

**NI 43-101 TECHNICAL REPORT**  
**Resources and Reserves Update**  
**HPG MINE**  
**YING SILVER-LEAD-ZINC DISTRICT**

**Henan Province**  
**People's Republic of China**  
**For**  
**Silvercorp Metals Inc.**

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## 1.0 SUMMARY

### Location, Infrastructure and History

The HPG Mine is one of three significant producing underground mining operations of Silvercorp Metals, Inc. (“Silvercorp”) in the Ying Ag-Pb-Zn District of western Henan Province, China. The district, a 100 sq. km. sized area largely controlled by Silvercorp, offers adequate access to nearby service centers, labor, and power. It is also the site of two mills constructed in recent years by Silvercorp to process ore from the several mines. The HPG Mine area is in the west-central part of the district and is covered by exploration and mining permits totaling 6.4 sq. km. The mine was acquired by Silvercorp in 2004 and the company started producing ore from the mine in 2007. It is currently the smallest of Silvercorp’s three operating complexes in the Ying District (includes SGX, HZG, HPG, HPG(Au), TLP and LM mines).

### Geology and Ore Deposit Type

The district lies in a major deformed mountain belt consisting of intensely folded, faulted and mineralized gneiss and greenstone of Precambrian age. Mineralization occurs as numerous polymetallic quartz-carbonate veins that fill fault-fissure zones of varying strikes and dips. The fault-fissure zones extend for hundreds to a few thousand meters along strike, enclosing steeply-dipping narrow tabular or splayed sets of veins that “pinch-and-swell” along strike and to depth. The character, mineralization and alteration and of the vein systems are quite similar to many other deposits found throughout the world which are often referred to as “mesothermal” or “polymetallic” silver-lead-zinc deposits. Important examples include the Coeur d’Alene silver district in northern Idaho, U.S.A., the Kokanee Range and Keno Hill, Canada, the Harz Mountains and Freiberg, Germany, and Příbram, Czechoslovakia. The mineralization in these deposits is thought to have formed by hydrothermal processes at considerable depth, and for this reason the deposits may have great vertical extents, commonly a few kilometers or more.

### Exploration and Mineralization

Exploration and delineation of mineralized veins in the HPG Mine area is done primarily by underground drilling and tunneling. Tunneling is done along strike of the veins at 40 m depth levels and core holes are drilled at 50-100 m spacings along strike to delimit the extent of the veins at greater depth. To date (December 31, 2010), 12,280 m of exploration tunnels, 96 underground holes (21,761 m), and 67 surface drill holes (17,092m) have been completed.

The sampling and assaying of the tunnels and drill core is one of the primary tasks in exploring and developing the mineralization found in the veins. The sampling methods and assaying procedures used by Silvercorp appear to meet the standards used in the industry for similar underground vein systems explored and developed elsewhere in the world.

Mineralization is currently defined in at least 4 major veins and 14 smaller veins. Sampling at various underground levels in workings along the veins indicate that from 27% to 50% of the vein material is mineralized over true widths of 0.2 m to 5.2 m, and averaging 0.8 m. The veins are often oxidized to depths of about 80 m below the surface, below which sulfide minerals are dominant, mainly galena (lead sulfide) – which comprises a few percent to 10% of the vein – with lesser amounts of sphalerite (zinc sulfide), pyrite (iron sulfide), and traces amounts of

chalcopyrite (copper sulfide). Non-metallic gangue minerals include quartz, sericite, and some carbonate minerals (dolomite, calcite, and ankerite). Silver occurs mainly as disseminations or replacements within the galena.

## Mineral Processing

Ore from the HPG veins is transported to Silvercorp's central mills for processing. Silvercorp has two mills in the district, the No. 1 mill (600 tpd, in operation since March 2007) and the No. 2 mill (2,000 tpd, in operation since January 2010). Ore from the HPG Mine is processed at the No. 1 mill. Head grades of HPG ore sent to the No. 1 mill in 2010 (33,590 tonnes total) averaged 136 g/t Ag, 6.26% Pb and 1.49% Zn. Mill recoveries for the metals were 87.3% for Ag, 94.7% for Pb, and 59.1% for Zn.

## Mineral Resource and Reserve Estimates

Estimates of Mineral Resources and Mineral Reserves for Silvercorp's HPG Mine project have been prepared using the standards and categories established by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). The term "Mineral Resource" covers mineralization of *intrinsic economic interest* which has been identified and estimated through exploration and sampling. The estimation of mineral resources involves greater uncertainty as to their existence and economic viability than the estimation of mineral reserves. It should not be assumed that any or all of the mineral resources will be converted into reserves.

The mineralization in the HPG Mine area – and other mines in the Ying District – occurs as relatively narrow tabular veins that pinch-and-swell along fault-fissure structures. A polygonal block model using detailed longitudinal and cross-sections constructed for each vein is used to estimate the mineral resources present in each vein and is considered an acceptable and applicable method for the pocket-like type of mineralization present in narrow veins such as these. The resource blocks are defined and constrained using a set of 12 stringent parameters for calculating the dimensions, widths, grades and specific gravities of the blocks, and other items necessary to categorize the resources and provide reasonable estimations of tonnage and grade for each block.

The resource tables categorize the currently defined estimated mineral resources in Silvercorp's various mine areas as "measured," "indicated," and "inferred." Mineral resources in the "measured" and "indicated" mineral resource categories have much higher levels of confidence than the "inferred" category, which is separately reported. The estimation of inferred resources involves far greater uncertainty as to their existence and economic viability than the estimation of other categories of resources. It should not be assumed that inferred mineral resources exist or will be upgraded into the higher resource categories.

Additionally, it is important to note that: (1) the estimated "measured" and "indicated" mineral resources tabled in this report are *inclusive* of mineral reserves, which are separately reported in a subsequent section of this report; and (2) the reporting of "silver-equivalencies" (Ag-equiv) in the resource and reserve tables. Because these are polymetallic veins containing several potentially payable metals, silver-equivalencies are used by Silvercorp to designate resource cutoff grades and to quickly compare the tenor and magnitude of mineralization in the veins. The reported "Ag-equiv." values in the tables have been calculated using assumed metal prices and known metal recoveries as detailed in Chapter 17 of this report.

## HPG MINE AREA

### Measured & Indicated Mineral Resource Estimates Inclusive of Mineral Reserves (as of December 31, 2010)

Wtd. Horiz. Width (m)	Tonnes (t)	Ag (g/t)	Ag (oz/t)	Pb (%)	Zn (%)	Cu (%)	Au (g/t)	Ag-eq (g/t)	Contained Metal Resource					
									Ag(t)	Ag(oz)	Pb(t)	Zn(t)	Cu(t)	Au(kg)
<b>MEASURED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>														
0.67	68,808	147.5	4.30	10.04	1.97		0.90	616	10.15	326,262	6,909	1,352	61.6	1,362,822
<b>INDICATED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>														
0.89	483,342	86.6	2.53	3.62	1.71		1.44	333	41.86	1,345,929	17,475	8,288	698.3	5,174,317
<b>MEASURED + INDICATED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>														
0.86	552,150	94.2	2.75	4.42	1.75		1.38	363	52.01	1,672,190	24,384	9,640	759.9	6,537,139

### HPG MINE AREA Inferred Mineral Resource Estimates (as of December 31, 2010)

Wtd. Horiz. Width (m)	Tonnes (t)	Ag (g/t)	Ag (oz/t)	Pb (%)	Zn (%)	Cu (%)	Au (g/t)	Ag-eq (g/t)	Contained Metal Resource					
									Ag(t)	Ag(oz)	Pb(t)	Zn(t)	Cu(t)	Au(kg)
<b>INFERRED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>														
0.70	373,361	86.5	2.52	3.30	1.83		1.50	683	32.29	1,038,009	12,325	6,848	560.2	8,194,152

### Reserve Estimates

According to the CIM definitions and guidelines, Mineral Reserves are those parts of Mineral Resources that can be mined economically after considering mining dilution, processing, metallurgical, economic, marketing, legal, environment, socio-economic and government factors. Based on these guidelines and more than 4 years of mining history in the Ying District, Silvercorp has converted Measured and Indicated Mineral Resources in the HPG Mine area to Proven and Probable Reserves using factors described in detail in Chapter 17 of this report. .



**HPG and HPG (Au)  
 Mineral Reserve Estimates  
 (as of December 31, 2010)**

(Mining Dilution and mining loss Included)

	Mine Area	Tonnes (t)	weighted avg. grade [1]					Ag-equiv (g/t) [1]	In Situ Metal Reserve [2]					Ag-equiv (oz) [2]
			Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)	Cu (%)		Au (oz)	Ag (oz)	Pb (t)	Zn (t)	Cu (t)	
Proven	HPG	95,777	0.52	103	6.81	1.33		424	1,601	318,276	6,522	1,274		1,304,825
	HPG(Au)	18,000	4.00	0.68	0.62	0.63		217	2,315	394	112	113		125,581
	<b>Total</b>	<b>113,777</b>	<b>1.07</b>	<b>87</b>	<b>5.83</b>	<b>1.22</b>		<b>391</b>	<b>3,916</b>	<b>318,670</b>	<b>6,634</b>	<b>1,387</b>		<b>1,430,406</b>
Probable	HPG	438,435	0.92	70	2.79	1.55		259	12,968	986,719	12,232	6,796		3,648,583
	HPG(Au)													-
	<b>Total</b>	<b>438,435</b>	<b>0.92</b>	<b>70</b>	<b>2.79</b>	<b>1.55</b>		<b>259</b>	<b>12,968</b>	<b>986,719</b>	<b>12,232</b>	<b>6,796</b>		<b>3,648,583</b>
Proven+Probable	HPG	534,212	0.85	76	3.51	1.51		288	14,570	1,304,996	18,755	8,070		4,953,408
	HPG(Au)	18,000	4.00	0.68	0.62	0.63		217	2,315	394	112	113		125,581
	<b>Total</b>	<b>552,212</b>	<b>0.95</b>	<b>74</b>	<b>3.42</b>	<b>1.48</b>		<b>286</b>	<b>16,884</b>	<b>1,305,389</b>	<b>18,866</b>	<b>8,183</b>		<b>5,078,989</b>

Note: [1] Ag-equiv grades and [2] contained metal quantities consider the actual metallurgical metal recoveries

## Mineral Development and Production

The HPG Mine is located in a narrow valley adjacent to the Guxian reservoir. Ore from the mine is loaded in 30 ton trucks and barges are used to transport the trucks across the reservoir to a road connecting to Silvercorp's central mills, 12 km away. Ground conditions at the mine site are good – the host rocks are competent, require minimal ground support, and offer no major flow for underground water. The mine currently operates with 56 staff and 304 contract workers.

The mineralization is accessed primarily by a series of horizontal adits developed on the hill slopes, connecting underground with blind declines. Mining methods consist of both short-hole shrinkage stoping and resuing stoping. The short-hole shrinkage stope method is employed worldwide as one of the most successful methods for narrow veins. At the HPG Mine, it has been possible to gain 90-95% mining recovery of in-situ resources by this method. The resuing stope method is used for very narrow veins, typically those less than 0.4 m in width, and this method has also been successful in recovering 90-95% of the in-situ resources.

Mining plans at HPG are developed taking into account vein characteristics, ore reserves, mining conditions, and the timeline for preparing mine stopes. The HPG Mine has been developed such that ore production levels can be maintained at planned capacity without any ramping-up period. Current proven and probable reserves, using the 149 g/t Ag-equiv. mining cutoff grade with 93% mining recovery and 33% dilution, are sufficient for a 9-year mine life at the planned production rate of 60,000 tpy. Gold will be a by-product or co-product of some stopes in the mine.

At the HPG Silver-Lead-Zinc Mine, assuming total production cost of \$55.51 per tonne and using metal recoveries of 87.2%, 94.7% and 59.1% for silver, lead and zinc, respectively, Silvercorp's share (80%) of projected net cash flows is \$17.7 million over its nine years mine life. At the HPG Gold Mine, assuming total production cost of \$57.44 per tonne and using metal recoveries of 80%, 87.3%, 94.7% and 59.1% for gold, silver, lead and zinc, respectively, Silvercorp's share (80%) of projected net cash flows is \$0.56 million over its two years mine life. The expected capital expenditures are \$8.2 million and \$0.03 million for HPG and HPG Gold mines, respectively. The payback periods are 2 years and 0.1 year, respectively. In summary, Silvercorp's share of net cash flows from HPG and HPG Gold mines combined will be \$18.3 million.

## Conclusions and Recommendations

Each of Silvercorp's producing mine areas in the Ying District, including HPG, have defined Ag-Pb-Zn resources and reserves that are currently large enough to support profitable operations for a decade or more. None of the mine areas, however, have as yet been fully explored or delimited, especially to the depths typical of many similar Ag-Pb-Zn mesothermal vein districts elsewhere in the world. Each mine area in the Ying District has a large number of already identified veins that have not been explored in detail, and exploration to date has been quite successful in discovering many new veins that have not been explored at all. There are also a number of promising outlying intermediate stage exploration target areas, any of which could well become future additional "fast-track" mining developments.

Silvercorp will continue to invest substantial capital on the operating mines with the object being (1) to extend the mine life by upgrading inferred mineral resources to indicated and measured,

and (2) step-out exploration designed to find new veins or areas of mineralization. At HPG, a program of 15,000 m of underground drilling, costing US\$0.7 million, is proposed to accomplish the first objective. A program of 50,000 m of surface and underground drilling costing US\$3.0 million is proposed to accomplish the second objective.

## 2.0 INTRODUCTION

During January 2011, Silvercorp Metals Inc. (“Silvercorp”) commissioned BK Exploration Associates (Mel Klohn and Chris Broili), to provide an independent review and NI 43-101 Technical Report update on the Ying District of western Henan Province, China (Figure 2-1). Because the project now consists of three significant, but separate, producing operations (Figure 4-1), it was decided to treat each producing area in a separate Technical Report unlike the previous Technical Report which collectively discussed all three areas in a single large report (Broili, Klohn, and Ni, 2010). This report focuses on the HPG mine area, currently the smallest of the three producing operations in the Ying District.

The purpose of this report is to provide not only an exploration and mineral resource update of the HPG area, but also to offer an update of reserves and mining plans. For this reason Mr. Wenchang Ni, a mining engineer employed by Silvercorp, was engaged to serve as a co-author responsible for preparing all or portions of the chapters relevant to reporting mining reserves, operations and plans. All three co-authors – Mr. Klohn, Mr. Broili, and Mr. Ni – are Qualified Persons as defined in Canadian National Instrument 43-101. Additionally, Mr. Klohn and Mr. Broili are both Independent Qualified Persons with no direct interest in Silvercorp, its associated companies, or its projects. The consulting fees paid to Mr. Klohn and Mr. Broili for this Technical Report are standard industry fees for work of this nature and not dependent in whole or in part on any prior or future engagement or understanding resulting from the conclusions of this report.

This Technical Report is prepared in compliance with Form 43-101F and is based on information known and current as of January 01, 2011. Silvercorp is a publicly traded resource company (TSX:SVM and NYSE:SVM) engaged in the production, exploration and development of base and precious metal projects in the Henan Province of central China and exploration in other parts of China. The authors understand that Silvercorp will use this Technical Report for purposes of compliance with NI 43-101 reporting requirements.

The information reviewed for this Technical Report consists of voluminous geological, sampling, drilling and mining data collected by Silvercorp, together with other information previously reviewed and cited in a series of earlier NI 43-101 Technical Reports prepared on the district. Key documents for purposes of this current report are cited at appropriate places in the report and listed in the References chapter at the end of the report. Additionally, Mr. Klohn and Mr. Broili, the independent authors of this report, have together authored or co-authored seven previous 43-101 Technical Reports on Silvercorp’s projects in the Ying District and thereby have made numerous trips to the district and gained considerable experience in the region. Information from the authors’ personal notes and experience have been incorporated into the descriptions regarding regional history, general geology and deposit types.

Mr. Ni was resident at the Ying Project for most of 2010 and also for much of the early months in 2011. During these periods, Mr. Ni spent much of his time at the project sites reviewing and auditing project data in considerable detail, becoming familiar with all of Silvercorp’s underground and surface operations in the district. Subsequently, Mr. Klohn and Mr. Broili spent considerable time reviewing and auditing the project information prepared on-site by Mr. Ni and also information provided by Silvercorp’s mine geologists. A final data review was carried out by Mr. Klohn from April 15-24, 2011, at Silvercorp’s office in Vancouver, BC, Canada.

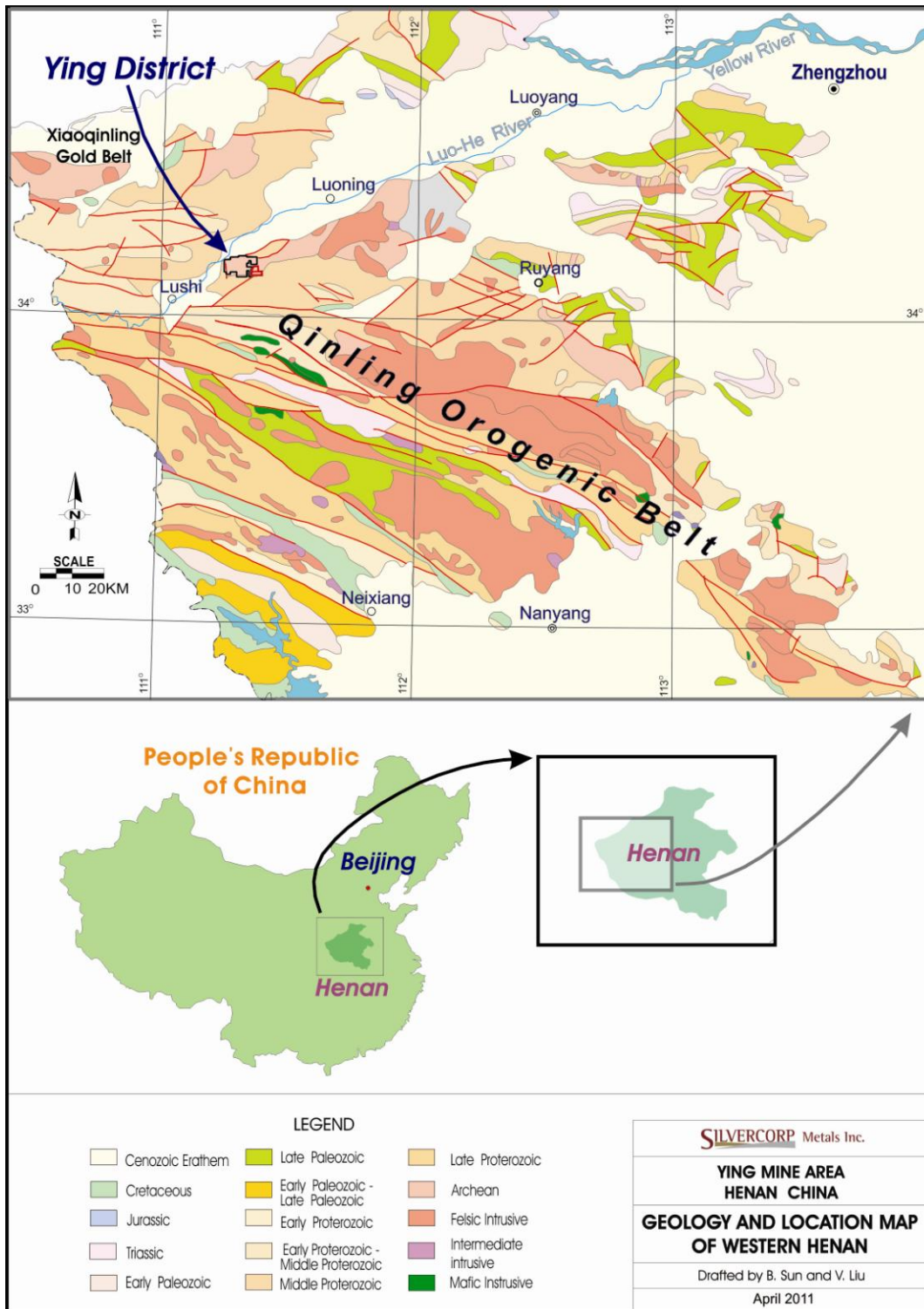


Figure 2-1: Geology and Western Henan Province and Location of Ying District

All measurement units in this report are metric, with the exception of total contained metals which in addition to metric units are often also reported as total troy ounces of equivalent-silver (“Ag-equiv” or “Ag-eq”) and precious metals grades (or equivalencies) which may also be reported in troy ounces per short ton (“oz/t”). The conversions are as follows:

1 troy ounce (“oz”) = 31.1035 grams (“g”)

1 troy ounce/short ton (“oz/t”) = 34.286 grams/metric tonne (“g/t”)

Monetary units are expressed in U.S. dollars (US\$) unless stated otherwise. The currency used in China is the Yuan (CNY) with the exchange rate as of March 1, 2011, being approximately US\$1.00 equal to CNY6.57.

### **3.0 RELIANCE ON OTHER EXPERTS**

The authors of this report are Qualified Persons for those areas as identified in the Certificates of Qualified Person attached to this report. In preparing this report, the authors relied heavily on various geological maps, reports and other technical information, mostly unpublished proprietary information collected on-site and provided to the authors by Silvercorp.

Much of the original information is in Chinese, with translations from Chinese to English of key and relevant technical documents provided by Silvercorp. For this current report, most of the technical information was translated by Jin Zhang, an experienced bilingual geologist employed by Silvercorp, although legends and annotations on many of the maps and sections were translated by Bei Sun, a bilingual draftsman employed by Silvercorp. We occasionally checked a few key parts of the translations using non-technical persons and an online translation application offered by Google. From our experience on this report and the many previous reports we have done for Silvercorp, we believe the translations provided to us are credible and generally reliable, but we cannot attest to their absolute accuracy.

Overall, the technical information we reviewed is very well-documented, comprehensive and of good technical quality. It clearly was gathered, prepared and compiled by various competent technical persons, but not necessarily Qualified Persons as currently defined by NI 43-101. In recent years, the voluminous information collected by Silvercorp has been carefully monitored and supervised by Mr. Myles Gao, President of Silvercorp, an experienced hands-on geologist who is a Qualified Person as defined by NI 43-101.

Because we are not experts in land, legal, environmental and related matters, we have relied (and believe there is a reasonable basis for this reliance) on various other individuals who contributed the information regarding legal, land tenure, corporate structure, permitting, land tenure and environmental issues discussed in this report. Specifically, Myles Gao, President of Silvercorp and a Qualified Person as defined by NI 43-101, contributed the information in Chapter 4 of this report. Likewise, information regarding the environmental status of the property, particularly the mining permit, was contributed by Silvercorp.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

The Ying District is in western Henan Province near the town of Luoning in central China (Figure 2-1). Silvercorp uses the term “Ying District” to describe a 100 sq. km size rectangular area bounded by latitude 34°07’N to 34°12’N and longitude 111°14’E to 111°23’E. Within this district block, Silvercorp has three principal operations comprised of five mining projects: (1) the SGX area, consisting of the Shagouxi (SGX) and Houzhanggou (HZG) mines in the western part of the block; (2) the HPG area consisting of the Haopinggou (HPG) mine, also in the western part of the block, and (3) the TLP/LM area consisting of the Tieluping (TLP) and Longmeng (LM) mines in the eastern part of the block (Figure 4-1).

The HPG project is covered by exploration and mining permits totaling 6.4sq. km., as listed in the following table:

Permit type	Permit No.	Expiration Date	Sq. km
Mining	4100002010124110093569	June 2017	0.39
Mining	4100000820036	August 2015	0.15
Exploration	T41520080502006711	May 2009 [1]	5.86
Mining Permit total			0.54
Exploration Permit total			5.86
<b>Total</b>			<b>6.40</b>

[1] This permit is valid under a temporary extension to July 2011

**NOTE:** The above table and notes were prepared by Mr. Myles J. Gao, P.Geo., President and Chief Operating Officer of Silvercorp, a Qualified Person as defined in NI 43-101.

The existing exploration and mining permits cover all the active exploration and mining areas discussed in this Technical Report. Permits can be renewed by submitting an application together with required technical documents. The exploration permits give the right to carry out all contemplated exploration activities with no additional permitting required. The mining permits give the right to carry out full mining and mineral processing operations in conjunction with safety and environmental certificates. The safety certificates for Silvercorp’s mining activities were issued by the Department of Safety, Production and Inspection of Henan Province. Environmental certificates were issued by the Department of Environmental Protection of Henan Province.



Property Geology and Vein Locations

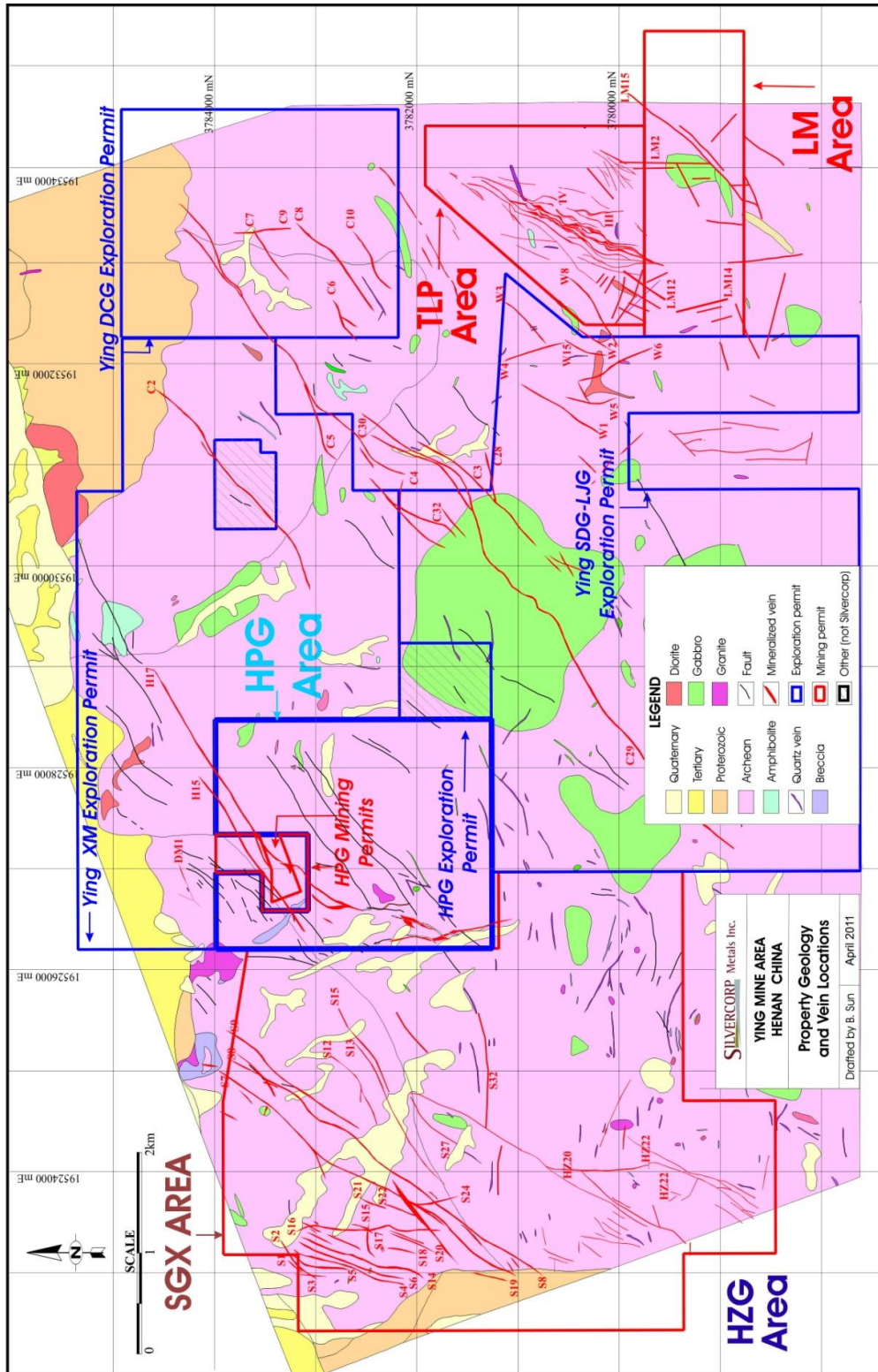


Figure 4-1: Ying Exploration, Mining Permits and Mineralization Vein Systems

Surface rights for mining purposes are not included in the permits but can be acquired by payment of a purchase fee based on the appraised value of the land. Subject to negotiation, some land use compensation fees may also be due to the local farmers if their agricultural land is disturbed by exploratory work.

