HAWTHORNE TUNGSTEN

Hawthorne Mines Co.

Wassuk Range on high ridge dividing gulches in which flow Cottonwood and Willow Creeks
Sec. 3, T6N, R30E

Mineral County

(Nevada)

Tungsten

S6-21
Hawthorne

E. J. SCHRADER
ENGINEER OF MINES

ADDRESS MAIL TO
P. O. BOX 244
RENO, NEVADA

Too low grade
Loc

Sept. 16,1926.

Mr.H.C.Carlisle,
San Francisco,Calif.

Dear Henry:-

THE HAWTHORNE TUNGSTEN.

This property consist of the Good Hope claim 1500 ft. by 600 ft. It was located April 12,1916 by Tasker L.Oddie and Siri Giovani. Apparently it is located in Sec.3, T 6 N, R 30 E. A large part of the Wassuk Range in this part of Mineral County is held under old patents by the Hawthorne Mines Co. and about 40 years ago was the source of much of the wood fuel used by old mining camps in this part of Nevada. A careful survey would be needed to see if this claim was located on vacant ground or not but in any event Rackliff has an option from both possible parties who might claim ownership. T.L.Oddie is no longer interested in the claim.

The claim is located on a high ridge dividing the gulches in which flow Cottonwood and Willow Creek. Willow Creek is on the NW slope and has very steep sides so that the claim is reached by a trail one mile long from Cottonwood Creek where there is a good cabin.

There is ample timber for stulls and fuel in the vicinity and water can be brought to the claims by gravity from some large springs higher up on the range to the west.

In general therefore, the operating conditions are very good for Nevada.

The distance from Hawthorne 11 miles and the distance from Thorne on the railroad is 19 miles. The roads are good. Hawthorne is nearly due north from the claims. The elevation is 7,600 ft.

Ore Occurrence.

The formation is a light colored grano-diorite in which light colored aplite dykes are fairly frequent. On the top of the ridge there is a remnant of limestone which has been metamorphosed to tactite by contact metamorphism. This remnant is a roughly eliptical mass about 225 ft. by 150 ft. It slopes steeply towards Willow Creek and the hill side is so steep.( 30° approx.) that

no placer has been formed but there is a good deal of coarse detritus all of which is classed as "ore" and has been eroded from the tactite peak. The main mass of ore is in the shape of a sharp and rough peak. A tunnel driven about 150 ft. below the peak on the NW slope cuts through the tactite beds and enters the soft granitic bed-rock. Roughly the beds at this point are ten to 12 ft. thick and a sample accross this width ran 0.12% $WO_3$. A sample in a cut above the tunnel ran 0.05%. There is an unaltered blue lime layer in the face.

The tactite is hard and compact. In many places it consists of a black metamorphosed lime showing little garnet. The best looking ore is a tactite mass showing many small fractures filled with white quartz veinlets up to 12" thick and seams and veinlets of garnet. This white quartz often contains large crystals of cream colored scheelite and some of this pans very good.

In order to get an idea as to what this tactite mass might run I cut samples accross the croppings in a series along the hill side. These samples ran as follows.

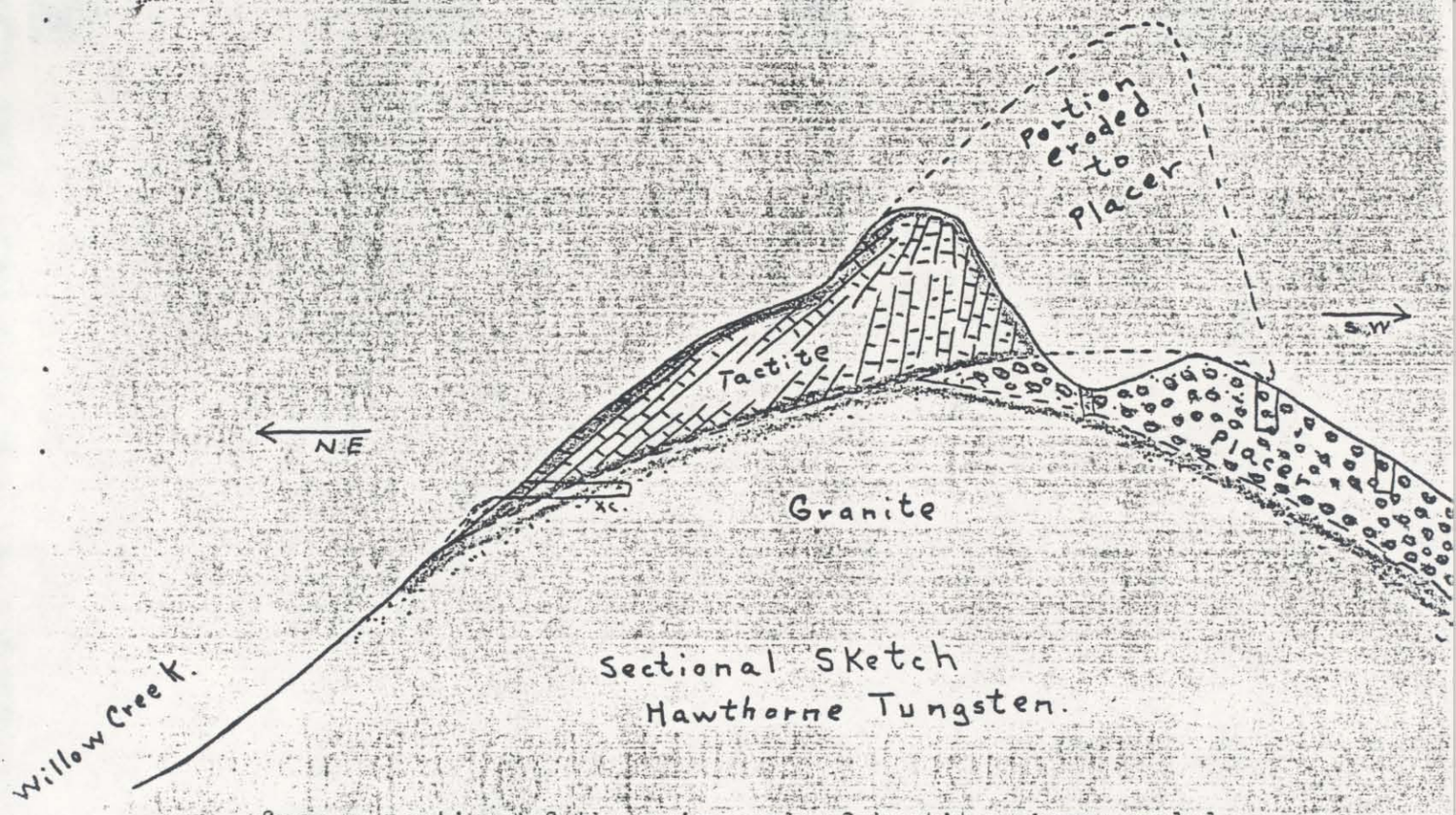
First 12 ft wide--------0.25% $WO_3$
Next " " 0.40% "
Next 10 " " 0.22% "
Omitted 5 ft. dirt covered. Then 16 ft. accross main bluff ran 0.20% $WO_3$.

