

*Confidential*

RESUME OF NOTES TAKEN DURING EXAMINATION OF  
POWDER RIVER CONSOLIDATED MINING COMPANIES HOLDINGS.

Examination by: N. S. Wagner

Date of examination: February 23, 1944

Accompanied in field by: Mr. F. M. Gunn and Mr. Walter Gardner, owners and instigators of this company, and Mr. Gardner's son and Mr. Hewlitt who was a disinterested visitor.

For location of sites visited see accompanying map.

Test pit #1. This used to be about 10' x 20', but is old and so filled with slough that only a few loose chinks of iron and one large one about three feet through are to be seen. The large one probably is in place. This pit is situated on the crest of a high, narrow ridge. Sufficient exposures of bedrock show that the iron doesn't strike parallel with this ridge. While occasional pieces of iron can be found down a steep draw which heads from this pit and runs in a S40W direction therefrom, these may very well be pieces which were dug from the hole and which have since rolled down the draw. Mr. Gunn talked about the vein striking at right angles to the ridge and running down the hill on either side, but careful search by Mr. Gardner Jr. and me in spite of Mr. Gunn's insistence on not taking the time revealed no trace of float on the slope to the west whatsoever. All parties fanned out down the slope to the east enroute to the 2nd pit instead of taking the circuitous, but level, path around the canyon. While thin basalt covered part of the slope, considerable bedrock was exposed. No one found any sign of ore either down this slope or up the opposite one although Mr. Gunn was very positive about the veins going through there. A grab sample from this pit, EB 13, was assayed with the following results.

Fe	66.78%
TiO <sub>2</sub>	1.09
P	0.015
S	Trace

Test pit #2. This is situated somewhat more than  $\frac{1}{2}$  mile distant from #1 in a slightly east of south direction, as judged from its assigned location on the topographic map for Pine Quad. A lense of iron about 3' thick, striking N85E and dipping 45 degrees to the S is exposed for about 25'. This is also on the crest of a ridge and Mr. Gardner reports having found no trace of iron down the long, steep slope to the West. However, unprospected croppings did show on the relatively flat top to the east for an estimated 50'. A steep local gully crosses the strike here and although Gardner, Gunn and I zigzagged through here along the projected line of strike, no iron was found on either slope. The country rock here is light colored and quite soft and probably is one of the islands of schist Ross speaks of. Maybe just deeply weathered granite. Sample EB 14, a grab sample assayed as follows.

Fe	68.5%
TiO <sub>2</sub>	1.08
P	0.017
S	Trace

Test pit #3. This is an old caved out on the west slope of the same ridge that #2 is on but it is situated quite some distance down the slope to the east. Only a few loose pieces of iron were to be seen. While this is on the projected strike of the lense exposed in #2, it is separated by about 400 yards of country on which no evidence of iron was seen.

Test pit #4. This occurs near the base of the same eastern hillside that #3 is on, but it is some 700 to 800 yards to the north (slightly east) of #3. Here an inadequate cut shows about 18" of iron in the face. None is apparent on up the hill to the west, but unprospected croppings do extend some 50' down the hill. In one place the cropping appears to attain the width of 20", but this may very well be due to one or more parallel lenses. In any event, it is very local. Sample EB 15, grab, came from here and assayed as follows.

Fe	67.75
TiO <sub>2</sub>	0.85
P.	0.017
S	trace.

In looking for another occurrence which was never found, a traverse was made to about the north center of Section 3 and thence due south to the cars.

We then drove to the Macy Mine and hiked to the location shown on the map, this supposedly being a big "blowout" of iron. This "blowout" occurs at the base of a considerable thickness of basalt and is either a coarsely crystalline phase of the basalt or a local and relatively basic intrusive. Sample EB 16 came from here and was sent in for petrographic analysis, being reported as follows. "Probably a diabase and composed of plagioclase, probably labradorite, augite and magnetite. It may be a very coarse grained basalt, but I would suspect from what you say, plus the appearance of the rock, that it is a dike rock."

Gardner had operated a mine owned by Mr. Hewlitt's father here some thirteen years ago and has at various times been employed at the Macy. He was admittedly going on his recollections when he included this "blowout" as another iron ore showing, and he recognized it as not being such immediately. Mr. Gunn however, spoke at great length about recovering substantial quantities of an unknown metal by a special process of his from rock "very similar to this, but somewhat more serpentized" located somewhere else.

Both Gardner and Gunn seem thoroughly satisfied with the worth of this property and with the potential reserves and statements, to the contrary, or questions or suggestions by me relative to the need for tremendous tonnage, the lack of tonnage here, the need for proving up their beliefs - the lack of likelihood of doing so, etc., fell on completely deaf ears.