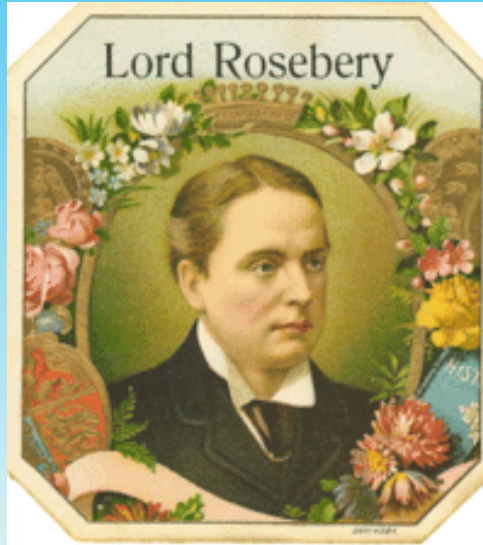


Mining History and Minerals, Bluebird Mine and Mill, Silver Bow County, Montana



Richard Gibson
*Consulting Geologist
and Historian, Butte MT*



Archibald Primrose, Fifth Earl of Rosebery

Rothschilds

- Bluebird Mine acquired 1885; + White Deer, Texas
- Ferdinand van Zandt, manager
- Stamp mill opened Nov. 22, 1886
- June 13, 1887; miner's wage \$3.50/day (\$1000/yr)
- 1.4 million oz Ag (1888), 50 oz Ag, 8 oz Au/ton
- Silver was about 95¢ an ounce in 1888
- 600-foot shaft
- \$40,000 payroll 1890
- Copper market 1895;
25% of Anaconda; Rio Tinto; de Beers



Twenty-two bars of bullion, valued at \$36,288 was shipped from the Bluebird at Butte last week.

