MAY 8 1975 + 459

680148 Phone 368-8435 1423 Columbia Ave., Trail, B. C., April 14, 1975.

Porcupine Creek

Dear Sirs;

E.s.

I have a zinc-lead replacement prospect which is available for option.

Enclosed is a government report (Bulletin 41) 1959, on the oxide mineral claims. These are located in the geologicaly favourable Kootenay Arc (Mine Belt) in which are located the following producers: H.B. Mine, Remac, Emerald and Bluebell mines.

The H. B. Mine operated by Cominco is located just to the south several miles.

We have 15 claim units located between Oscar and Porcupine Creeks with lots of open ground available.

With the limited amount of exploration done on the oxide to date, I believe it could stand a sound exploration program.

The oxide is located 4 miles from the Trail-Nelson highway on a good logging road. An exploration road traverses the property from Oscar to Porcupine Creek.

Geological maps of the area are available and I believe exploration data to date on the property may be available from assessment reports in Nelson.

Should you require more information, please phone or write.

Yours truly, Jack Betela Jack Butula.

P. S.

I also have available a high grade white silica deposit located within 1 mile of a railroad spur, plus a gold-silver prospect near Nelson. oped as two bedded replacement bodies, one of which is  $3\frac{1}{2}$  to a local maximum of 10 feet thick, is 80 feet long, and is seen to extend down the dip for about 20 feet. This skarn band extends from the main granite on the east to, apparently, a small granite mass on the west, although the alteration may cease short of this granite. The second skarn band is about 10 feet stratigraphically above the first and outcrops 15 feet to the south; the two bands barely overlap in plan. The second body of skarn is 50 feet long, 6 to 8 feet thick, and extends about 15 feet down the dip; farther down the dip it is, at least locally, succeeded by limestone. Fifteen feet farther west, past a small aplite dyke, the stripping is in argillaceous rocks.

"The grade of mineralization was estimated only. A maximum grade of possibly 2.0 per cent tungstic oxide was only locally seen. A tungstic oxide content of 0.5 per cent or somewhat less seems to be a fair estimate over the widths and lengths indicated.

"Northwest of this showing, along the trail, at distances of 80 and 200 feet, are two local occurrences of skarn in limestone. These are lenticular and are close to the granite contact.

"An additional 130 feet still farther to the northwest an old open-cut discloses skarn of a slightly different manner of occurrence. The open-cut at the time of examination was not cleaned out, but the southern face showed a mass of skarn 10 feet or more high and 6 to 10 feet wide, developed diagonally across the bedding of the limestone; two small masses of skarn were seen on the west wall of the open-cut. A few vaguely defined slips could be seen, and these might have served to introduce or to control the formation of the skarn, or else it formed along the axis of a roll in the structure. Mineralization here is somewhat stronger than the average of that in the main showing."

[References: B.C. Dept. of Mines, Bull. 9, 1940, pp. 54-57; Bull. 10 Rev., pp. 146-148; Walker, 1934, p. 85.]

Oxide

The Oxide group of recorded claims covers the ridge between Porcupine and Oscar Creeks about 4 miles east of Ymir. The claims are owned by New Jersey Zine Exploration Company (Canada)

Ltd., company office, 525 Seymour Street, Vancouver. The Jack Pot group lies to the south and the Last Chance group to the north.

The Oxide property is reached from the Porcupine Creek road by following a road that crosses Porcupine Creek about half a mile west of the Active Creek bridge (see Fig. 3). The road crosses the ridge between Porcupine and Oscar Creeks by way of the Oxide pass at an elevation of about 5,000 feet. The main showings are near the top on both sides of the ridge a short distance west of the pass. The workings consist of two long adits and several short ones, about a dozen open cuts, and about ten drill-holes. One of the long adits, Ox No. 4, is east of the road at an elevation of about 3,950 feet. The other, called the International adit, is west of the road at an elevation of about 4,450 feet.

