value. The regression line equation used to estimate block specific gravity (“SG”) is:

$$SG=PSG*0.846069+0.458964$$, where PSG is pulp specific gravity

As a check of block specific gravity estimates, a scatter plot was used to check if a reasonable linear relation ship between the two variables was maintained in the block estimation process, this plot is presented in Figure 15. The plot indicates that a reasonable linear relationship between silver and block specific gravity has been maintained in the estimation process.

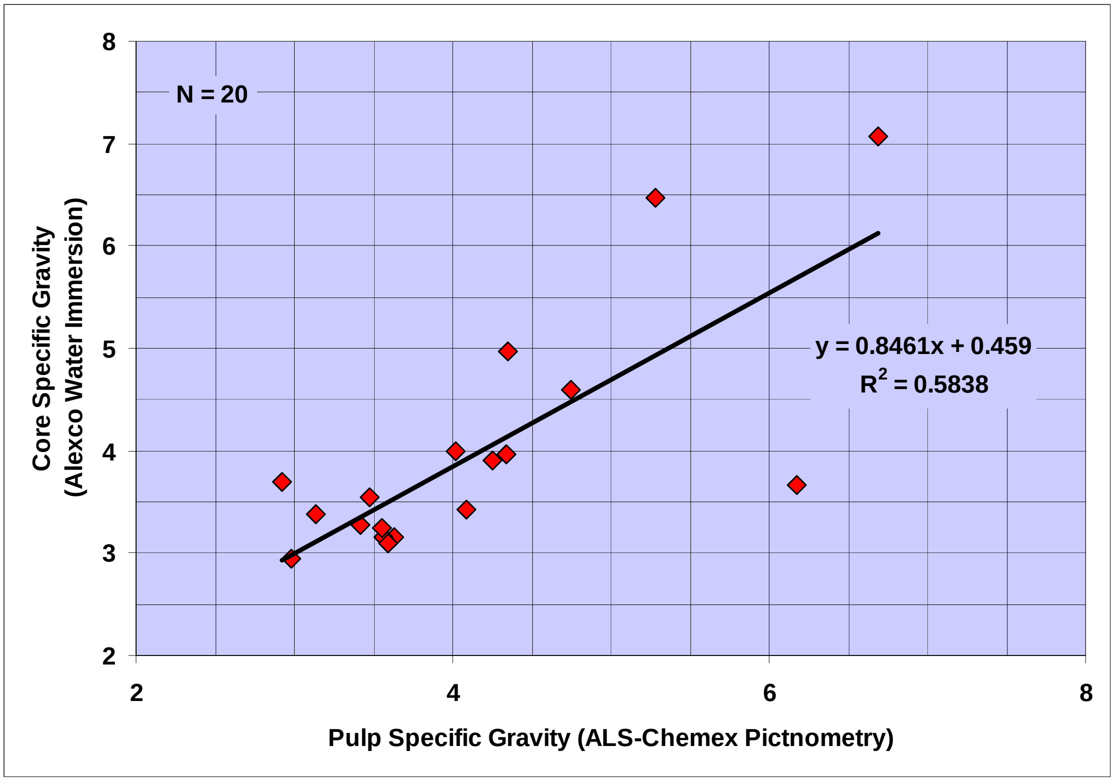


Figure 14: Relationship between Core and Pulp Specific Gravity Determinations.

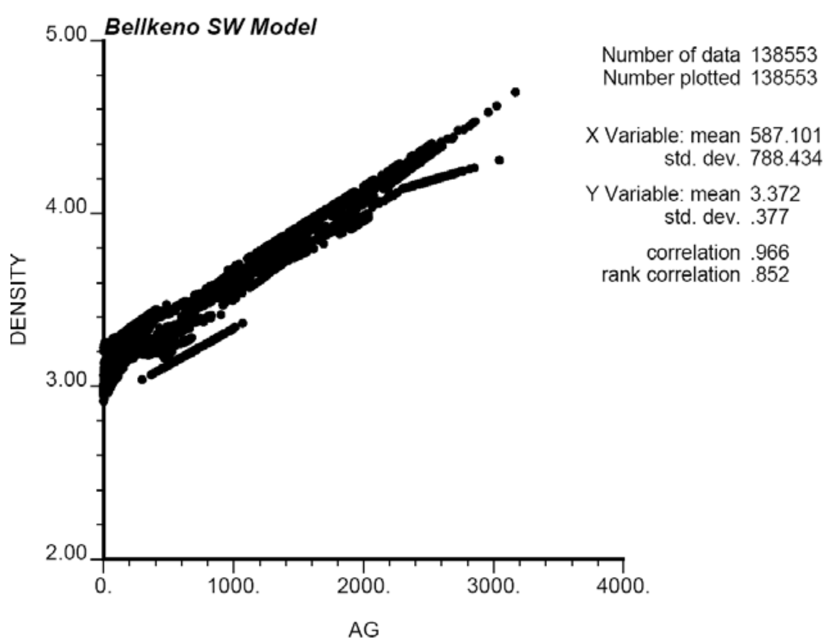


Figure 15: Relationship between Estimated Block Specific Gravity and Block Silver Grade.

Areas mined out by UKHM were excluded from the block model used for the final estimation of the mineral resources in the Southwest Zone.

16.3.10 Estimation Validation

Estimation methodology was validated by visually comparing block grades to composite drill holes and uncomposited drill holes. Block grades were found to correlate reasonably with composites and generally with uncomposited grades.

As additional check of estimation methodology the block model was estimated with nearest neighbour and inverse distance squared techniques using the same estimation parameters. The nearest neighbour estimator is a theoretically unbiased estimator at no cut-off grade and therefore is a good check of the global estimate. The nearest neighbour estimate did not have significant variation in model tonnages with a maximum grade variation of less than 7 percent. The inverse distance squared estimator estimated the same tonnage at no cut-off. Maximum grade variations for these estimates were less than 2 percent. At higher cut-offs there was a maximum 6 percent variations in grade and a maximum 3 percent variation in tonnages.

Validation methods indicate that the estimation method used by SRK is appropriate and delivers reasonable estimates for the silver, gold, lead and zinc grades and tonnages for the Southwest Zone of the Bellekeno deposit.

16.3.11 Mineral Resource Classification

Mineral resources have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" Guidelines. Mineral resources are not mineral reserves and do not have demonstrated economic viability.

The mineral resources estimated for the Bellekeno Southwest Zone were classified according to "CIM Definition Standards for Mineral Resources and Mineral Reserves" (December 2005) by G. David Keller, P. Geo. a Qualified Person as defined by NI 43-101.

In classifying the mineral resources for the Southwest Zone SRK considered that:

- Drill hole spacing over the deposit varies widely from 10 metres to 50 metres and is not evenly spaced over the deposit area;
- The bulk of the current estimate is supported by only three drill holes spaced approximately 50 and 15 metres apart;
- Density variations of the deposit are critical to this type of deposit, density estimates for this deposit are based on limited data sets and assumption that need to be demonstrated with greater confidence from large data sets;

- Because of limited data for the zone, variography is based on the entire Bellekeno vein. There are significant variations in grade characteristics (particularly lead and zinc) in the Bellekeno vein across strike and possibly with depth across the deposit. The effect of these large scale variations on variography of the southwest may be positively or negatively significant;
- Limited geological information was used in the delineation of the zone.

Considering these parameters SRK is of the opinion that the mineral resources for the Bellekeno Southwest Zone are appropriately classified as Inferred Mineral Resources.

16.3.12 Bellekeno Southwest Zone Mineral Resource Statement

The mineral resources for the Bellekeno Southwest Zone are presented in Table 13 at various silver cut-off grades.

Table 13. Bellekeno Southwest Zone Inferred Mineral Resources at Various Silver Cut-off Grades.

Ag cut-off [gpt]	Ag [gpt]	Tonnage [t 1000's]	Pb [%]	Tonnage [t 1000's]	Zn [%]	Tonnage [t 1000's]	Au [gpt]	Tonnage [t 1000's]
200	1,144	454	15.23	447	4.90	366	0.36	366
300	1,437	342	19.55	336	5.49	265	0.37	265
400	1,604	297	22.14	291	5.82	224	0.37	224
500	1,682	278	23.38	273	5.88	207	0.37	207
550	1,714	271	23.89	266	5.97	200	0.37	200

In March of 2005 SRK prepared an assessment of the Keno Hill area for Alexco. In that report an OPEX cost estimate of CN$180 per tonne was use to evaluate known resources in the district. The SRK OPEX cost estimate was factored, inflated from the 1996 Rescan Feasibility study, then the costs were compared to comparable operating mines.

Alexco preliminary OPEX cost estimates have been estimated at CN$170 per tonne using 2006 “Western Mine Cost Service Data” as published by INFOMINE. A cut-off grade of 500 gpt silver represents approximately 17 oz/t silver. Using an Alexco preliminary net smelter returns (“NSR”) formula, material grading 17 ounces per ton silver equates to CN$170 per tonne gross metal value at US$10.00 per ounce silver. The NSR net back is approximately CN$132 per tonne at an exchange rate of 0.90 to the US dollar. The 500 gpt silver cut-off is therefore considered by SRK a reasonable estimate that reflects current costs forecasts and market conditions at the time of this report.

The Mineral Resource statement for the Bellekeno Southwest Zone is presented in Table 14.

Table 14. Mineral Resource Statement* for the Bellekeno Southwest Zone, SRK Consulting, November 10, 2007.

Category	Zone	Tonnage	Ag	Pb	Zn	Au
		[Tonnes]	[gpt]	[%]	[%]	[gpt]
Inferred	Southwest	278,000	1,683	23.4	5.9	0.4

* Reported at a cut-off of 500 gpt silver. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates.

16.4 Consolidated Mineral Resource Statement for the Bellekeno Deposit

The consolidated mineral resource statement is presented in Table 15.

Table 15. Consolidated Mineral Resource Statement* for the Bellekeno Deposit, SRK Consulting, November 10, 2007.

Category	Zone	Tonnage	Ag	Pb	Zn	Au
		[Tonnes]	[gpt]	[%]	[%]	[gpt]
Inferred	99**	55,700	1,593	11.1	5.5	0.0
	East**	22,300	1,056	5.3	7.1	0.2
	Southwest***	278,000	1,683	23.4	5.9	0.4
Total Inferred		**356,000**	**1,630**	**20.3**	**5.9**	**0.3**

* Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates.

** Reported at a cut-off of 15 oz/t silver. Silver grades capped at 100 oz/t.

*** Reported at a cut-off of 500 gpt silver. Silver grades not capped.

17 Other Relevant Data

SRK is not aware of any other relevant data.

18 Interpretation and Conclusions

In 2006 and 2007, Alexco completed two drilling programs on its Keno Hill project located in Central Yukon Territory. The majority of this drilling has targeted the historical resource areas at the former Husky SW and Bellekeno mines.

This drilling was successful in confirming historical information suggesting the existence of significant polymetallic silver mineralization on both areas.

SRK was retained by Alexco to audit the exploration work completed by Alexco, review and audit the historical resources reported at the Bellekeno mine and prepare a mineral resource model for the portions of the Bellekeno and Husky SW mines that have been investigated by Alexco drilling.

SRK visited the Keno Hill project and reviewed with Alexco personnel the procedures for indexing and digitizing the historical exploration data.
By nature much of this information is difficult to verify, but SRK has no reason to believe that this information is unreliable. After review and analysis of historical diamond drill hole data, SRK is of the opinion that the historical diamond drilling sample data are generally reliable for the purpose of estimating mineral resources. SRK considers however that underground chip sample and percussion drilling data may be unreliable and biased.

In the opinion of SRK, the Alexco drilling information was acquired using procedures that meet or exceed industry best practices. Alexco personnel used diligence in monitoring quality control assaying results, investigating potential failures and taking appropriate corrective measures when required. In the opinion of SRK, the quality control data collected by Alexco is comprehensive and despite the difficulties with some standards used, the assaying results delivered by ALS-Chemex are generally reliable for the purpose of resource estimation.

The mineral resource statement presented in this technical report for the Bellekeno deposits is considered an interim model as it includes a re-classification of the historical resources estimated by UKHM personnel in 1997 for the 99 and East Zones. The Mineral Resources for the Southwest Zone were estimated separately. The East Zone was investigated by drilling during 2007. This drilling information should allow modelling the mineral resources for the East Zone separately.