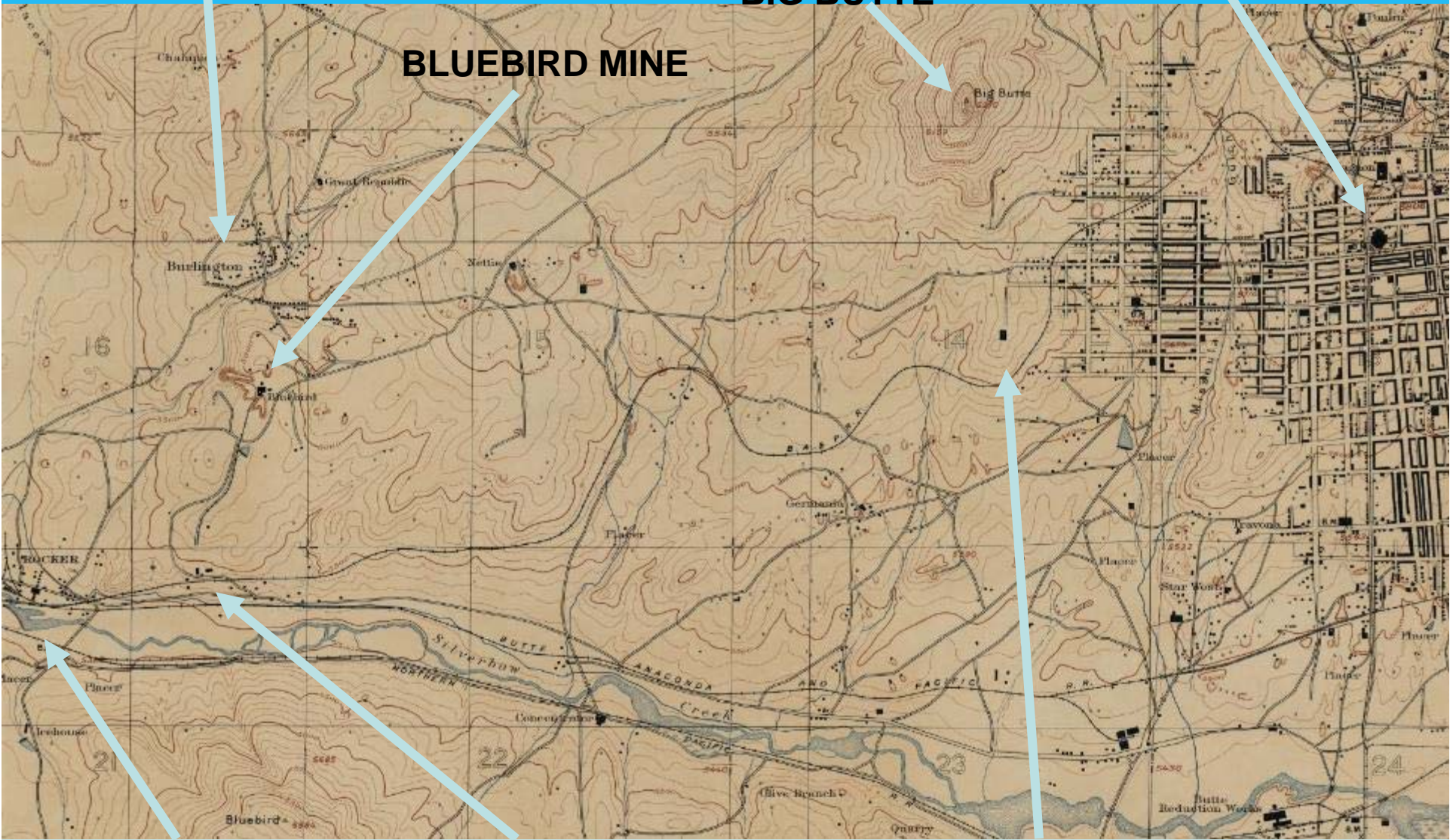
5-12-1887

BURLINGTON

BIG BUTTE

COURT HOUSE

BLUEBIRD MINE



ROCKER

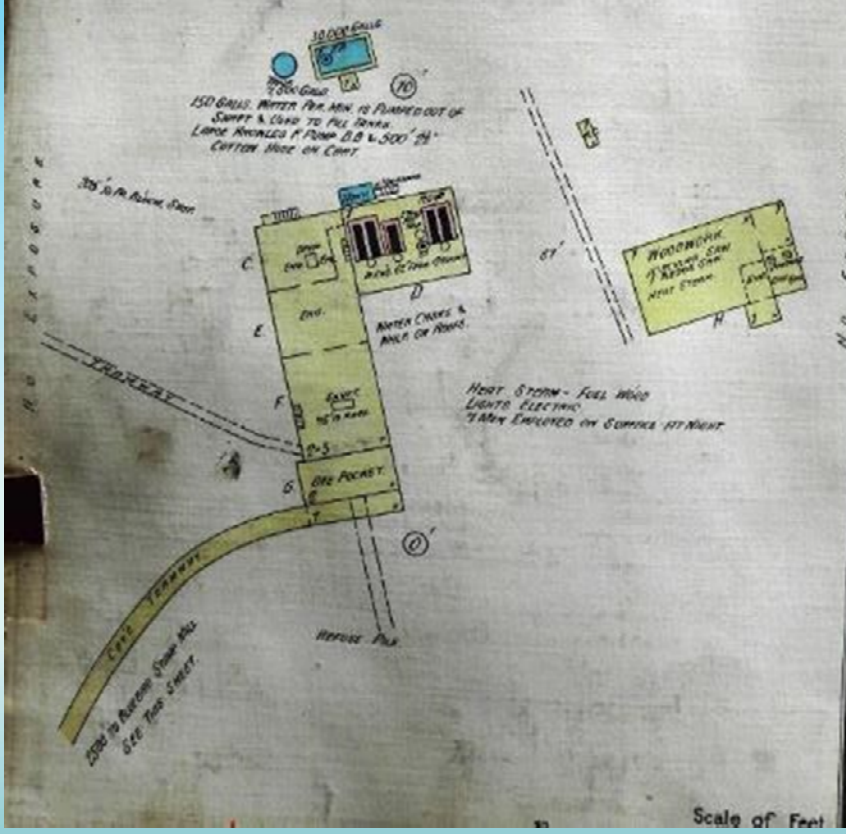
