the folds are compound, the anticline consisting of numerous small anticlines or synclines (anticlinomium).

The axes of the folds are pitching northward in the northern part of the district.

Trout Lake Valley appears to be on the south-westerly limit of a large, slightly overturned anticline. A conglomerate occurs here which might be used as a key horizon for working out the structure, but it was not noticed elsewhere. At the head of Gainer Creek the structure is revealed by the so-called "Lime Dike." The first (most south-westerly dyke) is formed by the outcropping of a limestone band in the southwest limit of an oppressed anticline. A subordinate anticline or syncline with the arch eroded lies immediately north of this, the basin of the syncline still remaining, forms the second dyke.

A few miles to the southeast, on the ridge east of Cariboo Creek, the minor fold is a syncline. A second structural feature of great regularity and importance is the jointing of the rocks at right angles to the strike. This, with the bedding planes, cuts the rocks into rectangular blocks. These two structural features, the north-westerly—southeasterly strike and high dip and the north-easterly—south-westerly jointing planes determine the chief topographical directions to the valleys and ranges conforming to these directions.

THE ORE DEPOSITS.

Three more or less clearly defined zones of mineralization may be recognized. First—A south-western belt on the slope to the southwest of the main valley running through the district, bounded on the southwest by the granite mass but with undefined north-eastern border. Second—A somewhat sharply defined central belt commencing at Fish River and extending south-eastward across Pool Creek, Beatrice and up Northern Mountain across Lardeau Creek and along Silver Cup Mountain, crossing Lardeau River about Tenderfoot Creek, and running down the southwest bank of the river across Poplar Creek, and thirdly, the lime dike belt, extending from McDougal Creek in Fish River across Boyd, Lexington Creek and the head of Pool Creek, and along the divide between the Lardeau and Duncan River basins.

FISH RIVER CAMP.

This camp, situated in the lower part of Fish River, was located as a silver-lead camp, but at present the principal development is confined to gold leads. Camborne, the centre of this district, is situated on the central mineral belt. A somewhat narrow band of phyllite cut by the diabase schist, lie here between rather broad bands of the chlorite schists. The green chlorite schists, so far as observed, are without mineralization, but the lime dike belt to the north carries silver ores, mostly galena blende tetrahedrite and a little pyrite and chalcopyrite. Some of these deposits are high-grade, but some, as the Alma on Pool Creek, are largely low-grade.

Claims were located on the Central belt for silver lead. In 1900 an inexperienced prospector discovered a quartz vein with some specks of galena on the lower slope of Lexington Mountain, between Pool Creek and Fish River, which he located for silver lead. Assays revealed a high gold content, and a number of gold claims were staked in this lead.

On the Eva claim the main lead has now been traced from Fish River south-eastward for about a mile, and it probably extends to Pool Creek. The lead consists of two veins lying in and along two fault planes which dip about 80° away from one another, connected by numerous cross veins and stringers. The direction of the lead is 120°, cutting the formation at a low angle. The country rock is a spotted phyllite consisting of sericite, calcite, quartz and probably feldspar and iron ore. It is cut by the diabase schist here highly altered. The vein matter is quartz, calcite, feldspar, siderite and sericite, carrying some sulphides and free gold. The sulphides are principally pyrite, sometimes well crystallized, a little galena blende. Gouge along the faults has confined the vein material between these lines. In places the vein consists purely of vein matter, sometimes banded and with divisional planes parallel to the walls or to the stratification of the country rock. Sometimes the vein holds intrusions of country rock more or less replaced by veinstone; in other places the quartz is deposited in thin bands along the lines of stratification. The rock between the two main veins is often impregnated with vein material, besides being traversed by numerous cross veins. Such rock may assay $2.50 per ton. The quartz will pan almost everywhere but the values are not evenly distributed.

Gold visible to the naked eye occurs in solid quartz, in seams in the quartz and along the selvage of the veins, generally in small scales or nuggets which are sometimes dusted through the rock in particles as fine as needle points. It is often concentrated along the walls or around inclusions in the vein.

As such points are often carbonaceous, the carbon may have been responsible for the enrichment (acting as a precipitant). The veins are usually higher grade when a cross vein joins the main vein. Zinc blende is said to be a good indicator of values. Pyrite is sometimes very rich. Galena may or may not carry gold values. About 2,200 feet of development work has been done. The rocks and ore on the Oyster Criterion group resemble those of the Eva. The replacement of the country rock by vein material is very plainly seen.

The veinstone, consisting of quartz, straited or unstraited feldspar, carbonates and sulphides form stringers between the laminas of the phyllite. This vein material then eats into the rock forming cloud-like masses, and the grains of the rock gradually lose their identity; finally they are completely changed to vein matter, sometimes with nuclei of the phyllite remaining. Thus all stages may be met with in the lead between solid veinstone and reticulating veinlets between blocks of country rock. The gold is often concentrated round these inclusions so that the mottled portions of the veins are often rich.

Three main veins are recognized: the Eva gold vein: the Criterion vein, and the galena vein. The dia-