There are no known or recognized environmental problems that might preclude or inhibit a mining operation in this area. Some major land purchases may be required in the future for mine infrastructure purposes (processing plant, waste disposal, office and accommodations).

Silvercorp's HPG project is subject to existing JV agreements as follows:

A co-operative joint venture contract dated March 31, 2006 was consummated between Victor Resources Ltd., the wholly owned British Virgin Islands subsidiary of Silvercorp, and Luoning Huatai Mining Development Co., Ltd. ("Huatai"). Pursuant to the joint venture contract, a Chinese co-operative joint venture company, Henan Huawei Mining Co. Ltd. ("Huawei"), was established to hold 60% of the HPG Project. In 2007, Silvercorp signed an agreement to purchase an additional 20% interest of Huawei from its JV partner, Huatai, in which 10% interest will be held in trust for a shareholder of Huatai. Total consideration for the 20% interest is C\$1.98 million with Silvercorp's share of C\$0.99 million paid in full. Silvercorp is now entitled to 70% interest in Huawei.

The mining permits controlled by Huawei at the HPG and LM projects total 0.54 sq. km. The HPG exploration permit encompassing 5.86 sq. km is held by Huatai but will be transferred to Huawei when the application for a mining permit is approved and the mining permit issued.

## **Exploration and Mining Rights**

China, which is the most populous country – and the second largest economy – in the world, has a strong national policy encouraging foreign investment. It ranks as one of the world's leading jurisdictions for mining investment owing to an advanced infrastructure, a large pool of skilled technical and professional personnel and, most importantly, to having an established Mining Code which clearly defines the mining rights guaranteed by the government of China.

China has a 17% Value Added Tax (VAT) on sales of concentrates and on articles such as materials and supplies. The 17% VAT paid on materials purchased for mining is returned to the company as an incentive to mine in China. There is no VAT on labor or services. A 2% resources tax is payable by companies as a royalty to the government.

For foreign invested companies such as Silvercorp, income tax is zero for the first two years, then 12.5% for years three to five, and 25% thereafter. Starting in 2010, Henan Found entered its fifth year of operation, and as such enjoys a 12.5% income tax rate on profit until the end of 2011 at which time the rate doubles to 25% for the life of the mine.

According to China's mining law, mining companies are required to pay 2% resource tax or government royalty. Other taxes such as Business, City Construction, and school taxes are exempted for foreign invested companies.

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

The Ying District is about 240 km west-southwest of Zhengzhou (population 7.0 million), the capital city of Henan Province, and 80 km west of Luoyang (population 1.4 million), which is the nearest major city (Figure 2-1). Zhengzhou, the largest industrial city in the region, offers full service facilities and daily air flights to Beijing, capital of China, and other major population centers such as Shanghai and Hong Kong. The nearest small city to the project area is Luoning (population >80,000), about 56 km by paved roads from Silvercorp's Ying mill site which is located centrally to the projects. The mill site is about 15 km by paved road from the Guxian Reservoir. The main exploration-development camp, Shagouxi (SGX), is accessed via a 10-minute ferry ride across the Reservoir (Figure 5-1).

The district lies within rugged, deeply dissected mountainous terrain of the Funiu Mountain Range. Elevations range from 300 to 1200 m above sea level. Hill slopes are steep, commonly exceeding 25°, with bedrock best exposed on these steep hillsides. Almost all of the district's significant discoveries of surface mineralization, together with the important geochemical and geophysical anomalies, were made on the hillsides.

The area has a continental sub-tropical climate with four distinct seasons. Temperature changes are dependent on elevation, with an annual range of -10 °C to 38 °C and annual average of 15 °C. The annual precipitation averages 900 mm, occurring mostly in the July to September rainy season and supplemented by snow and frost occurring from November to March.

The area is sparsely vegetated, consisting mostly of bushes, shrubs, ferns and small trees. At higher elevations the vegetation is denser and the trees are larger. The local economy is based on agriculture (wheat, corn, tobacco, medicinal herbs) and mining. Agriculture is confined to the bottoms of the larger stream valleys and to the many terraced hillsides.

There are major power grids adjacent to the properties, including a power line extending to the SGX Area. Adjacent to the Ying District is a hydropower generating station at the dam that forms the Guxian Reservoir (Figure 5-1). This reservoir is on the Luo River, a tributary to the Yellow River. Sufficient manpower is available to serve most exploration or mining operations.

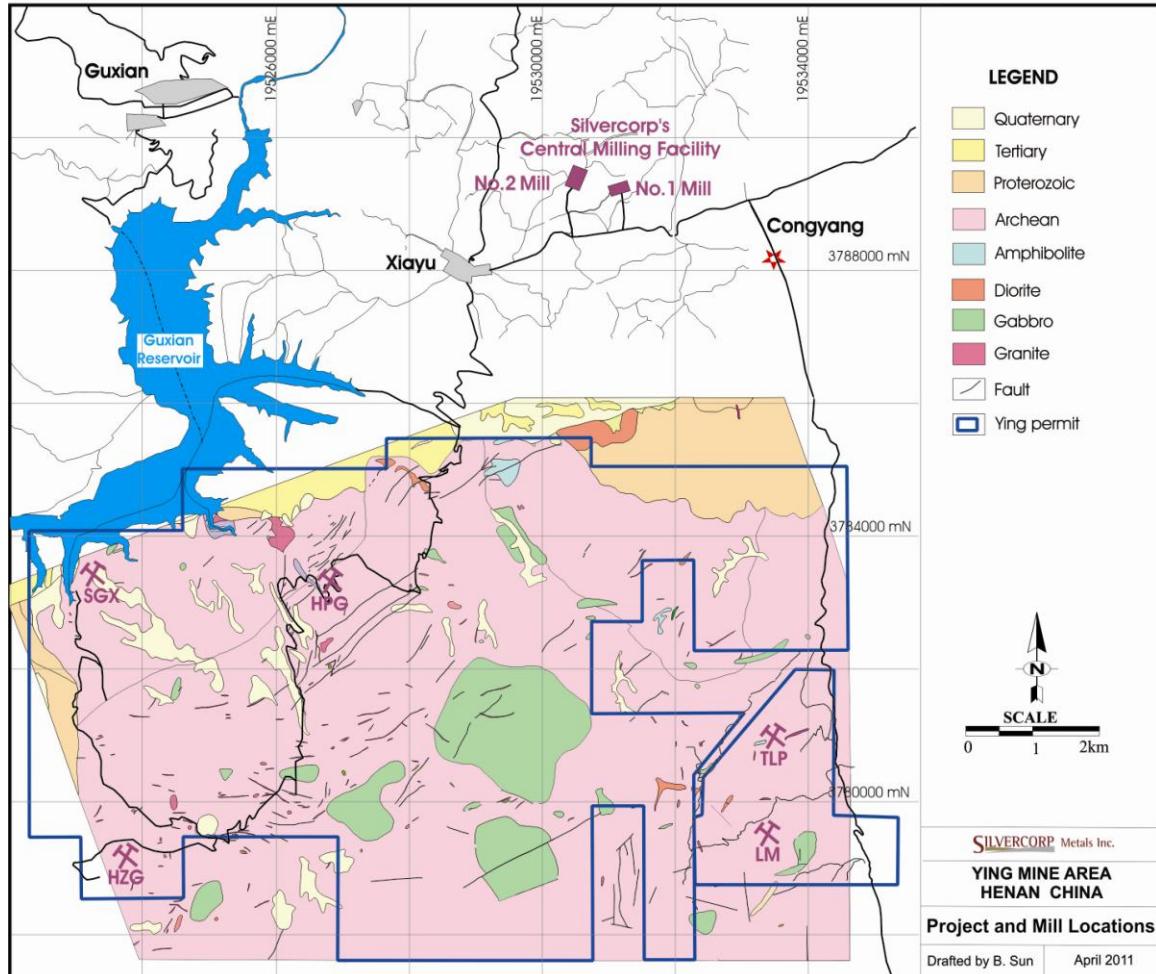


Figure 5-1: HPG Project and Mill Locations

## 6.0 HISTORY

Silver-lead-zinc mineralization in the Ying District has been known and intermittently mined for the last several hundred years. The first systematic geological prospecting and exploration was initiated in 1956 by the Chinese government. Detailed summaries of the district's historical activities from 1956 to 2004, when Silvercorp first acquired interests in the area, are described in seven previous NI 43-101 technical reports prepared for Silvercorp (Broili, 2004; Broili, 2005; Broili et al., 2006, 2008; Broili and Klohn, 2007; Xu et al., 2006; Broili, Klohn and Ni, 2010) available on [www.sedar.com](http://www.sedar.com). For that reason, historical highlights are only briefly summarized in this current History chapter.

Silvercorp began its interest in the Ying District with the acquisition of the SGX Mine in 2004 and subsequently consolidated the entire district by acquiring the HZG, HPG, and LM mines, all of which were held and operated by Chinese companies. Work carried out since 2004 consists of a series of exploration campaigns, driving declines, undercut drifts, raises and ventilation raises, sinking shafts, enlarging and extending tunnels, underground and surface drilling, sampling, and metallurgical work, all leading to the definition and expansion of resources and ultimately to defining and mining reserves. Silvercorp began producing and shipping ore from the mine in 2007 and has since constructed two mills in the district to process the mined ore into shippable concentrates.

### 6.1 HPG MINE PROJECT

The underground mine at HPG was initially constructed in April 1995, with a mining license issued in June 1996 to Huatai #1 company. The mine was shut down during 1997 and 1998, and in 2001, new mining licenses were re-issued by Henan Bureau of Land and Resources to Huatai #2 company (changing names on a mine license in China is difficult so the same name is used even though they are different companies). In 2004, Huatai #3 company acquired the mine, which had an estimated reserve of about 408,000 tonnes, and reportedly produced 70,000 tonnes of ore per year from four principal underground levels. Ore was shipped to Guxian Ore Processing Plant, owned by Huatai (Figure 4-2). In 2006, Silvercorp reached an agreement with Huatai which included both the mine and the plant.

### 6.2 PRIOR RESOURCES

Silvercorp's underground exploration efforts on the four principal mine areas through 2006 and 2007 significantly increased mineral resources and upgraded the resource category. The most recent resource data – prior to this current report – were reported in NI 43-101 Technical Reports prepared in 2007 (Broili and Klohn, 2007) and 2008 (Broili et al., 2008), as listed in following table:

**2009 Resources at HPG Mine\***

Resource Type	Resource (Tonnes)	<i>In Situ Metal Resource</i>					Grades			
		Au (oz)	Ag (oz)	Pb (t)	Zn (t)	Ag Equiv. (oz)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
Measured	33,526		172,224	3,627	398	688,361		160	10.8	1.2
Indicated	322,414		1,294,758	15,882	6,620	4,371,577		125	4.9	2.1
Inferred	365,450	19,878	1,343,649	23,285	10,441	6,059,434	1.7	120	6.68	2.17

\***Notes:** The preceding resource estimates are from the February, 2010, NI43-101 Report. "Ag-equiv" is based on metal prices of Ag US\$6.50/oz, Pb US\$0.40/lb, Zn US\$0.45/lb and is reported without consideration of metallurgical factors or recoveries. For a complete discussion of reporting parameters used in the earlier and current resource tables please refer to Chapter 17 of this current Technical Report.

## 7.0 GEOLOGICAL SETTING

### 7.1 REGIONAL GEOLOGY

The Ying District occurs in the 300 km-long west-northwest trending Qinling orogenic belt, a major structural belt formed by the collision of two large continental tectonic plates in Paleozoic time (Figure 2-1). The northern continental plate – the North China Plate – covers all of Henan Province, the southern plate – the Yangtze Plate – covers the south half of Hubei Province (Henan’s southern neighbor). Rocks along the orogenic belt are severely folded and faulted, offering optimal structural conditions for the emplacement of a myriad of mineral deposits. Several operating silver-lead-zinc mines, including those in the Ying District, occur along this belt.

The Qinling orogenic belt is comprised largely of Proterozoic- to Paleozoic-age rock sequences consisting of mafic to felsic volcanic rocks with variable amounts of interbedded clastic and carbonate sedimentary rocks. The rocks are weakly metamorphosed to lower greenschist facies, with local areas of strongly metamorphosed lower amphibolite facies. The basement of the belt is comprised of highly metamorphosed Archean-age rocks of the North China plate, dominantly felsic to mafic gneisses with minor amphibolites, intrusive gabbros and diabases. The metamorphosed Qinling belt sequence and the underlying Archean basement rocks are intruded by mafic to felsic dikes and stocks of Proterozoic and Mesozoic ages. They are overlain by non-metamorphosed sedimentary rock sequences of Mesozoic- to Cenozoic-age, primarily marls and carbonaceous argillites, which are in turn overlain locally by sandstone-conglomerate sequences.

The dominant structures in the Qinling orogenic belt are west-northwest trending folds and faults generated during the collision of the two major tectonic plates in Paleozoic time. The faults consist of numerous thrusts having a component of oblique movement with sets of conjugate shear structures trending either northwest or northeast. These conjugate shear zones, which display features of brittle fracturing such as fault gouge, brecciation and well-defined slickensides, are associated with all the important mineralization recognized along the 300 km-long orogenic belt. At least three important north-northeast trending mineralized fault zones are identified in the Ying District: 1) the Heigou-Luan-Weimosi, deep-seated fault zone, 2) the Waxuezi-Qiaoduan fault zone, and 3) the Zhuyangguan-Xiaguan fault zone.

### 7.2 LOCAL GEOLOGY

The Archean basement that underlies the district consists primarily of highly metamorphosed mafic to felsic gneisses derived from mafic to felsic volcanic and sedimentary rock units (Figure 4-2). The lowest part of the basement sequence is a 1-kilometre thick mafic gneiss with local gabbroic dikes and sills that trend north-northeast and dip 30° to 60° southeast. This sequence is overlain by a much thicker sequence of thin-bedded quartz-feldspathic gneiss, which is bounded on the north and west by Proterozoic-age andesitic greenstones along a very high-angle (>70°) “detachment” fault-shear zone. The greenstones have been folded and dip steeply toward the northeast and southwest. The basement gneisses are commonly tightly-folded with boudins abundant near the mafic gneiss-feldspathic gneiss contact. Small granite porphyry stocks of Proterozoic to Paleozoic age locally intrude the gneisses.

All of these lithologies are extensively cut by high-angle, mostly west-dipping conjugate faults. These faults trend generally northeast, varying from mostly north to north-northeast on the west side of the district, to northwest with occasional north and rare northwest on the east side of the district. The faults are commonly near-vertical, with steep dips in either direction, and they are occasionally filled with swarms of younger andesitic to basaltic diabase dikes. Repeated movement on the faults has offered the openings which host all of the district's important silver-lead-zinc veins.



## 8.0 DEPOSIT TYPES

The deposits of importance in the Ying District are variously classified as “mesothermal silver-lead-zinc veins” (Lindgren, 1933), “Cordilleran vein type deposits” (Guilbert and Park, 1986), “silver-lead-zinc veins in clastic metasedimentary terranes” (Beaudoin and Sangster, 1992), or “polymetallic Ag-Pb-Zn±Au veins” (Lefebure and Church, 1996). For this report, the term “mesothermal” will be used to denote the district’s silver-lead-zinc veins systems.

Mesothermal vein systems typically occur in mid-crustal metamorphic rocks associated with major crustal structures in orogenic belts of almost any age. Mineralization is associated with major deep-seated shear zones that cut the metamorphic rocks and is thought to have formed by hydrothermal processes in a temperature range of 200 to 300° C at considerable depth (from 600 m to 4000 m or more). For this reason, the deposits may have great vertical extents, commonly a few kilometers or more.

Classic deposits of this type include the Coeur d’Alene silver district in northern Idaho, U.S.A., one of the largest silver-lead-zinc districts in the world (Park and MacDiarmid, 1970). Other examples include the Kokanee Range and Keno Hill, Canada; the Harz Mountains and Freiberg, Germany; and Příbram, Czechoslovakia (Beaudoin and Sangster, 1992).

Common characteristics of these mesothermal silver-lead-zinc vein systems are as follows:

- Occur in almost any type of host rock, but typically in thick sequences of metamorphosed clastic sedimentary rocks or intermediate to felsic volcanic rocks (Lefebure and Church, 1996).
- Usually occur in areas of strong structural deformation in brittle and brecciated rock units with mineralization in altered country rock parallel to anticlinal axes and faults (Park and MacDiarmid, 1970; Sorenson, 1951; McKinstry and Svendsen, 1942).
- Often spatially or genetically proximal to igneous rocks, but not to intrusions related to porphyry-copper mineralization (Beaudoin and Sangster, 1992). Many veins are associated with dikes that follow the same structures (Lefebure and Church, 1996).
- Exhibit strong structural control, generally occurring as steeply-dipping, narrow, tabular or splayed fissure veins, commonly as sets of parallel and offset veins. Individual veins range in width from centimeters up to more than 3 m, and are generally continuous for a few hundred meters to more than 1,000 m along strike and to depth. Widths can be up to 10 m or more in stockwork zones (Lefebure and Church, 1996).
- Veins often display crustiform textures (mineral banding) (Bateman, 1951), locally with open space drusy quartz, cockade and/or colloform textures. Sulfides are confined to the veins and occur as granular masses, coarse-grained patches and/or disseminations.
- Wall rock alteration is typically limited in extent – usually only a few to several meters – and consists of sericite, quartz, siderite, ankerite, pyrite and K-feldspar within or proximate to the veins, and chlorite, clay and calcite more distal to the veins.
- Common ore minerals are galena (PbS), sphalerite (ZnS) and tetrahedrite (Cu,Fe)<sub>12</sub>Sb<sub>4</sub>S<sub>13</sub> with lesser amounts of chalcopyrite (CuFeS<sub>2</sub>), pyrargyrite (Ag<sub>3</sub>SbS<sub>3</sub>), and other sulfosalts. Small amounts of acanthite (Ag<sub>2</sub>S) and native silver may occur,

but most silver in the veins is present as inclusions in galena or tetrahedrite (silver-bearing tetrahedrite is also known as freibergite). Copper and gold may increase at depth. Common gangue minerals are quartz, pyrite ( $\text{FeS}_2$ ), and carbonate – usually siderite ( $\text{FeCO}_3$ ) or ankerite [ $\text{Ca}(\text{Fe}, \text{Mg}, \text{Mn})(\text{CO}_3)_2$ ] with distal calcite (Park and MacDiarmid, 1970; Lefebure and Church, 1996).

- In some cases mineral zones are formed by multiple hydrothermal events or by a telescoped single event, rather than zoning about a single point (Beaudoin and Sangster, 1992).
- Individual vein systems range from several hundred to several million tonnes grading from 5 to 1,500 g/t Ag, 0.5 to 20.0% Pb and 0.5 to 8.0% Zn, with exceptional veins being even richer. The larger vein systems are attractive targets because of their high grades and relatively easy metallurgical recovery (Lefebure and Church, 1996).

## 9.0 MINERALIZATION AND ALTERATION

The Ying District contains a myriad of mesothermal silver-lead-zinc-rich quartz-carbonate veins in steeply-dipping fault-fissure zones which cut Precambrian gneiss and greenstone. To date, significant mineralization has been defined or developed in at least 131 discrete vein structures, and many other smaller veins have been found but are not yet well explored.

Structurally, the vein systems throughout the district are all somewhat similar in that they occur as sets of veins of generally similar orientation enclosed by fault-fissure zones which trend most commonly northeast-southwest, less commonly north-south, and rarely northwest-southeast. The structures extend for hundreds to a few thousand meters along strike. They are often filled by altered andesite or diabase dikes together with quartz-carbonate veins or discerned as discrete zones of altered bedrock (mainly gneiss) associated with local selvages of quartz-carbonate veinlets. From one-third to one-half of the structures exposed at the surface are conspicuously mineralized as well as altered.

The vein systems consist of narrow, tabular or splayed veins, often occurring as sets of parallel and offset veins. The veins thin and thicken abruptly along the structures in classic “pinch-and-swell” fashion with widths varying from a few centimeters up to a few meters. “Swells” formed in structural dilatant zones along the veins are often sites of rich pockets of mineralization known as “ore shoots.” At the SGX mine, these shoots range from 30 m to more than 60 m in vertical and horizontal dimensions over true vein widths of 0.4 m to 3.0 m. The vertical dimension of the SGX shoots is commonly twice or more the horizontal dimension. Longitudinal sections constructed along the veins indicate that many of the shoots have a steep, non-vertical rake.

The vein systems of the various mine areas in the district are also generally similar in mineralogy, with slight differences between some of the separate mine areas and between the different vein systems within each area. These differences have been attributed to district-scale mineral zonation at different levels of exposure. This subtle zonation is thought to be perhaps analogous to the broad-scale zonation patterns observed in the Coeur d’Alene District (U.S.A.) and characteristic of many other significant mesothermal silver-lead-zinc camps in the world (Broili et al., 2008, Broili et al., 2010).

### 9.1 VEINS OF THE HPGMINE AREA

Mineralization is currently defined in at least 18 veins in the HPG Area, with 4 of these containing about three-fourths of the resources defined to date. Sampling at various levels in workings along these vein structures indicates that from 27% to 50% or more of the vein material is mineralized, ranging from 0.2 m to 5.2 m in width, averaging 0.81 m.

The veins occur in relatively permeable fault-fissure zones and are extensively oxidized from the surface to depths of about 80 m. Within this zone, the veins show many open spaces with conspicuous box-work lattice textures resulting from the leaching and oxidation of sulfide minerals. Secondary minerals present in varying amounts in this zone include cerussite (lead carbonate), malachite (copper carbonate) and limonite (hydrrous iron oxide). Beneath this oxide zone, sulfide minerals are mixed with secondary oxide minerals in the vein, with sulfides becoming increasingly abundant downward to about 150 m depth, beyond which fresh sulfides are present with little or no oxidation.

The dominant sulfides are galena, typically comprising a few percent to 10% of the vein, together with a few percent sphalerite, pyrite, chalcopyrite and freibergite-tetrahedrite. Other metallic minerals in much smaller amounts include argentite, native silver, native gold, bornite and various sulfosalts. The minerals occur in narrow massive bands, veinlets or as disseminations in the gangue, which consists of quartz, sericite and carbonate, occurring as dolomite and calcite with some ankerite.

## 10.0 EXPLORATION

Silvercorp initiated exploration-development activities in the HPG area in July 2007. Surface exploration in the district has been difficult because of the high topographic relief and lack of good or accessible outcrops. Very little surface exploration is now being done. The prospects are instead now being explored primarily from underground workings – tunnels, drifts, crosscuts and declines, typically about 2x2 m in size – and by extensive underground long-hole drilling. This underground exploration has proven to be quite effective and efficient due to the pinch-and-swell character of the mineralization and inexpensive labor costs.

This chapter primarily discusses vein-by-vein exploration activities and results carried out during the past year (2010). The activities, methods and results of exploration work carried out in earlier years have been summarized in detail in the earlier technical reports prepared for the Ying District projects (e.g., Broili and Klohn, 2007; Broili et al., 2008; Broili et al. 2010).

### 10.1 PRINCIPAL VEINS IN THE HPG AREA

The HPG mine area, which accounts for slightly less than 10 percent of the currently defined mineralization in the Ying District, is located in the central part of the district, immediately northeast of the SGX mine area, which is currently the most prolific mine area in the district (Figure 10-1). The HPG area consists of a few large elongate veins that trend SW-NE and several shorter peripheral veins that bend northerly.

Silvercorp has explored the HPG mine area since August 2007 with tunneling and with surface and underground drilling. Tunneling (1.8m x1.8m drifts) has been done along strike of the mineralized veins on different levels at 40 m intervals, and underground drilling at 50-100 m spacing has been used to delimit down-dip extent of the veins below the 600 m level. Exploration has focused mostly on the major veins with some continuing work on other veins having high mineralization ratios. The mine is being explored and developed via 10 main access tunnels – PD2, PD3, PD630, PD638, PD698, PD720, HPD29, HPD30, HPD640, and HPD850 – with most of the work done via the PD3 access tunnel. This tunnel has 4 declines from the 600 m level to the 340m level. As of December 13, 2009, 12,280 m of exploration tunnels, 96 underground holes (21,761 m) and 67 surface drill holes (17092 m) had been completed.