BLUEBIRD MILL

MAIN HALL

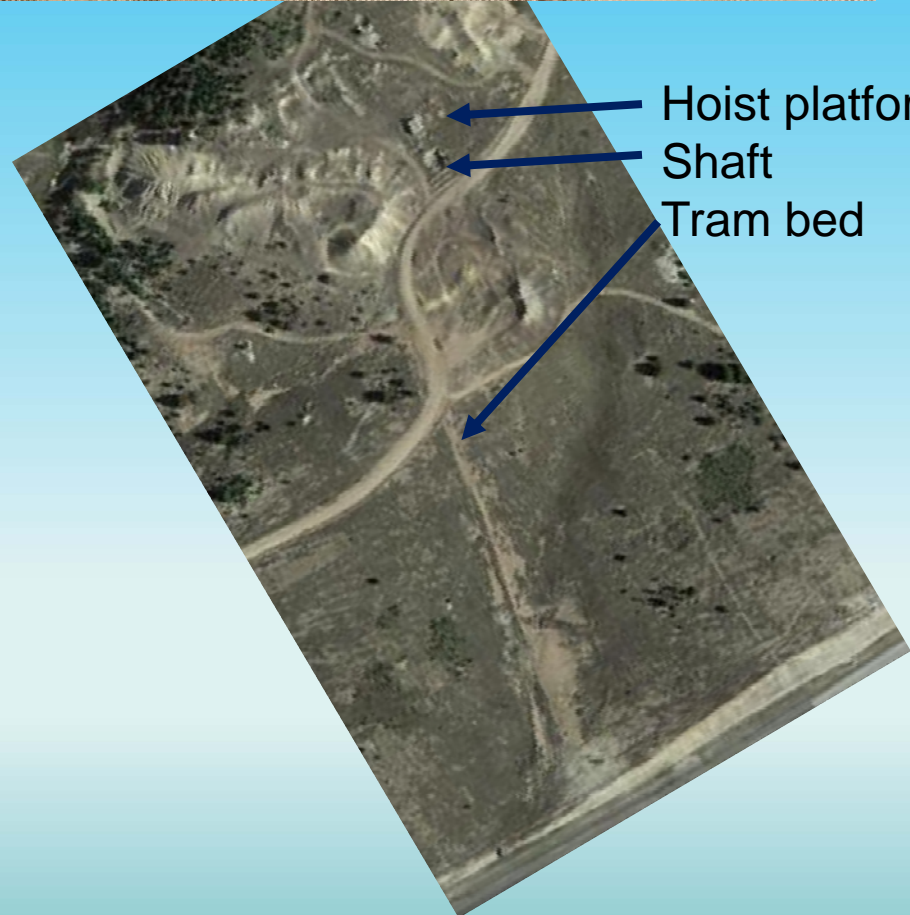
1903

**BLUEBIRD MINING CO'S.
VAN ZANDT HOISTING WORKS.**

Situate 2 1/2 Miles W of Court Ho.