19 Recommendations

The mineral resource model for the Southwest Zone does not consider assay results for three boreholes (K-07-0100, K-07-0103, K-07-0106) obtained after the preparation of this report. The mineral resource models for the Southwest Zone should be revised after all assays have been received. Several boreholes of the 2007 drilling program investigated the East zone. The information from these boreholes should be sufficient to allow estimating the mineral resource for the East Zone separately.

In updating the mineral resource model, it is recommended to consider 1) analyzing for and incorporating pulp specific gravity analyses for all mineralized drill intervals intersecting the Bellekeno vein and 2) using detailed core recovery for each sampled interval, where available.

SRK believes that a better resource classification will require tight drill spacing that cannot be economically and technically achieved from surface drilling. SRK considers that this can only be effectively achieved through underground exploration. An underground exploration program would also allow re-sampling of historical workings to confirm historical chip sampling data that are considered problematic.

At their September 2007 meeting, the Alexco Board of Directors approved a plan to initiate underground exploration and development of the Bellekeno deposits.

This plan includes driving a new 5-metre wide by 4-metre high decline, approximately 600 metres long, through the hanging wall to intersect the existing 625 level near the 99 Zone deposit. Approximately 100 metres away from the vein, a 400 metre long decline will be driven from which diamond drilling will be conducted to upgrade the East Zone resource to reserve category. Both of these new drives are planned for primary access and haulage, when production commences.

Once the 625 level workings have been intersected, the drift will be rehabilitated to the portal as a secondary escape way. The mechanized ramps to the 700 and 800 levels will be de-watered and rehabilitated. Approximately 2, 300 metres of rehabilitation is planned. Diamond drill stations and platforms will be built, to allow investigating the Southwest and 99 Zones with tightly spaced drilling to support improving the classification of mineral resources to Indicated Mineral Resource category and their subsequent conversion to a Mineral Reserve. There is no guaranty that the proposed underground exploration program will be successful… The new underground development work is designed to be useable for production if the economics of the project are considered positive.

The proposed budget for this underground development is approximately CN$16.1 million. Of this total, the planned expenditures during 2008 are: CN$9.60 million for new underground access and rehabilitation of existing underground workings: CN$2.15 million for underground diamond drilling and CN$1.40 million for support costs and equipment.

Alexco has initiated a scoping study that is expected to be completed by the end of December 2007. SRK has been retained to provide assistance for specific sections including resource and reserve estimates, mining methods, backfill and associated costs.

20 References

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APPENDIX A

Summary of Drilling Data for the Bellekeno Project

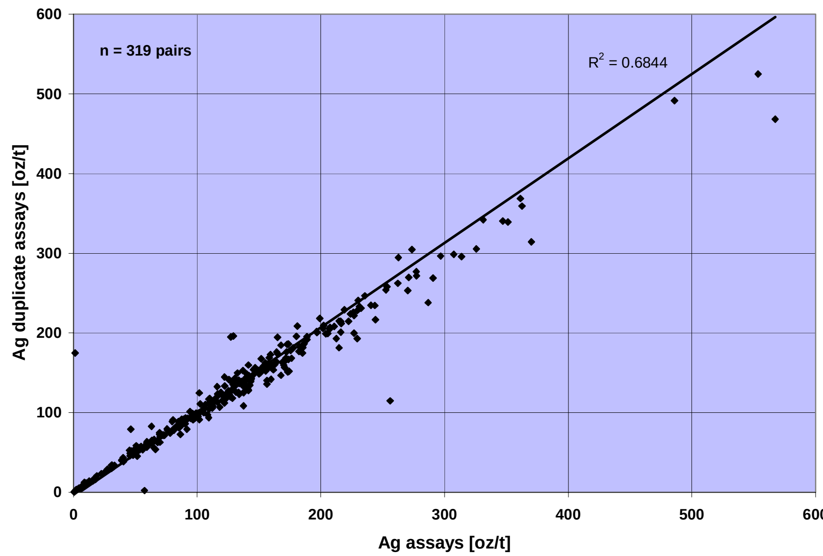
Year	**1975**	**1980**	**1984**	**1986**	**1994**	**1994**	**1995**	**1995**	**1996**	**1996**	**2006**	**2007**	**Total**
Operator	UKHM	UKHM	UKHM	UKHM	WGM	WGM	WGM	WGM	WGM	WGM	Alexco	Alexco	
Drilling characteristics													
Number of Borehole	281	23	178	20	105	1	27	67	12	38	9	29	**279**
Borehole type			RP	DDH	RC	DDH	DDH	PC	DDH	PC	DDH	DDH	
Collar position	surface	surface		Surface	Surface	Underground	Underground	Underground	Underground	Underground	Surface	Surface	
Borehole numbers				BK86-01 to BK86-20	BKP-94-001 to BKP-94-175, gaps SMP94-001 to SMP94-004	BK_UD94001	BK_UD95001 to BK_UD95027	BKUP95-001 to BKUP95-039 BKUT95-001 to BKUT032	BK_UD96028 to BK_UD96039	BKUT96-032 to BKUT96-069	K-06-0011 to K-06-0038, gaps	K-07-0064 to K-07-0102, gaps	
Meterage (metres)	12,840	1,000	9,083	1,335	5,595	76	2,491	1,312	1,042	1,156	3,727	8,254	**16,734**
Drilling contractor					Stan Wolarek	Advanced	Advanced					Quest	
Core size				variable, NQ, BQ, and unknown	2 inch (5cm)	NQ	NQ	2 inch (5cm)			NQ2	HQ	
Core archive	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	yes on site	yes on site	
Photographs	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	unknown	Yes	Yes	
Borehole surveying													
Collar survey					yes						yes (Ashtech)	yes (Ashtech)	
Collar Azimuth/plunge				variable	variable	128.54°	variable	variable	variable	variable	variable, Azimuth between 297 and 310 degrees, dip -60 to -70 degrees	variable, Azimuth between 260 and 300 degrees, dip -45 to -90 degrees	
Surveyor					Logan Hind, Joe Clarke								
Downhole Surveying											Easy Shot on 60m intervals	Easy Shot on 30m intervals	
Core orientation											No	No	
Sampling procedure													
Sampling procedure											well documented	well documented	
Sample Length				variable, 0.15 - 2.13m	chips (1.52m intervals)	variable, 0.21 - 1.22m	variable, 0.12 - 3.96m	chips (1.22m intervals)	variable, 0.15 - 2.13	chips (1.22m intervals)	variable, from ca. 0.4 to 3m	variable, from ca. 0.4 to 3m	
Number of samples				130	3,557	6	169	1,049	75	217	2,646	2,387	**7,849**
Assaying													
Sample preparation											Chemex	Chemex	
Standard inserted											Yes	Yes	
rate											every 15 to 25	every 15 to 26	
Blanks inserted											Yes	Yes	
rate											every 15 to 25	every 15 to 26	
Primary Laboratory					Northern Analytical Laboratories	Northern Analytical Laboratories	Northern Analytical Laboratories	Northern Analytical Laboratories			Chemex	Chemex	
number of samples											2,646	2,387	
sub-sample size													
Primary Ag assay					AAS	AAS	AAS	AAS			ME-ICP, AA, GRA	ME-ICP, AA, GRA	
Replicate Ag assay					FA/Gravimetric	FA/Gravimetric	FA/Gravimetric	FA/Gravimetric					
Primary Pb assay					AAS	AAS	AAS	AAS			ME-ICP, AA	ME-ICP, AA	
Replicate Pb assay													
Primary Zn assay					AAS	AAS	AAS	AAS			ME-ICP, AA	ME-ICP, AA	
Replicate Zn assay													
Primary Cu assay					AAS	AAS	AAS	AAS			ME-ICP, AA	ME-ICP, AA	
Replicate Cu assay													
Primary Au assay					FA/AAS	FA/AAS	FA/AAS	FA/AAS			AA	AA	
Replicate Au assay													
Other assaying													
Original Certificates					yes	yes	yes	yes	yes	yes	yes	yes	
Secondary Laboratory					international Plasma Laboratories, Ltd (?)	international Plasma Laboratories, Ltd (?)							
number of samples						60							**60**
Sub-sample size													
Assay method													
Primary Au assay					ICP	ICP							
Replicate Au assay													
Other assaying													
Original Certificates					Yes	Yes	Yes	Yes					

APPENDIX B

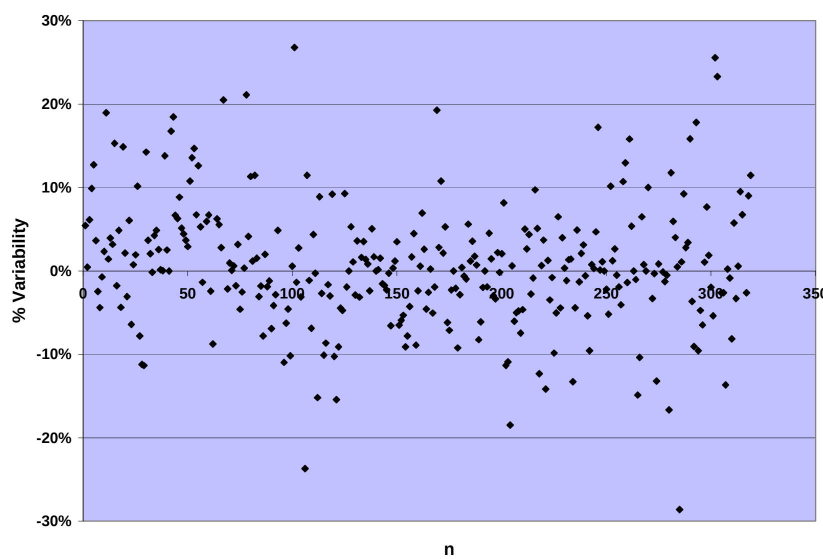
Bias charts for the historical sample pairs available.

Bias charts for the for the historical sample pairs.

Duplicate chip sample silver assays, sampled between 1984 and 1988



Per cent variability of duplicate chip sample silver assays between 1984 and 1988