A zone of limonite constituting the main showing on the property was discovered in 1943 by E. P. Haukedahl, of Ymir. Several trenches on the showing were made by Mr. Haukedahl, and in 1944 two holes were drilled by Leta Explorations Limited. From 1945 to 1947 the property was under option to International Mining Corporation (Canada) Limited. This company built the road from Porcupine Creek, erected a camp at an elevation of about 4,300 feet, below the International adit, and did some diamond drilling. In 1948 the property was optioned and subsequently purchased by the New Jersey Zinc company. Since 1948 considerable exploratory drilling has been done, and between 1950 and 1955 the Ox 4 adit was driven.

Rocks exposed on the property include white and micaceous quartzites resembling those of the Navada member of the Quartzite Range formation, black argillite of the Active formation, and grey limestone. Little is known of the stratigraphy, and correlation of the quartzites with the Navada member is based entirely on lithology. The limestone is probably part of the Active formation, though in many respects it is similar to the Reeves limestone (*see* pp. 33 and 37). The mineralized zone follows a fault known as the Oxide fault (*see* McAllister, 1951, p. 38). The fault strikes about north 10 degrees east, dips steeply to the east, and separates quartizitie rocks on the west from black argillite and limestone on the east. The fault is of regional extent, and on the Oxide property is marked by a wide zone of crushed and sheared rock. It is exposed at a number of places in the workings and can be located for a strike distance of about 1,500 feet on the property. On the Oscar Creek slope it appears to be offset by a right-hand fault striking about north 70 degrees east. The Oxide fault occupies the same structural position between the Black Argillite and Mine Belts as the Argillite fault, but the two are not regarded as the same fault. The wide zone of crushed rock along the Oxide fault contrasts with the tight, bedded nature of the Argillite fault zone (*see* p. 57) and suggests that the Oxide fault zone has not been healed by metamorphism. The Oxide fault is probably a late fault which may have displaced the Argillite fault.

Very little is known of the structure near the Oxide fault. Several hundred feet east of the fault and southeast of the Oxide pass an asymmetric anticline plunging to the south has been recognized (*see* p. 74). Quartzite at the core of the anticline is succeeded upward by limestone, and the limestone in turn by black argillite. If the quartzite belongs to the Navada member and the limestone to the Active formation, the quartzite and limestone are separated by a bedding fault. Quartzites west of the Oxide fault dip steeply and uniformly to the east. Strong shearing and discontinuity of many of the white beds suggest that the quartzite sequence is isoclinally folded or is cut by bedding faults.

The mineralized zone consists of soft earthy limonite containing secondary lead and zinc minerals and rare nodules of galena. The secondary zinc minerals are reported to be hemimorphite  $(H_2Zn_2SiO_5)$  and parahopeite  $(Zn_3P_2O_8.2H_2O)$ , and the principal secondary lead mineral is pyromorphite  $((PbC1)Pb_4(PO_4)_3)$ . Manganese oxides are present locally.

The mineralized zone at several places is about 30 feet wide but at places on surface appears to be somewhat wider. It is exposed intermittently for a strike length of 1,400 feet, and the lowest exposures on the south side of the ridge are about 600 feet below the ridge crest.

A short adit, now caved, driven in 1948 north of the Oxide pass at an elevation of about 5,100 feet cuts the oxide zone at an angle of about 30 degrees. Samples taken in the adit in 1948 assayed as follows:—

	Location	Gold	Silver	Lead	Zine
		Oz. per Ton	Oz. per Ton	Per Cent	Per Cent
Portal to 13 feet (lagged)			Section.		
3 to 25 feet		NII	0.4	0.7 -	16.7 -
25 to 35 feet		0.01	0.1	1.4	15.7
35 to 45 feet		Trace	Nil	2.0	2.5
45 to 55 feet			Nil	3.0	2.9
55 to 65 feet			* Nil	1.3	2.0

The International adit, which was not examined by the writers, has been described as follows (*Minister of Mines, B.C.*, Ann. Rept., 1947, p. 160):---

"An old adit 60 feet long, a little more than 600 feet lower than the summit, was extended northward late in 1946, and the zone was intersected early in 1947 about 120 feet from the portal. Drifting extended to a distance of 643 feet from the portal in an average direction of north 10 degrees east.