Scale of Feet



Hoist platform
Shaft
Tram bed



1888



1888



1888



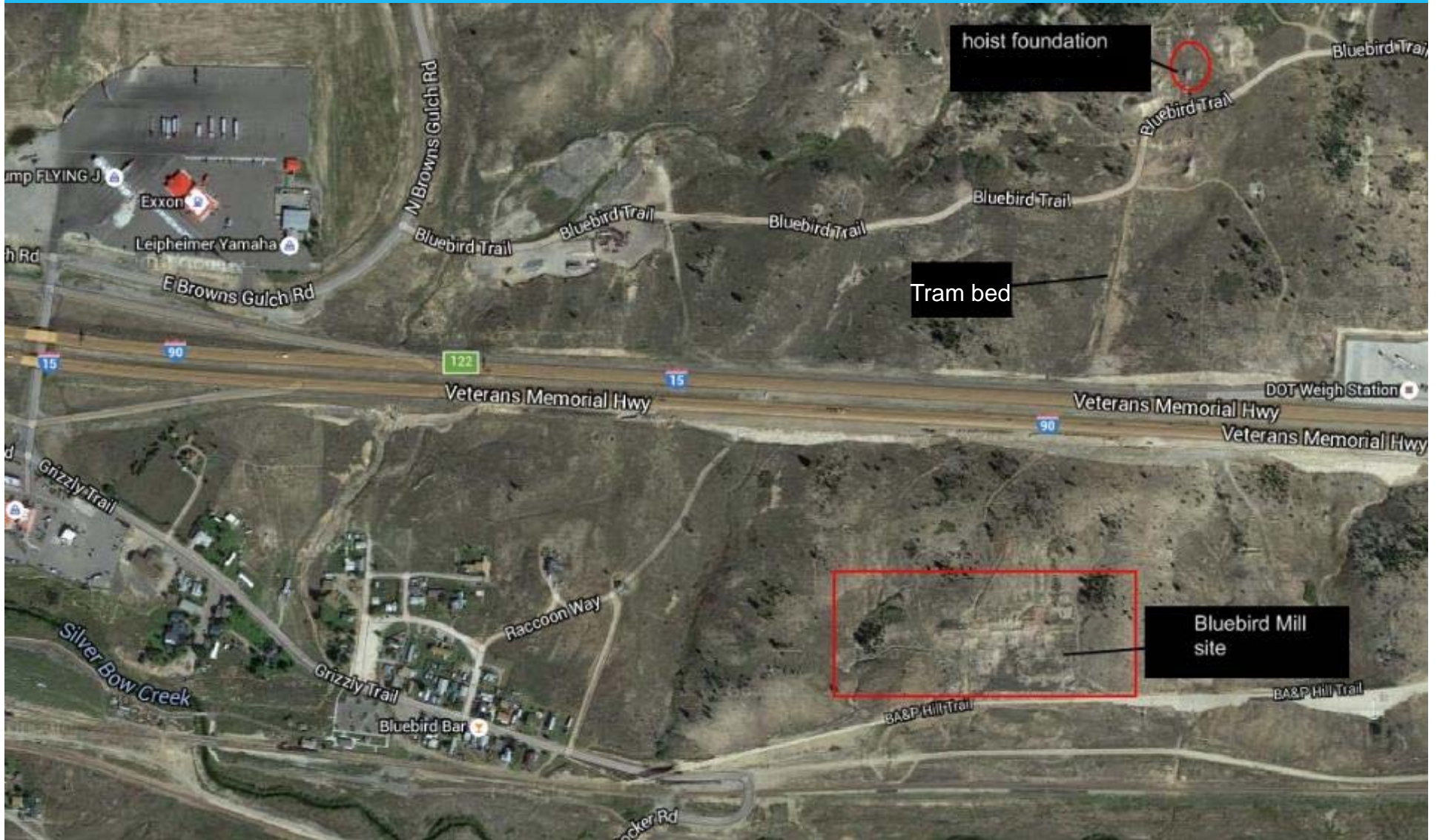
1888



Claim Jumping?

- 1889 – Patrick Largey
- 1891 – James A. Murray (“Little Darling”)
- Van Zandt suicide 1892
- 1893 – silver crisis
- Hoist to Diamond, headframe to Blue Jay
- Burlington to nothing