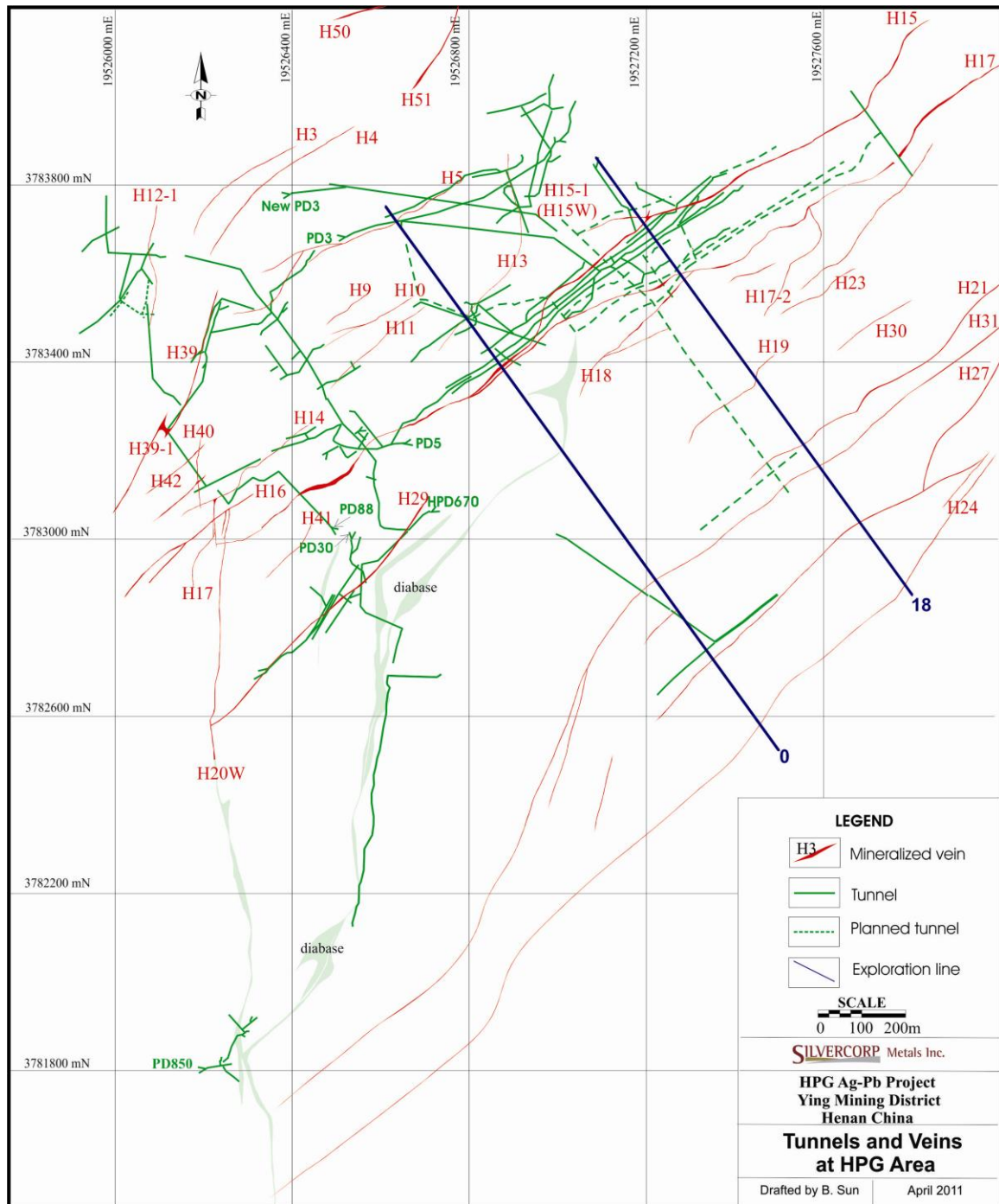


Figure 10-1: Tunnels and Veins at HPG Area

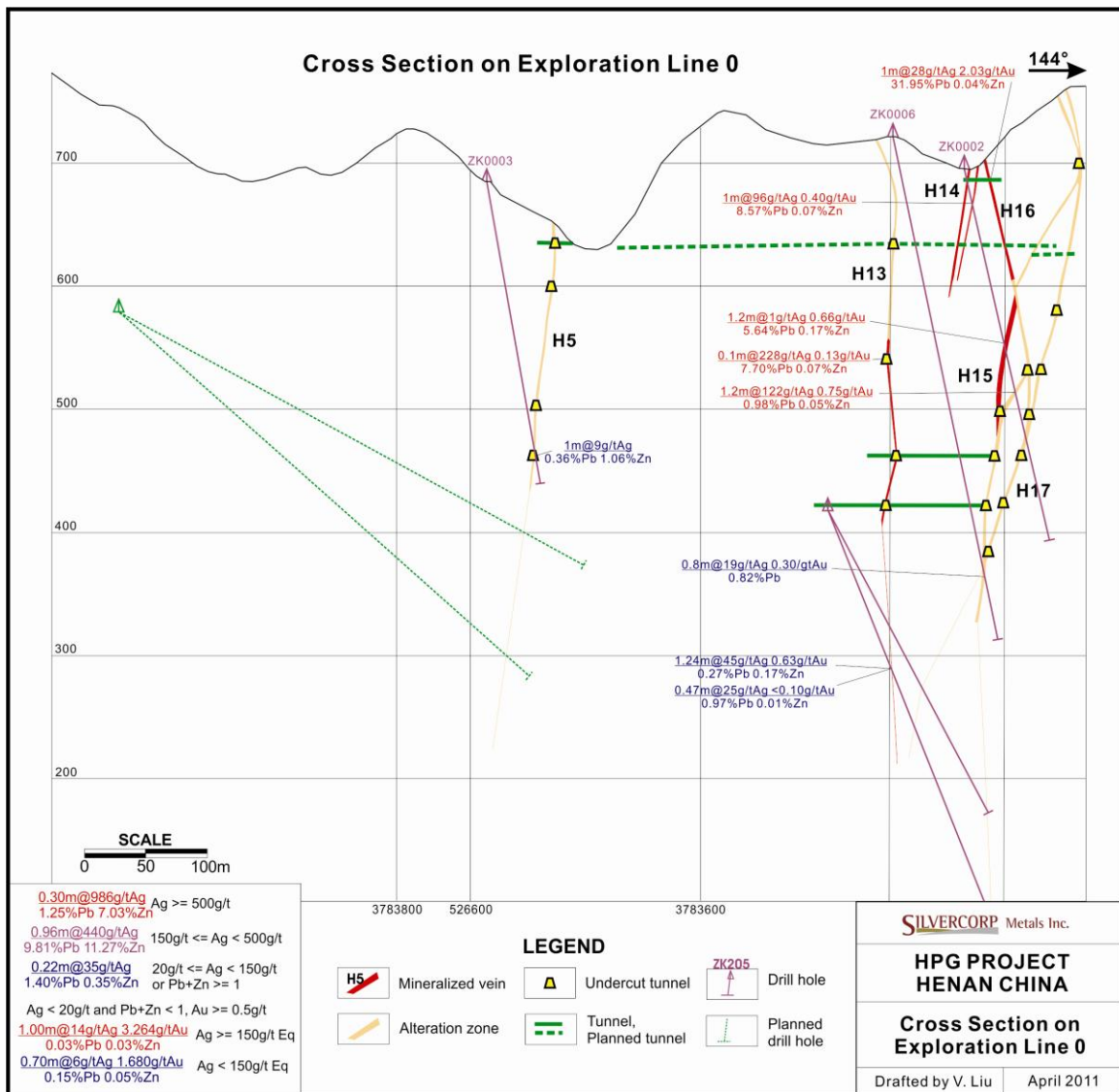


Figure 10-2: HPG Cross Section on Line 0

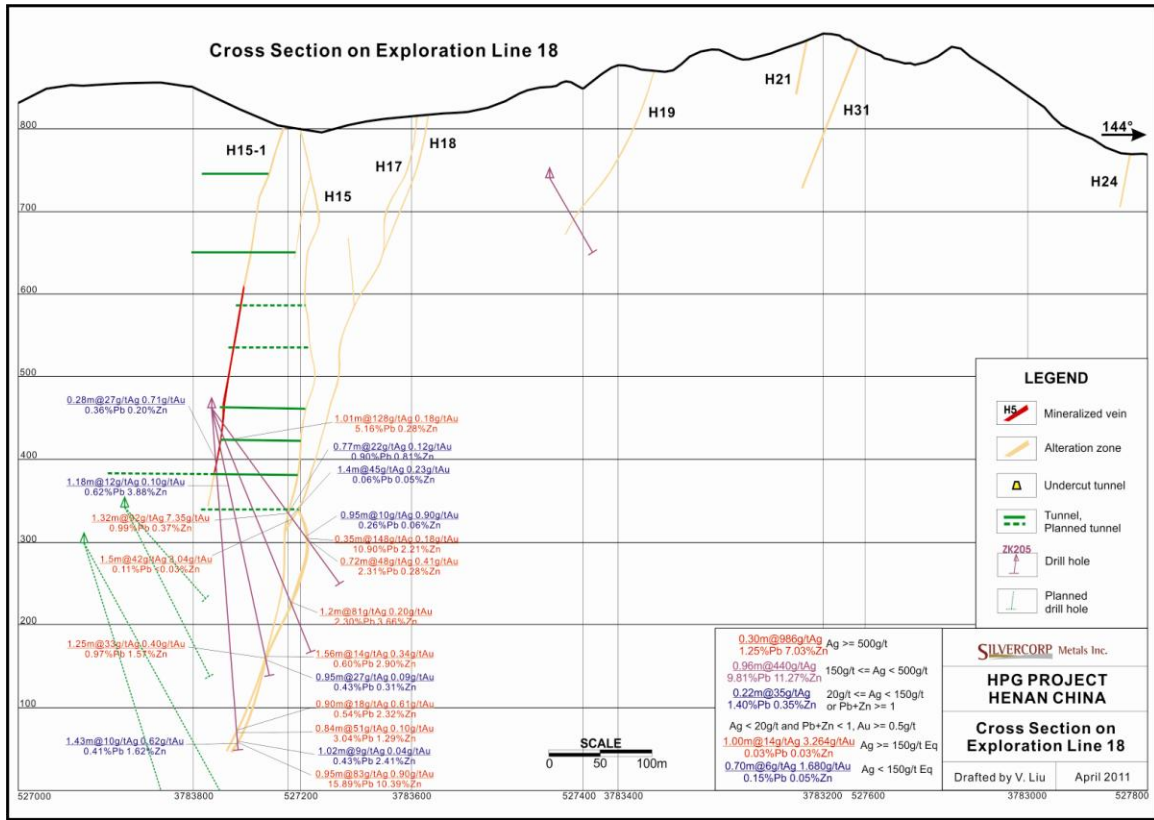


Figure 10-3: HPG Cross Section on Line 18

Currently, mineralization is defined in 15 separate veins in the HPG mine area with approximately three-fourths (73%) of the mineralization carried by the four major veins – H17, H16, H15W and H15 – and more than one-half of the remainder carried by three others – H12-1, H-13 and B. Work carried out on the most important veins is discussed in detail below:

**H17 vein** – The H17 vein is one of the longest veins known in the HPG area and currently the most important in terms of defined mineralization (Figure 10-4). The vein has been explored by 3,877 m of tunneling through the PD720 access tunnel on the 460 m, 600m, and 630m levels, and through the PD3 access tunnel on the 300 m level in the 2010 tunneling program. In 2010, the vein was intersected by 8 new exploration drill holes of which 4 were mineralized:



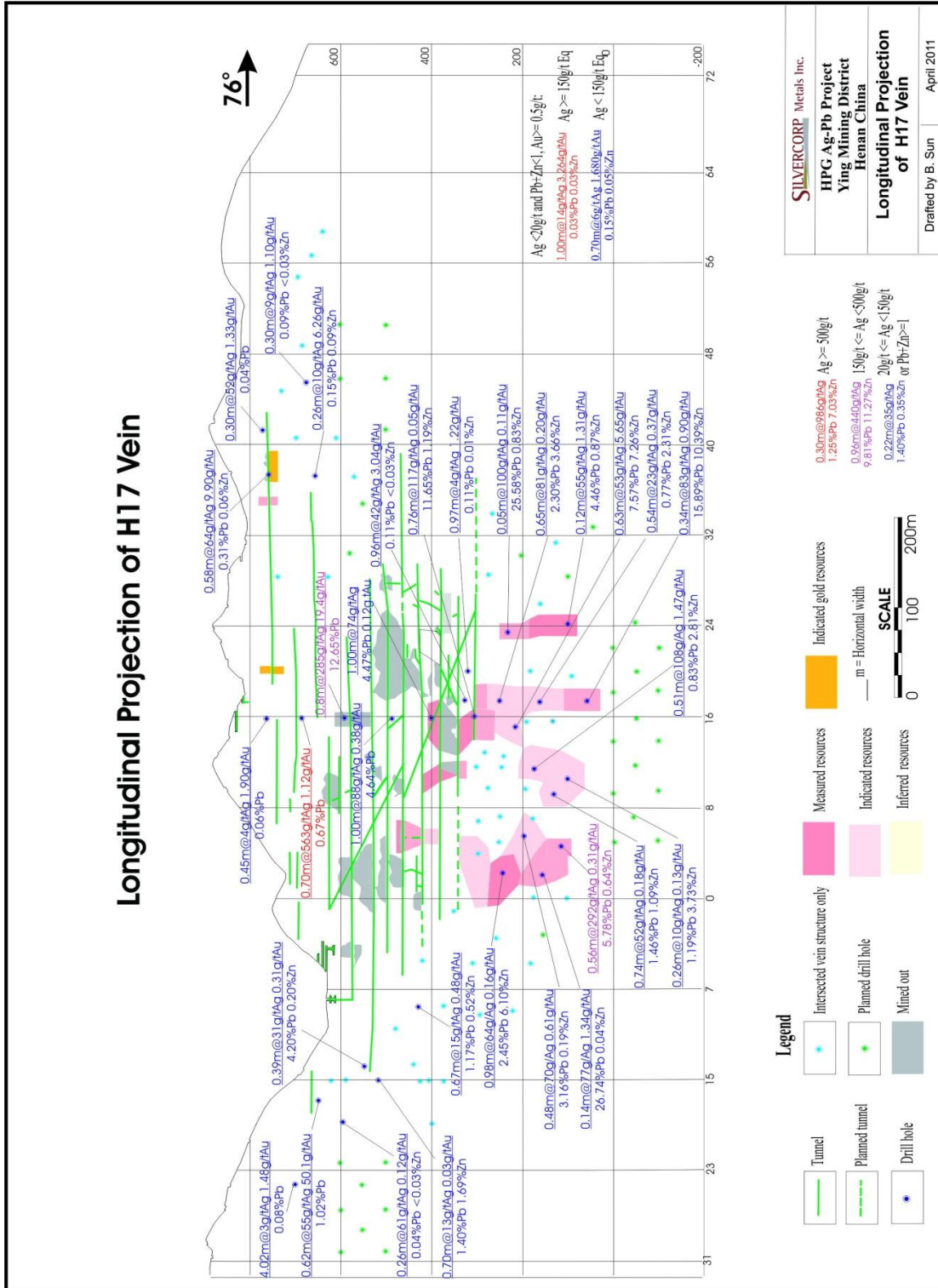


Figure 10-4: HPG Longitudinal Projection of H17 Vein

**2010 Drill Hole intersections in the H17 vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
ZK0401	203.14	204.54	0.99	0.98	0.52	61.89	2.98	1.05
ZK0201	222.98	224.72	1.08	1.07	0.17	63.47	2.43	6.01
ZK0402	290.8	291.71	0.48	0.47	0.61	70.40	3.16	0.19
ZK0202	296.99	297.30	0.14	0.14	1.34	77.04	26.75	0.04

**H17 vein mineralization exposed in tunneling on 300 level  
2010 program**

level	length (m)	wtd. avg. width (m)	wtd. avg. Au (g/t)	wtd. avg. Ag (g/t)	wtd. avg. Pb (%)	wtd. avg. Zn (%)
300	65	1.05	1.74	164.92	9.75	0.88

**H16 vein** – The H16 vein, currently the second most important vein in the HPG mine area, occurs in the hanging wall of the H17 vein about 50 to 80 m from H17. It is exposed for about 600 m along strike. Tunneling and underground drilling at the 640 m level of the H16 vein have defined five zones of mineralization, three of which contain higher-than-usual amounts of gold. To date, these are the only veins in the entire Ying District project from which gold is being recovered as a by-product of the mining operations. In 2010, tunneling at 610 m level exposed 45 m mineralization along the strike with a weighted average true width of 1.3 m and weighted average grades of 2.65 g/t Au, 132.42 g/t Ag, 5.69% Pb, and 2.53% Zn. In 2010, the vein was intersected by 5 new exploration drill holes of which 2 were mineralized:

**2010 Drill Hole intersections in the H16 vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
ZK25A02	149.22	151.64	1.27	1.23	2.6	16.63	1.31	0.81
ZK2102	163.14	165.78	1.4	1.35	4.41	11.97	1.14	0.44

**H16 vein mineralization exposed in tunneling on 600 level  
2010 program**

level	length (m)	wtd. avg. width (m)	wtd. avg. Au (g/t)	wtd. avg. Ag (g/t)	wtd. avg. Pb (%)	wtd. avg. Zn (%)
610	45	1.3	2.65	132.42	5.69	2.53

**H15W vein** – The H15W vein is in the center of the HPG area is currently the third most important vein in the area. It occurs 80-120 m along the northwest hanging wall side of the H15 vein and does not crop out at the surface. Previous drilling and tunneling data indicate a strike length of at least 400 m with the strongest mineralization occurring over a 105 m strike length between the 380 and 500 m levels. Weighted average width of this 105 m segment is 0.39 m with weighted average grades of 0.63 g/t Au, 254 g/t Ag, 18.43% Pb and 2.36% Zn. In 2010, the vein was intersected by two new exploration drill holes of which one was mineralized:

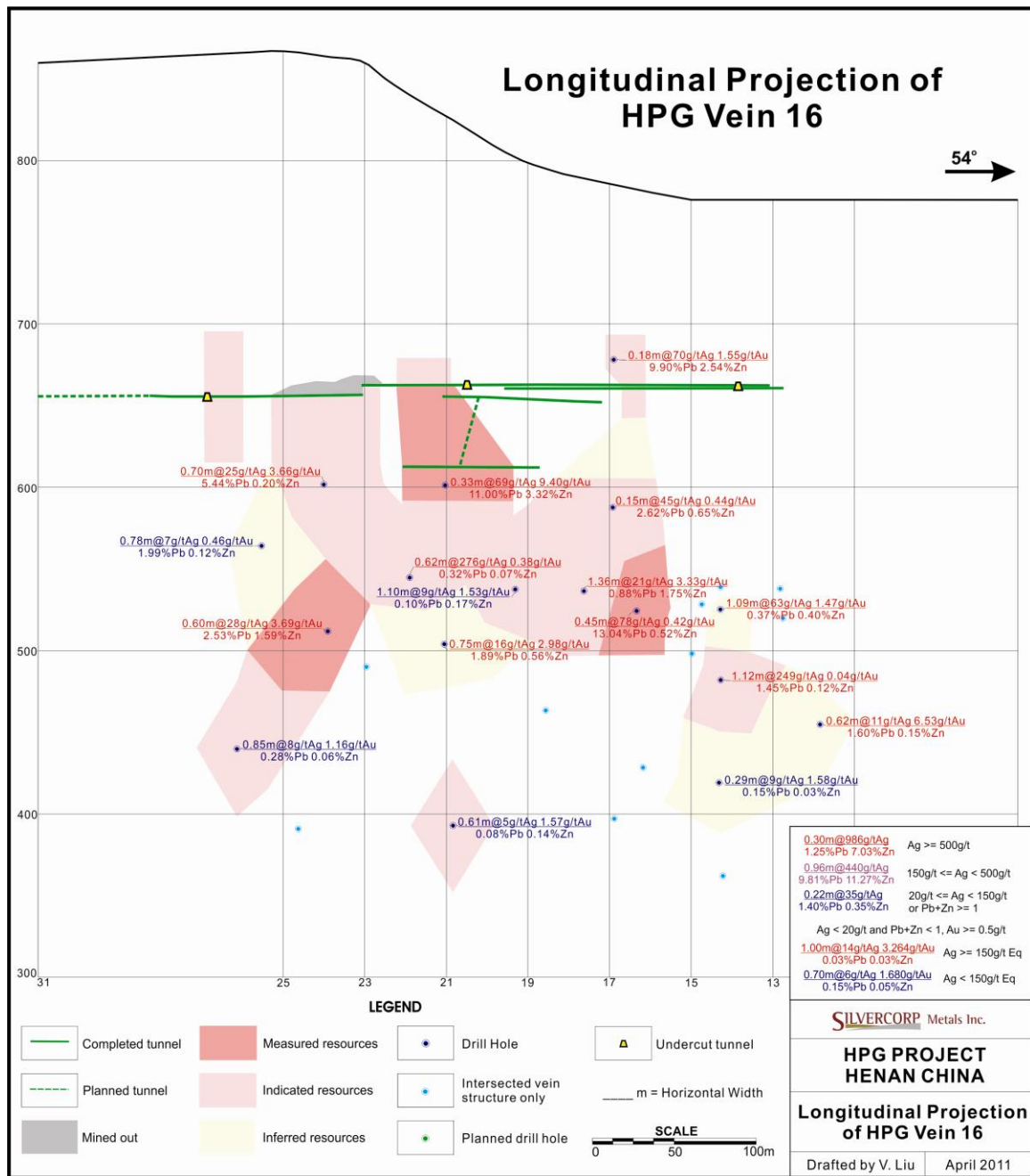


Figure 10-5: HPG Longitudinal Projection of H16 Vein

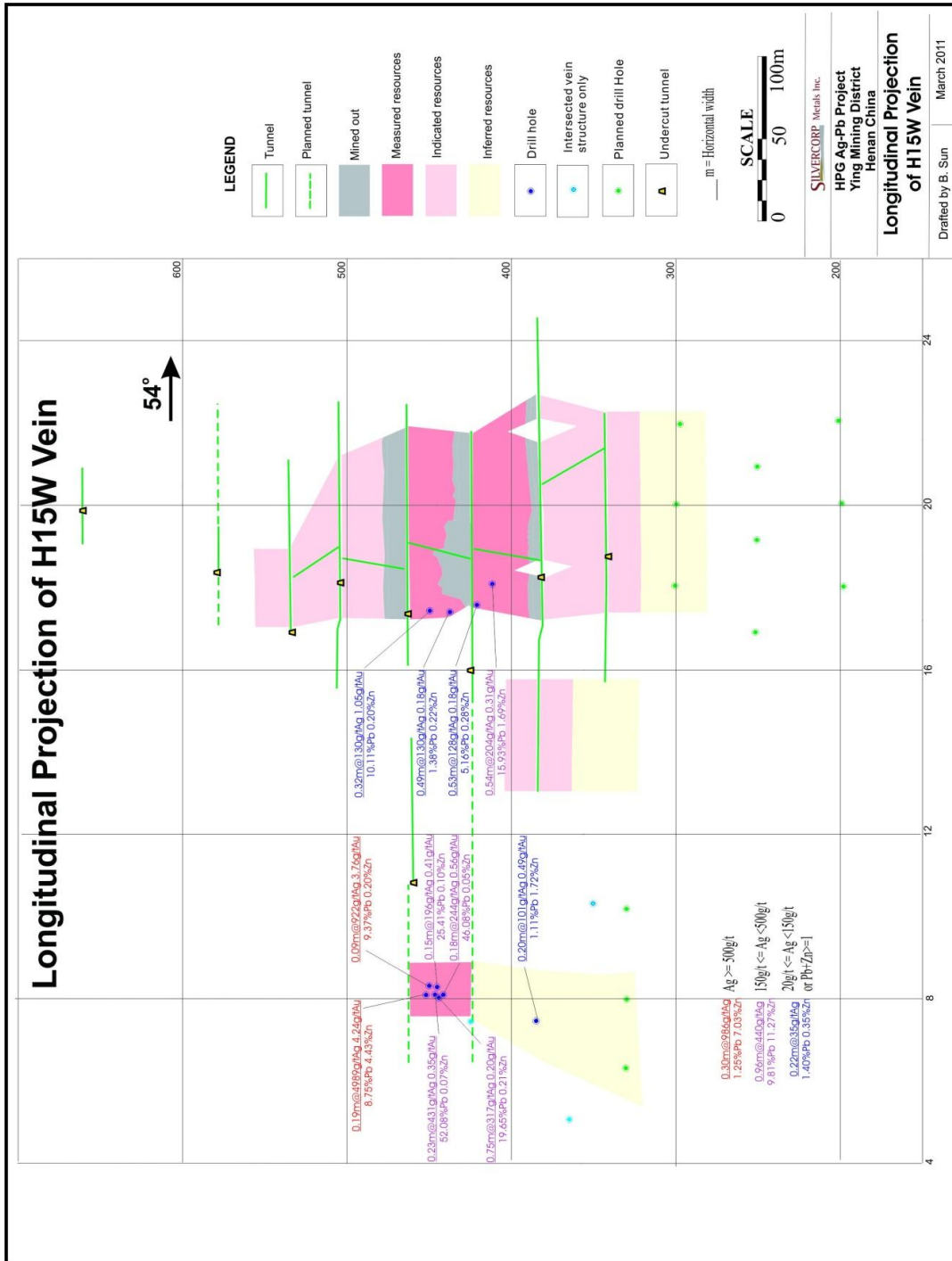


Figure 10-6: SGX Longitudinal Projection of H15W Vein

**2010 Drill Hole intersections in the H15W vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
ZK0804	88.34	88.64	0.20	0.20	0.49	103.47	1.11	1.72

**H15W vein mineralization exposed in tunneling at various levels  
 2010 program**

level	length (m)	wtd. avg. width (m)	wtd. avg. Au (g/t)	wtd. avg. Ag (g/t)	wtd. avg. Pb (%)	wtd. avg. Zn (%)
530	45	0.51	0.94	255	20.62	0.64
380	65	0.36	0.78	230	10.75	2.43
340	115	0.52	0.23	53	3.62	5.73

**H15 vein** – H15 is currently the fourth most important vein in the HPG area and also one of the longest, extending for at least 1.3 km along the surface. It has been explored by drilling at 50-100 m spacings and by tunneling. Since the last report on the HPG area (Broili, Klohn and Ni 2010), additional tunneling and drilling were conducted in 2010. The vein was intersected by 9 new exploration drill holes of which 3 were mineralized:

**2010 Drill Hole intersections in the H15 vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
ZK0201	163.88	164.56	0.56	0.53	<0.10	48.69	1.69	17.16
ZK0401	168.58	168.87	0.18	0.18	1.40	92.44	11.30	5.21
ZK0402	203.1	203.88	0.18	0.17	1.18	265.84	0.82	0.03

**H15 vein mineralization exposed in tunneling at level 500  
 2010 program**

level	length (m)	wtd. avg. width (m)	wtd. avg. Au (g/t)	wtd. avg. Ag (g/t)	wtd. avg. Pb (%)	wtd. avg. Zn (%)
500	140	0.45	0.63	152	11.14	0.51

**H13 Vein** – The H13 vein, about 250 m away from H15 in the hanging wall, is exposed for about 300 m along strike at the surface. Drilling and tunneling define two mineralized zones along the vein. The result of 2010 tunneling on the vein at the 460 m level is listed in the table:

**H13 vein mineralization exposed in tunneling at level 460  
 2010 program**

level	length (m)	wtd. avg. width (m)	wtd. avg. Au (g/t)	wtd. avg. Ag (g/t)	wtd. avg. Pb (%)	wtd. avg. Zn (%)
460	90	0.35	0.09	135.58	4.27	3.62

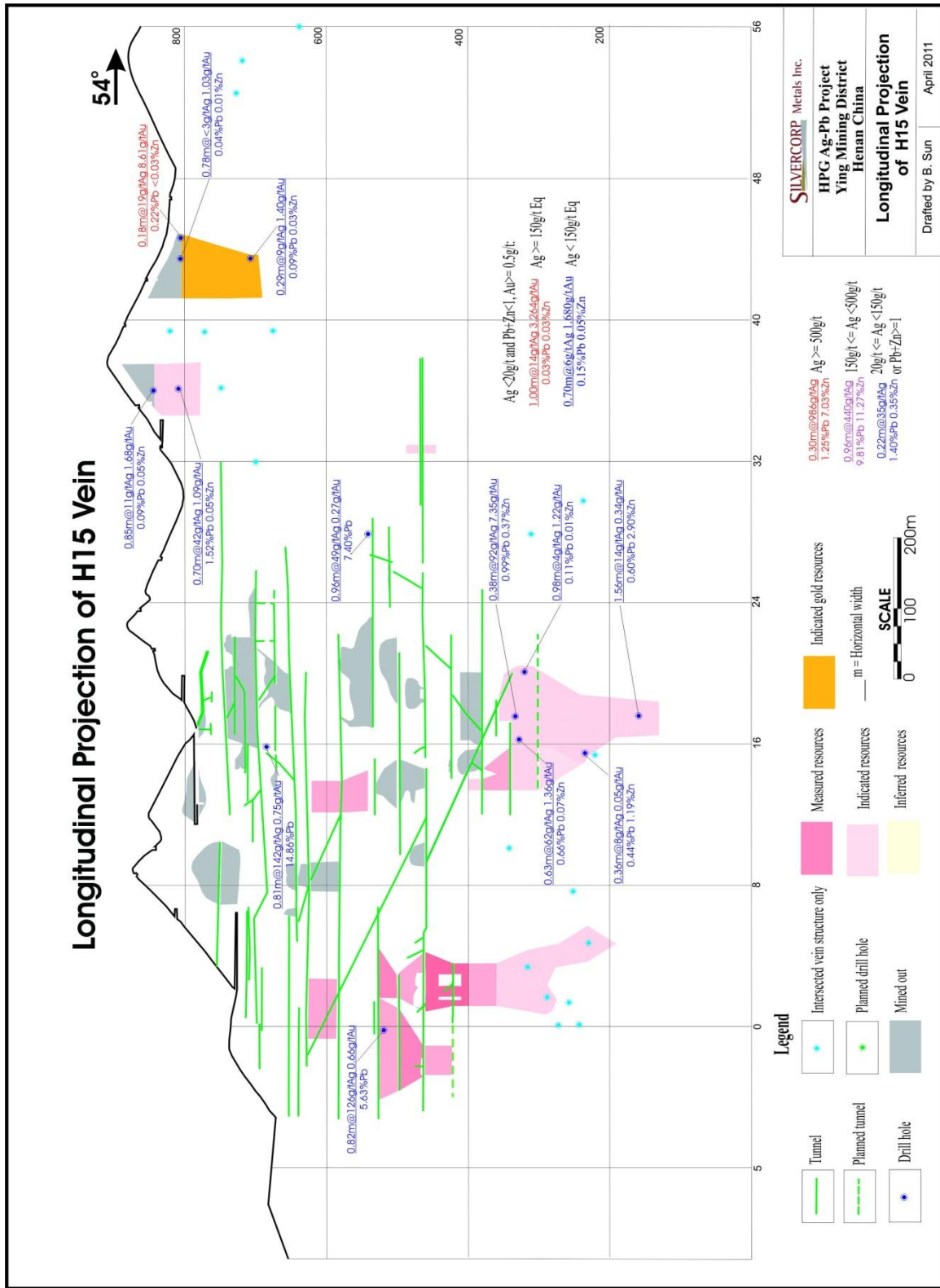


Figure 10-7: SGX Longitudinal Projection of H15 Vein

**H12-1 Vein**– The H12-1 vein is exposed for 280 m along the surface. Mineralization has been defined by tunneling and by drilling. The 2010 tunneling at the 560 m level exposed mineralization for 60 m along strike, as follows:

**H12-1 vein mineralization exposed in tunneling at level 560  
 2010 program**

level	length (m)	wtd. avg. width (m)	wtd. avg. Au (g/t)	wtd. avg. Ag (g/t)	wtd. avg. Pb (%)	wtd. avg. Zn (%)
560	60	0.8	0.72	60.38	9.42	0.57

**H5 Vein**– The H5 vein, about 250 m away from H17 in the foot wall, extends along strike for 480 m at the surface. It has been explored by 300 m of tunnels completed from the 460m level through the main access tunnel PD3. Mineralization has been defined by tunneling and by drilling. In 2010, the vein was intersected by four new exploration drill holes of which two were mineralized:

**2010 Drill Hole intersections in the H5 vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
ZK0808	124.52	124.83	0.30	0.29	0.30	29.87	7.43	15.09
ZK0809	168.52	170.52	0.90	0.85	2.79	48.42	3.54	4.89

**Other HPG veins**

**H29 Vein**– The H29 vein is exposed for 700 m along strike; two mineralized bodies, 20 m and 150 m long, have been defined by drilling and tunneling.

