

known and acquired but not worked. It was from this camp that the stampede for the Slocan to the north-westward took place in the fall of 1891.

Good transportation is afforded by means of Kootenay lake, and the presence of the Pilot Bay smelter just across the lake, has greatly stimulated development and production during the past 18 months. The ores, excepting some large bodies of low grade galena, zinc blende and pyrites such as the Blue Bell and the Canadian Pacific Mining Co's mines at Woodberry are chiefly dry ores, composed mainly of argentite, copper combinations and argentiferous iron pyrites together with some native silver and ruby silver.

These dry ores are a few miles back from the lake in metamorphic rocks close to the contact of the great granite area which lies to the west of Kootenay lake. They appear under much the same conditions and combinations as in other contact zones, such as are in the Slocan.

Waggon roads lead up from the lake to the mines of which there are about ten which have made shipments, the chief of which are the "Skyline" and "No 1."

At present the production is steadily increasing. During 1895 3,533 tons were shipped of which most was treated at the Pilot Bay smelter.

This smelter, pending a transfer, has during this present season, since May, been shut down and shipments are being made to Everett and other American smelters.

Concentrators are run in connection with the "Blue Bell" mine, and one of 50 tons capacity at the "No 1" mine.

The Canadian Pacific Mining Co. on Woodberry creek, has put in a flume and will build a concentrator for their ores.

The pay streaks of the dry ore camp are often pockety as is also the case with the Slocan dry ores. The mineral belt does not appear to be of very great extent, being practically confined to within six or seven miles of the lake. Prospectors during the present season have pretty well run over all the ground between this camp and the dry ore camps east of Slocan lake, without finding very much ore so far, although the granites further westwards, six or seven miles east from Slocan lake have exceedingly rich deposits of dry ore.

A new camp has been opened up within the past few weeks some 15 miles eastwards of Kootenay lake. This is the White Grouse country which drains into the St. Marys river of East Kootenay, and also westwards by Granite creek into Kootenay lake, 20 miles south of Pilot Bay. A Montana company has bonded eleven claims in this country and are pushing development on the claims chief of which is the "Storm King," and are also building a 15 mile waggon road from the new town called Sanca at the mouth of Granite creek. The ores carry a good deal of copper in different forms. No shipments can yet be made.

The Pilot Bay smelter, pioneer of bullion producing in Kootenay, began operations in March 1895, and produced in that year 3,220 tons of silver-lead bullion.

During the year there were mined, chiefly from the "Blue Bell" 52,000 tons of ore which was concentrated before being smelted.

This smelter ran almost entirely upon ores mined by the same company, custom smelting to the amount of 2,500 tons only being done. 200 men were employed and something like three quarters of a million dollars have been expended since the operations began in 1894, until the present time. This smelter has been closed down since early in June, under the statement that reduction works were about to be added. At present writing this report has changed to the announcement that the Kanas City Smelting Co. together with the C. P. R. Co. have purchased it and will put in additional capacity with the special object of custom smelting.

The number of claims recorded in Ainsworth division in 1895 was 410 and the number of transfers 384.

NELSON MINING DIVISION.

The chief silver-producing portion of this division consists of a body of isolated metamorphic rock, some three or four miles south of Nelson. It was in these rocks, which are placed by Dr. Dawson in his Report of 1889 as of the Adams lake series, that the first great discoveries of argentiferous copper ores were made. This was in the year 1886 at a time when West Kootenay was a wilderness. Desultory work was carried on in different parts of Toad mountain for the next seven years and some small shipments made at great cost. The work done on the "Silver King" proved both its richness and its permanence, so that a strong and capable company took hold of this mine and its adjacent claims.

After this transfer, the history of silver mining in Nelson division is practically the history of the Hall Mines Company.

Having proved the extent of the ore bodies to be of sufficient greatness, the company contracted for a Hallidie wire rope tramway, and began the construction of a 100-ton capacity smelter. The tramway and smelter were both in running order by the 1st of February.

Some trouble was at first occasioned by the length of the tramway, —4½ miles—and it became necessary, later on, to make a station about half way. The capacity of the tramway is 10 tons an hour, and that of the smelter was to be 100 tons a day. The nature of the ore and able management have made it possible to run through about 120 tons a day, one week's run averaging 145 tons.

The furnace is a Fraser & Chalmers water jacket, 42 in. by 100 in. at the tuyeres and 12 ft. high from tuyeres to feed floor.

The fluxes used are a fine crystalline limestone, and much oxidized iron ore from the "Iron Hand" mine up Kaslo creek.

Coke has been imported from Swansea. The resulting matte is a close-textured product, a concentration of from 7 to 1 to 10 to 1, according to class of ore. This matte carries over 40 per cent. copper, and has a value, as taken from shipments chronicled in the *Nelson Tribune*, of from \$200 to \$300.

During the time since first blowing-in there has been only one stop of any length; this was for two weeks, for necessary repairs.

During the past 12 weeks about 900 tons of matte have been produced, or an average of 75 tons a week.

The mine itself is in a great band of mineralized matter, the chief constituents of which are copper pyrites, peacock copper and gray copper—a very beautiful ore, and, judging from the price of the stock, a very productive one. It is understood that increased capacity is in contemplation for the output of the Hall mines, both for transportation of the "Silver King" mine ores, and in the smelter, for the treatment of ores needing preliminary roasting, and for custom smelting. The "Silver King" ores need no roasting.

As before said, there is but little silver production besides that of the Hall mines in this division. Considerable gold exists and has been won to some extent.

The number of claims recorded in 1895 was 403; number of transfers, 143.

SLOCAN MINING DIVISION.

This great division, taken as a known mineralized area, lies between Slocan lake and river and the Kootenay lakes, chiefly west of the summit. A broad valley of an easy grade runs northward from the Kootenay river at a point 12 miles east of the Columbia. This valley formed an easy route for Indians and early explorers in times past, but it was not until the summer of 1891 that prospectors first found and located Slocan galenas, although there is evidence, drawn from the presence of wooden instruments and wedges, that the Indians had worked at some of the galena bodies near Slocan lake in former times.

On Sept. 9th, 1891, Eli Carpenter and John L. Seaton located the "Payne," one of the present producers. Their report and high assays caused a rush from the Lower Kootenay lake country. Before December that year, amid great hardships, the best belt of the Slocan mines was