

REPORT  
ON  
WELDON MINE

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BY  
A. M. WELLES

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Denver, Colorado., Dec. 15th, 1894.

REPORT ON CONDITION OF WELDON MINE

AT LEADVILLE, COLO., DEC. 10th, 94.

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Lake County

To  
Messrs. Sheedy & Kountze,  
Denver.

Gentlemen:

I have within the past four days completed an examination of the Weldon Mine at Leadville and find the new shaft to have now reached the lime contact and at a point where the lime to all appearances forms a synclinal fold the shaft having intersected it at its upper south east edge( see ground plan and sections) The upper edge of this fold on both the south easterly and north westerly sides, I have ~~theoretically~~ denoted upon the surface plan by dotted blue lines, giving the valley formed by fold a general longitudinal north easterly and south westerly direction. The reasons for believing that such a synclinal fold ~~or~~ valley exists ~~are~~ obvious from the fact that at about 700 feet nearly due west from the Weldon shaft (see plan) is situated what is known as the Bohn Shaft. This shaft is reported to have reached the lime at almost the same elevation or level as the Weldon. In addition to this the Penrose Shaft, situated a little to the east of north from the Weldon and about 900 feet distant, reaches the lime at a level of only about 13 feet higher than the Weldon. The drifts of the Penrose along line of contact to the southward and almost directly toward the New Weldon shaft, I have examined carefully and find that at about 600 feet from the Penrose shaft and about 300 feet from the Weldon shaft have been encountered the upper edge of a fold (See sections) pitching

in the opposite direction to that encountered in the Weldon Shaft-, the pitch of this fold in both instances is abrupt about  $45^{\circ}$ . The Penrose after projecting their level a short distance into the porphyry sank and started a short intermediate level with the contact still below (See section). They have now commenced sinking their main shaft deeper and will project a level wholly in lime ( See dotted line in Section) which will carry them under this fold or valley. From the bottom or point of contact in the Weldon Shaft a drift has been started to the Eastward about 60 feet and another to the Westward about 40 feet. This drift to the Westward should be and I understand is to be discontinued from the fact that it is being carried higher and higher above the vein matter in consequence of the contact falling below it, owing to the fold before referred to. To develop this ground to the Westward the shaft should be sunk deeper and a lower level through the lime driven in that direction (See dotted line in Section) the contact will then be reached by upraises from this level through the lime. This must be done for two reasons: First, that drifting in the wet and decomposed porphyry and vein matter which lies directly above the surface of the lime is inconvenient and expensive; Second, that the contact surface between the lime and porphyry is too undulating to admit of the operation of cars or to deliver the water by natural drainage to the foot of shaft. To obviate all this it has been practically demonstrated that drifting upon regular grades a short distance below the surface of the lime in ground which required little or no timbering and does not swell or creep and at intervals raising to the surface or contact extracting the ore thus encountered and delivering it to the cars through the upraises referred to is the simplest, cheapest and

most practical method to be employed. The new shaft of the Weldon has already , by the two short drifts referred to, encountered iron ore or vein matter carrying from 15 ounces to 50 ounces in silver, little or no lead. No high grade carbonate ore has yet been reached. If such a fold or valley exists as I have referred to and shown upon sheet, I should deem quite possible the accumulation of more or less extensive beds of ore and vein material therein.

I think that the location of the new shaft is as favorable for the development of your ground as at any other point which could have been chosen with the guidance obtainable and wherein I do not believe the Weldon will ever become a bonanza property of high grade materials yet I see no reason why it should differ materially in its character from the Penrose & Orion, save that it has less area to produce from.

Very Respectfully,

*Wm. A. Miles, Esq.*