**H15-1 Vein** –The H15-1 vein, a branch vein of the H15 vein on its hanging wall side, is exposed at the surface. Au-Ag-Pb mineralization extends for more than 340 m along strike. Exploration includes 129 m of drift along PD720 at the 720m level and 17.4 m of drift through PD630 at the 630m level. Tunneling has defined three mineralized bodies (I, II, III) that are respectively 39, 45, and 48 m long.

**H6 Vein** – The H6 vein is not exposed on the surface, located 150 m north of H5. On level 688 and 638 m, it is indicated by Line 12 and Line 18 drifting believed to be 200 m long, striking NE-SW and dipping 320-345 ° at 65-80 °. Ore body I and II are delineated in the vein by drilling and tunneling, having respective length of 50 m and 15 m.

## 10.2 EXPLORATION IN OUTLYING AREAS

The 2010 exploration program focused on two “frontier” areas within the Ying District, the SDG-LJG and DCG areas. The SDG-LJG exploration permitting area is adjacent to the southeast boundary of the SGX mining permit west of the TLP and LM permits, the DCG area is 3 km north of TLP, adjacent to the northeast boundary of the Ying exploration permit.

### SDG-LJG Area

Mineralization in the SDG-LJG exploration area is associated with structurally controlled alteration zones (fault zones) (Figure 10-8). Surface mapping, geochemical anomaly checking, and drilling started in March, 2010, in order to explore mineralization in two principal veins, SL1 and SL1-1. In 2010, Silvercorp drilled 9 NQ-size core holes, totaling 2883.77 m, to explore these veins, with several of the 9 holes intersecting mineralization in both veins.

**SL1 Vein** – The SL1 vein in the northwest portion of the permit area, extends in a NE-SW direction for 1,700m along the surface (Figure 10-9). Six of the nine holes drilled in the 2010 program intersected mineralization in this vein, as listed below:

**Drill Hole intersections in the SL1 Vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Ag (g/t)	Pb (%)	Zn (%)	Au (g/t)	Cu (%)
ZK001	198.58	198.90	0.26	0.26	237.34	1.05	1.31	0.48	0.00
ZK002	273.44	274.37	0.51	0.49	3.60	0.00	0.02	0.00	0.50
ZK401	224.17	226.73	1.97	1.85	67.41	0.32	0.67	0	2.14
ZK402	245.90	247.89	1.31	1.23	10.61	0.01	0.02	0.00	1.61
ZK701	236.81	237.41	0.52	0.49	30.85	1.19	0.46	0.00	0.034
ZK802	186.00	186.44	0.36	0.35	3.43	0.00	0.02	0.00	0.41

**SL1-1 Vein** – The SL1-1 vein, 100 m west of SL1, has a known strike length of 380 m. Five of the nine holes drilled in the 2010 program intersected mineralization in this vein, as listed below:

**Drill Hole intersections in the SL1-1 Vein**

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Ag (g/t)	Pb (%)	Zn (%)	Au (g/t)	Cu (%)
ZK301	191.30	193.30	1.30	1.22	60.8	0.03	0.09	0.07	1.814
ZK002	203.22	204.13	0.5	0.48	20.49	0.04	0.16	0.00	0.97
ZK402	231.33	233.48	1.42	1.33	26.31	0.01	0.05	0.00	2.61
ZK801	131.26	132.23	0.8	0.77	24.55	0.01	0.14	0.00	2.79
ZK702	195.78	196.1	0.24	0.22	5.4	0.28	0.012	2.99	0.36



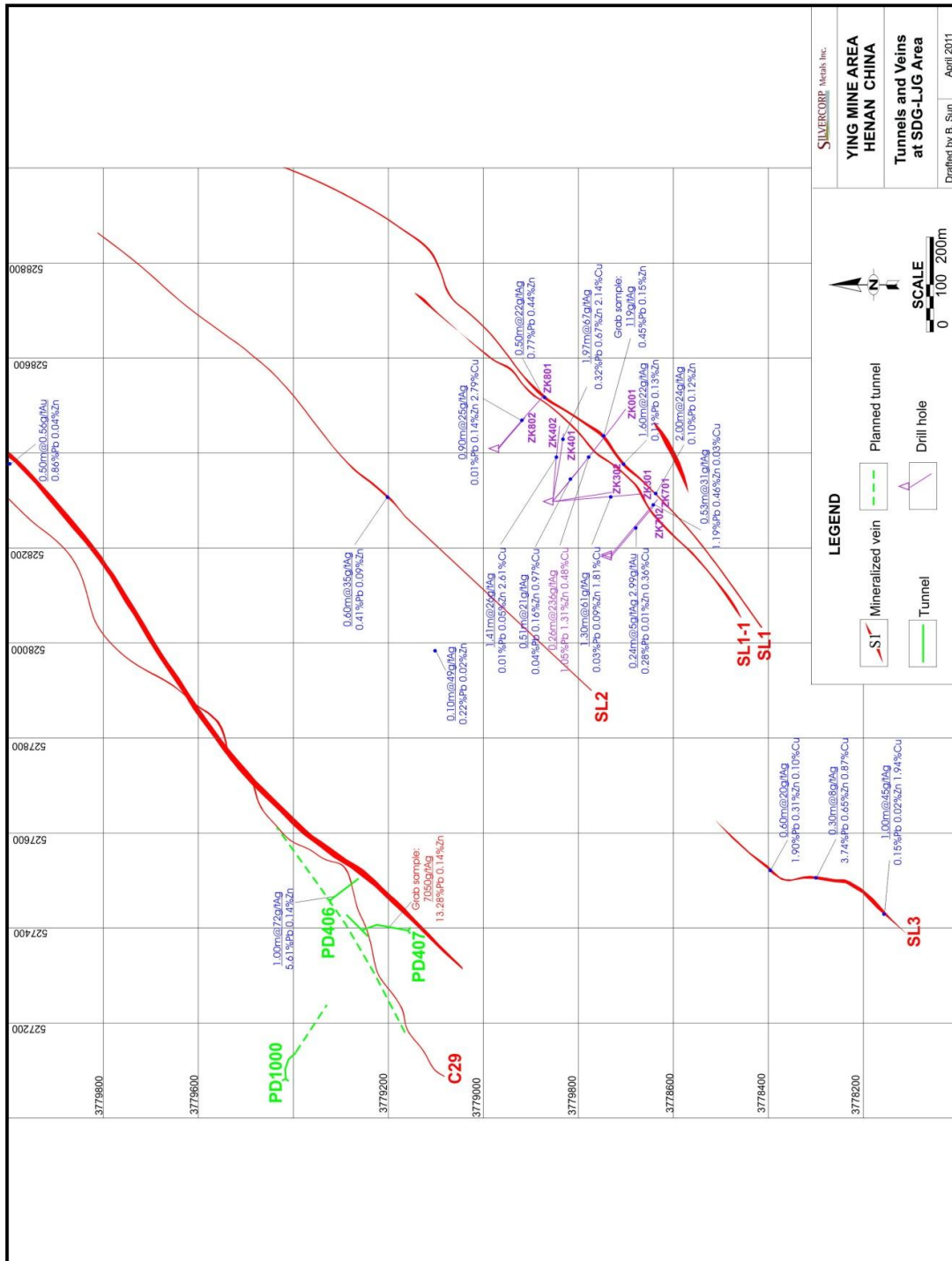
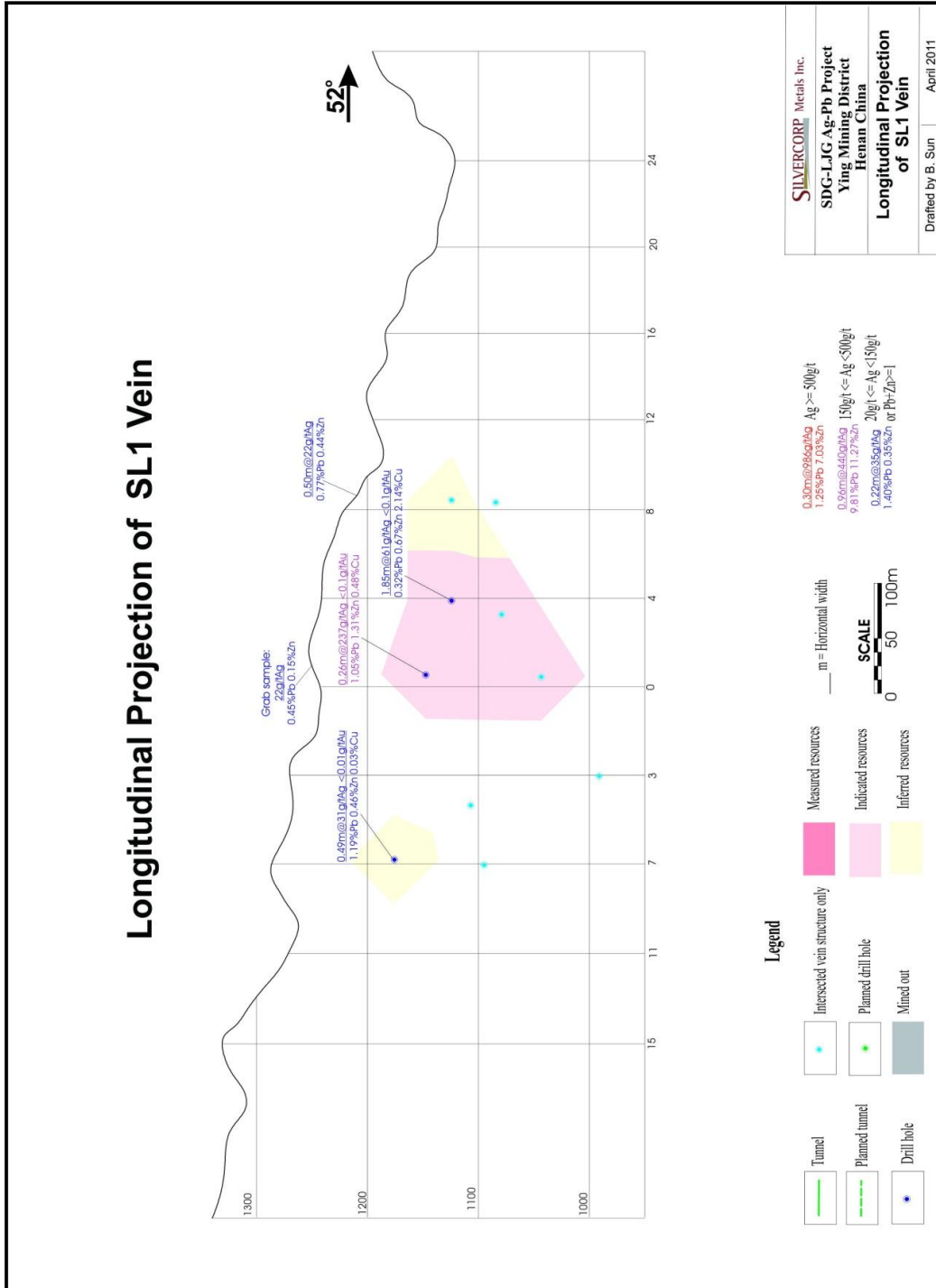


Figure 10-8: Tunnels and Veins at SDG-LJG Area



<b>SILVERCORP</b> Metals Inc.
SDG-LJG Ag-Pb Project Ying Mining District Henan China
<b>Longitudinal Projection          of SL1 Vein</b>
Drafted by B. Sun
April 2011

Figure 10-9: SDG-LJG Longitudinal Projection of SL1 Vein

## DCG Area

The DCG area, adjacent to the northeast boundary of the Ying exploration permit, 3 km north of TLP, includes 6.4 km<sup>2</sup> of very rugged, forested hills. Surface mapping, trenching and limited tunneling by previous workers defined five NE-trending mineralized veins and one N-S mineralized vein (Figure 10-10). The veins range from 460 m to 3600 m in length and are 0.3m to 2.0m wide. In 2010, Silvercorp drilled 8 NQ-size core holes (2,283.77 m) focused mainly on two veins – C4 and C4E – with several of the 8 holes intersecting mineralization in both veins.

**C4 Vein** – The C4 vein, in the northern part of the area, strikes NE-SW for more than 1000 m along strike. Massive galena occurs locally along the outcrop. Two of the 8 holes drilled through this vein in the 2010 campaign intersected mineralization in the vein, as follows:

### 2010 Drill Hole intersections in the C4 vein

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Ag (g/t)	Pb (%)	Zn (%)	Au (g/t)	Cu (%)
ZK4002	192.2	194.16	1.02	0.96	7	1.6	0.1	0.00	0.0
ZK4042	60.54	61.86	1.17	0.96	42	2.4	1.4	0.73	0.0

**C4E Vein** – The C4E vein has a known length of 600 m. Three of the 8 holes drilled through this vein in the 2010 campaign intersected mineralization in the vein, as follows:

### 2010 Drill Hole intersections in the C4E vein

Drill Hole	From (m)	To (m)	Horizontal width (m)	True width (m)	Ag (g/t)	Pb (%)	Zn (%)	Au (g/t)	Cu (%)
ZK4001	202.34	202.88	0.5	0.47	57	7.8	0.6	0.56	0.1
ZK4002	234.69	235.90	0.84	0.79	12	3.9	0.4	0.05	0.0
ZK4042	214.38	214.74	0.35	0.29	19	4.9	0.0	0.13	0.0

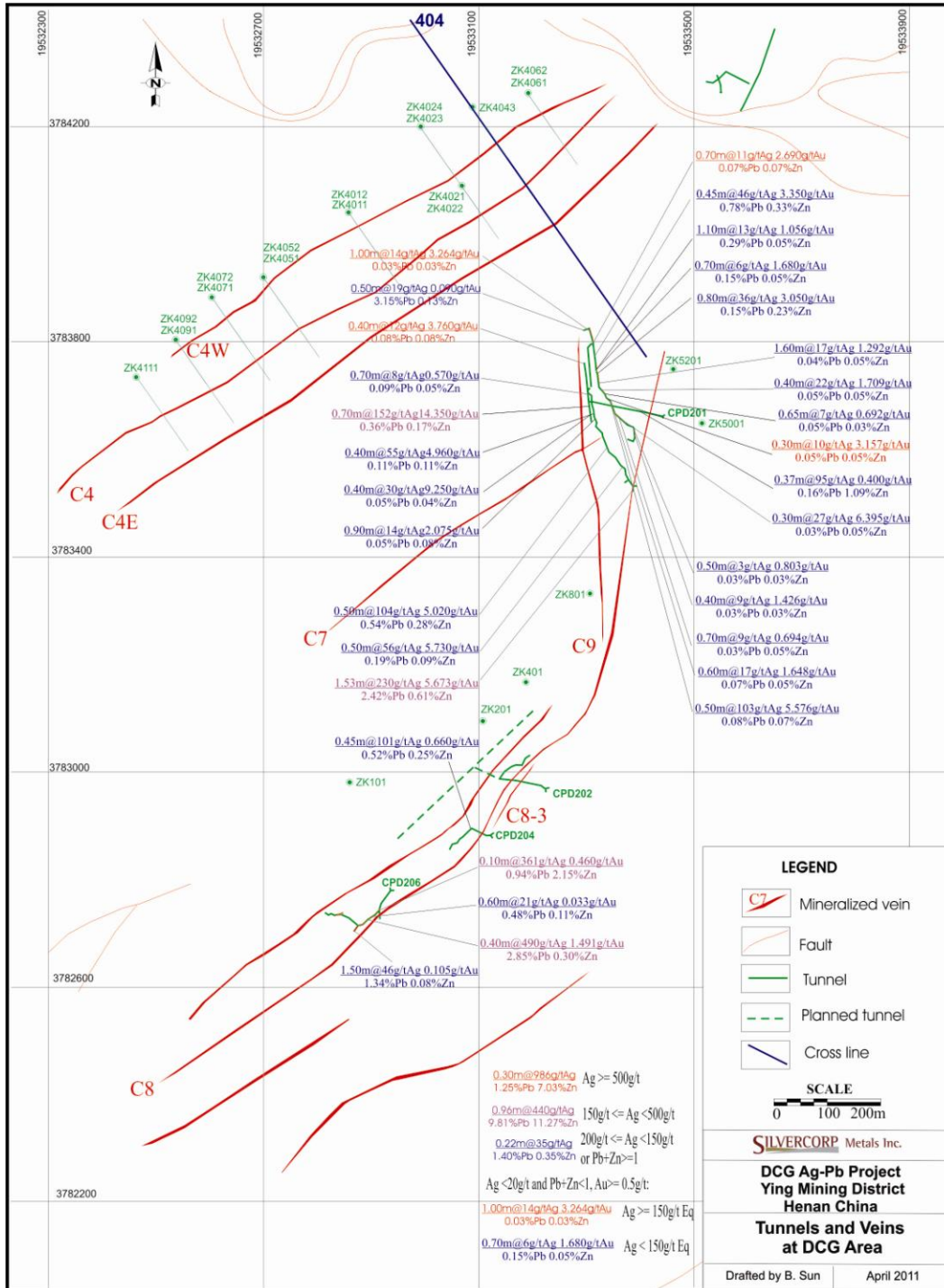


Figure 10-10: Tunnels and Veins at DCG Area

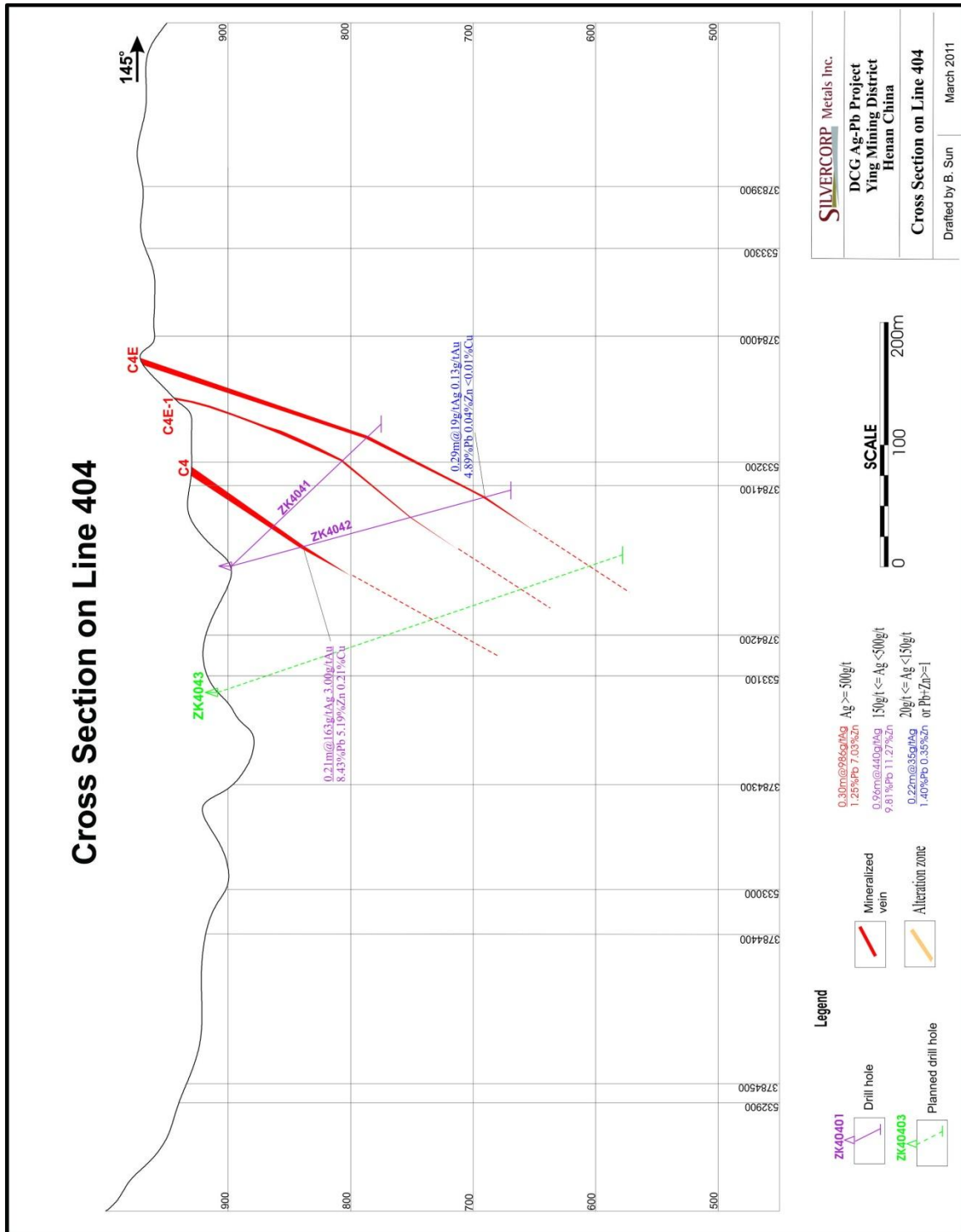


Figure 10-11: DCG Cross Section on Line 404

## 11.0 TUNNELING AND DRILLING

The Ying District projects have been explored principally from underground workings – tunnels, drifts, crosscuts and declines, typically about 2 x 2 m in size – and by underground long-hole drilling. The workings follow the veins along strike, intersect them at different depth levels, and provide stations for underground diamond core holes. This underground exploration has proved to be the most effective and efficient way to explore and define mineralization in veins due to the pocket-like character of the higher-grade zones and to inexpensive labor costs,

Exploration completed in the HPG mine area and the outlying “frontier” areas from January 1, 2010 to December 31, 2010, consists of the following:

Mine	Exploration Method	# of holes	Total length (m)	
HPG	Surface drilling	0	0.00	
	Underground drilling	30	6,623.0	
	Tunneling	Drift		2,946.0
		Crosscut		1,191.70
		Raise		535.80
Total		30	4,673.50	
OUTLYING AREAS (SDG-LJG, DCG)	Surface drilling	0	0.00	
	Underground drilling	17	5,167.54	
	Tunneling	Drift	0	0.00
		Crosscut	0	0.00
		Raise	0	0.00
		Total		0.00

## 12.0 SAMPLING METHOD AND APPROACH

Silvercorp carefully documents all sampling and assay results on surface maps, underground level maps and longitudinal sections for all the mining and other target areas in Ying District. Locations and widths of mineralized veins in the underground workings are posted on the maps and sections. The maps are generally also annotated with assay results (Ag-Pb-Zn) from sampling along the veins in order to help characterize and predict mineralization.

The myriad of fault-fissure structures that cut the gneissic bedrock of the Ying Mining Camp are not continuously mineralized. Veins occur intermittently along these structures, appearing and disappearing along strike and dip. Silvercorp's exploration consists of horizontal tunneling along the veins, driving raises or declines to access the veins at other levels. Core drilling is designed to intersect the veins in other locations both laterally and vertically. Such methods are typical of those used elsewhere in the world to explore for vein deposits.

The sampling and assaying of outcrops, drill core, and underground workings is one of the primary tasks in all project areas for the exploration team. The principal sampling method consists of channel samples collected from surface trenches, bedrock outcrops, and underground tunnels and other workings. Samples along veins and outcrops are typically taken at 5 m intervals with the samples cut across the true width of the vein in channels 10 cm wide and 5 cm deep. This yields approximately 3 to 15 kg of material for each 0.3 m to 1.2 m interval, depending on width of the mineralized vein. In some locations the samples are continuous chip samples across the true width of the veins.

Drilling is also used, collecting NQ-sized drill cores (4.8 cm in diameter) from the mineralized zones. Cores are split by sawing with one half retained in the core box for archival purposes and the other half bagged for shipment to the analytical laboratory. Drill core recoveries are influenced by lithology. The rock appears competent, as the mines require no artificial support for underground adits, drifts, inclines, stopes or raises, even over several large expanses. One exception is wide fault zones where wood timbering is necessary to support the broken rock. This considerable rock strength makes drill core recoveries quite good.

During our several site visits to the various project areas in the Ying District, we observed core drilling underway at the surface and in the underground workings, and tunnel sampling underway at numerous places in the workings. We repeatedly reviewed the collection of drill core data, the recording of drill and tunnel assays, and the posting of such information on maps and sections. We conclude that the sampling methods and the handling of sample assay is being carried out in a competent and very professional manner.

## 13.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Channel or surface trench samples are not split prior to being sent to the analytical laboratory. Drill core samples are split by a diamond saw with one half retained for archive, the other half secured in sample bags and shipped to one of three off site laboratories. Employees of Found and Huawei, the subsidiaries of Silvercorp, collect the tunnel samples and split the core for sampling.

Sample preparation and analysis of the historical and current samples is done by one of three chosen labs:

- ALS Laboratory in Guangzhou, China, near Hong Kong, an ISO 9001-accredited facility (used for check assays only in 2010)
- Number 6 Lab of the Non-Ferrous Metals Geology Prospect Bureau of the Chinese government, located in Luoyang, Henan Province (not used in 2010)
- Analytical Lab of Henan Non-Ferrous Metals Geological and Exploitation Institute (ALHN) in Zhengzhou, located 225 km by road northeast of the Ying Mine (served as the primary Lab in 2010)

All three labs are accredited and certified by the Chinese government and are well known and respected for their analytical work in China. Their sample preparation procedures consist of drying, crushing, splitting and weighing of a 200-gram sample, followed by pulverizing to 200-mesh size. The 200-mesh sample split is split again with a 100-gram split used for final assay.

The Number 6 Lab and the Analytical Lab of Henan Non-Ferrous Metals Geological and Exploitation Institute utilize a two-acid digestion and Atomic Absorption Spectrometry (AAS finish) as an assay method on a 0.5 gram sample split for analyzing silver, lead and zinc. This method has a maximum published 500 ppm (g/t) detection limit for silver. For samples above that limit, the sample pulp is re-analyzed using a 5 g sample aliquot in a less dilute two-acid digestion and analyzed by AAS. ALHN believes this method has a silver detection limit of 4000 ppm (g/t). The ALS Laboratory utilizes aqua regia digestion before analysis by ICP-AES for lead, zinc and silver. Samples with more than 500 ppm (g/t) silver are analyzed using conventional Fire Assay methods with a silver detection limit of 10,000 ppm (g/).

Silvercorp's QA/QC check procedures include inserting standards in the sample batches submitted to the labs on a regular basis and submitting duplicate pulps to an independent external lab on an intermittent basis. Silvercorp does not include "blank" samples. Basic procedures and results are as follows:

- Standards are included in samples sent to ALS. Results have been within 3% for the lead, zinc and silver values.
- Duplicate pulps are sent to the ALS lab for samples also shipped to the other two labs for samples containing more than 50 g/t Ag, 0.5% Pb and/or 0.5% Zn. Duplicate pulps are also selected at random intervals for check analyses to the ALS Chemex lab. Results in 2010 are listed in the following table:



In general, the procedures used by Silvercorp for the preparation, security, analysis and checking of samples and sample results appear to be adequate and closely conform to standard industry practices. Nevertheless, it is recommended that Silvercorp insert sample blanks at random into the stream of samples submitted for analysis as a way to monitor possible contamination during the sample preparation stage at the laboratory.