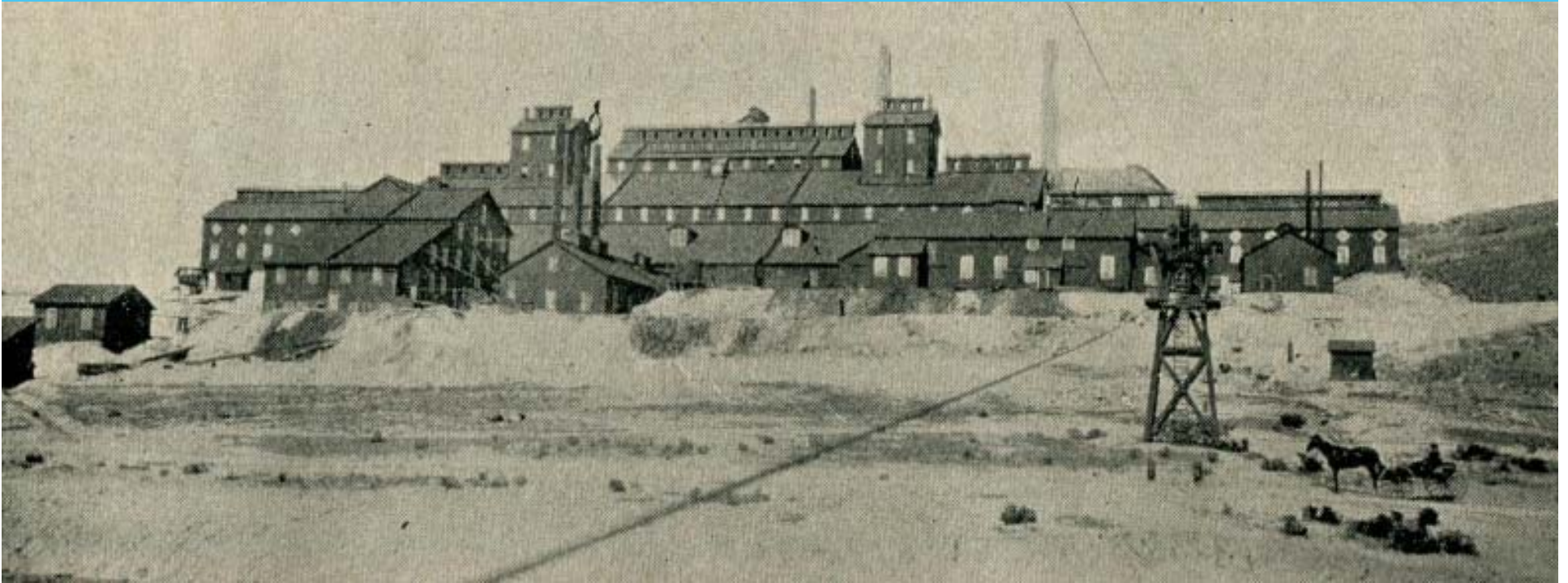
1888



Blue Bird Mine Butte Montana

courtesy Butte-Silver Bow
Public Archives. PH 0127

1897



Operated 1886-1892. "One of the most perfect mills in the West." —EMJ



Go

WATER SUPPLY FROM TWO SOURCES

- 14. WATER FROM THE ZANDT SHAFT, PUMPED AT THE RATE OF 150 GALLONS PER MINUTE, WATER SUPPLYING 2' DRAIN AT THE HEATING PLANTS, IS CHANGED THROUGH INTO SMALL PIPING AT LEVEL OF 20' BELOW MAIN OF MILL, & CONVEYED THROUGH 12" PIPE INTO MILL, CONVEYING IN REDUCED SIZE, TWO 21" PIPES & 3 TURNS.
- 21. WATER FROM SILVER BOON CREEK, PUMPED UP AND 18000 GALLONS PER HOUR, AT MAIN RISE OF MILL THROUGH 12" PIPE THERE IS A RESERVOIR OF 25000 GALLONS, BEHIND THE CREEK AND BEHIND IS FALLS BY RESERVOIR, ON THE CREEK CAN BE DRAWN UP WITH 2" HOSE AND PUMP & BEHIND DOWN DIRECTLY, 6" BRANCH FROM THE PIPE SUPPLIES TANK WHICH SUPPLIES 12" & 24" DIA. PIPES.
- 22. BRANCH ENTERS DIRECTLY IN - 6" PIPE FROM MAIN TANK COMES UP TO FOUR 28" DIA. & TO COOLING FLOORS.

2500' TO THE ZANDT SHAFT NO EXPOSURE

FIRE APPLIANCES

- Two 21" HOSE IN MILL WITH 150' HOSE TO EACH ONE 2" HOSE & 35' HOSE IN COOLING FLOORS.
- FRANKLIN STAMP F. PUMP WITH 2' COASTING TANK & 60' 2" HOSE ATTACHED TO EACH END.
- TWO HOSE BETWEEN MILL & PUMPING STATION.
- LOADS QUANTITY OF LEAD FROM THE EXIST. THROUGHOUT MILL BLDG.
- 12" HOSE CONVEYED AT NIGHT.
- 12" HOSE.
- LIGHTS ELEC. & KEROSENE LIGHTING.
- ONE NIGHT WATCHMAN.
- LADDERS TO ROOF & WALKS ALL OVER ROOF.
- NO WATER RESERVOIR/RESERVOIR THROUGHOUT BLDG.

BLUEBIRD MINING CO'S. STAMP MILL.

2 1/2 Miles S.W. of Court Ho.