It was impossible to sample exactly at right angles to the beds. Care was taken not to get any high grade quartz ore in the samples. As most of the high grade would be in the thin surface shell of the boulders, which would readily break off, the samples of the harder material would give a result somewhat lower than a general average.

On the south-east side of the hill there is a considerable area of "placer". Its depth is unknown but it may easily be 15 ft. The slope of the hill is about 20°. The first placer is noticed about 300 ft. below the summit and the length would be about 400 ft. somewhat longer than the present apparent length of the residual mass. Here the placer consist of 90% of fine granitic sand with 10% of tactite fragments. Higher up on the hill and within 100 ft. of the main peak a shaft 8 ft. deep and not to bed rock showed 50% of tactite fragments and the rest fine sand. A sample cut down this shaft including both sand and small fragments ran 0.35% $WO_3$ and there is no doubt considerable free scheelite in the sand itself. A sample from dirt on the Willow Creek side did not show any tungsten.

Rackliff had the idea that the tactite mass must be under this placer slope but I think the placer is derived

#3- H.C.C. 9/16/26




Sectional Sketch
Hawthorne Tungsten.

from a portion of the main peak of tactite since eroded, and from which the detritus forming the placer is derived. In a shallow gulch on the south slope of the main peak the granitic sand is well exposed and this gulch, which Rackliff thought would prevent formation of placer, is no doubt of recent origin due to surface waters and because it formed a trough at the contact.

Conclusion.

I would say that this tactite mass would average around 0.4% to 5% $WO_3$ which is not commercial today. The tactite in the lower portion of the placer could be cheaply recovered by screening out the fine sand. The upper portion of the placer will contain most of the scheelite that is free, and much of this placer is probably as good as the main mass of the tactite body itself.

The upper part of the tactite mass is thicker than the lower but there is one layer of bluish lime containing no evidence of metamorphism and which would be waste. I should roughly estimate that there is 33,000 tons of tactite ore all of which could be cheaply recovered by quarrying and much of which is in the shape of loose talus of boulders. There is probably as much more in the shape of placer.

All that is the matter with this deposit, I regret to say, is that it does not contain enough tungsten to be

attractive at present prices.

It is an interesting deposit and well to keep in mind. Nature has developed the tonnage and should the price of tungsten rise at any time in the future to make 0.5% ore commercial with exceptionally low mining costs and no development expenses to be met, it would be worth considering as it is ready for a mill as it stands.

My actual tonnage figures are much larger than those I have given here but as the exact thickness is uncertain and bed-rock in the placer is not exposed except in a tunnel far down the slope and not considered in the valuable area, I have used a gross tonnage figure far below the apparent one. The thickness of the tactite body itself is probably not less than 20 ft. on the average, as it is over 10 ft. on the lowest slope where the tunnel was driven.

Very truly yours,

E.J. Schrader

E.J. Schrader.

# CERTIFICATE OF ASSAY

## ABBOT A. HANKS, INC.

ASSAYERS, CHEMISTS, ENGINEERS

624 SACRAMENTO STREET

SAN FRANCISCO Sept. 14, 1926

SAMPLE OF TUNGSTEN

DEPOSITED BY TONOPAH MINING COMPANY

| Labty. No. | Mark | GOLD, per ton of 2,000 lbs. Troy Ounces | Value @ $20.67 oz. | SILVER, per ton of 2,000 lbs. Troy Ounces | Value @ c. oz. | Percentages |
|---|---|---|---|---|---|---|
| | | | $ | | $ | |
| 25637 | 3849 | | | | | Tungstic Oxide 0.05 |
| 38 | 3850 | | | | | " 0.12 |
| 39 | 3851 | | | | | " none |
| 40 | 3852 | | | | | " 0.25 |
| 41 | 3853 | | | | | " 0.40 |
| 42 | 3854 | | | | | " 0.22 |
| 43 | 3855 | | | | | " 0.20 |
| 44 | 3856 | | | | | " 0.33 |

Add Price Tungsten

ABBOT A. HANKS, INC.

Abbot A. Hanks.

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