## 14.0 DATA VERIFICATION

Previous site visits to the Ying District were conducted by the independent authors of the many technical reports completed on the project at various times starting in 2003 and continuing through 2008 (Broili, 2004; Broili, 2005; Xu et al., 2006, Broili and Klohn, 2007, Broili et al., 2006, 2008). In each of these reports, verification samples were collected from the various projects to confirm the presence of mineralization and validity of Silvercorp sampling and data recording. Further verification samples were not collected for this report because (1) the previous verification sampling has confirmed the presence of mineralization comparable in grade to that being reported by Silvercorp, and (2) all four of the mine target areas have now been producing, shipping and selling commercial ore for periods ranging from one to four years.

To verify the data used in this current Technical Report, the senior independent author (Mr. Klohn) met with company representatives during a 15-day period (April 15 to 27, 2011) at Silvercorp's office in Vancouver, B.C., Canada. The representatives traveled to Vancouver direct from the project sites bringing with them a vast array of technical information. The information was reviewed and audited in considerable detail. As always, Silvercorp offered unrestricted access to information and responded candidly to all questions and inquiries. In addition, much of this information was sent in digital format to the second independent author of this report (Mr. Broili) who further reviewed and audited the data. The information reviewed by the authors included assay data, maps, long-sections, cross-sections, and a plethora of spreadsheet information. This information, in particular the spreadsheets and long-sections with highly detailed information relevant to mineral resource and reserve estimations, were closely examined for data entry, calculation and posting errors. Mr. Ni, the qualified engineer and non-independent author responsible for the mineral reserves, mining plans and mining economics information included in this report, has been onsite at Silvercorp's project operations for most of 2010. He is thoroughly familiar with the site details and vast project data.

The information reviewed for this report consists of various reports, maps, surveying data, and geological and geochemical technical data collected by drilling, trenching, tunneling and vein sampling. Much of the information was in Chinese and required translation. Any inconsistencies in the information, data or translations were reconciled to our satisfaction.

Production records confirm that silver, lead and zinc minerals from all four mine sites are being concentrated at the Ying mill sites and subsequently economically recovered at the smelter. The mills use crushing, grinding and spiral separators to liberate minerals containing lead, zinc, copper, gold and silver values with final recovery of the valuable mineral products by concentration in the mill's zinc and lead froth flotation circuits. The froth flotation concentrate is then dried using disk filters, followed by shipment to a smelter in Zhengzhou where the metals are recovered.

The purpose of our data verification was to verify results of Silvercorp's exploration activities and confirm resource and production information. It is our opinion that the technical information presented by the company and documented here has been effectively verified for purposes of this report.

## **15.0 ADJACENT PROPERTIES**

Silvercorp now controls all the silver-lead-zinc properties and known mineralized occurrences within the Ying District. There are no known adjacent properties with similar types of mineralization.

## 16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

### 16.1 ORE TYPES

Geological analysis shows that ores are composed of sulphides, mainly containing galena, sphalerite, pyrite, and trace chalcopyrite, pyrrhotite, magnetite, hematite etc. There are also reported few nature silver,  $\beta$ - argentite, cuprargyrite, stephanite. The main gangue minerals are quartz, didymite, and kaolin.

No mineral processing and metallurgical testings were conducted for the HPG mine. Silvercorp submitted a development plan to the relevant authority applying for a mining license by using the metallurgical testing results from TLP Silver-Lead Mine.

All of the ores from HPG mine are transported to the Silvercorp Central Mills for concentrating.

### 16.2 MINERAL PROCESSING

Silvercorp Central Mills include No.1 Mill and No.2 Mill. Total capacity is about 2,600 tpd. No.1 Mill is called Xiayu Mill – 600 tpd and has been in operation since March, 2007. No.2 Mill is called Zhuangtou Mill – 2000 tpd and started operations in January, 2010.

#### 16.2.1 Milling Process – No.1 Mill (Xiayu)

This mill was developed based on a comprehensive testwork program on composite mine samples completed by the Hunan Research Institute of Non Ferrous Metals. Table 16-1 lists Designed Mass Balances at the No.1 Mill. It is necessary to note that a copper flotation system was added in the last year. Figure 16-1 presents the modified flow sheet of No.1 Mill (Xiayu).

**Table 16-1: Designed Mass Balance at the No.1 Mill**

Product	Quantity (t)	Product Rate (%)	Pb (%)	Zn (%)	Pb Recovery (%)	Zn Recovery (%)
Ore	600 . 00	100.00	3.18	1.73	100.00	100.00
Pb Conc	28.62	4.77	60.00	1.95	90.00	5.38
Zn Conc	19.62	3.27	0.95	45.00	0.98	85.00
Tailings	551.76	91.96	0.31	0.18	9.02	9.62

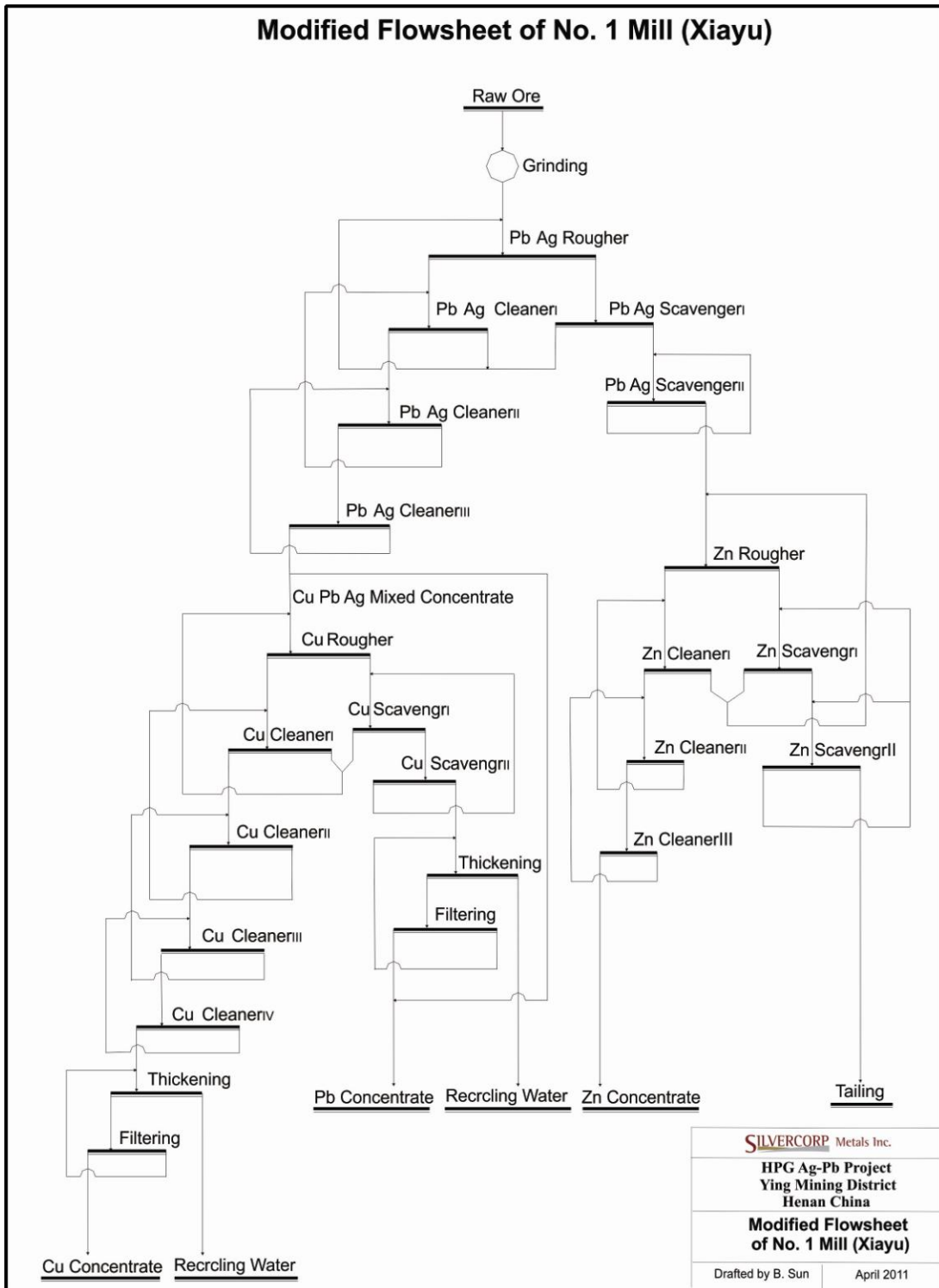


Figure 16-1: Modified flow sheet of No.1 Mill (Xiayu)

## Crushing

The crushing is a closed circuit, consisting of two jaw crushers with an oscillating screen. The primary jaw crusher (Model: PEF 500x750) has a closed side setting of 80mm. Discharge from the primary jaw crusher is conveyed to the 15 mm aperture oscillating screen. Ore larger than 15mm is conveyed to the secondary jaw crusher (Model: PYH-2X cone crusher) which has a close side setting of 15mm. Discharge from the secondary crusher is conveyed back to the 15 mm aperture screen. Discharge from the screen feeds ore bins with a live capacity of 100 tonnes.

Dust from crushing and screening processes is collected by vacuums, captured in cloth bags and then transferred to a process tank. Water is added to the tank to make slurry that is pumped into a pre-flotation tank together with overflow from a ball mill circuit as described below.

## Milling

Crushed ore from the live bins is conveyed to a closed milling circuit consisting of a ball mill (Model: TMQG 2100 x 600) and classifier (Model: TG-200). The ball charge is made of Mn-steel balls, with diameters ranging from 60mm to 120mm. The target grind size is 70% passing 200 mesh and the overflow density is maintained at 40% solids by weight when introduced to the flotation cells.

## Flotation

- The lead flotation bank consists of one stage of roughing, two stages of scavenging and three stages of cleaning.
- The zinc flotation bank consists of one stage of roughing, two stages of scavenging and three stages of cleaning.
- The copper flotation bank consists of one stage of roughing, two stages of scavenging and four stages of cleaning.

## Concentrating

Both lead and zinc concentrates are diluted to 15% solids by weight by adding water for natural settling. The diluted slurries flow to their respective settling containment concrete structures for settling. The settled slurries at the bottom (with approximately 80% solids by weight) are pumped into a ceramic filter setup under the settling structure for dewatering. The moisture content of dewatered lead and zinc concentrates are 5% and 7%, respectively.

Tailings from the zinc flotation circuit are pumped into the tailings dam located at the northern creek located between No.1 Mill and No.2 Mill. The total tailing capacity of this dam is 3,330,000 m<sup>3</sup>, with an effective capacity of 2,830,000 m<sup>3</sup> or 4,215,000 tonnes of tailings. The current elevation of the tailings dam is 626.5 m, and capacity is as high as 650 m. A crew of 11 people monitor the tailings dam. Reclaimed process water from the tailings pond is pumped for reuse in the milling process.

To check the result, a set of five samples are usually taken every eight hour shift for a total of 15 samples per 24 hour day. The shift samples include flotation feed from the classifier overflow, lead and zinc concentrates from the 3rd cleaners, and lead and zinc tailings from the last scavengers, respectively. Lead, zinc and silver assays are determined by EDTA (ethylenediamine tetraacetic acid) titration following acid digestion. This method is normally used for high concentration of lead and zinc and moderate silver samples, while an AA finish is used for the lower grade samples.

### 16.2.2 Milling Process – No.2 Mill (Zhuangtou)

No.2 Mill (Zhuangtou) is located 2 km to the west of No.1 Mill, and No.2 Mill includes two parallel processing lines. The first line of capacity 1000 t/d has been operating since January, 2010. The second line of capacity 1000 t/d is being installed, and will be put into operation very soon. According to the original design, No.2 Mill can process both Pb and Zn ore and Cu, Pb and Zn ore.

During the site visit from February 28 to March 4, the author found that Cu flotation system was not implemented, so No.2 Mill can only process Pb and Zn ore now.

Figure 16-2 presents the flow sheet of No.2 Mill. It was developed based on a comprehensive testwork program on composite mine samples completed by the Hunan Research Institute of Non Ferrous Metals. Designed mass balance at the No.2 Mill is shown in the Table 16-2.

**Table 16-2: Designed Mass Balance at the No.2 Mill**  
 (Pb and Zn ore)

<b>Product</b>	<b>Quantity (t)</b>	<b>Product Rate (%)</b>	<b>Pb (%)</b>	<b>Zn (%)</b>	<b>Pb Recovery (%)</b>	<b>Zn Recovery (%)</b>
Ore	1000	100	5.88	5.21	100	100
Pb Conc	67.2	7.84	2.10	59.61	90.89	9.39
Zn Conc	58.7	7.49	0.45	0.30	2.67	85.67
Tailings	874.1	84.67	0.35	0.23	6.44	4.94

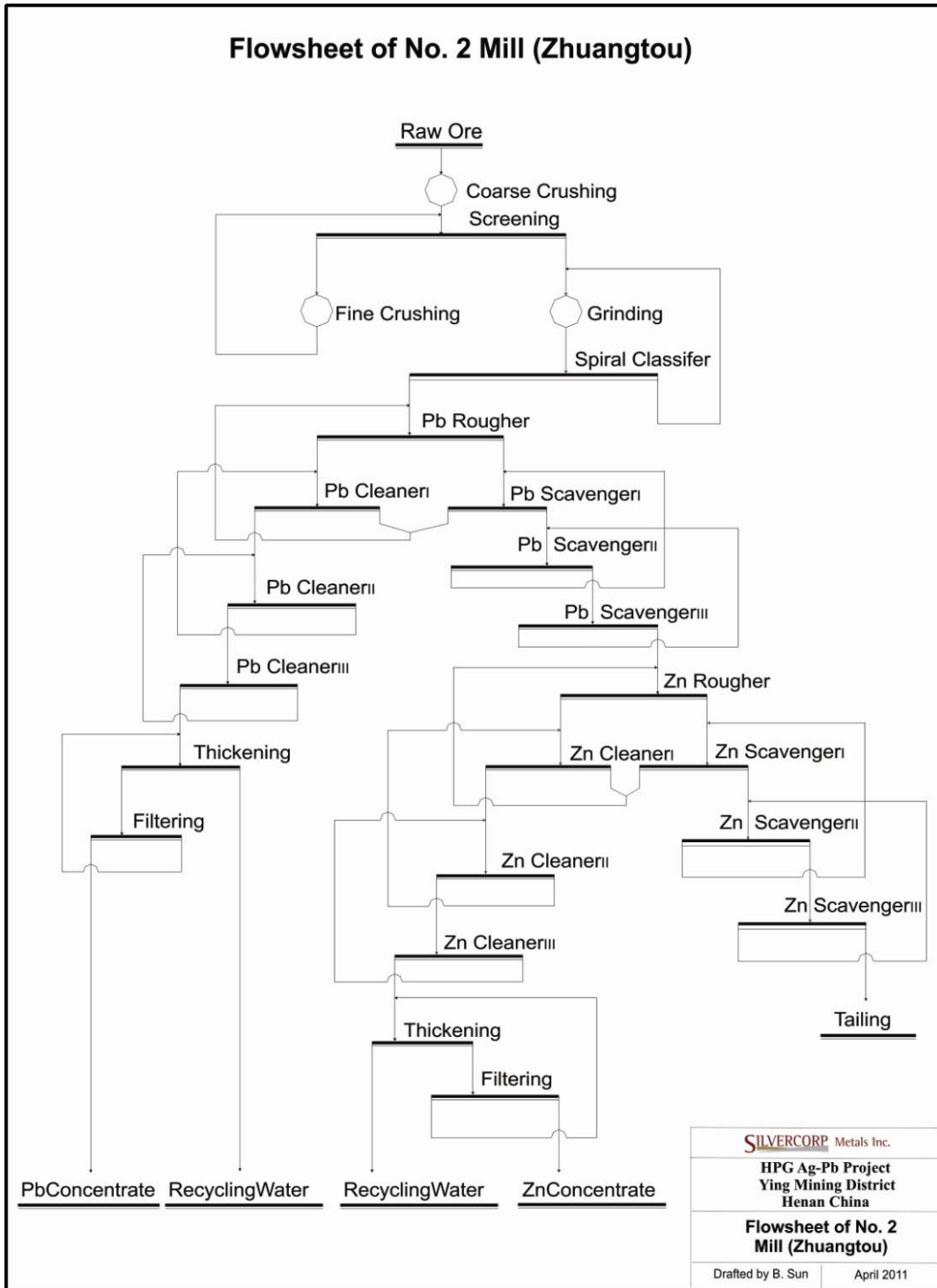


Figure 16-2: Flow sheet of No.2 Mill (Zhuangtou)



A general view of the No.2 Mill is shown as the Appendix -1.

Appendix -2 presents crushing, milling and flotation setups of the No.2 Mill.

### 16.2.3 Metallurgical Performance

According to systematic statistical data in 2010, the actual mass balances at the No.1 Mill are presented in the Table 16-3. The processing results reveal that Pb recoveries have exceeded the design expectation from HPG ores.

**Table 16-3: Actual Mass Balance at the No.1 Mill (HPG ore)**

Product	Quantity (t)	Product Rate (%)	Ag (g/t)	Pb (%)	Zn (%)	Mill Recovery (%)		
						Ag	Pb	Zn
Ore	33,590	100.0	136	6.26	1.49	100.0	100.0	100.0
Pb Conc	3,126	9.31	1,236	61.51	2.24	86.72	93.97	14.34
Zn Conc	1,280	3.81	188	2.55	30.39	5.39	1.59	79.57
Tailings	28,298	86.88	12	0.32	0.11	7.89	4.44	6.08

## 17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

This chapter presents estimates of Mineral Resources and Mineral Reserves for the SGX and HZG mine areas of the Ying District using the standards and categories established by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) in the *CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines* as adopted by the CIM Council on August 20, 2000, and as required by Canadian National Instrument 43-101.

The term “**Mineral Resource**” covers mineralization of *intrinsic economic interest* which has been identified and estimated through exploration and sampling, whereas the term “**Mineral Reserve**” is used for those parts of Mineral Resources whose *probable economic viability* has been demonstrated after considering and applying all mining factors such as technical, economic, legal, environmental, socio-economic and governmental factors. The current Mineral Resource Estimates are discussed in sections 17.1, 17.2 and 17.3 of this chapter; current Mineral Reserves Estimates are presented in section 17.4.

**Note:** It is important to point out that the “Mineral Resources” defined and presented in sections 17.1 through 17.3 of this chapter are *inclusive* of the “Mineral Reserves” which are defined and presented in section 17.4 of this chapter.

### 17.1 MINERAL RESOURCE CATEGORIES

The mineral resource categories used in this report are those established in the *CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines* as referenced above. These resource definitions are summarized as follows:

“A **Mineral Resource** is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

“A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

“An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

“An **Inferred Mineral Resource** is that part of a Mineral Resource, for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.”

## 17.2 RESOURCE BLOCK MODEL AND GEOLOGY

The mining and exploration areas of the Ying District all consists of mineralized veins that closely follow fault structures. The veins along the plane of these structures – and the mineralized bodies they enclose – pinch-and-swell both laterally and to depth. The polygonal block model used in this resource estimation is considered acceptable and applicable for the pocket-like mineralization present in narrow veins of this type. The polygonal block model utilizes detailed cross-sections and longitudinal-sections constructed for each vein. Surface topographic control is taken from 1:10,000 government topographic maps and subsurface control is taken from accurate underground surveys.

### 17.2.1 Silver-Equivalencies

The veins in the Ying District are polymetallic veins that contain several potentially payable metals, specifically silver, gold, lead, zinc and copper, although at this time copper and gold are not recovered from TLP and LM operations. As required by NI 43-101, the grade and quantity of each potentially payable metal are separately reported in the resource tables presented in this report.

Also included in this report are “silver-equivalent” (Ag-equiv) values used by Silvercorp as a convenient way to assess the cutoff grades and quickly compare the tenor and magnitude of these polymetallic veins. The silver-equivalent formula is as follows:

$$\begin{aligned} \text{g/t Ag-equiv} = & \text{g/t Ag} \times \text{Ag Recovery} \\ & + \text{g/t Au} \times \text{Au Price/Ag price} \times \text{Au Recovery} \\ & + \% \text{Pb} \times \text{Pb price} \times \text{Pb Recovery} \times 22.0462 \times 31.1035 / \text{Ag price} \\ & + \% \text{Zn} \times \text{Zn price} \times \text{Zn Recovery} \times 22.0462 \times 31.1035 / \text{Ag price} \\ & + \% \text{Cu} \times \text{Cu price} \times \text{Cu Recovery} \times 22.0462 \times 31.1035 / \text{Ag price} \end{aligned}$$

The **metal prices** currently used in the equivalency calculations for purposes of exploration and comparing estimates of mineral resources are as follows:

Silver (Ag)	US\$ 6.50/troy ounce
Gold (Au)	US\$ 350.00/troy ounce
Lead (Pb)	US\$ 0.40/pound
Zinc (Zn)	US\$ 0.45/pound
Copper (Cu)	US\$ 1.50/pound

These metals prices are substantially below current market prices for the respective metals, however the prices have approximately the same relative value to each other as the current prices with the exception of silver.

The **metal recoveries** used in the equivalency calculations are based on Silvercorp’s experience to date for the processing of ores from the HPG mine are as follows:

	<b>HPG</b>
Silver (Ag)	87.2%
Lead (Pb)	94.7%
Zinc (Zn)	59.1%
Gold (Au)	80.0%

Standard **unit conversions** used in the resource calculations and reporting are as follows:

1 troy ounce =	31.1035 grams
1 tonne =	2204.62 pounds

## 17.2.2 Resource Data

The information used to construct the resource block polygons is maintained in a series of complexly linked Excel worksheets maintained for all exploration and mine areas. The worksheets contain a vast amount of individual sample information such as sampling dates, locations, sample numbers, elevations, widths, and assay results, and additionally for drill holes, collar information, down hole survey data, and down hole sample intervals. The data are organized in a manner such that the information can be plotted on vein long-sections and is used to constrain boundaries of the resource block polygons. The information can be readily retrieved and verified – samples on a vein-by-vein basis, and within each vein on a pocket-by-pocket basis – such that widths, grades and tonnages can be calculated if necessary down to very small blocks or areas within each vein.

## 17.2.3 Resource Block Parameters

Polygonal resource blocks are constructed on the longitudinal veins sections using the following parameters and procedures:

1. **Thickness** – Thicknesses used for resource block calculations represent weighted average of the *horizontal widths* of all samples included in the block area.
2. **Minimum cutoff thickness** for mineralization is 0.10 m. Underground channel samples, collected across the veins every 5 to 7 m along the vein, are composited in groups of 5 to represent approximately 25 m of section along the vein.
3. **Cutoff grades** – The silver-equivalent cutoff grade for the SGX and HZG areas the cutoff grade is 300 g/t. (*Note:* The silver-equivalent cutoff grades do not consider metal recoveries).
4. **Top cut** – A statistically determined 9,019 g/t Ag value is used as a top cut for extremely high silver assay values, however only a handful of assays have to date exceeded that value. No top cut is applied to lead, zinc, copper or gold.
5. **Measured resource blocks** – defined *strictly* by continuous channel or chip samples taken from tunnels and drifts and projected 20m above and below the tunnels and 20m along strike for the SGX mine. Measured blocks are not defined by drill holes.
6. **Indicated resource blocks** – defined as being above and below a measured resource block and are projected no further than 40m away, or they can be defined by drill holes, in which case the blocks are projected up to 80m away to block boundaries defined as mid-points between drill holes.
7. **Inferred resource blocks** – Block projections are limited to 160m where veins have been intersected by deep holes, and limited to 80m where the blocks have not been intersected by drill holes. Resource estimate is calculated by applying a “mineralization ratio” (MR). This ratio is based upon the length of the adjacent tunnel or drift along the vein having values above the equivalent-silver cutoff grade divided by the total length of the tunnel or drift. The MR is used to estimate the portion (tonnage) of the inferred resource block above the cutoff grades.
8. **Weighted averages** – The estimated grades and thicknesses reported for the vein-by-vein resource estimations in this current report are derived from the weighted average of all measured and indicated blocks on the vein.
9. **Specific gravities** used in calculating tonnages of the various resource blocks vary from area-to-area, dependent in part on the grade or character of the mineralization. At HPG a specific gravity of 2.8 is used for all mineralized vein material above the mineralization cutoff grade ( $\geq 150$  g/t Ag-equiv.)

10. **No mining dilution applied** – The “estimated mineral resources” reported herein are in-situ estimates for which no internal or external dilution has been applied. However, the wall rock surrounding the veins is commonly silicified and usually breaks clean from the wall rock, thus minimizing dilution. Further, the method employed for mining these narrow veins is resuing stoping which separately breaks and removes ore from the wallrock.
11. **Excludes mined-out areas** – Areas mined-out as of November 30, 2009, are excluded from the resource blocks.
12. **Includes mineral reserves** – The “estimated mineral resources” reported herein are inclusive of the “estimated mineral reserves” which are separately reported in Section 17.4 of this chapter.

### 17.3 MINERAL RESOURCE ESTIMATES

The total estimated mineral resources of the HPG Mine area, reported by category, are summarized in the following tables. Subsequent tables (in the Appendices) present detailed vein-by-vein resources for each of the mine areas. The following notes/comments are of particular importance as regarding the resources reported in the tables:

1. **Note 1:** As mentioned previously, the mineral resource estimates tabled in this section are **inclusive of mineral reserve estimates** which are presented in section 17.4 of this Chapter.
2. **Note 2:** As mentioned previously, the mineral resource estimates tabled in this section report total estimated in-situ tonnes **without taking into account mining dilution**.
3. **Note 3:** The mineral resource estimates tabled in this section separately report the grades of each potentially payable metal as required by NI 43-101. The tables also report the estimated quantities of each potentially payable metal as **“contained metals.”** These “contained metal” estimates assume metallurgical recoveries of 91% for Ag, 50% for Au, 95% for Pb, and 80% for Zn, but do not include mining factors, such as dilution, as mentioned above.
4. **Note 4:** As mentioned previously, the mineral resource estimates tabled in this section also report **“Ag-equiv.”** (silver-equivalent) grades and quantities as a convenient way to compare tenor and magnitude of these polymetallic veins. Copper, where reported in the tables, is not currently recovered and is therefore excluded from the reported equivalency calculations. The metal prices and metal recoveries used in the equivalencies, as cited in subsection 17.2.1 above, are as follows:

	Metal Prices	Metal Recoveries
Ag	\$6.50/oz	87.20%
Pb	\$0.40/lb	94.70%
Zn	\$0.45/lb	59.10%
Au	\$350/oz	80.00%

### Measured and Indicated Mineral Resource Estimates

*Cautionary Note to U.S. Investors concerning estimates of Measured and Indicated Resources:* The following resource tables use the terms “measured” and “indicated.” U.S. investors are advised that these terms are not recognized by U.S. Securities and Exchange Commission. The

estimation of measured resources and indicated resources involves greater uncertainty as to their existence and economic viability than the estimation of proven and probable reserves. U.S. investors are cautioned not to assume that mineral resources in these categories will be converted into reserves.