S. WORKS.
W. of Court Ho.

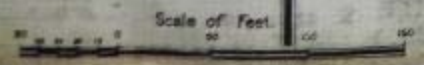


SYSTEM - FIRE HOSE ELECTRIC EMPLOYED ON SURFACE AT NIGHT

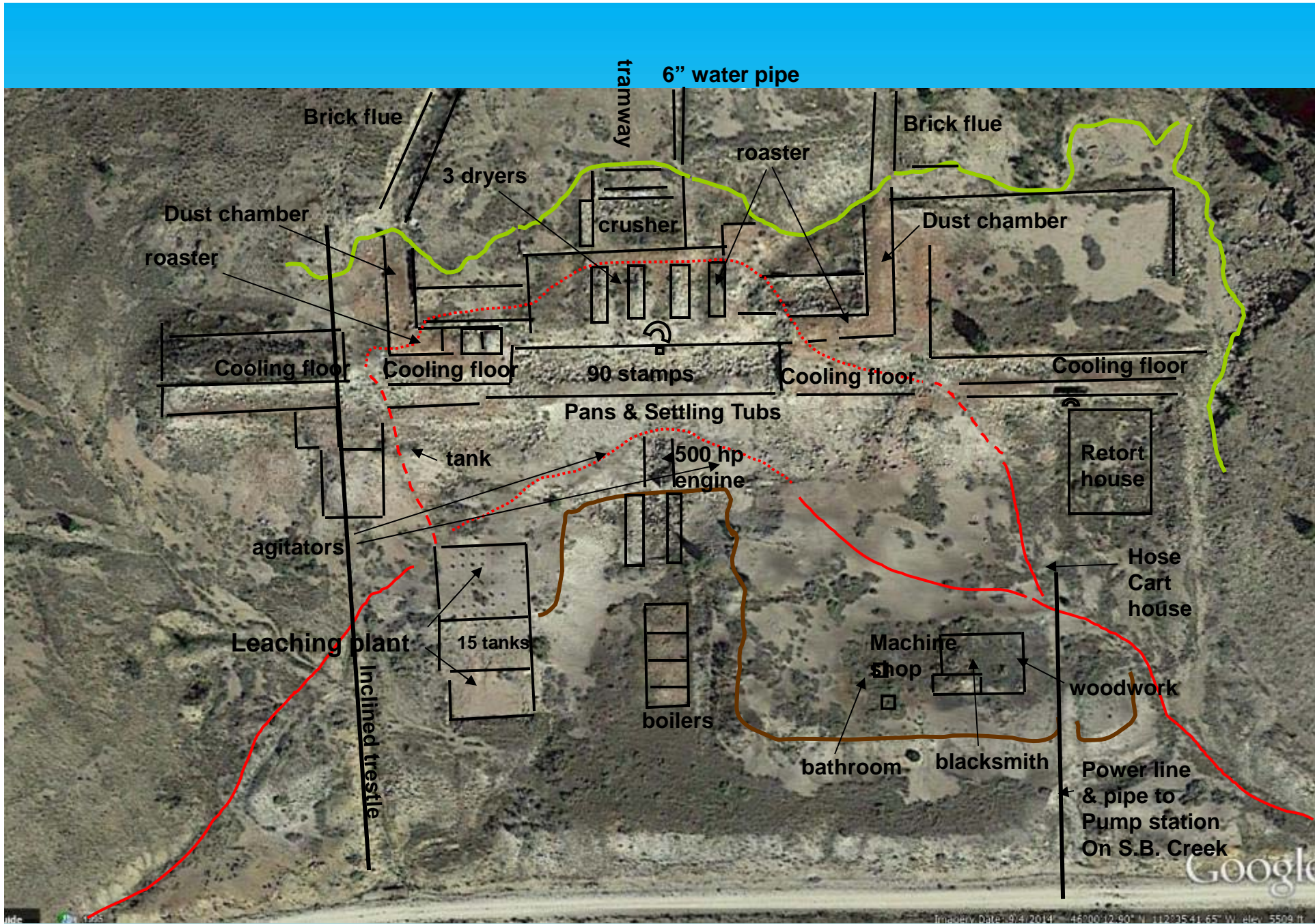
NO EXPOSURE

NO EXPOSURE

PUMPING STATION of SILVER BOON CREEK.
ONE 12" COPPER PUMP & PUMP 12" & 24" COPPER PUMP FOR MINUTE OPERATED BY POWER CABLE FROM MILL CONVEYING AND 18000 GALLONS PER HOUR.
ONE 21" - 22" - 12" NORTHWESTERN PUMPS PUMP WITH SUPERHEATED STEAM AVAILABLE IN CASE PUMPER PUMP SHOULD BE STOPPED.