"From the point where first encountered, the oxidized zone was followed for 105 feet but, because of swelling ground, the end of the drift was abandoned and, from a point 155 feet from the portal, drifting was continued about 30 feet in the foot-wall (west). Three crosseuts were driven to investigate the zone—one at 135 feet from the portal, one at 400 feet from the portal, and one at the face, 643 feet from the portal.

"The zone is heavily oxidized and contains much mud. Before the end of the year, running of soft, wet ground had filled most of the openings in the zone. The zone is reported to be as much as 24 feet wide and to contain some lead and zine (more zine than lead) in the oxidized material.

"The crosscut at the face was extended west for 75 feet and a hole was drilled down at minus 54 degrees, a distance of 378 feet, to pass through the zone which appeared to be about 15 feet wide. Five feet of core consisted of pyritic quartz and is reported to have yielded a low gold assay."

The intersection of pyritic quartz in the drill-hole is almost 100 feet east of the position of the oxidized zone projected from surface through the zone in the International adit, and the mineralization is unlike any found elsewhere on the property.

Attempts to find the oxide zone south of the International adit have been unsuccessful. No outcrops have been found along strike from the oxide zone exposed near the International adit portal, and the topography for as much as 2,000 feet south of the portal is suggestive of gross slumping. The Ox 4 adit was made with great difficulty through running ground. It was driven 140 feet from the portal on a bearing of about north 25 degrees west, and thence due north for 730 feet. All but the inner 200 feet is in soft crushed and sheared rock saturated with water. The outer 140 feet went through mainly black argillite with minor buff micaceous quartzite. The inner part of the adit is mainly in buff to light-grey sheared micaceous quartzite. Near the face the quartzite contains thin limy beds. No significant lead-zinc mineralization was found, and exploratory drilling proposed by the company from the adit was not done.

[References: Minister of Mines, B.C., Ann. Repts., 1947, p. 160; 1948, p. 131; McAllister, 1951.]

Pete Creek Prospects Old trenches and pits on the slope south of Pete Creek between elevations of 2,800 and 3,000 feet are covered by the Beaver, Beaver No. 3, Beaverdell, and Apex claims recorded by E. Arnot, of Nelson, in 1954 and 1955. No published account of the pros-

pects has been found. One prospect 400 feet south of Pete Creek at 2,825 feet elevation consists of a lens of sphalerite and galena mineralization at a contact between banded limestone and granitized quartzite. The mineralization is exposed in one pit to a depth of 5 feet but does not appear to continue much beyond the limits of the pit. A chip sample across 5 feet of the best mineralization on the north wall of the pit assayed: Silver, 1.0 oz. per ton; lead, 3.48 per cent; zinc, 5.1 per cent. Trenches along the limestone-quartzite contact on either side of the pit do not appear to have encountered any mineralization. The limestone near the pit is medium to coarse grained and contains disseminated tremolite.

About 1,500 feet southwest of the prospect just described, heavy pyrrhotite mineralization occurs at a contact between Reeves limestone and granitized siliceous rocks. The contact strikes north 75 degrees east, and mineralization has been found along it for 75 feet. The best mineralization is exposed in an old shaft about 20 feet deep at the west end of the mineralized zone. The collar of the shaft is in coarsely crystalline grey limestone close to a contact with quartzitic rocks. The limestone is partly altered to a green silicate rock, and on the shaft dump there is some white dolomite.

Red Bird

The Red Bird property consists of sixteen Crown-granted mineral claims and fractions owned by Hecla Mining Company, of Wal-

lace, Idaho. The claims are west of and adjoin those of the Reeves MacDonald mine. They are south of the Pend d'Oreille River and cover an area about a mile square lying north of the west fork of Russian Creek, and between one-half and 2 miles west of Russian Creek. The main showings are between elevations of 2,500 and 3,000 feet on the north slope of a small steep valley running eastward toward the Pend d'Oreille River. Although the valley is a prominent one and is referred to as the valley of Red Bird Creek, it contains no stream above an elevation of 2,000 feet