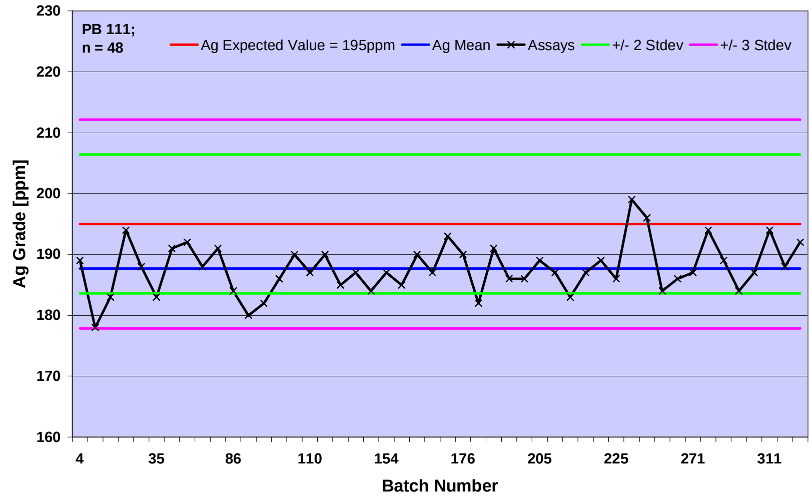


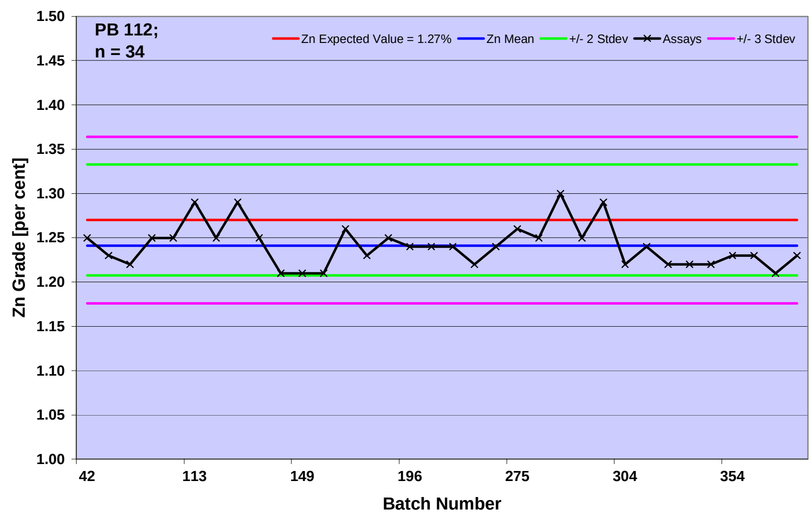
APPENDIX C

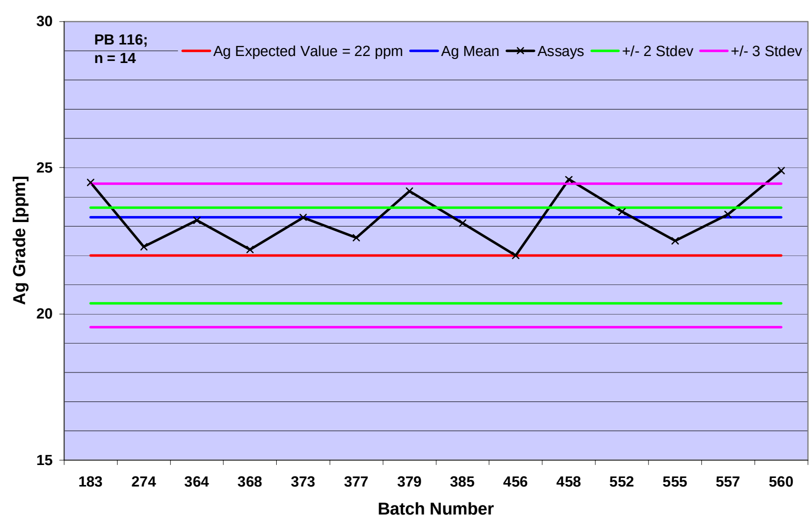
Bias charts and time series for control samples 2006 drilling program

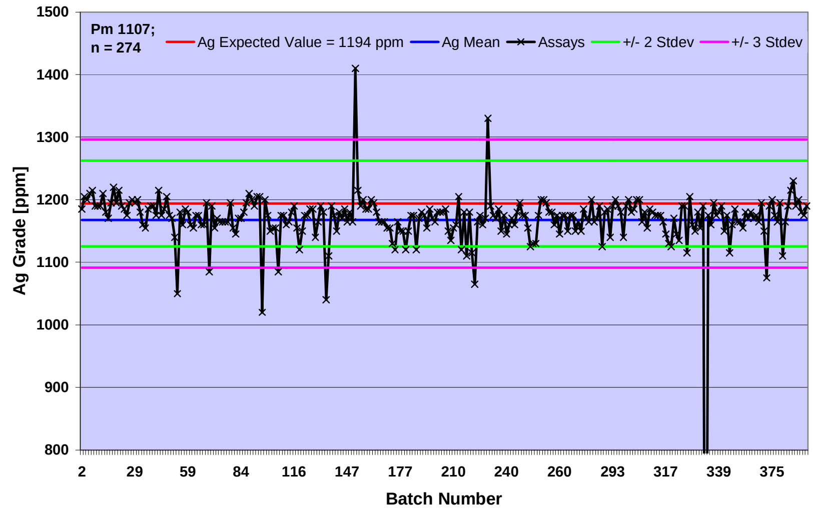
Time series and bias charts for control samples produced during the 2006 program.

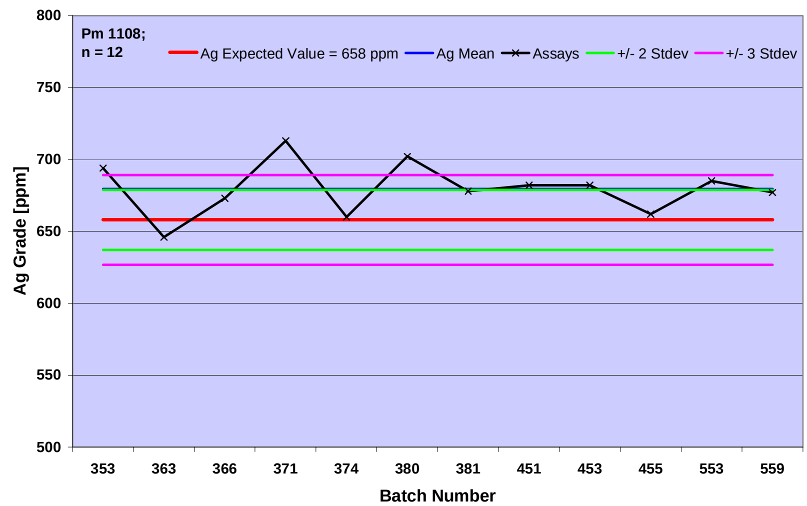
Silver standard:



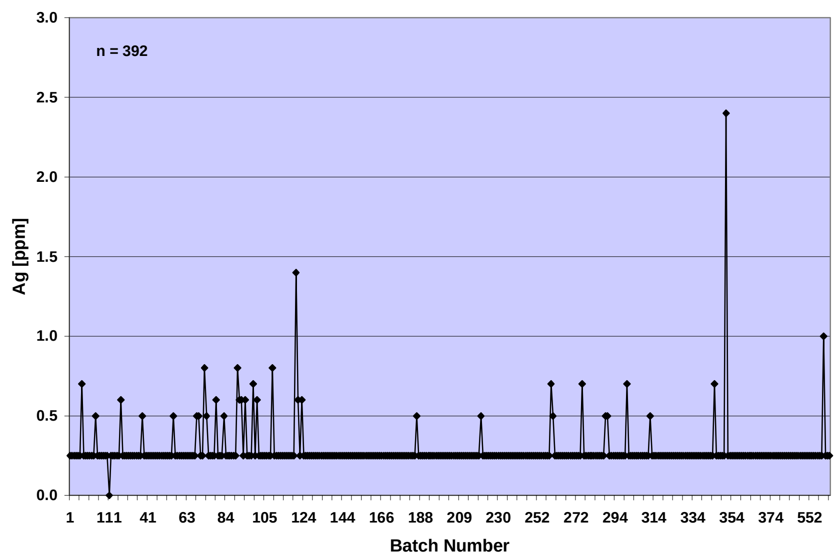




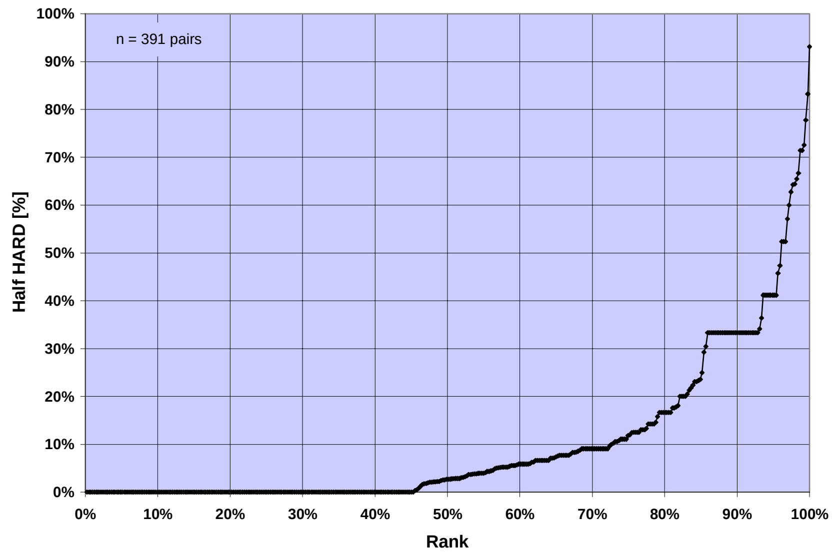


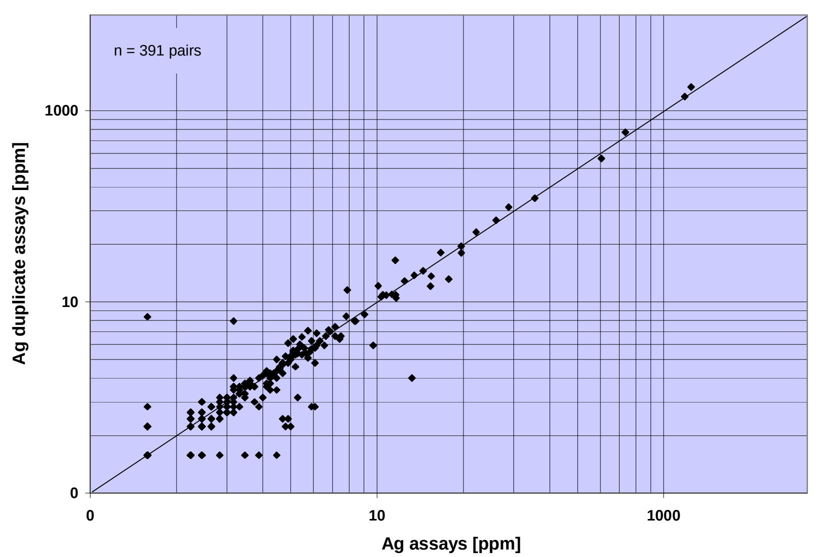


Blank samples Silver assay results.

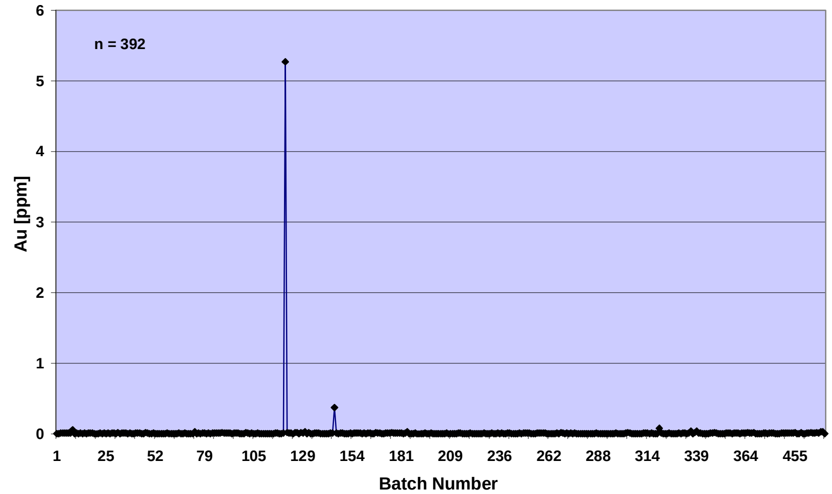


Bias Chart for silver assay pairs. Top, Ranked Half Absolute Relative Difference Plot (HARD). Bottom, Logarithmic bias chart.