**HPG MINE AREA**  
**Measured & Indicated Mineral Resource Estimates**  
**Inclusive of Mineral Reserves**  
(as of December 31, 2010)

Wtd. Horiz. Width (m)	Tonnes (t)	Ag (g/t)	Ag (oz/t)	Pb (%)	Zn (%)	Cu (%)	Au (g/t)	Ag-eq (g/t)	Contained Metal Resource						
									Ag(t)	Ag(oz)	Pb(t)	Zn(t)	Cu(t)	Au(kg)	Ag-equiv (oz)
<b>MEASURED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>															
0.67	68,808	147.5	4.30	10.04	1.97		0.90	616	10.15	326,262	6,909	1,352		61.6	1,362,822
<b>INDICATED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>															
0.89	483,342	86.6	2.53	3.62	1.71		1.44	333	41.86	1,345,929	17,475	8,288		698.3	5,174,317
<b>MEASURED + INDICATED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>															
0.86	552,150	94.2	2.75	4.42	1.75		1.38	363	52.01	1,672,190	24,384	9,640		759.9	6,537,139

**Inferred Mineral Resource Estimates**

*Cautionary Note to U.S. Investors concerning estimates of Inferred Resources:* The following resource tables use the term “inferred.” U.S. investors are advised that this term is not recognized by U.S. Securities and Exchange Commission. The estimation of inferred resources involves far greater uncertainty as to their existence and economic viability than the estimation of other categories of resources. U.S. investors are cautioned not to assume that estimates of inferred mineral resources exist, are economically mineable, or will be upgraded into measured or indicated mineral resources.

**HPG MINE AREA**  
**Inferred Mineral Resource Estimates**  
(as of December 31, 2010)

Wtd. Horiz. Width (m)	Tonnes (t)	Ag (g/t)	Ag (oz/t)	Pb (%)	Zn (%)	Cu (%)	Au (g/t)	Ag-eq (g/t)	Contained Metal Resource						
									Ag(t)	Ag(oz)	Pb(t)	Zn(t)	Cu(t)	Au(kg)	Ag-equiv (oz)
<b>INFERRED MINERAL RESOURCES ≥ 150 G/T AG-EQUIV.</b>															
0.70	373,361	86.5	2.52	3.30	1.83		1.50	683	32.29	1,038,009	12,325	6,848		560.2	8,194,152

**17.4 RESERVE ESTIMATES**

The mineral reserve categories used in this report are those established in the *CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines* as referenced above. The reserve definitions and categories are as follows:

## Mineral Reserve

*“Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proven Mineral Reserves. A Probable Mineral Reserve has a lower level of confidence than a Proven Mineral Reserve.*

“A Mineral Reserve is the economically mineable part of a Measured or Indicated Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Mineral Reserve includes diluting materials and allowances for losses that may occur when the material is mined.

*“Mineral Reserves are those parts of Mineral Resources which, after the application of all mining factors, result in an estimated tonnage and grade which, in the opinion of the Qualified Person(s) making the estimates, is the basis of an economically viable project after taking account of all relevant processing, metallurgical, economic, marketing, legal, environment, socio-economic and government factors. Mineral Reserves are inclusive of diluting material that will be mined in conjunction with the Mineral Reserves and delivered to the treatment plant or equivalent facility. The term ‘Mineral Reserve’ need not necessarily signify that extraction facilities are in place or operative or that all governmental approvals have been received. It does signify that there are reasonable expectations of such approvals.”*

## Probable Mineral Reserve

“A ‘Probable Mineral Reserve’ is the economically mineable part of an Indicated and, in some circumstances, a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.”

## Proven Mineral Reserve

“A ‘Proven Mineral Reserve’ is the economically mineable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This Study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

*“Application of the Proven Mineral Reserve category implies that the Qualified Person has the highest degree of confidence in the estimate with the consequent expectation in the minds of the readers of the report. The term should be restricted to that part of the deposit where production planning is taking place and for which any variation in the estimate would not significantly affect potential economic viability.”*

### 17.4.1 Cut-off Grade Determination

Cut-off grades for the deposit were calculated using the financial model. The following definitions were used:

- **Mineral Reserve** = mineral resource \* mining recovery/mining dilution;
- **Gross Revenue** = mineral reserve \* metallurgical recovery \* metal price;
- **Off-site Costs** = concentrate transport, insurance, bagging;
- **On-site Direct Operating Costs** = mining, hauling, milling, general and administrative costs;
- **Total Cash Operating Cost** = off-site and on-site direct operating costs;
- **Capital Expenditure** = capital costs required for construction and project start-up and ramp up;
- **Sustaining Capital Cost** = capital costs incurred after capital expenditure;
- **Break Even Grade** = (gross revenue) - (total cash operation operating costs) - (sustaining capital cost);

- **Mine Cut-off Grade** = (gross revenue) - (total cash operation operating costs);
- **Mill Cut-off Grade** = (gross revenue) - (off-site costs) - (milling cost) – (G&A cost)

The following cut-off grade (Ag Equiv.) in Table 17-1 uses an average selling price, milling recoveries and operational costs of 2010 in the 2011 Silvercorp fiscal year.

**Table 17-1: Parameters of Cutoff Grade calculation (2010)**

	Items	Units	HPG	HPG (Au)
Metal prices (2010)	Au	US \$ /OZ	900.00	900.00
	Ag	US \$ /OZ	18.00	18.00
	Pb	US \$ /pd	0.83	0.83
	Zn	US \$ /pd	0.67	0.67
	Cu	US \$ /pd	2.40	2.40
Operation costs (2010)	Mining cost	US \$ /t	35.00	35.00
	Sustainable capital	US \$ /t	20.30	20.30
	Hauling cost	US \$ /t	4.00	4.00
	Milling cost	US \$ /t	12.50	12.50
	G&A cost	US \$ /t	2.50	2.50
	Subtotal	US \$ /t	74.30	74.30
Mill recovery (2010)	Au	%	80.00	80.00
	Ag	%	87.30	87.30
	Pb	%	94.70	94.70
	Zn	%	59.10	59.10
	Cu	%		
<b>Cutoff grade</b>	<b>Ag Equiv</b>	<b>g/t</b>	<b>147.07</b>	<b>147.07</b>

#### 17.4.2 Mining Dilution

Dilution is the ratio of waste to ore. The following three types of dilution were considered, and are shown in Figure 17-1:

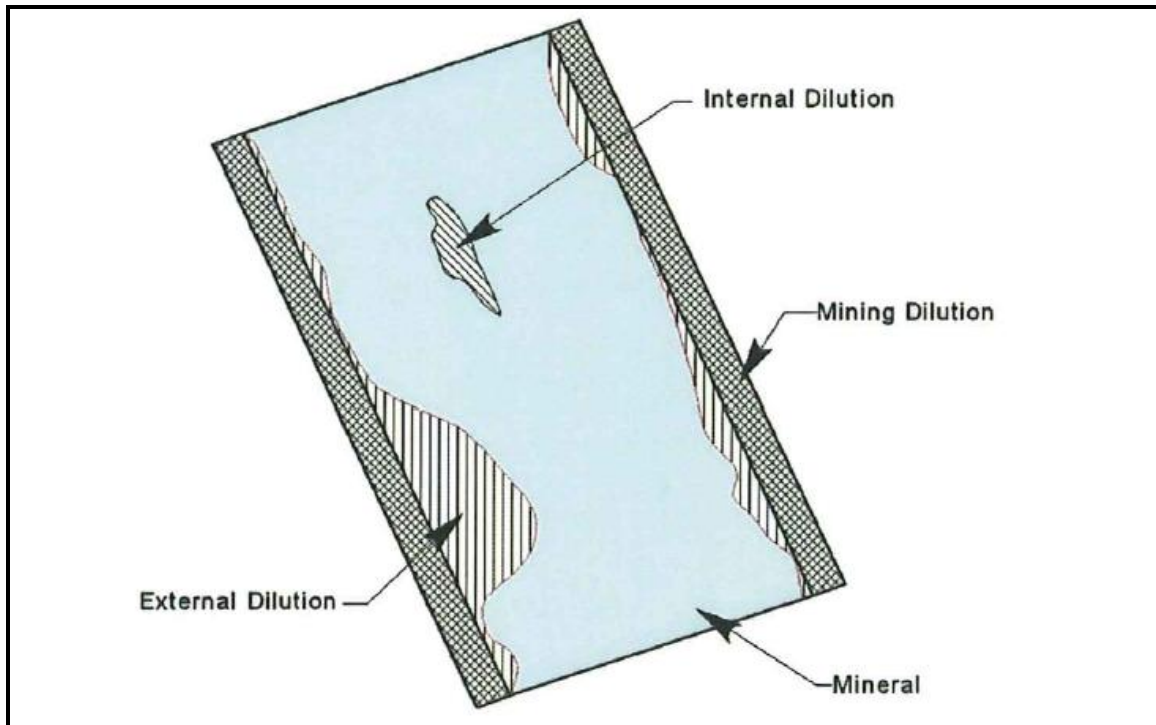
**Internal dilution:** dilution within the vein is the volume of material inside the vein that is below the mine cut-off grade. This may be referred to as incremental ore tonnage that will be recovered in the mining operation.

**External dilution:** dilution outside the vein is the volume of material recovered outside the vein, which is unavoidable for maintaining a minimum mining width.

**Mining dilution:** dilution outside the vein is the overbreaking and caving due to mining operation.

Based on actual mining data from the HPG mine, the Shrinkage stope's dilution rate is about 30%; the Resuing stope's dilution rate is about 25%; Residual-recovering stope's dilution rate is about 30%.





**Figure 17-1: Dilution by Type**

### 17.4.3 Mining Recovery

The mining recovery assumes that minimal pillars will remain in the veins. The stope's crown pillar is unlikely to be recovered. There is the potential to recover the stope's side pillar at the end of stope mining, but part of the ore is lost in stope during mining operations.

Based on actual mining data from the HPG mine, the Shrinkage stope's recovery rate is about 92%; the Resuing stope's recovery rate is about 95%; Residual-recovering stope's recovery rate is about 70%.

### 17.4.4 Ag Equivalent Calculation

The silver equivalent (Ag Equiv.) determination is performed based on the individual grades calculated after applying mining recovery and dilution factors. Table 17-2 presents long term metal prices and actual milling recoveries used in this formula.

$$\begin{aligned}
 \text{g/t Ag-equiv} = & \text{g/t Ag} \times \text{Ag Recovery} \\
 & + \text{g/t Au} \times \text{Au Price/Ag price} \times \text{Au Recovery} \\
 & + \% \text{Pb} \times \text{Pb price} \times \text{Pb Recovery} \times 22.0462 \times 31.1035 / \text{Ag price} \\
 & + \% \text{Zn} \times \text{Zn price} \times \text{Zn Recovery} \times 22.0462 \times 31.1035 / \text{Ag price} \\
 & + \% \text{Cu} \times \text{Cu price} \times \text{Cu Recovery} \times 22.0462 \times 31.1035 / \text{Ag price}
 \end{aligned}$$

**Where:** 1 metric tonne = 2204.622 pounds

1 troy ounce = 31.1035 grams

**Table 17-2: Ag Equivalent, Metal Prices, and Milling Recoveries**

Metals	Unites	Metal Prices	Milling Recovery, %	
			HPG	HPG(Au)
Gold	US\$/oz	350	80.00	80.00
Silver	US\$/oz	6.5	87.30	87.30
Lead	US\$/lb	0.4	94.70	94.70
Zinc	US\$/lb	0.45	59.10	59.10

*Note: metal prices use a long term projected numbers.*

#### 17.4.5 Mineral reserve estimates

To convert mineral resource to mineral reserve, Silvercorp uses the following procedures:

1. Select the resource polygons whose average Ag Equiv. grade is greater than the mine cut-off grade;
2. Calculate the utilizable resources by subtracting: (a) the mine pillars including the safety pillar; (b) the resources below the mine cut-off grade, and (c) the resources that cannot be utilized at 2010 average metal prices.
3. Estimate the mineral reserve by applying appropriate mining recoveries and dilutions.

The Mineral Reserve Estimate of the HPG and HPG (Au) on December 31, 2010 is summarized in Table 17-3, presented in the following page.

It is noted that HPG (Au) just extracts high grade (Au) area of the H16 vein.

**Table 17-3 : Summary of Mineral Reserve in HPG and HPG (Au)**

(December 31, 2010)

(Mining Dilution and mining loss Included )

	Mine Area	Tonnes (t)	weighted avg. grade [1]					Ag-equiv (g/t) [1]	In Situ Metal Reserve [2]					Ag-equiv (oz) [2]
			Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)	Cu (%)		Au (oz)	Ag (oz)	Pb (t)	Zn (t)	Cu (t)	
<b>Proven</b>	HPG	95,777	0.52	103	6.81	1.33		424	1,601	318,276	6,522	1,274		1,304,825
	HPG(Au)	18,000	4.00	0.68	0.62	0.63		217	2,315	394	112	113		125,581
	<b>Total</b>	<b>113,777</b>	<b>1.07</b>	<b>87</b>	<b>5.83</b>	<b>1.22</b>		<b>391</b>	<b>3,916</b>	<b>318,670</b>	<b>6,634</b>	<b>1,387</b>		<b>1,430,406</b>
<b>Probable</b>	HPG	438,435	0.92	70	2.79	1.55		259	12,968	986,719	12,232	6,796		3,648,583
	HPG(Au)													-
	<b>Total</b>	<b>438,435</b>	<b>0.92</b>	<b>70</b>	<b>2.79</b>	<b>1.55</b>		<b>259</b>	<b>12,968</b>	<b>986,719</b>	<b>12,232</b>	<b>6,796</b>		<b>3,648,583</b>
<b>Proven+Probable</b>	HPG	534,212	0.85	76	3.51	1.51		288	14,570	1,304,996	18,755	8,070		4,953,408
	HPG(Au)	18,000	4.00	0.68	0.62	0.63		217	2,315	394	112	113		125,581
	<b>Total</b>	<b>552,212</b>	<b>0.95</b>	<b>74</b>	<b>3.42</b>	<b>1.48</b>		<b>286</b>	<b>16,884</b>	<b>1,305,389</b>	<b>18,866</b>	<b>8,183</b>		<b>5,078,989</b>

Note: [1] Ag-equiv grades and [2] contained metal quantities consider the actual metallurgical metal recoveries

## **18.0 MINERAL DEVELOPMENT AND PRODUCTION ANALYSIS**

### **18.1 MINE ACCESS, INFRASTRUCTURE, MANPOWER, SAFETY, ENVIRONMENT**

#### **Mine Site Access**

The HPG mine is located in a narrow side valley off the Guxian drinking water reservoir. The construction of the Guxian dam cut off the mining area from the previous road access. As a consequence barges are used to cross the water reservoir for transport of the ore from the mine. See Figure 5-1 in Chapter 5.

At the mine site, stockpiled ore is loaded onto 30 ton trucks. The trucks drive onto a barge for a 3 km trip across the Guxian Reservoir and then continue a further 12 km by road to Silvercorp's central mills.

#### **Infrastructure**

Major mine surface infrastructure in the HPG mine includes:

- Office and accommodation facilities
- Power transformer stations
- Explosive magazines
- Maintenance workshops
- Air compressor stations
- Ore stockpiles
- Waste dumps

No significant geotechnical issues were observed with respect to the surface infrastructure. General views of mine surface infrastructures are shown in the Appendix 18-1.

The preliminary design for the Zhuangtou Tailings Storage Facility (TSF) was done by the Maanshan Engineering Exploration and Design Institute (Report dated March 2006). Its capacity is about 2,830,000 m<sup>3</sup>; designed maximum elevation is 650 m. General condition of the Zhuangtou TSF is shown in Appendix 18-2.

Currently, The Zhuangtou TSF (located within the Donggou valley) provides tailings disposal for all mines in the Ying District. Its level has reached 626.5 m. Based on production capacity - 2600 TPD of the Ying district, service life of the Zhuangtou TSF is just a few more years, so Silvercorp is building a second Tailing Storage Facility near the No. 2 Mill.

#### **Manpower**

The HPG mine has approximately 360 contract and direct hire workers at the site. The mine itself employs a staff of 56 people. This includes 1 superintendent, 3 mining engineers, 2 geologists, 1 surveyor, 2 safety engineers, and 2 ore sorting controllers.

The mine is operated by the following three mining contractors that have, in total, hired 304 workers:

- Sanyi Construction Group: employs 156 workers and operates at PD3;
- Wenzhou Jianfeng Engineering Ltd, employs 78 workers and operates at PD5;

- Luoning Xinsheng Engineering Ltd, employs 70 workers and operates at PD2.

## **Occupational Health and Safety**

The following Occupational Health and Safety (OHS) management components are in place for the HPG mine:

- There are 2 safety officers in the OHS department of the HPG mine.
- The OHS department is to provide safety training, enforce the OHS policies and procedures, make recommendations on mine safety issues, and carry out daily inspections of the underground workings and explosive usages.
- Each of the mining contractors is required to appoint one to two safety officers of their own.
- Safety committees comprising of 10 members are maintained for the HPG mine. These safety committees are headed by the General Manager, Deputy General Manager, Mine Superintendent, Safety Department Supervisor, and representatives of mining contractors. The committees are coordinated by each mine's Safety Department and the mine management and the safety officers are required to have valid mine safety training certificates issued by the Provincial Bureau of Safe Production and Inspection.
- Insurance policies covering death and injury have been purchased for all of the staff and workers in the HPG mine.
- The mine and mining contractors supply Personal Protective Equipment (PPE) to their own staff or miners. The PPE includes hard hats, safety boots, work gloves, face masks, safety glasses and ear plugs.
- A contract with the Luoning County General Hospital to take and treat injured workers from all mines, except those treated at the mine clinic.
- 

The following OHS policies and procedures have been established for the HPG mine, in line with the Chinese health and safety laws and regulations:

- Personal responsibilities of safe production for all management, staff and contractors.
- Policies for daily, monthly, and quarterly safety inspections.
- Safety training policies.
- Accident reporting policies.
- High-risk source monitoring policies.
- Correction policies of safety rule breaches.
- Safety management policies for equipment.
- Safety incentives and punishment policies.
- OHS record-filing policies.
- Operating procedures for underground mining equipment.

## **Environmental Protection**

The mining permit and environmental permit are viewed as one document by the Chinese authorities that grant the right to mine. A compliant mining permit is composed of a "Resource Utilization Plan" (RUP), an "Environmental Impact Study" and a "Geological Hazards Assessment Report".

Potential Environmental Management Liabilities mainly include:

1. Dust generation and management;
2. Mine water discharge;
3. Tailing storage management; and
4. Waste rock management.

### **Dust Emissions**

Dust generating sources are primarily from vehicle movements and materials handling. Operational dust management measures mainly include:

1. Regular wetting of roads, waste rock stockpiles and underground mucking sites.
2. Dust suppression and collection equipment on material handling.

### **Mine Waste Water Discharge**

The mine discharge water is required to be settled and treated in settling ponds to produce discharged water that contain less than 0.012 mg/l Pb and less than 1.02 mg/l Zn to satisfy “National Surface Water Quality Standard”, GB3838-2002II water discharge standards.

Waste Water from the milling process is normally recycled, but if discharged, must be treated to satisfy the above standard.

### **Tailing Storage Management**

Tailings from the milling process are disposed of in the tailings dam. As most local people live above the tailings dam, tailings in the tailings dam should not impact on the local population’s drinking water.

### **Waste Rock Management**

Waste rock management includes ensuring that waste rocks do not contain unacceptable levels of lead and zinc. Piling of waste rock is permitted, however it is necessary to perform effective rehabilitation on waste rock dumps.

## **18.2 GEOTECHNICAL AND HYDROLOGY**

### **Geotechnical**

The ore body in the mine area occurs in altered rock. Due to widespread Silicate, the rock in the ore bearing zone becomes compact and hard, its structural integrity is good. The rock surrounding the ore body is mainly gneiss. The stratification is very poor, and the structure is compact in this rock.

The host rock of the H17 and H15 veins consists of gneiss. The quality of the rock mass in the hanging wall and the veins is fair to good. In general the development and the stopes are left unsupported. Locally timber sets support weak sections of the adit cross-cuts. However, these sections are short and of minor importance in relation to the overall mine development.

The design of the mine and the ground support is done on an a needs basis, based on the miner's experience with the local ground conditions.

## Hydrology

At the HPG mine, no major surface water bodies are present, although the Guxian Reservoir is adjacent to the 2.5 km long North-West side of the mine. The reservoir storage capacity is about  $12 \times 108 \text{ m}^3$ . The main water-bearing zones in the mine include weathered bedrock fissure zones and structurally brecciated zones. The breccia zones are mostly exposed or connected through to surface, which means that water ingress is associated with rainfall.

The water emitted by each structural zone appears to represent an isolated water system in that connectivity between different structural zones is limited. Unweathered or unfractured metamorphic and igneous rocks underneath the weathered bedrock fracture zone are relatively impermeable.

## 18.3 POWER AND WATER SUPPLY

### Power Supply

A 10KV high-voltage line leads to the HPG mine from the Luoning Guxian 35KV Substation. Power supplies use self-Link "T"-type access.

Substations in the industrial, office and accommodation area and the PD3 portal transform the voltage from primary 10kV to secondary 380V. In addition, 3 sets of 150kW diesel generators are installed in the immediate vicinity of the PD3 portal to supply back-up power in the event of a hydropower outage.

### Water Supply

Water consumption at the HPG mine is minimal. It is primarily used for drilling, clearing the drill bits, and suppressing dust. At present, the source of water is from local creeks, and established  $100\sim 200 \text{ m}^3$  water ponds at each adit portal. Both water quality and quantity from local creeks is sufficient to meet the mine's requirements.

## 18.4 MINE DEVELOPMENT

An efficient underground mine development system is the key to reducing capital investment, lowering production cost, and increasing profitability. Each individual mine site must utilize a reliable and cost-effective underground development design based on geometry of ore veins, mining techniques, and mining/transport equipment.

Since the HPG mine is located in narrow side valleys, horizontal adits provide easy access from the surface to the veins. The mine utilizes combined mine development systems comprising adit and adit-blind decline. Since acquired, a comprehensive system of transportation, drainage, and

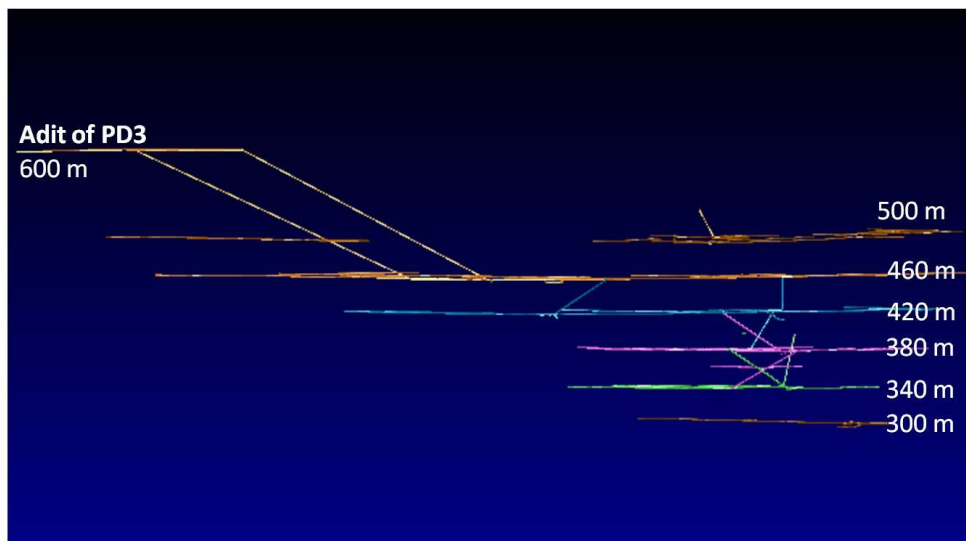
ventilation has been built through extensive mine developments and operations. Currently, PD2, PD3, PD5 and PD640, are actively operated.

Levels, and inter-level access systems are listed in Table 18-1.

At present, PD3 uses the adit - blind decline development system. Ore bodies from the 600m level to the 300m level are accessed by a total of five levels at approximately 40m intervals (460m, 420m, 380m, 340m, and 300m). Construction of blind decline and adit systems providing access to lower levels has been completed and an upgrade of the existing ventilation system is underway. Further development plans include sinking a blind shaft to provide access to ore veins below the 300m level. Figure 18-1 shows the 3D View of the HPG mine development system.

**Table 18-1: Adits, Levels, Inter-Level Access Systems**

Adit Name	Adit Elevation (m)	Inter-Level Access	Level Elevation (m)
PD3	600	Blind Decline	530
		Blind Decline	500
		Blind Decline	500
		Blind Decline	460
		Blind Decline	420
		Blind Decline	380
		Blind Decline	340
PD5	670	Blind Decline	635
		Blind Decline	600
PD640	640	Blind Decline	600
		Blind Decline	560



**Figure 18-1: 3D View of the HPG mine development system (PD3)**



## **18.5 MINING METHOD**

Both Short-Hole Shrinkage Stoping and Re-Suing Stoping have been successfully applied at the HPG mine. Surface collapsing is permitted as no agriculture or other industrial infrastructure or habitation is located in the vicinity of the mine sites.

### **18.5.1 Short-Hole Shrinkage Stoping**

This mine method has been employed worldwide as one of the most successful mining methods for narrow veins. The system begins with drifting along the vein to expose the vein in the back of the drift. A parallel drift outside the vein is then driven from crosscuts, which are driven at approximately 5 m spacing. The crosscuts which intersect the vein act as draw points for the loading out of ore. Raises are driven at each end of the stope.

#### **Stope structure parameters**

As shown in Figure 18-2, the typical size of a stope is 50 m along the strike of the vein and approximately 40 m in height. Two raises approximately 1.8 m by 1.8 m are driven providing access to the stope and for air, water and ventilation services. Veins which are less than 0.8 m thick must be diluted to 0.8 m with the assumption that the waste contains no grade. It is possible to gain 90% ~ 95% mining recovery of in situ resources by this method.

Figure 18-2 below shows typical expected dilution when mining veins less than 0.8 meters thick. Both ore and waste must be mined to open a minimal mining width. This method leaves no bottom pillar; parts of the side pillars are recoverable; a 3m crown pillar is left in situ for safety purposes.

#### **Blasting and mucking**

The mining crew normally consists of two Jack Leg miners using YT-24 pneumatic drills. A 1.8 m round is blasted filling the void below as the mining proceeds upwards. While the crew is mining upwards only approximately 30% of the ore may be extracted from the stope until the entire stope is mined at which point all ore may be extracted. During the initial phase of mining, expected production is 50-75 tons per day per stope. The crew drills and charges the holes with cartridge explosives and ignites the blast with tape fuse. A second crew returns to the stope after the smoke has cleared from the previous round. Ventilation air and water are carried up the raises to the stoping level. Loading of the ore from the draw points is by hand to railcars, diesel tricycle carts or handcarts.

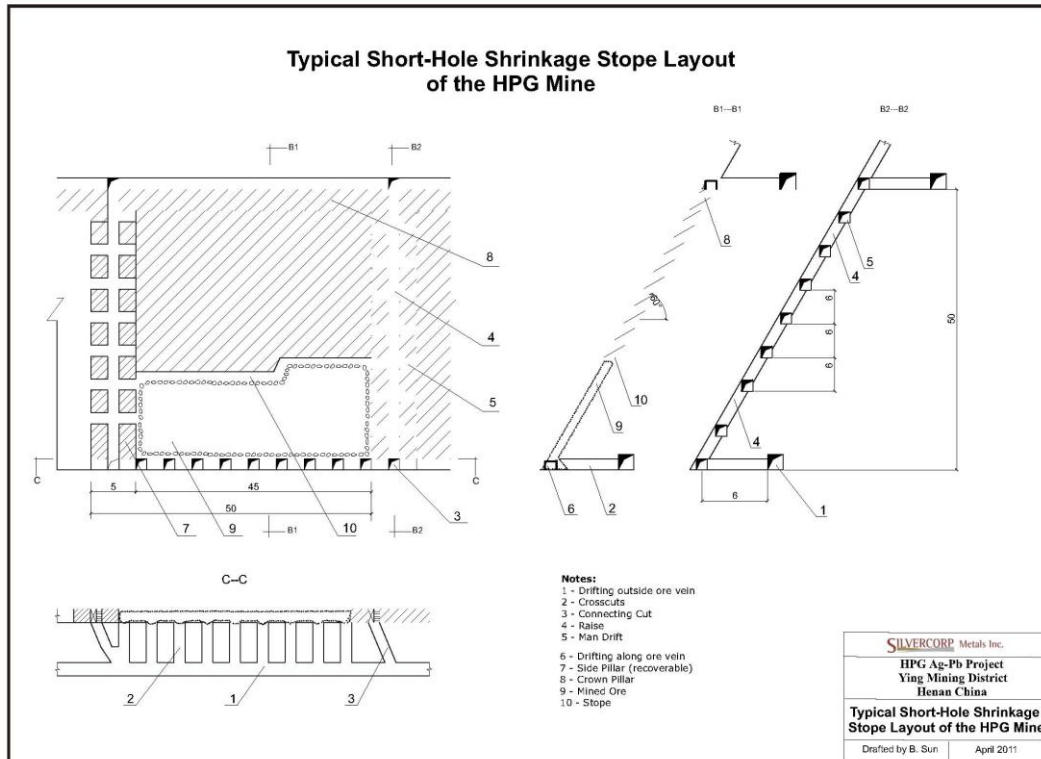
#### **Dilution and Recovery**

Shrinkage stoping is calculated to a minimum mining width of 0.8 m. The Proven and Probable reserves are calculated using a dilution ratio, ranging from 25% to 75%, and mining recoveries ranging from 90% to 95%. The calculation formula of dilution factor is as follows.

$$DF = \frac{(0.8 - V) \times SG_{waste}}{V \times SG_{ore} + (0.8 - V) \times SG_{waste}} \times 100$$

Where:

- V - Width of vein (m);
- SG<sub>waste</sub> - special gravity of waste;
- SG<sub>ore</sub> - special gravity of vein ore.



