

SOIL.

Very light but not deep, covered mostly, except in the large culvitated enclosures, with the native wild grasses, which carry a small grain very nutritious for cattle; with which the whole tract is covered.

GRAVEL.

Underlying the soil at from six inches to three feet depth - is composed principally of a white sand, disintegrated quartz, black sand, Pebbles of Gold Quartz, granite, slate, manganese, and Hematite iron stone; worn round by attrition. Bears all the indications of carrying gold but is very hollow; full of interstices. Whatever gold there is in it long ago has worked its way down by the action of water to more solid ground.

TIMBER.

Very sparse - only occurs on the creek and river bottoms and consists of Ash, Oak, Cottonwood, etc., - and is not large or valuable.

The following questions and remarks, quotations from Mr. Smith's letter of instructions, with the replies offset against them, fairly covers the ground.

My Criticisms on the property are as follows:

"In the first place the man seems to want half or nearly half of the capital of any Company floated.

"This of course is out of the question - you would have to talk reasonable terms to him."

I do not know, nor does Mr. Sturgis the nature of Mr. O'Connor's proposition. I learnt, however, that he could deliver the lands to O'Connor free from encumbrances (U.S. Patents)

"Then about the titles:
"Has he got options?
"If he has not got them right, can
"they be got for sufficient time
"without outlay or with small outlay?"

Titles are in nearly every case
U.S. Patents; the strongest free-
hold title, and having been
issued, cover all minerals or
other deposits found after issue.
He has options on most of the
lands, which can be renewed by
small payments; balance can
be secured at reasonable prices
if not allowed to drift until the
placers are proved to be valuable.
One year from commencing opera-
tions is quite enough to prove
value of placers if the work is
prosecuted intelligently.
There ought to be no trouble in
securing this time.

"To demonstrate the values I
"expect it would be necessary to sink
"more holes.

)
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) Certainly.
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"How could this be done and with
"what outlay?"

By putting down water-tight
shafts - ordinary matched lumber -
about 8' x 4" inside measure -
Cost, about \$2.00 per running
foot constructed and in place,
plus the labour of excavation
say \$4.00 per foot all told.

ground by Diamond drill first, before going to this expense; thus ascertaining distance to Bed Rock and approximate values all the way down - £1000 would cover cost of drill, small engines and boiler, freight, haulage and wages for 3 men for 3 or 4 months. One month's work would prove whether it was worth going on with. In case of abandonment the loss should not exceed £500.

"They estimate the depth of the)
"ground as 50 ft.)
"On what principles do they get)
"at it?)

) Purely guess work.

"What do you estimate it at?

I should think that midway between the higher lands on each side of the deposit it would not be less than 200 ft. at the centre, and shallowing to 10 or 12 ft. at about a mile each side the centre.

"And what the average value?

Nothing short of actual tests could give this.

"What chance is there of it being

I washed wherever I could get at

several miles and could not get a colour. I should have been surprised if I had; the gravel was so hollow, whatever values there are are sure to be below, but I could not get lower on account of water.

The gravel is the most promising I have ever seen.

"Are there many boulders, and
"large ones?

Very few boulders and very small - seldom reaching the size of a football. They will probably be larger below.

"How about water?

Superabundance of it.

"They talk about an underground
"river. If it a river how are you
"going to get away with the water -
"you can't turn it into another chan-
"nel as if it was above ground.

I should question this.

"If this is all rot and there
"is no river, is there sufficient
"water to wash with?

The whole neighborhood is full of natural springs, the water from which is working its way through the interstices of the gravel and cozes into the creek so freely in some places as to give rise to this theory.

The whole valley is evidently the bed of an ancient river and a very large one - a river certainly not less than a mile

"They talk about \$100,000

"plant to work it.

"Is it a steam shovel & derrick?

"Hydraulic Elevator, or what?

"I suppose Steam would have to
"be used. To prospect it I suppose
"should have pump and steam.

"Is there any water outside this
"underground supply?

This capital is ample.

There is only one way to work it -
that is by steam shovel and der-
rick - Risdon's of San Francisco -
Lay's of New York, Bennett's
Amalgamator of Denver, or
Barlow-Massick's of Prescott,
Arizona. To prospect by shafts
large pump and steam would be
required.

There is a flow of over 5000
inches in Horse Creek at the
Thomas Ranch, which is the best
place to commence operations.
The Creek is 40 to 50 ft. wide and
quite deep. The water is beauti-
fully clear. I visited it at
the driest time of the year.
5000 Miners' inches represents a
washing capacity of over 15000
cubic yards of gravel per 24 hours.

There is water enough for both
the gold washing and irrigation
for balance of land not being
worked for gold.

One question you have omitted.
Supply and resources of Wood for

The country in the immediate neighborhood is sparsely timbered. Cord wood is consequently dear. Sawn timber would have to be hauled 35 miles from nearest R.R. Station, but there is coal, partially developed within four miles (down stream) of Thomas's Ranch - so there is no trouble about fuel, for Sturgis owns the Coal and fireclay. I examined both and submit samples.

In conclusion. The proposition as a whole I consider - from its agricultural standpoint - especially if applied to sugar Beets - as a safe and lucrative investment, which would rapidly increase in value.

The Gold Proposition I consider as a gamble; with this to be said in its favor. If a win, it is a big one, and means returns for an unlimited time fully equal to those of the Sacramento River and Tributaries in California, where the different Companies at work from the beginning of the excitement in the 50^s to 1883 (when the Government by Military force stopped the work), actually by official returns paid taxes on gold recovered of \$1,100,000,000 - say £200,000,000 Sterling.

If a loss, £500 to £1000 ought to more than cover it.

Yours respectfully,

D. E. Keating, M.E.

Denver, Colorado, Dec. 1st, 1897.