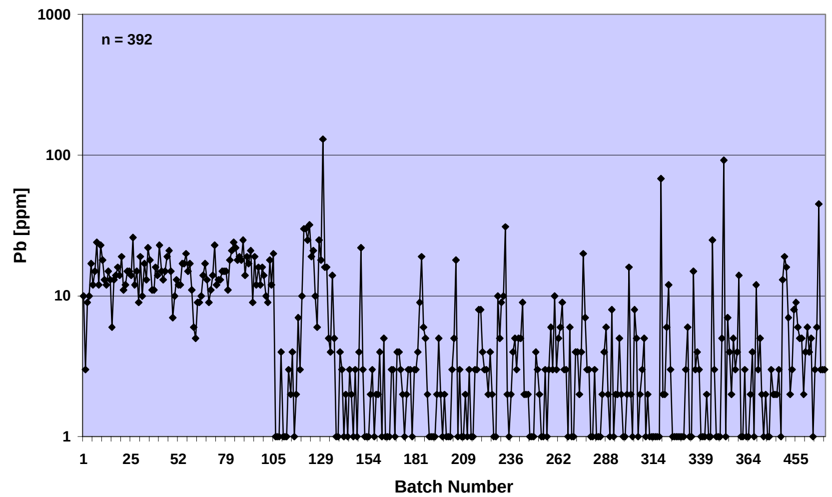




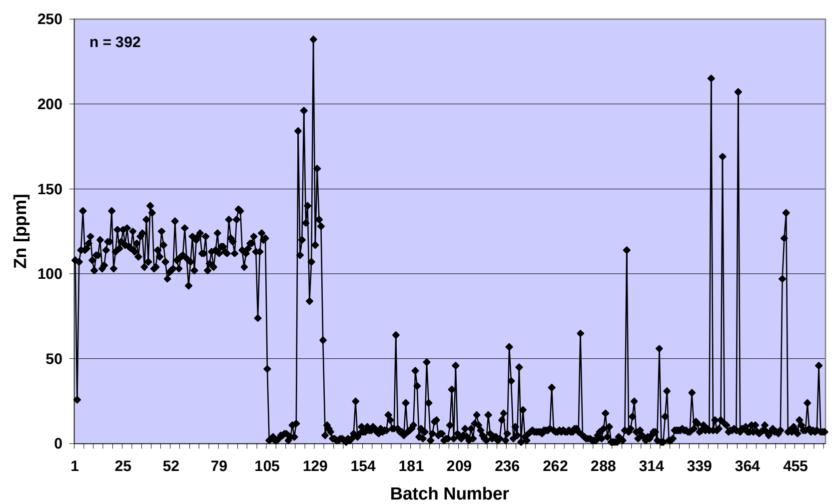
Blank Samples - Au analyses

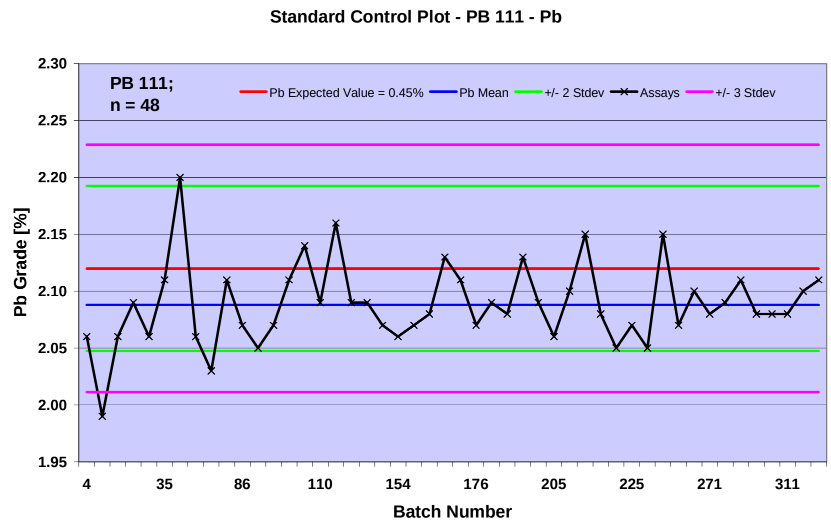


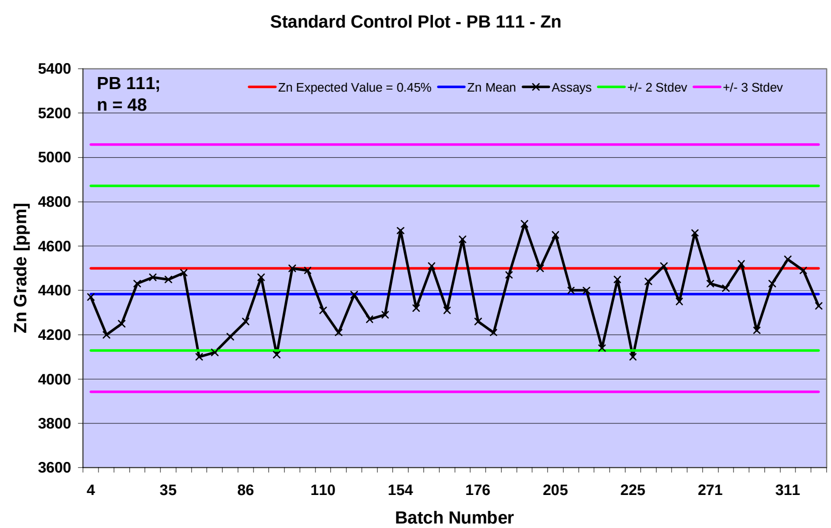
Blank Samples - Pb analyses

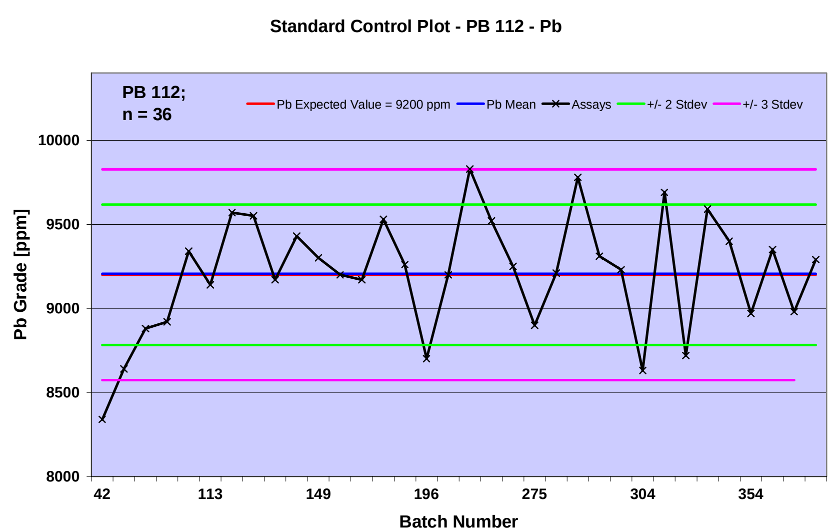


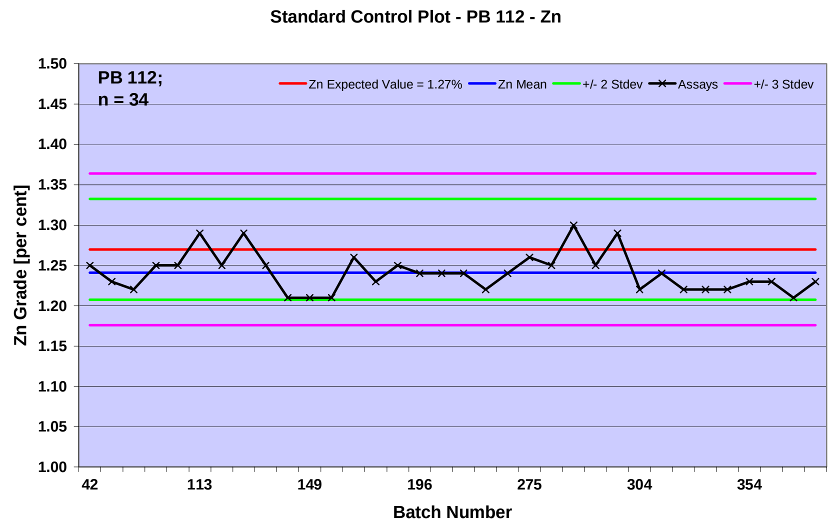
Blank Samples - Zn analyses

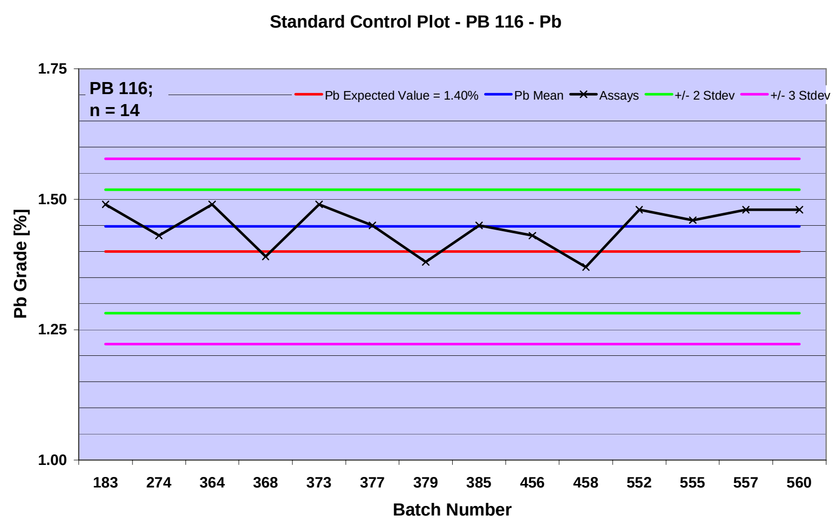


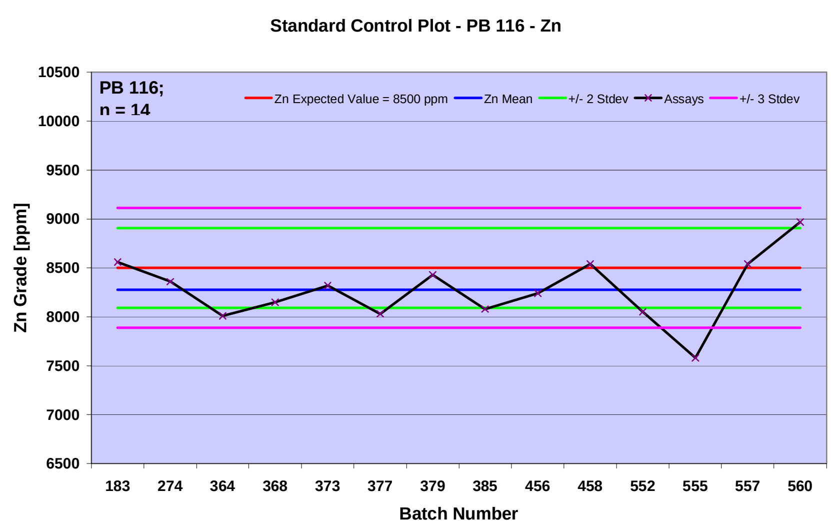

Standard Control Plot - PB 111 - Pb
PB 111;
n = 48
Pb Expected Value = 0.45%
Pb Mean
+/- 2 Stdev
Assays
+/- 3 Stdev
Pb Grade [%]
2.30
2.25
2.20
2.15
2.10
2.05
2.00
1.95
4
35
86
110
154
176
205
225
271
311
Batch Number

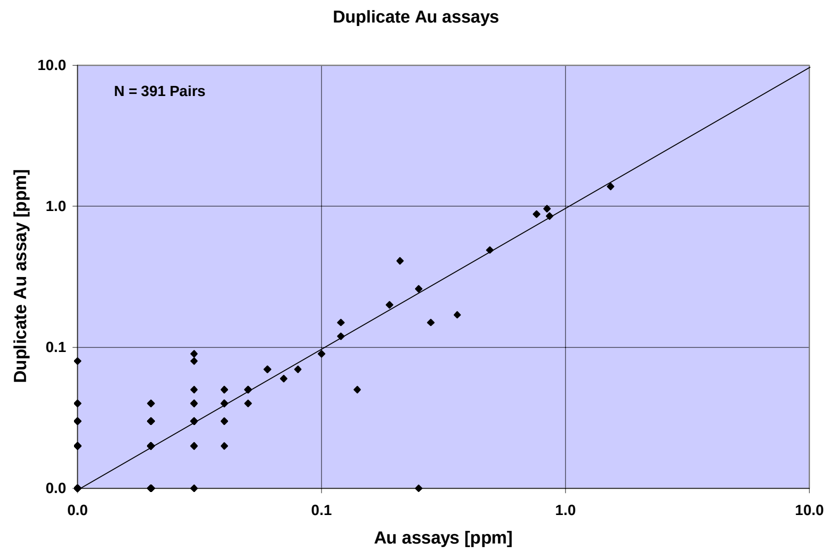

Standard Control Plot - PB 111 - Zn
PB 111;
n = 48
Zn Expected Value = 0.45%
Zn Mean
Assays
+/- 2 Stdev
+/- 3 Stdev
Zn Grade [ppm]
5400
5200
5000
4800
4600
4400
4200
4000
3800
3600
4
35
86
110
154
176
205
225
271
311
Batch Number