**Figure 18-2: Typical short-hole shrinkage Stope Layout of the HPG Mine**

### 18.5.2 Re-Suing Stopping

Re-Suing stopes involve first blasting narrow veins between 0.1 and 0.40 m in width. After the ore is blasted and loaded via steel mill holes which are constructed as the stope is mined upwards, the waste on the footwall is blasted to maintain a minimum mining width of 0.8 m. The stope will not contain ore when mining is complete in contrast to the Shrinkage stope. The stope is left filled with waste from the slashing of the footwall necessary to maintain a minimum mining thickness.

### Stope structure parameters

As shown in Figure 18-3, ore bodies are divided along vein strike with length about 50m ~ 80m and height between 20m and 50m. At the bottom of blocks, a series of parallel crosscuts and

connecting cuts intersect with two drifts along and outside the ore vein, which are driven for ore haulage and equipments/personnel access. Two access raises approximately 1.8 m by 1.8 m are driven providing access to the stope and supplying air, water and ventilation services. Veins which are less than 0.3 m thick must be diluted to 0.3 m with the assumption that the waste contains no grade. It is expected that 93-95% mining recovery of in situ resources is possible.

Figure 18-3 below is typical of the expected dilution of veins less than 0.3 meters thick where both ore and waste must be mined to open a minimal mining width. Re-Suing uses no bottom pillar structure; part of side pillars is recoverable when mined out in the stope and a crown pillar is left in situ for safety purpose.

### **Mining sequence**

The mining crew normally consists of two Jack Leg miners who usually use YT-24 drills. A 1.8 m round is blasted and mucked as the mining proceeds upwards. After two rounds are blasted and mucked, the footwall rock would be blasted and used to fill the mined out space. This process is repeated until the crown pillar is reached. The entire stope is left filled with waste from slashing of the footwall.

### **Blasting and mucking**

Blasting uses single-row or diagonal layout hole patterns. Drill hole's depth is about 2 m, and transverse spacing is 0.8 to 1 m. The crew drills and charges the holes with cartridge explosives and ignites the blast with tape fuse. A second crew returns to the stope after smoke has cleared from the previous round to begin mucking the blasted ore and to complete drilling for the next round. Ventilation air and water are carried up the raises to the stoping level. Blasted ore is mucked manually by using handcarts, and is dumped into a steel mill hole. Loading of the ore from the draw points at the bottom end of the steel mill hole is by hand to railcars, diesel tricycle carts or handcarts. Rubber belt is laid on the blast rock floor before drilling and blasting narrow ore veins to prevent mixing of new blasted ore at the top of stope with infilling waste rock . The rubber belt is rolled up and removed before slashing footwall waste.

### **Dilution and Recovery**

Re-Suing stoping is calculated to a minimum blasting width of 0.3 m. The Proven and Probable reserves are calculated using dilution ratios ranging from 25% to 35%, and mining recoveries ranging from 93% to 97%. The calculation formula of dilution factor is as follows.

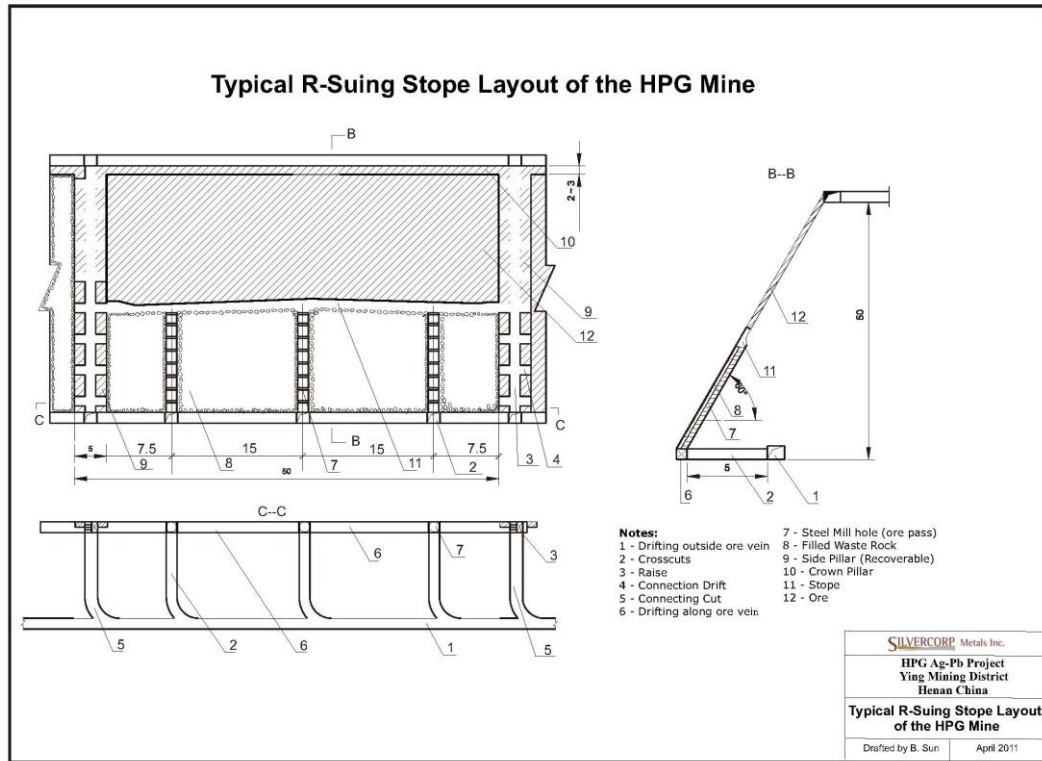
$$DF = \frac{(0.3-V) \times SG_{waste}}{V \times SG_{ore} + (0.3-V) \times SG_{waste}} \times 100$$

Where:

V - Width of vein (m);

SG<sub>waste</sub> – special gravity of waste;

SG<sub>ore</sub> - special gravity of vein ore.



**Figure 18-3 : Typical R-Suing Stope Layout of the HPG Mine**

## 18.6 MINING PLAN AND MINE LIFE

The mining plan was developed taking into considering vein characteristics, ore reserves, mining conditions, and the time line to prepare mine stopes. The HPG mine has been properly developed, allowing for its ore production levels to maintain planned capacity starting from 2011 without any ramping-upperiod.

### Mining Plans

According Table 18-2 lists the tonnes and grades of the planned production schedule for the HPG mine. The production is projected on Proven and Probable mineral reserves using the 149.04 g/t mining cut-off (Ag equivalent) with 93% mining recovery rate and 33% dilution rate. A few of stopes at the HPG mine are higher in Au, and the production schedule for these areas is arranged separately, which is called as the HPG (Au).

Stope's mining sequence follows an advance method that mining activity is from the blind declines to mining boundaries, from top level down to lower levels. Due to the limited ore reserve at each level, it is necessary to extract ore from two or more levels at the same time in order to meet an annual production target of about 60,000 tonnes.

A total of 7 ore veins are divided into 99 stopes, including 57 Resuing (58%) and 42 short-hole shrinkage stopes (42%).

To the mining plan, the reserve accessed by current declines can be mined in about 3 years. To maintain the planned production level, it is very important to speed up the construction of the blind shaft below the 300m level in the PD3.

### Mine Life

The total of current proven and probable reserve is 552,212 tonnes. The production target of the HPG mine is about 60,000 tonnes per year. The mine life is planned to be about nine years. As shown in Table 18-2.

Silvercorp will continue to maintain its rolling development strategy, and invest about US\$ 700,000 per year in sustaining capital on the underground drilling program, see Chapter 21 for detail. The purpose of the program is to upgrade inferred resources to indicated and measured mineral resources through the drilling exploration, to extend the mine life.

**Table 18-2: Production Summary over Mine Life of the HPG mine**

years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
<b>Tonnage</b>	69,000	70,000	60,000	60,000	61,000	60,000	61,000	57,000	54,000	-	<b>552,000</b>
<b>HPG</b>											
years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
<b>Tonnage</b>	60,036	60,929	60,401	60,407	60,614	60,014	60,919	56,903	53,989		<b>534,212</b>
<b>Au (g/t)</b>	0.63	0.60	0.79	1.24	1.32	0.71	0.82	0.77	0.77		<b>0.85</b>
<b>Ag (g/t)</b>	95	121	115	99	65	63	41	38	38		<b>76</b>
<b>Pb (%)</b>	5.93	5.58	5.28	4.03	2.81	2.36	1.89	1.69	1.69		<b>3.51</b>
<b>Zn (%)</b>	1.16	1.13	1.85	1.81	1.57	1.61	1.57	1.46	1.46		<b>1.51</b>
<b>Cu (%)</b>											
<b>HPG (Au)</b>											
years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
<b>Tonnage</b>	9,000	9,000									<b>18,000</b>
<b>Au (g/t)</b>	4.50	3.50									<b>4.00</b>
<b>Ag (g/t)</b>	0.94	0.41									<b>0.68</b>
<b>Pb (%)</b>	0.36	0.88									<b>0.62</b>
<b>Zn (%)</b>	0.49	0.77									<b>0.63</b>
<b>Cu (%)</b>											

## 18.7 ROCK CONVEYANCE

### Haulage

Two major types of haulage systems are employed at the HPG Mine based on the requirements of mine development.

1. Haulage system with railcars. Ore and development waste are loaded into 0.7 m<sup>3</sup> side-tipper railcar, which on track is pushed by miners along drifting. The declines are equipped with electric winches, which are able to pull two railcars at a time. At the Adit level, miners push railcars to the surface and dump either to ore stockpiles or to the waste dump. It is used in the PD3 and PD2 of the HPG mine.
2. Mixed haulage system with handcarts and tricycle trucks: Rock haulage from the stopes and development faces to the Adit level is performed by one-axle handcarts with pneumatic tires. One person can pull a handcart, which contains about 800 kg of ore when loaded. Electric winches assist the haulage miners pulling the handcarts on the inter-level decline. At the Adit level, rocks are hauled to a transfer station where the materials are unloaded into motorized tricycle trucks. The tricycle trucks haul rocks to the surface and are dumped either to the ore stockpiles or to the waste dump. This method is used at PD5 of the HPG mine.

### Winching

The blind decline at PD3 is separated into two stages. Both of them utilize a 25 degree slope, and hoist a group of 0.70 m<sup>3</sup> railcars. The hoists also complete raising of the ore, waste rock, materials and personnel.

The first stage decline is from the 460m to 600m level, and its length is about 334m; it uses a JTP-1.6 × 1.0 winch with a 132 kw motor. The Second stage decline is from the 300m to 460m level, and its length is about 379 m; it uses a JTP-1.2 × 1.0 winch with a 132 kw motor.

## 18.8 VENTILATION

### Ventilation System

A central diagonal ventilation system is utilized at HPG mine. Fresh air enters the 600m, 460m, 420m, and 380m levels from PD3 adit entrance via corresponding blind declines. Contaminated air returns to PD2 adit via ventilation raises, and then is exhausted to surface by a main axial fan.

For the air requirements of stopes, working faces and chambers, the total volume of air flow was determined at 15m<sup>3</sup>/s when an air leakage coefficient of 1.5 was taken into account. Ventilation resistance of the tunnel system was calculated at 73.8 mmH<sub>2</sub>O. A K45-10 axial ventilation fan is installed at the entrance of PD2 Adit.

### Ventilation Facilities

Reversing air flow is generated by counter-rotating the installed fan in the HPG mine. A reversing switch is found on the fan's control panel. Emergency exits and underground ventilation doors can be opened both ways to permit reverse air flow.

A series of air doors, air windows and sealed walls have been installed in the ventilation system. Unused tunnels, drifts, mill holes have been sealed to enhance ventilation.

## 18.9 COMPRESSED AIR

Compressed air facilities at the HPG mine are provided by utilizing electrically powered two-stage piston compressors. They connect with steel and plastic piping for air distribution.

Compressed air is mainly used for drilling blast holes. Currently, YT-24 jack leg drilling is used in stopes and working faces. Selection of compressor model, capacity and units is based on actual air volume consumed in each adit. Following are the major compressor capacities:

PD3:	3×20m <sup>3</sup> /min
PD5:	2×20m <sup>3</sup> /min

## 18.10 WATER DISCHARGE

Water discharge is safely facilitated under the requirement from “Chinese Safety regulations of Metal and Nonmetal mines”. The following relative requirements are observed in the HPG mine:

- The capacity of working water pumps should discharge the normal water inflow of the day within 20 hours;
- The capacity of all water pumps should discharge the maximum water inflow of the day within 20 hours, with the exception of when pumps are being maintained;
- Two pipe lines with the same size are installed in a shaft or decline, one for working and the other for standby;
- The sump should store 6~8 hours of normal water inflow.

According to actual data from the operation, the normal water inflow is 27 m<sup>3</sup>/h, and the maximum water inflow is 46 m<sup>3</sup>/h at the 460m level.

Water discharge is divided into three stages: the first stage is from the 380m level to the 420m level; the second stage is from the 420m level to the 460m level; the third stage is from the 460m level to PD3 (600m) adit level.

For the first and second stages, the water pump’s model is 100D-16×3. The water head is 48m; the designed discharge capacity is 54 m<sup>3</sup>/h; the power is 13 kw. For the third stage, the water pump’s model is 125D-25×7. The Water head is 175m; the designed discharge capacity is 72 m<sup>3</sup>/h; the power required is 75 kw.

Three water pump units are installed in each pump chamber: one unit is running, one unit is being maintained, and the other is on standby.

## 18.11 CONTRACT MINING

There are four types of contracts pertaining to the major activities of mining, diamond drilling, hauling, and concentrate sale.

### Mining Contracts

The HPG mine utilizes contract labor for mining on a rate per ton or a rate per meter basis. The contract includes all labor, all fixed and mobile equipment, materials, and consumables including

fuel and explosives which are purchased through the company. Ground support consumables such as timber and power to the portal areas are the responsibility of the company. Table 18-3, Table 18-4 and Table 18-5 list 2010 cost schedule at the HPG mine.

**Table 18-3: 2010 Cost Schedule for Mining at the HPG mine**

Drift Size (m)	RMB/m	US\$/m	Notes
2.2x2.0	825	126.92	Major drifting
2.0x2.0	775	119.23	Drifting along veins
2.0x1.8	725	111.54	Drifting along veins
1.8x1.8	690	106.15	Drifting along veins
1.8x1.6	<b>665</b>	102.31	Drifting along veins
2.2x2.0	925	142.31	Sump drifting
1.8x1.6	815	125.38	Raise

**Table 18-4: 2010 Basic Rates for Mining Methods**

Methods	Under adit	
	RMB/t	US\$/t
Short-hole shrinkage stope	65.5	10.08
Resuing stope	156.5	24.08

**Table 18-5: 2010 Ground Support Rates**

Types	Units	Rates		Remark
		RMB	US\$	
Timber Support	Frame	70.00	10.77	Material is not included
Steel Support	Frame	100.00	15.38	Material is not included
Shot Crete	m <sup>2</sup>	52.00	8.00	Material is included, ≥2cm in thickness
Concrete	m <sup>3</sup>	650.00	100.00	Material is included , standard C20
Rock Bolt	Piece	20.00	3.08	Material is not included

### Diamond Drilling Contracts

Table 18-6 shows the contract rates of diamond drilling in Ying District.



**Table 18-6: 2008 Diamond Drilling Rate**

Type of Drill	Basic Rates							
	RMB/m				US\$/m			
Surface Drill	PQ	HQ	NQ	BQ	PQ	HQ	NQ	BQ
<200m	640	550	500		94.12	80.88	73.53	
200m-400m	750	610	560		110.29	89.71	82.35	
400m-600m		680	630			100	92.65	
600m-800m		750	700	630		110.29	102.94	92.65
Underground drill-short hole (1 to 300m)			200			29.41		
Underground drill-deep hole (>=300m)			260			38.24		

### Ore Shipping Contracts

Ore shipping from the mine site to Silvercorp's central mill is carried out using trucks with barging for HPG mine. Trucks are owned by local villagers, and the barge is owned by a local contractor. The all-in cost is US\$4 per ton for the HPG mine.

### Concentrate Sales Contracts

As a general practice, Silvercorp sells its lead and zinc concentrates directly to local smelters instead of paying treatment charges and selling metals on the markets. Silvercorp is responsible only for packaging and uploading of concentrates. Concentrate sales prices in December of 2010 are shown in Table 18-7 and Table 18-8.

**Table 18-7: Sale Prices of Pb Concentrates in December of 2010**

Pb content	Price ( RMB/t )	Ag ( g/t )	Price factor ( RMB/g )	Au ( g/t )	Price factor ( RMB/g )
≥60%	A - 2000	≥5000	B * 89%	≥1.0	C * 80%
≥55%	A - 2100	≥4500	B * 88.5%	≥2.0	C * 81%
≥50%	A - 2200	≥4000	B * 88%	≥3.0	C * 82%
≥45%	A - 2300	≥3500	B * 87.5%	≥5.0	C * 83%
≥40%	A - 2400	≥3000	B * 87%	≥7.0	C * 84%
≥35%	A - 2900	≥2500	B * 86.5%	≥10.0	C * 85%
		≥2000	B * 86%	≥15.0	C * 86%
		≥1500	B * 85.5%	≥20.0	C * 87%
		≥1000	B * 85%		
		≥500	B * 82%		

Notes: A, B and C are online prices of Pb, Ag and Au respectively; A and B price have included 17% "added value tax".

**Table 18-8: Sale Prices of Zn Concentrates in December of 2010**

Zinc Content	Online Price ( RMB/t )	Sale Price ( RMB/t )
≥45%	≤ 15,000	D – 5,200
	>15,000	(D – 5,200) + (D – 15,000)×20%
40 ~ 45%	≤ 15,000	(D–5800) – (45-Grade)*45
	>15,000	(D – 5,200) + (D – 15,000)×20% – (45-Grade)*45

Notes: D is online price that has included 17% “added value tax”. Grade is Zinc content in the concentrate.

## 18.12 MARKETS

Within a 300 km range from the Ying District, there are more than five lead smelters with a combined smelting capacity of 1,000,000 tonnes of lead metal. While the smelters purchase the majority of the lead concentrate feed in the domestic market, many of them have to import from overseas. Silvercorp has therefore been able to negotiate favorable payment terms for its domestic produced concentrates.

Currently, the Company sells its lead concentrate to five lead producers, and its zinc concentrate to two zinc producers.

## 18.13 CAPITAL AND OPERATION COSTS

### Capital Costs

Capital costs are used for major mine development, including shaft sinking, equipment purchase, installation, main access drifting, etc. The Table 18-9 is an estimate of the capital costs for HPG and HPG Gold mines combined. Estimates are based on the current mine contract rates.

**Table 18-9: Capital Cost at HPG and HPG Gold mines (‘000US\$)**

Year	HPG	HPG (Au)	Total
2011	2,280	26	<b>2,306</b>
2012	1,433	-	<b>1,433</b>
2013	851	-	<b>851</b>
2014	1,169	-	<b>1,169</b>
2015	898	-	<b>898</b>
2016	827	-	<b>827</b>
2017	467	-	<b>467</b>
2018	314	-	<b>314</b>
2019	-	-	-
<b>Total</b>	<b>8,239</b>	<b>26</b>	<b>8,265</b>

## Operation Costs

The Table 18-10 summarizes the operational costs. Mining, Milling, Shipping and General & admin costs are based on historical production figures. Sustaining capital costs are estimated based on the current mine contract rates.

**Table 18-10: Operational costs (US\$/tonne)**

Year	HPG	HPG (Au)
Mining	35.00	35.00
Average sustaining capital	1.51	3.44
Milling	12.50	12.50
Shipping	4.00	4.00
G&A	2.50	2.50
<b>Total</b>	<b>\$ 55.51</b>	<b>\$ 57.44</b>

## Taxes

China levies 17% Value-Added Tax (“VAT”) on goods. 17% VAT input credit on purchased materials, power and machineries can be used to offset 17% VAT levied on silver, lead, zinc and copper products. No VAT is charged for selling gold. As a Sino-foreign joint venture, Henan Huawei has a reduced income tax rate of 12.5% in 2011. Thereafter, income tax rate will be 25%. Mining companies in China are required to pay 2% Resource tax on revenue for metal products sold. In addition, city construction taxes and education taxes are levied on approximately 10% of VAT.

## 18.14 ECONOMIC ANALYSIS

### Financial Summary

The Table 18-11 to Table 18-13 show the cash flow analysis of each mine over its mine life. Metal prices used are NSR which is average selling price, net of VAT and smelter charges.

**Summary:** Silvercorp's share of net cash flows from HPG and HPG Gold mines combined is \$18.3 million.

**HPG Mine:** assuming total production cost of \$55.51 per tonne and using metal recoveries of 87.2%, 94.7% and 59.1% for silver, lead and zinc, respectively, Silvercorp's share (80%) of projected net cash flows is \$17.7 million over its nine years mine life.

**HPG Gold Mine:** assuming total production cost of \$57.44 per tonne and using metal recoveries of 80%, 87.3%, 94.7% and 59.1% for gold, silver, lead and zinc, respectively, Silvercorp's share (80%) of projected net cash flows is \$0.56 million over its two years mine life.

The expected capital expenditures are \$8.2 million and \$0.03 million for HPG and HPG Gold mines, respectively. The payback periods are 2 year and 0.1 year, respectively.

**Table 18-11: HPG and HPG (Au) Mines Combined – Cash Flow Analysis Summary**

Table 18-11: HPG and HPG (Au) mines Combined - Cash Flow Analysis Summary

	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Total
Ore mined/milled (tonne)	69,036	69,929	60,401	60,407	60,614	60,014	60,919	56,903	53,989	-	552,212
<b>Metal Production:</b>											
Au (ounces)	2,015	1,750	1,227	1,927	2,058	1,096	1,285	1,127	1,069	-	13,554
Ag (ounces)	160,672	207,286	194,588	167,394	111,248	105,278	70,924	60,244	57,159	-	1,134,792
Pb (pounds)	7,498,294	7,261,402	6,656,399	5,081,030	3,555,039	2,956,144	2,403,105	2,007,162	1,904,383	-	39,322,958
Zn (pounds)	964,571	987,079	1,455,508	1,424,173	1,239,582	1,258,569	1,245,799	1,082,147	1,026,734	-	10,684,163
Cu (pounds)	-	-	-	-	-	-	-	-	-	-	-
<b>Metal price (net of smelter charges and value added tax)</b>											
Au (US\$/oz) (\$1,400US/oz*65%)	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00
Ag (US\$/oz) (\$24US\$/oz*87.5%/1.17)	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00
Pb (US\$/lb) (\$1.12US\$/lb*87%/1.17)	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Zn (US\$/lb) (\$1.14US\$/lb*68%/1.17)	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Cu (US\$/lb) (\$4.00US\$/lb*70%/1.17)	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
<b>Revenue</b>											
Au (US\$)	1,813,054	1,575,428	1,104,572	1,733,924	1,852,139	986,356	1,156,342	1,014,257	962,321	-	12,198,394
Ag (US\$)	2,892,105	3,731,141	3,502,576	3,013,088	2,002,467	1,895,001	1,276,632	1,084,385	1,028,857	-	20,426,251
Pb (US\$)	6,223,584	6,026,964	5,524,811	4,217,255	2,950,682	2,453,599	1,994,577	1,665,945	1,580,638	-	32,638,055
Zn (US\$)	646,263	661,343	975,190	954,196	830,520	843,241	834,686	725,038	687,912	-	7,158,389
Cu (US\$)	-	-	-	-	-	-	-	-	-	-	-
<b>Total (US\$)</b>	<b>11,575,006</b>	<b>11,994,876</b>	<b>11,107,150</b>	<b>9,918,463</b>	<b>7,635,808</b>	<b>6,178,197</b>	<b>5,262,236</b>	<b>4,489,625</b>	<b>4,259,728</b>	<b>-</b>	<b>72,421,089</b>
<b>Operational costs</b>											
Mining costs (US\$)	2,416,260	2,447,514	2,114,034	2,114,235	2,121,507	2,100,487	2,132,148	1,991,600	1,889,618	-	19,327,403
Sustaining capital costs (US\$)	384,984	137,882	66,617	124,713	115,418	22,464	-	15,492	-	-	867,569
Milling costs	862,950	874,112	755,012	755,084	757,681	750,174	761,482	711,286	674,864	-	6,902,644
Shipping cost	276,144	279,716	241,604	241,627	242,458	240,056	243,674	227,611	215,956	-	2,208,846
General and admin expenses (US\$)	172,590	174,822	151,002	151,017	151,536	150,035	152,296	142,257	134,973	-	1,380,529
<b>Total production costs</b>	<b>4,112,927</b>	<b>3,914,045</b>	<b>3,328,269</b>	<b>3,386,675</b>	<b>3,388,600</b>	<b>3,263,216</b>	<b>3,289,600</b>	<b>3,088,247</b>	<b>2,915,411</b>	<b>-</b>	<b>30,686,991</b>
Resource tax (US\$, 2% of total revenue)	231,500	239,898	222,143	198,369	152,716	123,564	105,245	89,792	85,195	-	1,448,422
Pre-income tax net profit (US\$)	7,230,579	7,840,933	7,556,738	6,333,419	4,094,491	2,791,418	1,867,392	1,311,585	1,259,123	-	40,285,677
Income taxes	903,822	1,960,233	1,889,184	1,583,355	1,023,623	697,854	466,848	327,896	314,781	-	9,167,597
Net profit after income taxes (US\$)	6,326,756	5,880,700	5,667,553	4,750,064	3,070,869	2,093,563	1,400,544	983,689	944,342	-	31,118,080
Capital expenditures (US\$)	2,306,274	1,433,445	850,940	1,168,691	898,222	826,477	467,155	314,214	-	-	8,265,418
Net cash flows 100% (US\$)	4,020,482	4,447,254	4,816,613	3,581,373	2,172,647	1,267,087	933,388	669,475	944,342	-	22,852,662
Silvercorp's share of net cash flows (US\$)	3,216,386	3,557,804	3,853,291	2,865,099	1,738,118	1,013,669	746,711	535,580	755,474	-	18,282,130
Unit silver production costs, adjusted for by-product credits	(28.44)	(20.98)	(21.98)	(21.02)	(20.18)	(9.69)	(9.81)	(5.26)	(5.52)	-	(18.78)

