

MANGANESE PROSPECT, WESTON COUNTY

Location: - Lot 4, Sec. 10. T. 45 N., R. 60 W.

Date Examined: - May 25, 1956.

Introduction

The deposit consists of three lode claims owned by H. F. Coates, Newcastle, Wyoming. At the time of the examination, the deposit was leased to Clayton Conrad, 116 Sheridan St., Newcastle, Wyoming.

The prospect is located just west of the Wyoming-South Dakota border near the top of a well-timbered plateau surface and overlooking the valley occupied by Stockade Beaver Creek. One short, partially caved adit approximately 45 feet in length was driven to explore the deposit. Two other exposures of manganese mineralization were reported, but these were not visited by the writer since the locations were unknown.

Geology

The rocks cropping out in the immediate area consist of sandstones, shales, and limestones ranging in age from Mississippian to Permian. These occur in a moderately folded monocline with a regional strike of north-south and dipping from 10° to 30° west.

The adit exposing the manganese mineralization penetrates the yellowish gray thin to massive bedded Pahasapa (?) limestone of Mississippian age. Locally, these rocks strike N. 85° W., and dip 11° N.

Manganese mineralization occurs in a four foot thick zone that parallels both the local strike and dip of the bedding planes. It is localized along

crenulations in the bedding planes and in banded crystalline calcite pods. Here it either is found as a powdery manganese (wad) filling cavities, as pods and lenses of silicified manganese (pyrolusite), or as coatings on calcite. Farther back into the adit the manganese coating or stain is universally present, but the bedded or lenticular silicified manganese appears to pinch out. The general attitude is pinch and swell.

The only other noted occurrence of manganese was observed in a small outcrop along the strike in the same bed north of the adit. Thus no information concerning the extent of the mineralization is available. It is probable, however, that the mineralization is extremely local and not extensive in that it was concentrated in crenulated or slightly folded areas.

The deposit was reported to contain 90% pyrolusite (Coates), and Conrad reports assays as high as 50% manganese from the prospect. These are misleading figures since much of the manganese occurs as coatings and stain and would therefore make up very little of the volume of the rock. It is possible that picked samples of the powdery manganese could assay as high as 50%, but here again the total volume of manganese mineralization is small compared to total volume of rock.

William H. Wilson
Ass't. State Geologist
February 20, 1957

Reference

Coates, H. F., Letter to H. D. Thomas, April 27, 1947, Geol. Surv. Wyo. files.