1 Introduction

Dongshan Pb-Zn deposit is located in the Baoshan anticlinorium in Baoshan-Shidian NS structural zone and NS faults zone which belongs to the Baoshan block of Gandise-Nyainqêntanglha fold system western Yunnan, and it is the typical deposit of the northern Baoshan-Zhenkang non-ferrous metals mineralization belt (Zhou et al., 2012; Ding et al., 2013). There had been multi-stage and multiple mineralization in Baoshan-Zhenkang block, so far, a number of Pb-Zn deposit had been found such as Luziyuan, Hetaoping, Xiyi, Mengxing, Dongshan, etc. A lot of depth study had been committed to the genesis of those deposits. The research showed that the Luziyuan Pb-Zn deposit belonged to the sedimentary-hydrothermal alteration superimposed type, the Hetaoping Pb-Zn deposit belonged to the hydrothermal filling type which was related to the deep magmatic hydrothermal or mantle-derived magma, the Xiyi Pb-Zn deposit and Mengxing Pb-Zn deposit both belonged to the sedimentary exhalative deposit(SEDEX). The geological setting of Dongshan Pb-Zn deposit was similar to the aforementioned deposit, this paper summarized the geological characteristics of the deposit based on the working of the geological field work and investigated the genesis of the deposit.

2 Geological Setting

The outcropped strata in the Dongshan district are mainly made up of the Devonian Heyuansai Group(Dh) and Xiangyangshi Group(D1x);Carboniferous Pumenqian Group(C1p), Xiangshan Group(C1x) and Dingjiasai Group(C2d); Permian Shazipo Group(P∧s) and Bingma Group(P1bm);Triassic Nanshuba Group(T,n) and Hewanjie Group(Th). The Nanshuba Group is less visible in the district which is composed of the shale and sandstone. The lithology of the Hewanjie Group is mainly made up of the gray dolomite, siltstone and sandstone. The Shazipo Group is composed of fine-grained dolomite and calcite. The Bingma Group is composed of purple mudstone, sandstone, gray limestone and dolomite. The lithology of the Pumenqian Group is mainly made up of the gray dolomite. The Xiangshan Group is composed of mudstone. The Dingjiasai Group is mainly made up of the gray limestone. The Xiangyangshi Group is mainly made up of the gray limestone and dolomite.

The district mainly appeared a duplex syncline, the axial is NE 20°and the length is more than 5Km. The duplex syncline is composed of the Yingfengting syncline, Qingshuigou syncline, Huangcaoba anticline, Dashangsong syncline, Dayakou syncline and Xinchang syncline. Three groups of faults in the district had been found which included NE-SW, NW-SE and EW groups. The NW-SE and EW groups were the late structure which always cut through the NE-SW group. The NE-SW group is the rock-ore controlling structure which included the main faults such as F2 and F18 in the district.

3 Geology Characteristics of Deposit

3.1 Geology characteristics of orebody

The length of the whole orebody is 7Km and the width is 0. 5-1. 5Km which includ Dayakou ore section, Huangcaoba ore section, Laochang ore section, Xiongdong ore section and Qingshiya ore section. The orebody’s strike is NE and the tendency is SE which is composed of 29 small orebody. The length of single orebody ranges from 90m to 780m and the thickness ranges from 5.22m to 9.60m. The average grade of Pb is 4. 00%-7. 88% , the average grade of Zn is 3. 35%-18. 47% and Ag is 10 g/t - 33g/t(the highest grade is 172 g/t). The types of the orebody mainly include the oxide ore and mixed ore.

The orebodies are layered which are controlled by the three ore section in northern district, and they are all formed in the Shazipo strata. The orebodies of the ore section in central district are irregular or layered which are controlled by the strata and the fault. The orebodies of the
3. 2 Mineral components and fabrics of ore
The mineral components are complex in district. The metallic minerals that had been found mainly include galena, sphalerite, pyrite, pyrrhotite and minor chalcopyrite. The gangue minerals of the deposit which had been found are composed of quartz, dolomite, iron carbonate, tourmaline, barite, minor muscovite and chlorite, etc. The ore texture are complex and mainly include euhedral fine crystalline texture, account texture and exsolution texture. The ore structure of the orebody mainly include massive structure, disseminated structure, brecciated structure, veinlets and stockwork structure.

3. 3 Wall rock alteration
The wall rock alteration in district mainly include silicified, baritization, carbonatite and chlorite. A number of the barites had been found in Pb-Zn orebody which are euhedral granular, radial aggregates and tabular. There is strong relationship between the barite and the mineralization, it reflects that the mineralization is more stronger where exists more barites. The carbonatite is mainly made up of calcite and dolomite which has no significant relationship with the mineralization.

4 Genesis of Deposit
Zhang et al. (2011) summarized the geology characteristics of the deposit and Investigated the genesis of Dongshan Pb-Zn deposit, the result indicated that the deposit formed in sedimentary environment early and had been reformed by the hydrothermal later, the mineralization of the deposit mainly concerned with the later hydrothermal filling. But, this paper based on a large number of field geological surveys and found that the orebody mainly formed in faults and strata. Most of the orebodys between the fault and the strata are continuous and there is no obvious dislocation phenomena, it indicated that the fault is not formed later than mineralization. The fault , strata and the mineralization should be formed the same time. Furthermore, the wall rock alteration in district mainly include silicified, baritization, carbonatite and chlorite, the baritization is the typical exhalative rock and has the strong relationship with the mineralization, and the whole wall rock alteration is tubular alteration. Comprehensive study of the deposit indicated that the Dongshan Pb-Zn deposit is the typical SEDEX deposit.

5 Conclusion
The orebodys of Dongshan deposit are mainly controlled by the faults and strata. The wall rock alteration in district mainly include silicified, baritization, carbonatite and chlorite, and the whole wall rock alteration is tubular alteration. Comprehensive study of the deposit indicated that the Dongshan Pb-Zn deposit is the typical SEDEX deposit.

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