**Table 18-12: Cash Flow Analysis for Mine Plan at the HPG Mine**

Table 18-12: Cash Flow Analysis for Mine Plan at the HPG Mine

	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Total	
Ore mined/milled (tonne)	60,036	60,929	60,401	60,407	60,614	60,014	60,919	56,903	53,989	-	534,212	
Grade:												
Au (g/t)	0.63	0.60	0.79	1.24	1.32	0.71	0.82	0.77	0.77	-		
Ag (g/t)	95.21	121.15	114.78	98.73	65.39	62.50	41.48	37.72	37.72	-		
Pb (%)	5.93%	5.58%	5.28%	4.03%	2.81%	2.36%	1.89%	1.69%	1.69%	-		
Zn (%)	1.16%	1.13%	1.85%	1.81%	1.57%	1.61%	1.57%	1.46%	1.46%	-		
Cu (%)	-	-	-	-	-	-	-	-	-	-		
Recovery rate:												
Au (%)	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%		
Ag (%)	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%		
Pb (%)	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%		
Zn (%)	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%		
Cu (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Metal Production:												
Au (ounces)	973	940	1,227	1,927	2,058	1,096	1,285	1,127	1,069	-	11,702	
Ag (ounces)	160,435	207,182	194,588	167,394	111,248	105,278	70,924	60,244	57,159	-	1,134,451	
Pb (pounds)	7,430,669	7,096,097	6,656,399	5,081,030	3,555,039	2,956,144	2,403,105	2,007,162	1,904,383	-	39,090,028	
Zn (pounds)	907,128	896,812	1,455,508	1,424,173	1,239,582	1,258,569	1,245,799	1,082,147	1,026,734	-	10,536,452	
Cu (pounds)	-	-	-	-	-	-	-	-	-	-	-	
Metal price (net of smelter charges and value added tax)												
Au (US\$/oz) (\$1,400US/oz*65%)	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00		
Ag (US\$/oz) (\$24US\$/oz*87.5%/1.17)	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00		
Pb (US\$/lb) (\$1.12US\$/lb*87%/1.17)	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83		
Zn (US\$/lb) (\$1.14US\$/lb*68%/1.17)	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67		
Cu (US\$/lb) (\$4.00US\$/lb*70%/1.17)	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40		
Revenue												
Au (US\$)	875,539	846,249	1,104,572	1,733,924	1,852,139	986,356	1,156,342	1,014,257	962,321	-	10,531,700	
Ag (US\$)	2,887,831	3,729,277	3,502,576	3,013,088	2,002,467	1,895,001	1,276,632	1,084,385	1,028,857	-	20,420,113	
Pb (US\$)	6,167,456	5,889,760	5,524,811	4,217,255	2,950,682	2,453,599	1,994,577	1,665,945	1,580,638	-	32,444,723	
Zn (US\$)	607,776	600,864	975,190	954,196	830,520	843,241	834,686	725,038	687,912	-	7,059,423	
Cu (US\$)	-	-	-	-	-	-	-	-	-	-	-	
Total (US\$)	10,538,601	11,066,151	11,107,150	9,918,463	7,635,808	6,178,197	5,262,236	4,489,625	4,259,728	-	70,455,959	
Operational costs												
Mining costs (US\$)	35.00 US\$/tonne	2,101,260	2,132,514	2,114,034	2,114,235	2,121,507	2,100,487	2,132,148	1,991,600	1,889,618	-	18,697,403
Sustaining capital costs (US\$)	-	338,507	122,389	66,617	124,713	115,418	22,464	-	15,492	-	-	805,600
Milling costs	12.50 US\$/tonne	750,450	761,612	755,012	755,084	757,681	750,174	761,482	711,286	674,864	-	6,677,644
Shipping cost	4.00 US\$/tonne	240,144	243,716	241,604	241,627	242,458	240,056	243,674	227,611	215,956	-	2,136,846
General and admin expenses (US\$)	2.50 US\$/tonne	150,090	152,322	151,002	151,017	151,536	150,035	152,296	142,257	134,973	-	1,335,529
Total production costs		3,580,450	3,412,553	3,328,269	3,386,675	3,388,600	3,263,216	3,289,600	3,088,247	2,915,411	-	29,653,022
Resource tax (US\$, 2% of total revenue)	2%	210,772	221,323	222,143	198,369	152,716	123,564	105,245	89,792	85,195	-	1,409,119
Pre-income tax net profit (US\$)		6,747,379	7,432,275	7,556,738	6,333,419	4,094,491	2,791,418	1,867,392	1,311,585	1,259,123	-	39,393,819
Income tax rate		12.5%	25%	25%	25%	25%	25%	25%	25%	25%	25%	
Income taxes		843,422	1,858,069	1,889,184	1,583,355	1,023,623	697,854	466,848	327,896	314,781	-	9,005,032
Net profit after income taxes (US\$)		5,903,956	5,574,206	5,667,553	4,750,064	3,070,869	2,093,563	1,400,544	983,689	944,342	-	30,388,786
Capital expenditures (US\$)		2,279,905	1,433,445	850,940	1,168,691	898,222	826,477	467,155	314,214	-	-	8,239,048
Net cash flows 100% (US\$)		3,624,052	4,140,761	4,816,613	3,581,373	2,172,647	1,267,087	933,388	669,475	944,342	-	22,149,738
Silvercorp's share of net cash flows (US\$) (80.0%)		2,899,241	3,312,608	3,853,291	2,865,099	1,738,118	1,013,669	746,711	535,580	755,474	-	17,719,790
Unit silver production costs, adjusted for by-product credits		(25.37)	(18.94)	(21.98)	(21.02)	(20.18)	(9.69)	(9.81)	(5.26)	(5.52)	-	(17.97)

**Table 18-13: Cash Flow Analysis for Mine Plan at the HPG (Au) Mine**

	Year 2011	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Total
Ore mined/milled (tonne)	9,000	9,000	-	-	-	-	-	-	-	-	18,000
Grade:											
Au (g/t)	4.50	3.50	-	-	-	-	-	-	-	-	
Ag (g/t)	0.94	0.41	-	-	-	-	-	-	-	-	
Pb (%)	0.36%	0.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Zn (%)	0.49%	0.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Cu (%)	-	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Recovery rate:											
Au (%)	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	
Ag (%)	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	
Pb (%)	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	94.7%	
Zn (%)	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	59.1%	
Cu (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Metal Production:											
Au (ounces)	1,042	810	-	-	-	-	-	-	-	-	1,852
Ag (ounces)	237	104	-	-	-	-	-	-	-	-	341
Pb (pounds)	67,625	165,305	-	-	-	-	-	-	-	-	232,930
Zn (pounds)	57,443	90,268	-	-	-	-	-	-	-	-	147,711
Cu (pounds)	-	-	-	-	-	-	-	-	-	-	-
Metal price (net of smelter charges and value added tax)											
Au (US\$/oz) (\$1.400US\$/oz*65%)	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	900.00	
Ag (US\$/oz) (\$24US\$/oz*87.5%/1.17)	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	
Pb (US\$/lb) (\$1.12US\$/lb*87%/1.17)	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	
Zn (US\$/lb) (\$1.14US\$/lb*68%/1.17)	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	
Cu (US\$/lb) (\$4.00US\$/lb*70%/1.17)	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	
Revenue											
Au (US\$)	937,515	729,178	-	-	-	-	-	-	-	-	1,666,693
Ag (US\$)	4,274	1,864	-	-	-	-	-	-	-	-	6,138
Pb (US\$)	56,129	137,203	-	-	-	-	-	-	-	-	193,332
Zn (US\$)	38,487	60,479	-	-	-	-	-	-	-	-	98,966
Cu (US\$)	-	-	-	-	-	-	-	-	-	-	-
Total (US\$)	1,036,405	928,725	-	-	-	-	-	-	-	-	1,965,130
Operational costs											
Mining costs (US\$)	35.00 US\$/tonne	315,000	315,000	-	-	-	-	-	-	-	630,000
Sustaining capital costs (US\$)	-	46,477	15,492	-	-	-	-	-	-	-	61,969
Milling costs	12.50 US\$/tonne	112,500	112,500	-	-	-	-	-	-	-	225,000
Shipping cost	4.00 US\$/tonne	36,000	36,000	-	-	-	-	-	-	-	72,000
General and admin expenses (US\$)	2.50 US\$/tonne	22,500	22,500	-	-	-	-	-	-	-	45,000
Total production costs		532,477	501,492	-	-	-	-	-	-	-	1,033,969
Resource tax (US\$, 2% of total revenue)	2%	20,728	18,575	-	-	-	-	-	-	-	39,303
Pre-income tax net profit (US\$)		483,200	408,659	-	-	-	-	-	-	-	891,858
Income tax rate		12.5%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Income taxes		60,400	102,165	-	-	-	-	-	-	-	162,565
Net profit after income taxes (US\$)		422,800	306,494	-	-	-	-	-	-	-	729,294
Capital expenditures (US\$)		26,369	-	-	-	-	-	-	-	-	26,369
Net cash flows 100% (US\$)		396,431	306,494	-	-	-	-	-	-	-	702,924
Silvercorp's share of net cash flows (US\$) (80.0%)		317,144	245,195	-	-	-	-	-	-	-	562,340
Unit gold production costs, adjusted for by-product credits		416.24	372.68	-	-	-	-	-	-	-	397.18

## Sensitivity

For HPG Mine, the financial results are most sensitive to the fluctuation of silver and lead prices. For HPG Gold Mine, the financial results are most sensitive to the fluctuation of gold prices. The Table 18-14 to 18-15 show the net cash flows for each mine under different silver and lead price. The prices showed are NSR, which is the net selling price, net of VAT and smelter charges.

**Table 18-14: Sensitivity analysis: net cash flows vs.NSR for HPG**

**Table 18-14: Sensitivity analysis: net cash flows vs. NSR for HPG**

Net cash flows (million US\$)		Silver NSR (US\$/oz)				
		\$ 14.00	\$ 16.00	\$ 18.00	\$ 20.00	\$ 22.00
Lead NSR (US\$/lb)	\$ 0.63	\$ 12.8	\$ 14.5	\$ 16.2	\$ 17.9	\$ 19.6
	\$ 0.73	\$ 15.8	\$ 17.5	\$ 19.2	\$ 20.9	\$ 22.6
	\$ 0.83	\$ 18.7	\$ 20.4	\$ 22.1	\$ 23.9	\$ 25.6
	\$ 0.93	\$ 21.7	\$ 23.4	\$ 25.1	\$ 26.8	\$ 28.5
	\$ 1.03	\$ 24.7	\$ 26.4	\$ 28.1	\$ 29.8	\$ 31.5

**Table 18-15: Sensitivity analysis: net cash flows vs.NSR for HPG (Au)**

**Table 18-15: Sensitivity analysis: net cash flows vs. NSR for HPG (Au)**

Net cash flows ('thousands US\$)		Gold NSR (US\$/oz)				
		\$ 700	\$ 800	\$ 900	\$ 1,000	\$ 1,100
		\$ 405	\$ 554	\$ 703	\$ 852	\$ 1,001



## 19.0 OTHER RELEVANT DATA AND INFORMATION

Other information of relevance includes knowledge and data pertaining to various operational issues such as mine site access, mine permitting, mining methods, mine design, mine ventilation, hydrology, ore sorting, ore haulage, ore milling, direct shipping ore, power supplies, manpower, metal markets, environmental permitting and similar issues, health and safety, capital costs, and operating costs. Some of the more positive relevant features in the Ying District operation are:

- Locally available power supply for the mine and mill facilities,
- Abundant low-cost labor supply offers a major economic advantage over similar deposits in other parts of the world,
- Proximity to a number of existing custom mills and smelters, as well as to Silvercorp's own fully operational 1000 tpd mill,
- Topography that favors access to the veins by driving horizontal tunnels from the sides of the narrow valleys,
- Ground conditions which allow the use of shrinkage stopes, providing 95% ore recoveries with minimum dilution,
- Wall rock in the workings is competent and blocky Archean gneiss that acts as an aquiclude; seepage from groundwater is low.
- Several horizontal portals created for exploration are used to provide fast and effective access for moving ore from the underground workings,
- Prices for silver, lead and zinc quoted on the Shanghai Metal Exchange are about 13% above world prices due to a 13% Value Added Tax on metal imports levied by the Chinese government,
- Silvercorp's safety program, which exceeds Chinese standards and has to date recorded no serious injuries or death.

The only issue of minor concern is the unlikely event of a natural catastrophe such as a major flood or earthquake that could impact safety or the environment.

## 20.0 INTERPRETATION AND CONCLUSIONS

Silvercorp's operations in the Ying District consist of several producing projects containing significant defined silver-lead-zinc resources and reserves. Additionally the project has a number of interesting to promising outlying targets that have not yet been thoroughly explored. The district lies in one of China's most densely populated provinces, albeit currently only a minor mining province. The mine areas and outlying occurrences are mesothermal-type mineral deposits typical of the world's prolific orogenic structural-lithologic belts.

The underground operations in the district include five mining permits and a substantial current mining infrastructure. Silvercorp has defined significant Ag-Pb-Zn resources and reserves that are adjacent to existing underground workings at its several mines, and the many other Ag-Pb-Zn veins that cross the district have potential to host additional deposits of similar size and quality to those already defined or mined. The company's exploration and development efforts to date suggest that new discoveries in the district can probably be brought into production rather quickly.

The known geology and existing data indicate that in-fill and step-out tunneling and underground drilling campaigns stand a very good chance of significantly extending and expanding the known mineral resources as well as discovering new areas or pockets of vein mineralization along strike and to depth. None of the mine areas have yet been explored to great depth. The mesothermal Ag-Pb-Zn vein model predicts that some, perhaps many, of the vein systems in the Ying District could persist with mineable widths and grades to considerable depth, perhaps to depths of 2,000 meters or more, as currently being mined in the Coeur d'Alene District in Idaho, U.S.A. It appears the Ying District may be poised to become an increasingly important, long-lived silver-lead-zinc producing district.

Silvercorp's mining experience to date suggests that the resources categorized as measured and indicated in Chapter 17 of this Technical Report can in large part be upgraded to reserves. The mineral reserves as in this chapter appear to include reasonable dilution and recovery factors. For these reasons, the current reserves and any new reserves defined in the future will likely be reasonably recoverable and present no significant processing issues. Silvercorp's excellent existing infrastructure combined with favorable metal prices suggests that the Ying District offers excellent opportunities for potentially profitable "fast-track" mining developments.

The silver-lead-zinc targets on the additional veins or in outlying "frontier" areas require further exploration. The targets have had a moderate amount of previous work, but none have yet been fully explored. Several interesting targets include:

In summary, we believe the Ying District offers the opportunity for several new mines with potential to significantly expand the known resources. Additionally, there many interesting exploration targets that promise potential for future viable discoveries. And equally important is the potential to extend the mineralized vein systems to depths far greater than those yet tested.

## 21.0 RECOMMENDATIONS

An intensive program to further develop and expand exploration is recommended for all the Ying District mines and mine areas. For the HPG mine area, approximately 15,000 m of underground drilling is recommended.

The budgets for this work in the HPG mine and outlying areas are as follows:

HPG Mine Area	Meters	Cost
Underground drilling	15,000	\$ 0.7 million
Total	15,000	\$ 0.7 million

## 22.0 REFERENCES

### HISTORICAL REPORTS AND REFERENCES

- Bateman, A.M. 1951; the Formation of Mineral Deposits: John Wiley and Sons, Inc.
- Beaudoin, G., & Sangster, D.F., 1992; A Descriptive Model for Silver-Lead-Zinc Veins in Clastic Met sedimentary Terrenes; *Economic Geology*, v. 87.
- Guilbert, J.M. & Park, C.F., 1986; the Geology of Ore Deposits; Waveland Press Inc.
- Lefebure, D.V., & Church, B.N., 1996; Polymetallic Veins Ag-Pb-Zn±Au, British Columbia; Ministry of Energy of Employment and Investment, Open File 1996-13.
- Lindgren, W. 1933; Mineral Deposits: McGraw-Hill Book Company, Inc.
- Many authors, 1997; The Tectonic Evolution and Mineralization in the South Margin of North China Block; Beijing: Metallurgical Industry Press.
- McKinstry, H.E. & Svendsen, R.H., 1942; Control of ore by rock structure in a Coeur D'Alene Mine, Idaho; *Economic Geology*, v. 37.
- No. 1 geology survey team of Geology & Mineral Ministry, Henan, ~ 1981; Geological Map, 1:50,000 and surface sampling.
- No. 4 Geology Team of Henan Mineral Exploration Development Ministry, 2006; The Reserves Check Report of Longmen Silver Mine, Luoning County, Henan Province.
- No. 5 Geology Team of Henan Non-Ferrous Geologic Exploration, 1983; Geological Survey, 1:50,000 map and surface sampling.
- No. 6 Geology Team of Henan Non-Ferrous Geologic Exploration, ~ 1995; Geological Map 1:10,000 and resource report.
- Brigade 6 of Henan Bureau of Geological Exploration on Non-Ferrous Metals, 1995; Geological Report on Exploration of Tieluping (TLP) Silver Deposit, Luoning County, Henan Province.
- No. 6 Geology Team of Henan Non-Ferrous & Luoning Xinghua Industry Co., ~ 1999; The Exploration Reserves Report of Longmen Silver Mine, Luoning County, Henan Province.
- No. 6 Geology Team of Non-Ferrous Henan, 2002; the Exploration Geologic Complimentary Report of Longmen Silver Mine, Luoning County, Henan Province.
- Park, C.F. & MacDiarmid, R.A., 1970; Ore Deposits: W.H. Freeman and Company.
- Sorenson, R.E., 1951; Shallow expressions of Silver Belt ore shorts Coeur d'Alene district, Idaho; *Mining Engineering*, v. 3.

### NI 43-101 TECHNICAL REPORTS ON YING DISTRICT PROJECTS

- Broili, C., 2004; Technical Report For SKN Resources Ltd. on the Ying Silver-Lead-Zinc Project, Henan Province, China, April 21, 2004; Report prepared for Silvercorp Metals, Inc. by BK Exploration Assoc., Washington, U.S.A.
- Broili, C., 2005; Technical Report For SKN Resources Ltd. on the Ying Silver-Lead-Zinc Project, Henan Province, China, April 18, 2005; Report prepared for Silvercorp Metals, Inc. by BK Exploration Assoc., Washington, U.S.A.
- Broili, C., 2006; Technical Update 2006 for Silvercorp Metals Inc. on the Ying Silver-Lead-Zinc Project, Henan Province, China, March 3, 2006; Report prepared for Silvercorp Metals, Inc. by BK Exploration Assoc., Washington, U.S.A.
- Broili, C., Klohn, M., Yee, J.W., Fong, C.S.Y., & Petrina, M.A., 2006; Technical Update 2006 for Silvercorp Metals Inc. on the Ying Silver-Lead-Zinc Project, Henan Province, China, May 26, 2006; Report prepared for Silvercorp Metals, Inc. by BK Exploration Assoc., Washington, U.S.A.
- Broili, C. & Klohn, M., 2007; Technical Update on the Ying Silver-Lead-Zinc and the HPG Gold-Silver-Lead Projects, Henan Province, China, August 16, 2007; Report prepared for Silvercorp Metals, Inc. by BK Exploration Assoc., Washington, U.S.A.
- Broili, C., Klohn, M., Moran, R., 2008, NI 43-101 Technical Report and Pre-Feasibility Study, November 2008, for Silvercorp Metals Inc.: TLP-LM Silver-Lead Project, Henan Province, People's Republic of China; Report prepared for Silvercorp Metals, Inc. by BK Exploration Assoc., Washington, U.S.A. and Vetrin Mine Planners Ltd., Ontario, Canada.
- Broili, C., Klohn, M., Wenchang, Ni, 2010, NI 43-101 Technical Report on Resources and Reserves Update, Ying District Silver-Lead-Zinc Project, Henan Province, People's Republic of China, for Silvercorp Metals Inc., February 26, 2010, by BK Exploration Assoc., Washington, U.S.A.
- Xu, A., Schrempf, T., & Liu, Z., 2006; Technical Review on HPG Silver-Lead Project, Luoning County, Henan Province, People's Republic of China; Report prepared for Silvercorp Metals, Inc. by SRK Consulting, Beijing, China.

♦♦♦

## 23.0 DATE AND SIGNATURE PAGE

Spokane Valley, Washington, U.S.A.  
May 20, 2011

*“Mel Klohn”*  
Mel Klohn, L.P. Geo.  
Senior Consultant  
BK Exploration Associates

Vancouver, British Columbia, CANADA  
May 20, 211

*“Wenchang Ni”*  
Wenchang Ni, P. Eng.  
Senior Engineer  
Silvercorp Metals Inc.

Centralia, Washington, U.S.A.  
May 20, 2011

*“Chris Broili”*  
Chris Broili, C.P. Geo. & L.P. Geo.  
Exploration Geologist  
BK Exploration Associates

## CERTIFICATE OF QUALIFIED PERSON

Mel Klohn, L.P. Geo.

I, Mel Klohn, of 11309 E. 48th Ave., Spokane Valley, Washington, U.S.A., am currently a Senior Consulting Geologist for BK Exploration Associates, a director of Elissa Resources Ltd., and Technical Advisor to Rio Novo Gold Inc. and to Hunt Mining Corp.

1. I am a co-author responsible for the preparation of the Technical Report titled “NI 43-101 Technical Report, Resources and Reserves Update, HPG Mines, Ying District Silver-Lead-Zinc Project, Henan Province, People’s Republic of China, for Silvercorp Metals Inc.” and dated May 20, 2011.
2. I graduated with B.Sc. and M.Sc. degrees in Geology from the University of Oregon. I am a licensed Professional Geologist (#830) with the State of Washington, a member of the Society of Economic Geologists, the Canadian Institute for Mining and Metallurgy, and the Society for Mining Metallurgy and Exploration. I have been directly involved in resource exploration for the 44 years since my graduation, serving 25 years as a Professional Geologist and Senior Research Geoscientist for Exxon Corporation, and subsequently as Vice President of Exploration for Yamana Resources Inc., Yamana Gold Inc., Samba Gold Inc., Aura Gold Inc., and most recently Nevoro Inc. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association as defined in NI 43-101, and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
3. I first visited the Ying properties from July 15 through 23, 2007, and have since reviewed the Ying project data in detail on an annual basis, both electronically and in Silvercorp’s office in Vancouver, for NI 43-101 reporting purposes. I reviewed the project data for this current report in Silvercorp’s Vancouver office from April 15 to 25, 2011.
4. I am responsible for Chapters 1 through 15, sections 17.1 through 17.3 of Chapter 17, and Chapters 19 and 20 of this report.
5. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
6. I have read National Instrument 43-101 and Form 43-101F, and the Technical Report has been prepared in compliance with that instrument and form.
7. I certify 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.

Dated this 20<sup>th</sup> day of May, 2011,  
Spokane Valley, Washington, U.S.A.

“Mel Klohn”

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Mel Klohn, L.P. Geo.

## CERTIFICATE OF QUALIFIED PERSON

Wenchang Ni, P.Eng.

1. I, Wenchang Ni, P.Eng, am a Professional Engineer, and employed as a Senior Mining Engineer with Silvercorp Metals Inc. of Suite 1378 - 200 Granville Street in the City of Vancouver in the Province of British Columbia.
2. I am a co-author responsible for the preparation of the Technical Report titled “NI 43-101 Technical Report, Resources and Reserves Update, HPG Mines, Ying District Silver-Lead-Zinc Project, Henan Province, People’s Republic of China, for Silvercorp Metals Inc.” and dated May 20, 2011.
3. I graduated with Bachelor’s degree in Mining Engineering from the Henan Polytechnic University in 1982 and a Master’s degree in Mineral Resource Engineering from the Laurentian University in 2007. I am a licensed Professional Engineer (#32078) in the Province of British Columbia. I have conducted mining operations and consulting for the past 29 years with Wuhan Design and Research Institute of Sinocoal International Engineering Group, PT. Bukit Sunur, Huckleberry Mines Ltd, and Wardrop Engineering Inc. I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association as defined in NI 43-101, and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
4. I worked in Ying District from February to May, 2011, and was responsible for mining plans and ore quality control. For preparing this technical report, I personally inspected the Silvercorp’s central Mills, tailings dam and toured the surface and underground facilities of the Ying District properties between February 28th and March 4th, 2011. I have reviewed the mining plans and mineral reserve estimates.
5. I am not independent of Silvercorp Metals Inc. as defined in Section 1.4 of National Instrument 43-101, as I have been a full time employee of the company for the past few months, I own shares of Silvercorp and have been granted employee options to purchase shares in the company.
6. I am responsible for Chapters 16, 17.4, and 18 of this report.
7. I have read National Instrument 43-101 and Form 43-101F, and the Technical Report has been prepared in compliance with that instrument and form.
8. I certify 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.

Dated this 20<sup>th</sup> day of May, 2011,  
Vancouver, British Columbia, Canada

“Wenchang Ni”

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Wenchang Ni, P.Eng,

## CERTIFICATE OF QUALIFIED PERSON

Chris Broili, C.P. Geo. & L.P. Geo

I, Chris Broili, of 2104 Graf Road, Centralia, Washington, U.S.A., am currently an Exploration Geologist with BK Exploration Associates.

1. I am a co-author responsible for the preparation of the Technical Report titled “NI 43-101 Technical Report, Resources and Reserves Update, HPG Mines, Ying District Silver-Lead-Zinc Project, Henan Province, People’s Republic of China, for Silvercorp Metals Inc.” and dated May 20, 2011.
2. I graduated with a B.Sc. degree in Geology from Oregon State University and a M.Sc. degree in Economic Geology from the University of Idaho, College of Mines. I am a licensed Professional Geologist in the State of Washington (#547), a Certified Professional Geologist (#7937) with the American Institute of Professional Geologists, a Fellow of the Society of Economic Geologists, and a member of the American Institute of Mining and Metallurgy. My relevant experience for purposes of this Technical Report include Senior Minerals Geologist with Union Carbide Corp. and Atlas Precious Metals Inc., Vice President of Exploration for Yamana Resources Inc., Vice President of Exploration for Mines Management Inc., and Senior Geological Consultant for numerous junior and senior mining companies. I have been directly involved in mining exploration for the past 40 years. I have read the definition of “qualified person” set out in NI 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
3. I visited Silvercorp’s Ying District properties many times from 2004 through 2008, and have reviewed the Ying project data in detail since on an annual basis, both electronically and in Silvercorp’s office in Vancouver, for NI 43-101 reporting purposes. I reviewed electronic project data for this current report intermittently from March 9 through April 4, 2011.
4. I reviewed many of the chapters in this report with special emphasis on the longitudinal and cross-sections presented in Chapter 10 of this report.
5. I am independent of the issuer applying all of the tests in Section 1.5 of NI 43-101.
6. I have read National Instrument 43-101 and Form 43-101F, and the Technical Report has been prepared in compliance with that instrument and form.
7. I certify 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.

Dated this 20<sup>th</sup> day of May, 2011,  
Centralia, Washington, U.S.A.

“Chris Broili”

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Chris Broili, C.P. Geo. and L.P. Geo.



## CONSENT OF AUTHORS

**TO:** Toronto Stock Exchange  
Ontario Securities Commission  
British Columbia Securities Commission  
Alberta Securities Commission  
Saskatchewan Securities Commission  
Manitoba Securities Commission  
New Brunswick Securities Commission  
Nova Scotia Securities Commission

We, **Mel Klohn**, L.P. Geo., of 11309 E. 48th Ave., Spokane Valley, Washington, U.S.A. **Wenchang Ni**, P. Eng., of Suite 1378-200 Granville St., Vancouver, B.C., and **Chris Broili**, C.P. Geo. & L.P. Geo., of 2104 Graf Road, Centralia, Washington, U.S.A., do hereby consent to the filing, with the regulatory authorities referred to above, of the technical report titled "NI 43-101 Technical Report, Resources and Reserves Update, HPG Mines, Ying District Silver-Lead-Zinc Project, Henan Province, People's Republic of China, for Silvercorp Metals Inc." and dated May 20, 2011, (the "Technical Report") and to the written disclosure of the Technical Report and of extracts from or a summary of the Technical Report in the written disclosure in the Annual Information Form of Silvercorp Metals Inc. being filed.

Dated this 20th day of May, 2011

*"Mel Klohn"*  
Mel Klohn, L.P. Geo.

*"Wenchang Ni"*  
Wenchang Ni, P. Eng

*"Chris Broili"*  
Chris Broili, C.P. Geo. & L.P. Geo.

## APPENDIX

**Appendix 16-1: General View of No.2 Mill**



**Appendix 16-2: Milling and flotation Setup of No.2 Mill**



**Appendix 18-1: General views of mine surface infrastructures**



**Appendix 18-2: General condition of the Zhuangtou TSF**