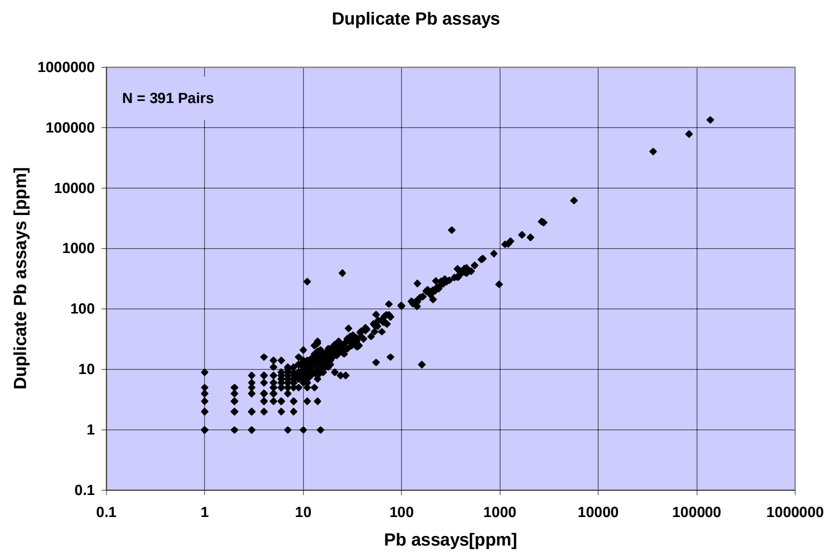

Standard Control Plot - PB 112 - Pb
PB 112;
n = 36
Pb Expected Value = 9200 ppm
Pb Mean
Assays
+/- 2 Stdev
+/- 3 Stdev
Pb Grade [ppm]
10000
9500
9000
8500
8000
42
113
149
196
275
304
354
Batch Number

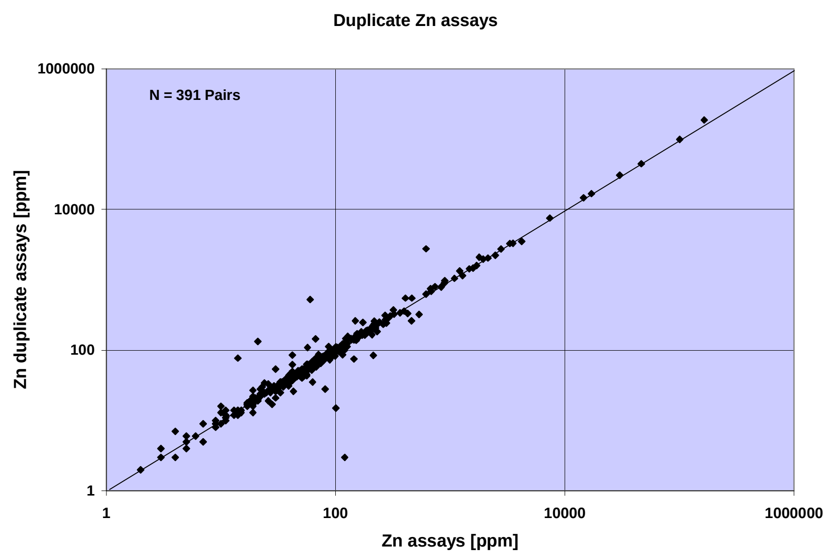

Standard Control Plot - PB 112 - Zn
PB 112;
n = 34
Zn Expected Value = 1.27%
Zn Mean
+/- 2 Stdev
Assays
+/- 3 Stdev
Zn Grade [per cent]
1.50
1.45
1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00
42
113
149
196
275
304
354
Batch Number


Standard Control Plot - PB 116 - Pb
PB 116;
n = 14
Pb Expected Value = 1.40%
Pb Mean
Assays
+/- 2 Stdev
+/- 3 Stdev
Pb Grade [%]
1.75
1.50
1.25
1.00
183
274
364
368
373
377
379
385
456
458
552
555
557
560
Batch Number


Standard Control Plot - PB 116 - Zn
PB 116;
n = 14
Zn Expected Value = 8500 ppm
Zn Mean
+/- 2 Stdev
Assays
+/- 3 Stdev
Zn Grade [ppm]
10500
10000
9500
9000
8500
8000
7500
7000
6500
183
274
364
368
373
377
379
385
456
458
552
555
557
560
Batch Number


Duplicate Au assays
N = 391 Pairs
10.0
1.0
0.1
0.0
0.0
0.1
1.0
10.0
Duplicate Au assay [ppm]
Au assays [ppm]


Duplicate Pb assays
N = 391 Pairs
1000000
100000
10000
1000
100
10
1
0.1
0.1
1
10
100
1000
10000
100000
1000000
Duplicate Pb assays [ppm]
Pb assays[ppm]

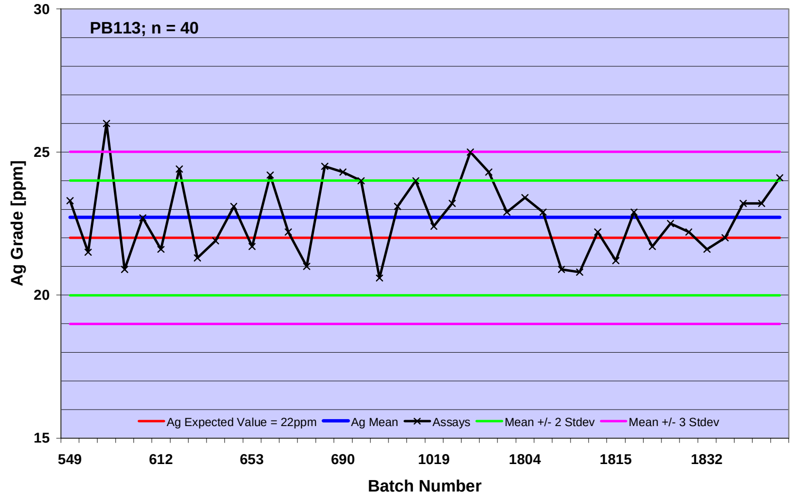

Duplicate Zn assays
N = 391 Pairs
1000000
10000
100
1
1
100
10000
1000000
Zn duplicate assays [ppm]
Zn assays [ppm]

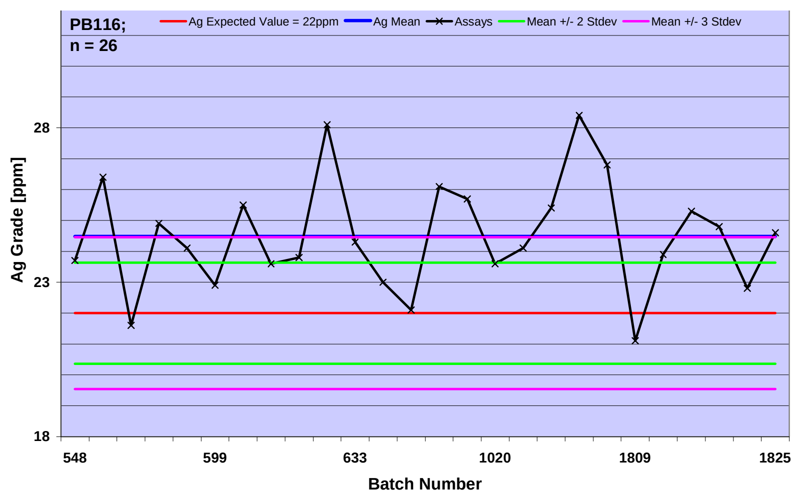
APPENDIX D

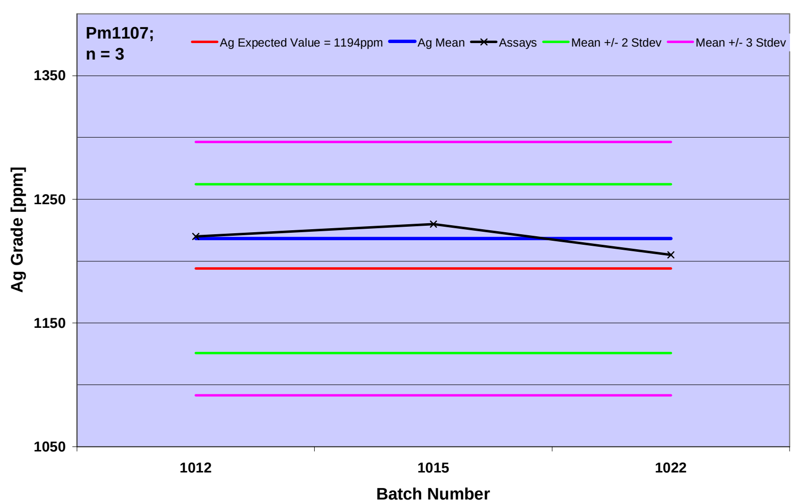
Additional bias charts and time series for control samples
2007 drilling program

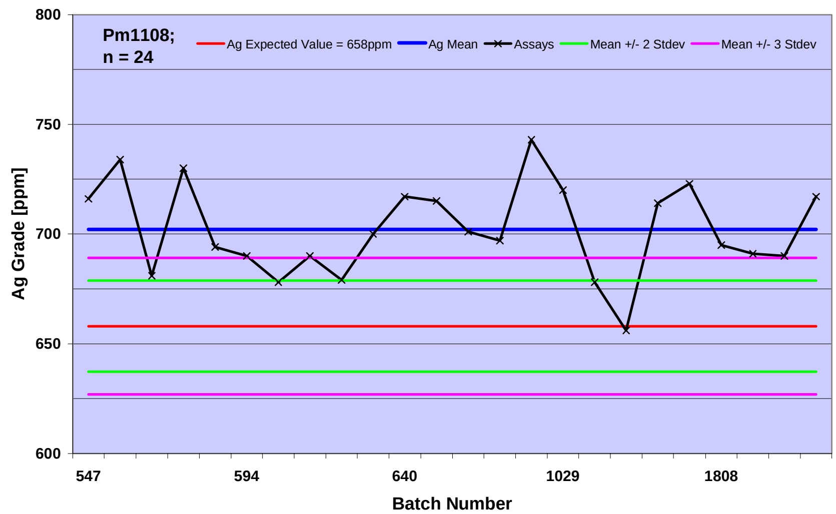
Time series and bias charts for control samples produced during the 2007 program.

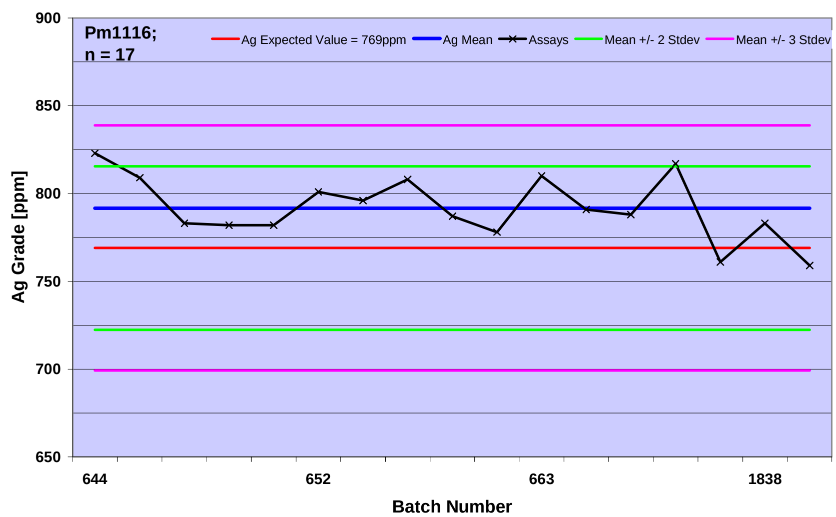
Silver standard:

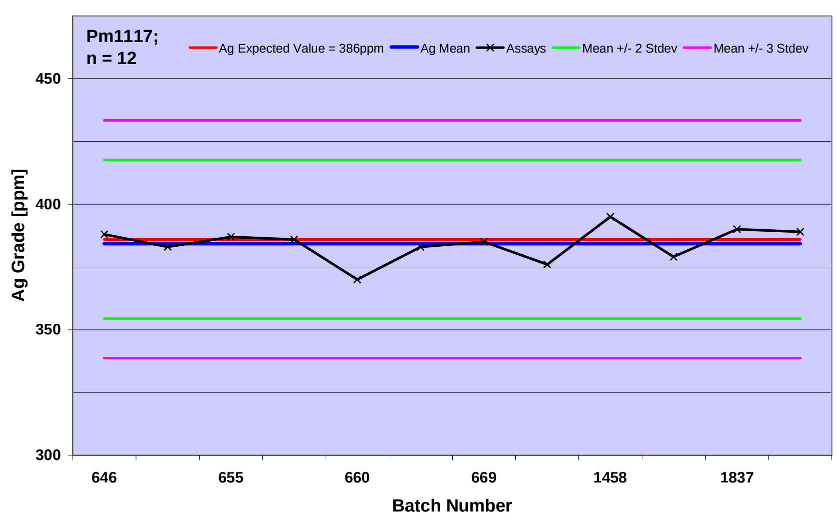




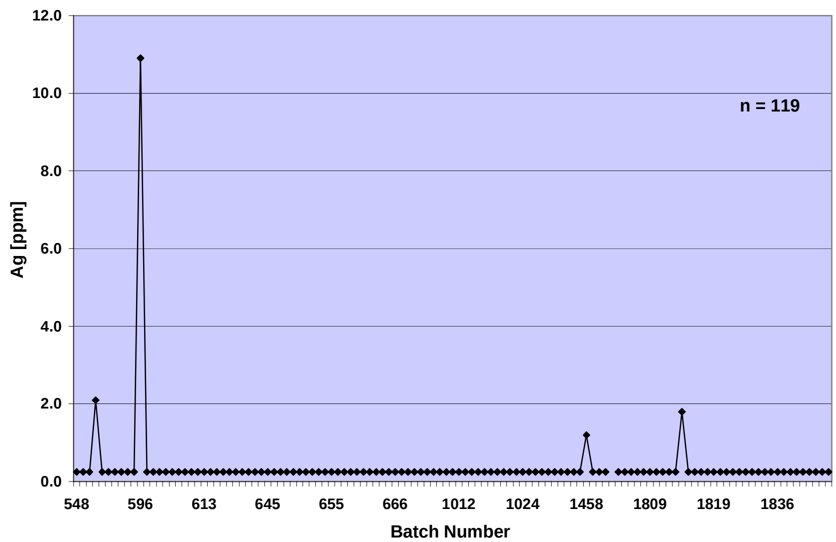



Pm1108;
n = 24
Ag Expected Value = 658ppm
Ag Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
800
750
700
650
600
Ag Grade [ppm]
547
594
640
1029
1808
Batch Number

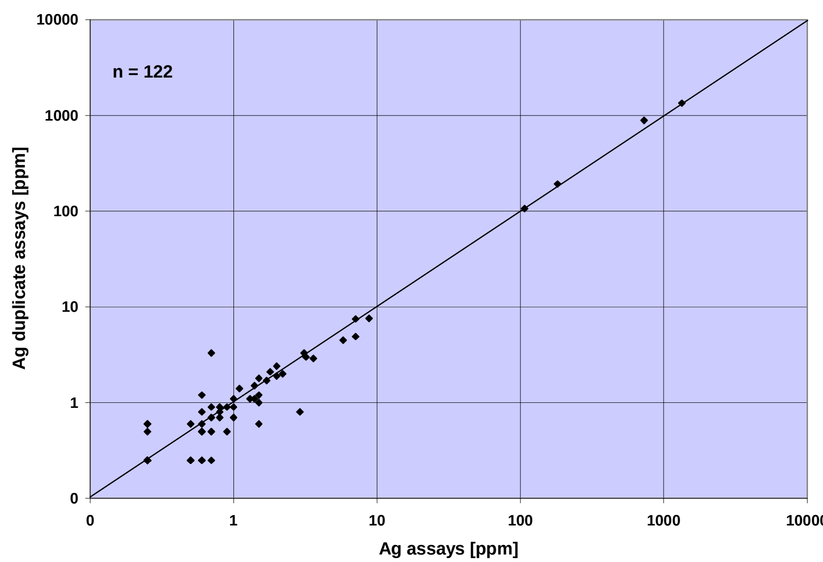

Pm1116;
n = 17
Ag Expected Value = 769ppm
Ag Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
900
850
800
750
700
650
Ag Grade [ppm]
644
652
663
1838
Batch Number


Pm1117;
n = 12
Ag Expected Value = 386ppm
Ag Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
450
400
350
300
Ag Grade [ppm]
646
655
660
669
1458
1837
Batch Number

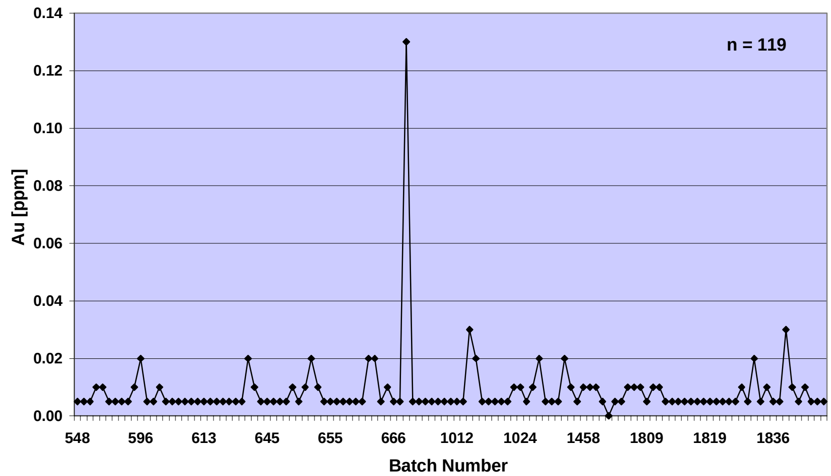
Blank samples Silver assay results. Note four spikes.



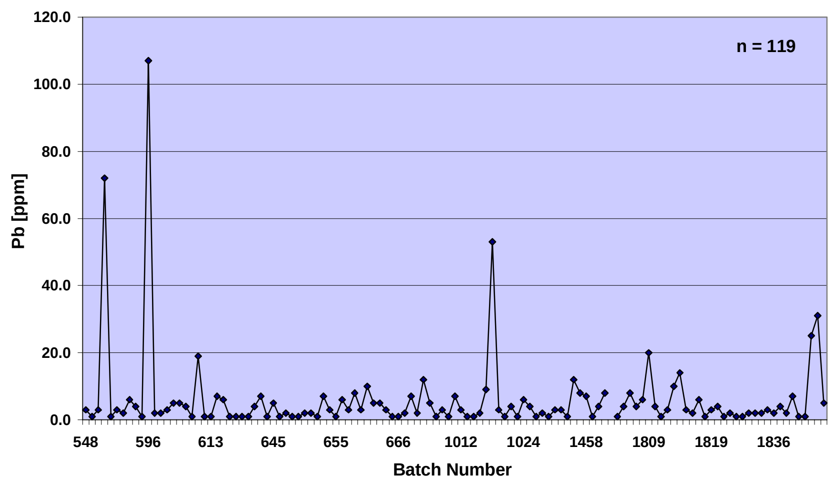
Bias Chart for silver assay pairs. Top, Ranked Half Absolute Relative Difference Plot (HARD). Bottom, Logarithmic bias chart.



