

Basic Facts Bearing on Philippine Gold Mining

The definitely known mineralized belt extends north-south from the Pacific to the Celebes sea—richest sections little explored

There is a good deal of curiosity in men's minds as to why it is, if there is much gold in the Philippines, great gold-mining development has not occurred in the past; and why the boom comes now, delayed 33 years after the American occupation of the islands. The second of these natural queries is readily satisfied. The records amply substantiate what will be said. It is this: Campaigning in the Philippines, American soldiers found many evidences of gold deposits and rich placers. These soldiers were without funds, practically speaking—had no way of following up their discoveries. Those who found no lure in the hills, who settled down to trade in Manila and did well enough in that without being tempted to chase rainbows, needed their gains to expand their business.

Few of these men could be induced to stake prospectors or to put money into gold schemes. Some projects were financed that did not pan out, this discouraged the whole industry; and dredging was tried where proper mining would have been more the thing to do, as mining is now about to open up on the old Paracale dredge workings. Prospectors who knew their claims were valuable often held them as long as they could, many dying of exposure, hardship and malaria from living on their claims in the vain hope of finding financial backers to develop them. But some, as some at Baguio, stuck it out successfully until the Benguet Consolidated and Itogon mines began making money and public interest in mining ventures began asserting itself. In this desperate way the old Acupan claims, now the Balatok mine, were held; and Tom Phillips, one of the original stakers of these claims, actually registered them on the last day he had in which to do so. He lives, though in bad health, to tell the story.

Phillips came here with a dredging outfit from Australia. The first mine adequately financed and persistently developed was the Benguet Consolidated. As it is only now that the true resources and real worth of this great mine are coming to be known, so it is only now that interest in mining has become general; and this inclination to venture in mining is enhanced by the depression that has knocked profit out of other enterprises. There has also, in 30 years, been much improvement of mining machinery and methods of making low-grade ores pay for the milling of them, and adaptation of the diesel engine to needs of mines for power. Finally, gold regions have been made more accessible by roads and trails; hardships of getting to them and camping in them are greatly lessened. The airplane helps too, and one mine 35 kilometers in the

mountains is being provided with an airfield to enable the owners to get men and supplies to it.

This use of the airplane in mining is followed in New Guinea. It is practical.

Now for the first query. Why, if there is probability of much gold in the Philippines, was gold mining not developed long before the Americans came here? Or, what is the basis for the belief that there is much gold here?

Geologists have long known of the very extensive mineralized zone in the Philippines, perhaps no less than 1,200 miles long, and in many places 10 miles wide, beginning north at a point on the Pacific ocean midway between Bangui and Claveria and running south through Davao to the Celebes sea. In a past geological age, the Philippines broke in two along this zone. This is what created the zone. Water boiling from earth's depths gurgled up through the faults along the break, spread through them and dropped, as it cooled, the minerals it held in solution while hot. So the whole zone was mineralized. Among the minerals are iron, copper, silver, chromite, gold and at least some platinum. Thus if you find gold at Baguio, it is not unreasonable that you find it at Ipo, Salacot, Baleta, down through the Bikol peninsula, over in Masbate, Samar, and Leyte, and on into Surigao and Davao. This is a huge region and requires vast exploration before much can be known about it.

Reliable mining men who have gone pretty well over the field are of the opinion, from the surface indications, that the richest portion of the whole zone is the one in Surigao and Davao, the portion that has been least explored—where gold is indeed known to exist but where no mines exist and very little placering is done. Take Masbate, for example. On the gold belt around Aroyo gulf in Masbate are 2 flourishing mines, Paniqui and IXL. Both yield low-grade ore, Paniqui Mines, Inc., having bought a few years ago the old Syndicate property. Net profit from millheads is about 1 peso a ton, and the Paniqui mines mill 250 tons a day. Ben Berkenkotter, who formerly worked for the Syndicate company, is practically sole owner of Paniqui Mines, Inc. Six miners together own the IXL. There seems to be no limit to the ore at the disposal of these mines, now profitable to mill because of the highly improved and economical methods that may be applied to the business. Here, then, are just 2 little bits of the potential goldfields of Masbate.

Arthur Bridle, who has mined in Masbate for many years and is a very prac-

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Compact Mineral Testing Kit

Magnifying glass; knife with magnetized blade; gold pan, or copper vessel, probably only procurable in Manila—substitute of hardrock are made by native placer miners with a device for catching the smaller gold particles; steel mortar and pestle; blow-pipe; candle; charcoal block; matchstick with short length of thin platinum wire twisted to one end; cheesecloth screen on wire hoop, for sifting; glass test tubes; set of 50 mineral specimens, that is, pieces of gold ore, iron and other mineral rock aiding in identifying samples taken from prospects. These pieces are not absolutely necessary, but impart knowledge of ore rock quickly.

These acids, in small quantities: Nitric acid, sulphuric acid, hydrochloric acid, ammonium hydroxide, cobalt nitrate, borax, and washing or baking soda. (These are all carried in small bottles).

A steel drill, a forge for sharpening it, a prospector's pick and dynamite are also often carried by amateur and professional prospectors.

The above kit is specified by *Popular Mechanics*, September 1933. Compare your one with your identifying samples. To test with blow-pipe reduce some of your ore to powder in the mortar and put a pinch of it, with 3 times as much soda and charcoal, in a cavity scraped in the charcoal block. At proper heat, metal and perhaps an incrustation appear in the cavity. Gold is yellow and malleable, silver white and malleable, bismuth white and brittle, lead white and malleable, antimony white and brittle. Heat your platinum loop in the candle flame, dip in borax and reheat, dip in powdered ore and heat again, until a bead of material forms in the loop. This is the color test: gold should show yellow; orange if iron is present.

Some resort to geological textbooks: will give any young fellow valuable light on how he may undertake prospecting, to which interesting pastime he may well devote his holidays.

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