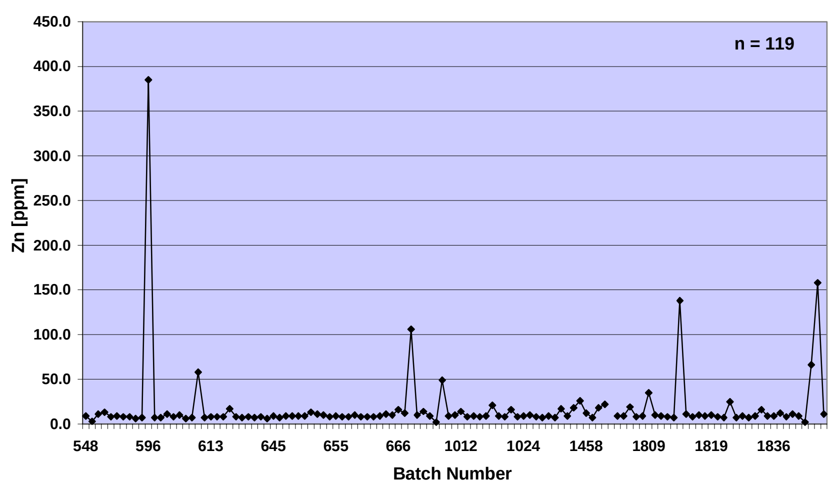
Blank samples - Au analyses

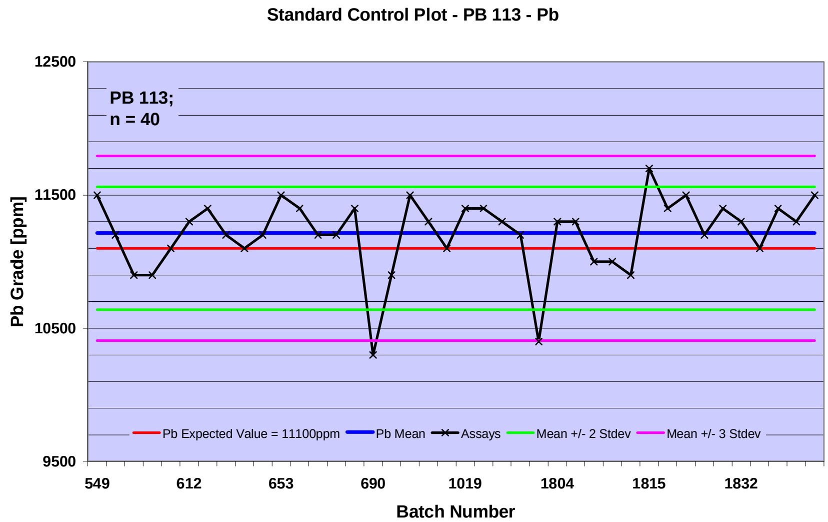


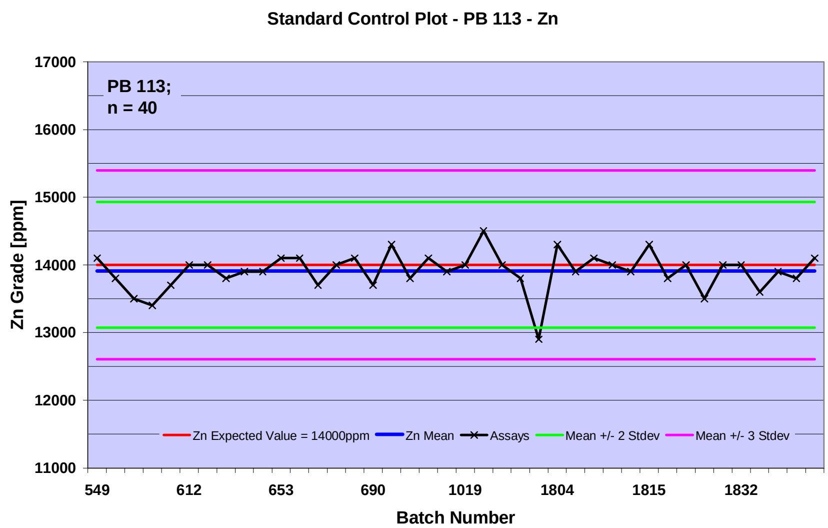
Blank samples - Pb analyses

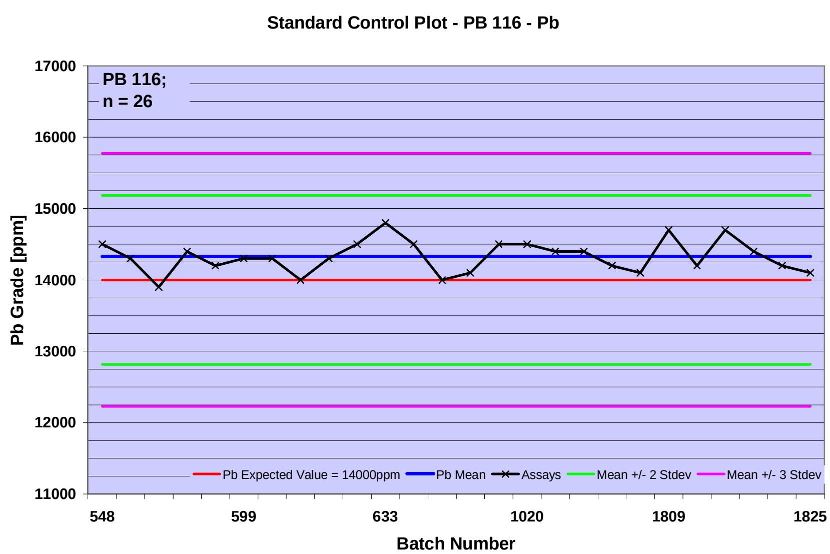


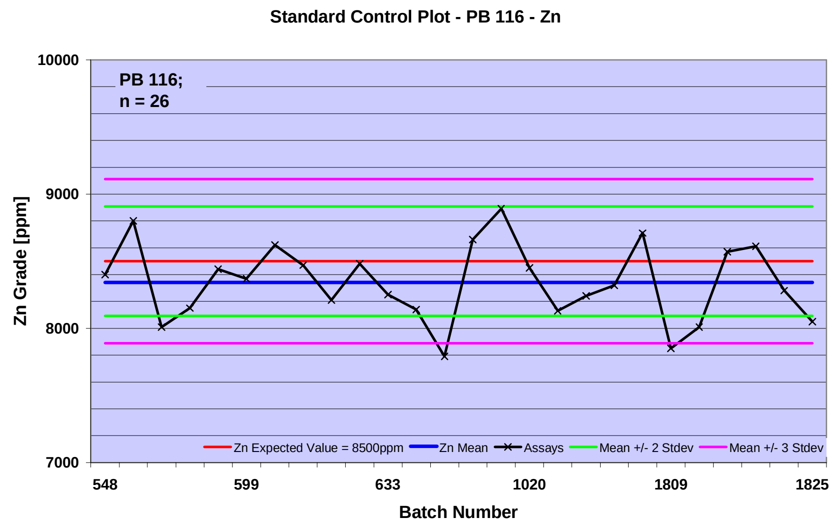
Blank samples - Zn analyses

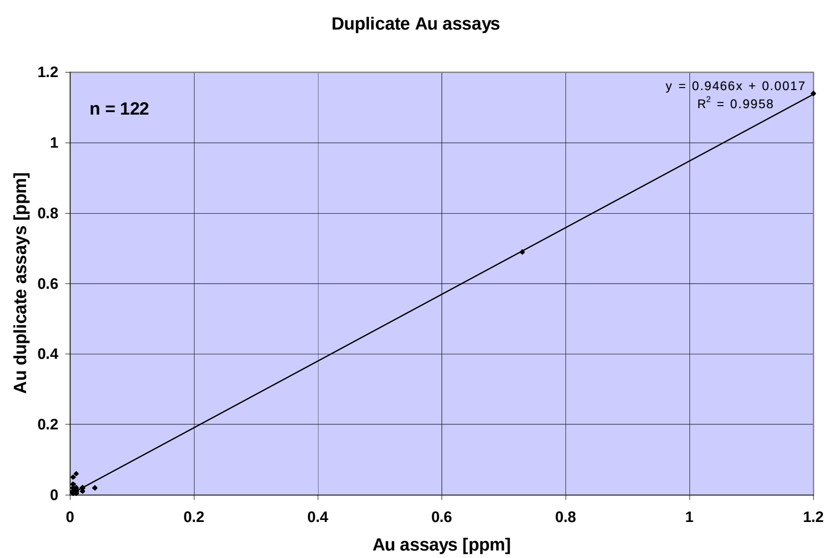


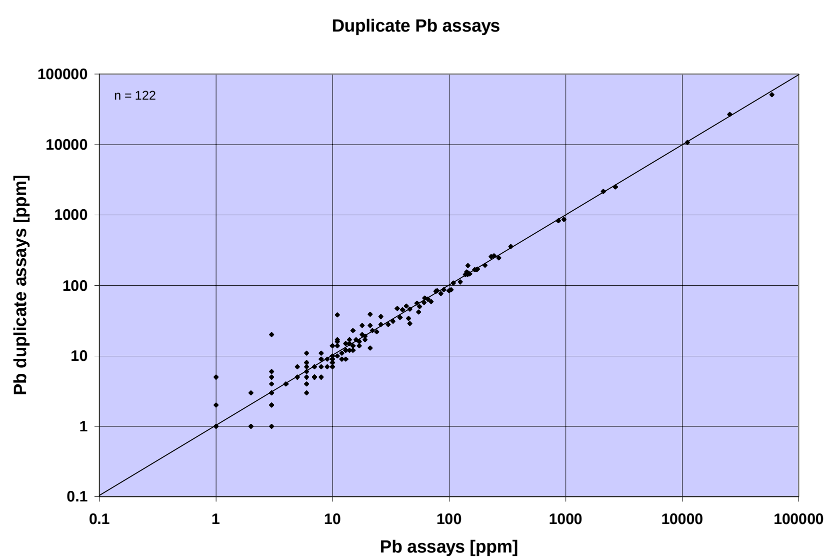

Standard Control Plot - PB 113 - Pb
PB 113;
n = 40
Pb Grade [ppm]
12500
11500
10500
9500
Pb Expected Value = 11100ppm
Pb Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
549
612
653
690
1019
1804
1815
1832
Batch Number

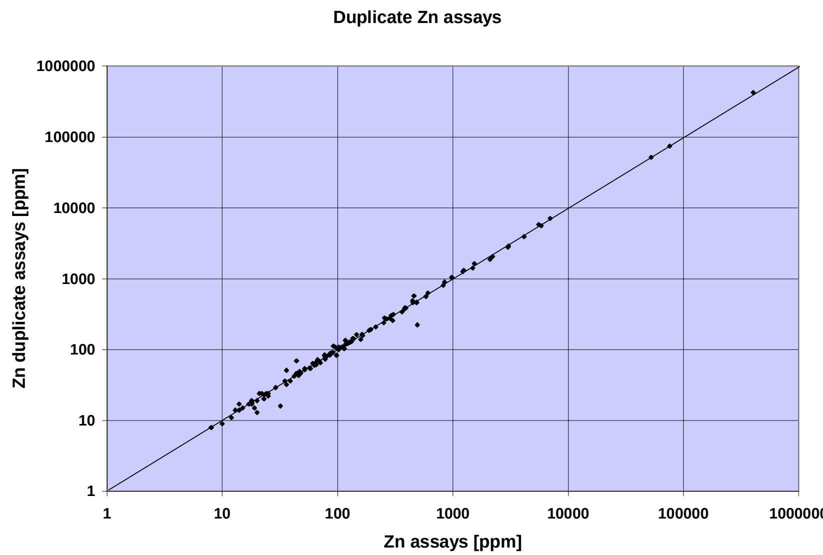

Standard Control Plot - PB 113 - Zn
PB 113;
n = 40
Zn Grade [ppm]
17000
16000
15000
14000
13000
12000
11000
Zn Expected Value = 14000ppm
Zn Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
549
612
653
690
1019
1804
1815
1832
Batch Number


Standard Control Plot - PB 116 - Pb
PB 116;
n = 26
Pb Grade [ppm]
17000
16000
15000
14000
13000
12000
11000
Pb Expected Value = 14000ppm
Pb Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
548
599
633
1020
1809
1825
Batch Number


Standard Control Plot - PB 116 - Zn
PB 116;
n = 26
Zn Grade [ppm]
10000
9000
8000
7000
Zn Expected Value = 8500ppm
Zn Mean
Assays
Mean +/- 2 Stdev
Mean +/- 3 Stdev
548
599
633
1020
1809
1825
Batch Number


Duplicate Au assays
n = 122
y = 0.9466x + 0.0017
R2 = 0.9958
Au duplicate assays [ppm]
Au assays [ppm]
0
0.2
0.4
0.6
0.8
1
1.2

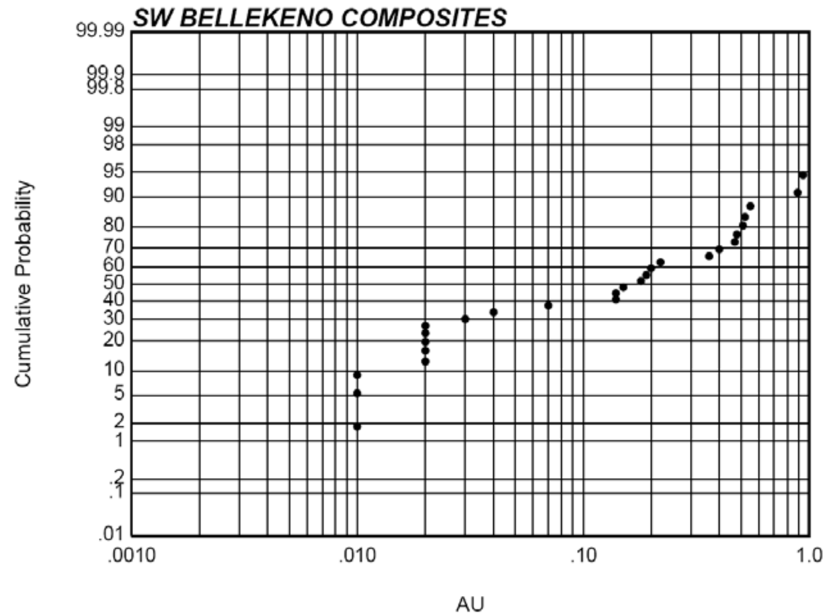

Duplicate Pb assays
n = 122
Pb duplicate assays [ppm]
Pb assays [ppm]
0.1
1
10
100
1000
10000
100000


Duplicate Zn assays
Zn duplicate assays [ppm]
1000000
100000
10000
1000
100
10
1
1
10
100
1000
10000
100000
1000000
Zn assays [ppm]

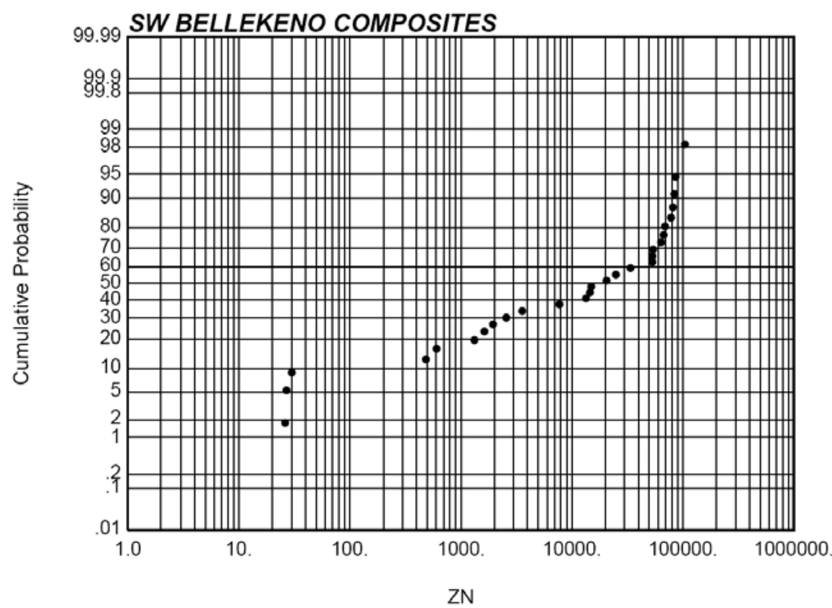
APPENDIX E

Cumulative frequency plots for gold and silver composites

Cumulative frequency plot for gold composites.



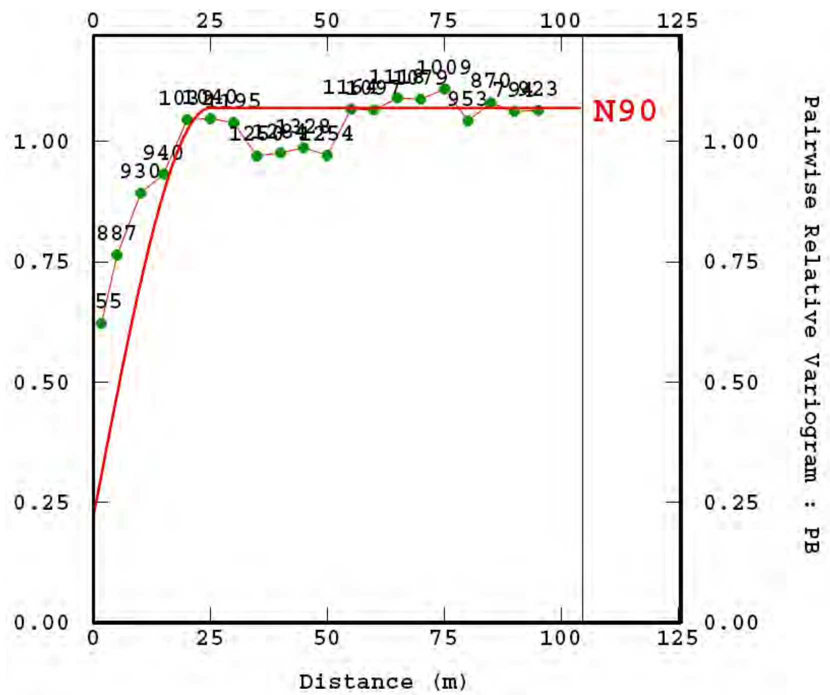
Cumulative frequency plot for zinc composites.



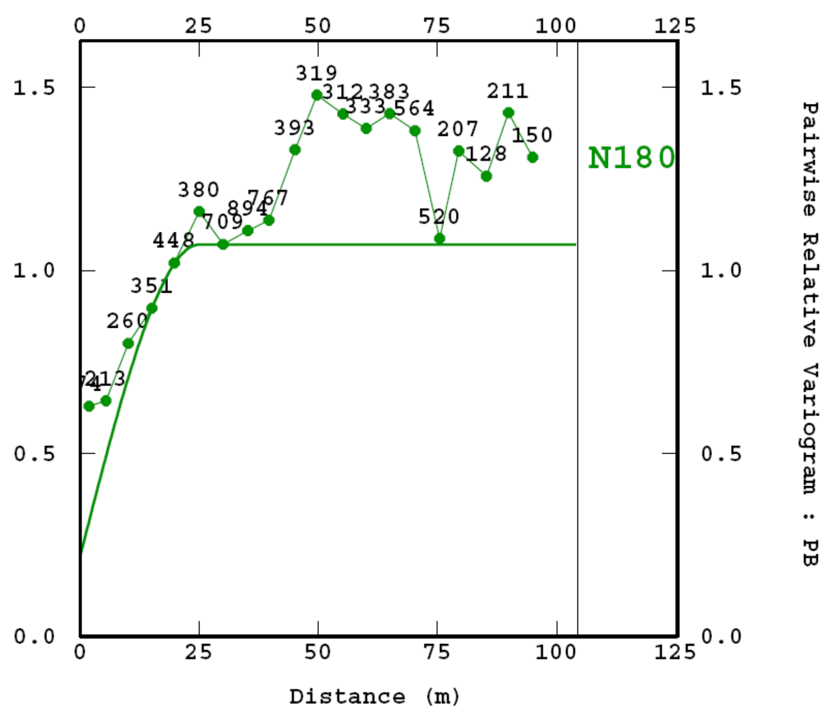
APPENDIX F

Variogram model for lead and zinc.

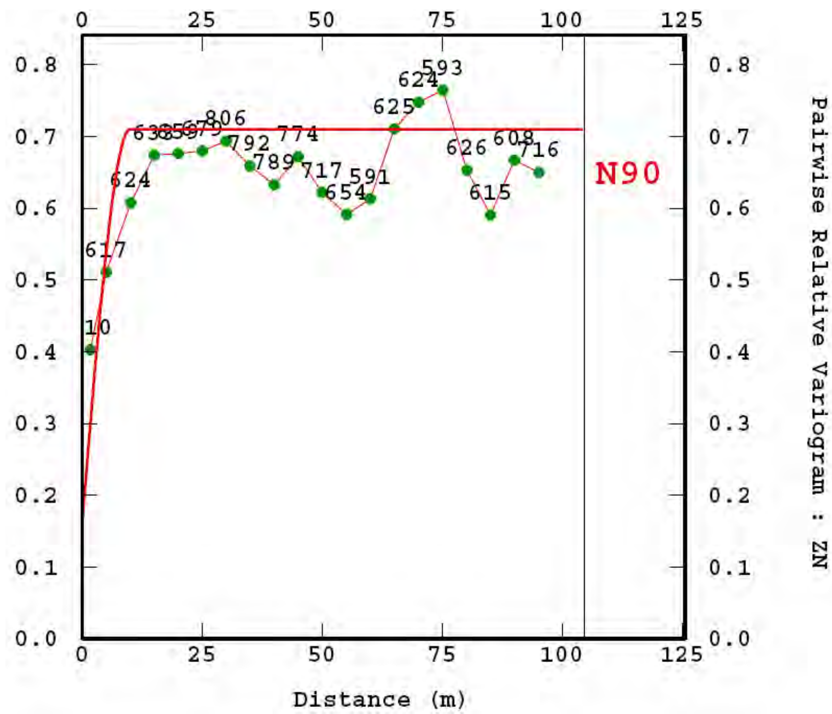
Lead variogram, strike direction.



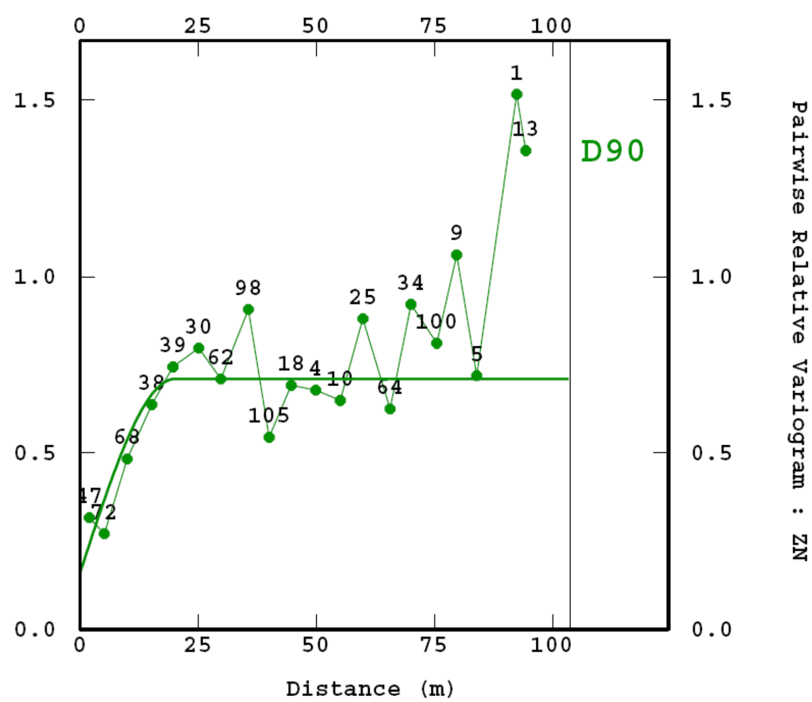
Lead variogram, dip direction.



Zinc variogram, strike direction.



Zinc variogram, dip direction.



CERTIFICATE OF AUTHOR

To accompany the report entitled: Mineral Resource Estimation Technical Report Bellekeno Project, Yukon Territory, Canada dated November 10, 2007.

I, Lars Weiershäuser, at 44 Juliana Court, Toronto, Ontario do hereby certify that:

1) I am a Consulting Geologist with the firm of SRK Consulting (Canada) Inc. with an office at Suite 1000, 25 Adelaide Street East Toronto, Ontario, Canada;
2) I have graduated from the South Dakota School of Mines and Technology in Rapid City, South Dakota, USA with a M.Sc. in Geology in 2000. I obtained a Ph.D. in Geology from the University of Toronto in Toronto in 2005. I have practiced my profession continuously since 2000;
3) I am a Professional Geoscientist registered with the Association of Professional Geoscientists of the province of Ontario (APGO#1504);
4) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
5) I am a co-author of this technical report;
6) I have not had prior involvement with the property that is the subject of this Technical Report. I have not visited the subject property;
7) SRK Consulting (Canada) Inc. was retained by Alexco Resource Corporation. to prepare a technical report for the Bellekeno project in accordance with NI 43-101 and Form 43-101F1 guidelines. The preceding report is based our review of project files and discussions with Alexco Resource Corporation personnel;
8) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading;
9) I, as a qualified person, am independent of the issuer as defined in Section 1.4 of National Instrument 43-101;
10) I have read National Instrument 43-101 and Form 43-101F1and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
11) I consent to the filing of the technical report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the technical report.

Toronto, Canada
November 10, 2007

L. Weiershäuser

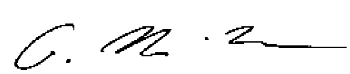
Lars Weiershäuser, Ph.D, P.Geo.
Consulting Geologist

CERTIFICATE OF AUTHOR

To accompany the report entitled: Mineral Resource Estimation Technical Report Bellekeno Project, Yukon Territory, Canada dated November 10, 2007.

I, G. David Keller, residing at 43 Eglington Avenue East, Toronto, Ontario do hereby certify that:

1) I am a Principal Resource Geologist with the firm of SRK Consulting (Canada) Inc. with an office at Suite 1000, 25 Adelaide Street East Toronto, Ontario, Canada;
2) I am a graduate of the University of Calgary in 1986, I obtained a B. Sc. Degree in Geology. I have practiced in the fields of exploration, mine geology and resource estimation in my profession continuously since1986;
3) I am a Professional Geoscientist registered with the Association of Professional Geoscientists of the province of Ontario (APGO#1235);
4) I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of National Instrument 43-101 and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
5) I am a co-author of this technical report and am responsible for the Section 16 entitled Mineral Resource and Mineral Reserve Estimates;
6) I have previously reviewed the Keno Hill project in March 2005 to assist Alexco in presenting a qualifying bid for the tender of the project. I have personally inspected the subject property and surrounding areas on March 22 and 23, 2005 for 2 days and between August 30 and September 6, 2007 for 7 days.
7) SRK Consulting (Canada) Inc. was retained by Alexco Resource Corporation. to prepare a technical report for the Bellekeno project in accordance with NI 43-101 and Form 43-101F1 guidelines. The preceding report is based on a site visit, our review of project files and discussions with Alexco Resource Corporation personnel;
8) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading;
9) I, as a qualified person, am independent of the issuer as defined in Section 1.4 of National Instrument 43-101;
10) I have read National Instrument 43-101 and Form 43-101F1and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;
11) I consent to the filing of the technical report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the technical report.



Toronto, Canada
November 10, 2007

G. David Keller, P.Geo.
Principal Resource Geologist

CERTIFICATE OF AUTHOR

To accompany the report entitled: Mineral Resource Estimation Technical Report Bellekeno Project, Yukon Territory, Canada dated November 10, 2007.

I, Jean-Francois Couture, residing at 59 Tiverton Avenue, Toronto, Ontario do hereby certify that:

1) I am a Principal Geologist with the firm of SRK Consulting (Canada) Inc. with an office at Suite 1000, 25 Adelaide Street East Toronto, Ontario, Canada;

2) I am a graduate of the Université Laval in Quebec City with a BSc. in Geology in 1982. I obtained an MSc.A. in Earth Sciences and a Ph.D. in Mineral Resources from Université du Québec à Chicoutimi in 1986 and 1994, respectively. I have practiced my profession continuously since 1982;

3) I am a Professional Geoscientist registered with the Association of Professional Geoscientists of the province of Ontario (APGO#0197) and a fellow with the Geological Association of Canada;

4) I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by virtue of my education, affiliation to a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of National Instrument 43-101;

5) I am a co-author of this technical report and am responsible for all sections of this report except Section 16 entitled Mineral Resource and Mineral Reserve Estimates. I have personally inspected the subject property and surrounding areas from October 24 to 26, 2006 for 3 days;

6) I have not had prior involvement with the property that is the subject of this Technical Report;

7) SRK Consulting (Canada) Inc. was retained by Alexco Resource Corporation. to prepare a technical report for the Bellekeno project in accordance with NI 43-101 and Form 43-101F1 guidelines. The preceding report is based on a site visit, our review of project files and discussions with Alexco Resource Corporation personnel;

8) That, as of the date of this certificate, to the best of my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading;

9) I, as a qualified person, am independent of the issuer as defined in Section 1.4 of National Instrument 43-101;

10) I have read National Instrument 43-101 and Form 43-101F1and this technical report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1;

11) I consent to the filing of the technical report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the technical report.

Toronto, Canada
November 10, 2007

Jean-François Couture, Ph.D, P.Geo.
Principal Geologist