Foundation of cooling floor



Part of the flue system



Engine driving stamps



dust chambers



Supports for floor of leaching plant

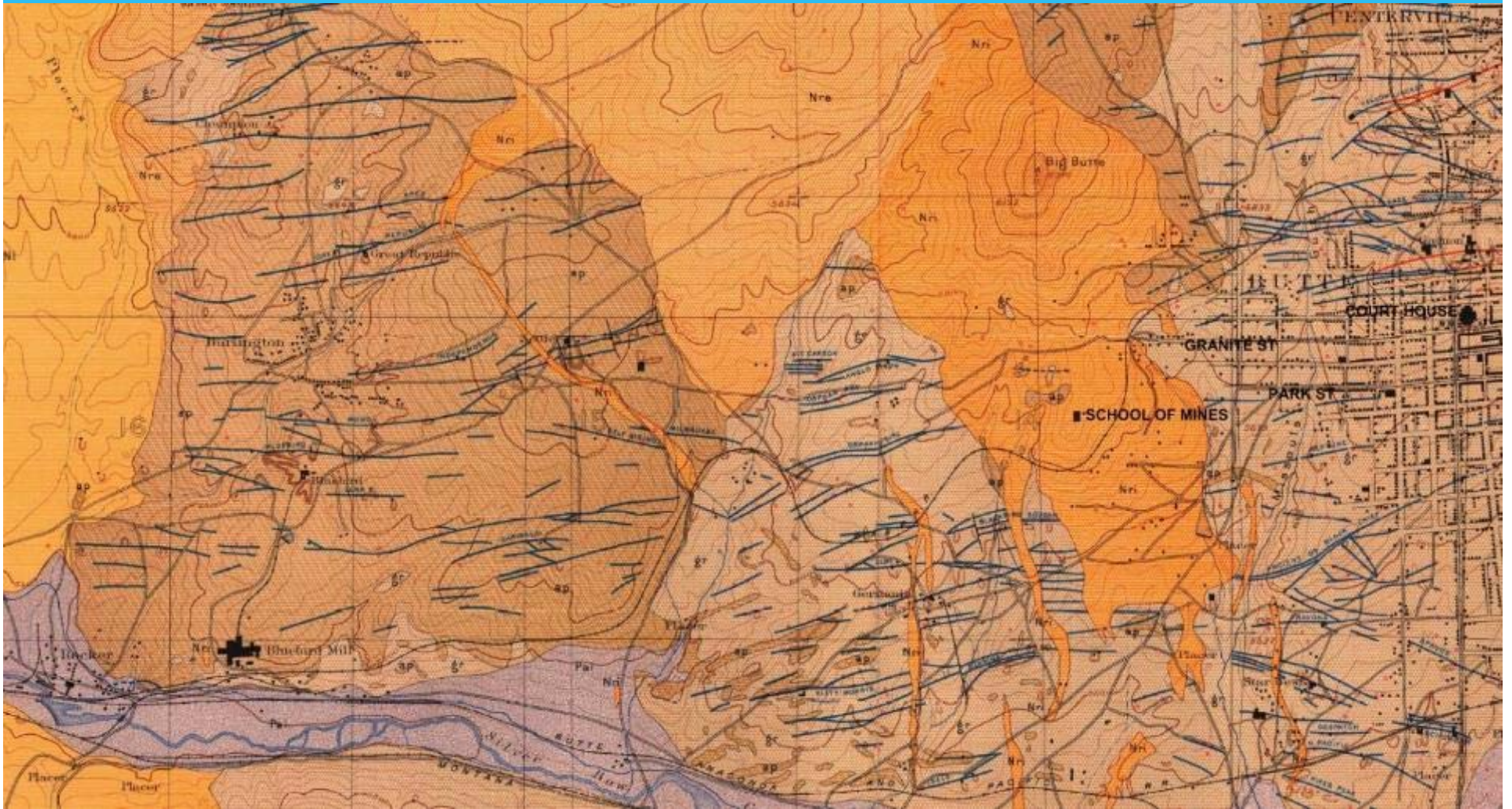


Cooling floor and general foundation

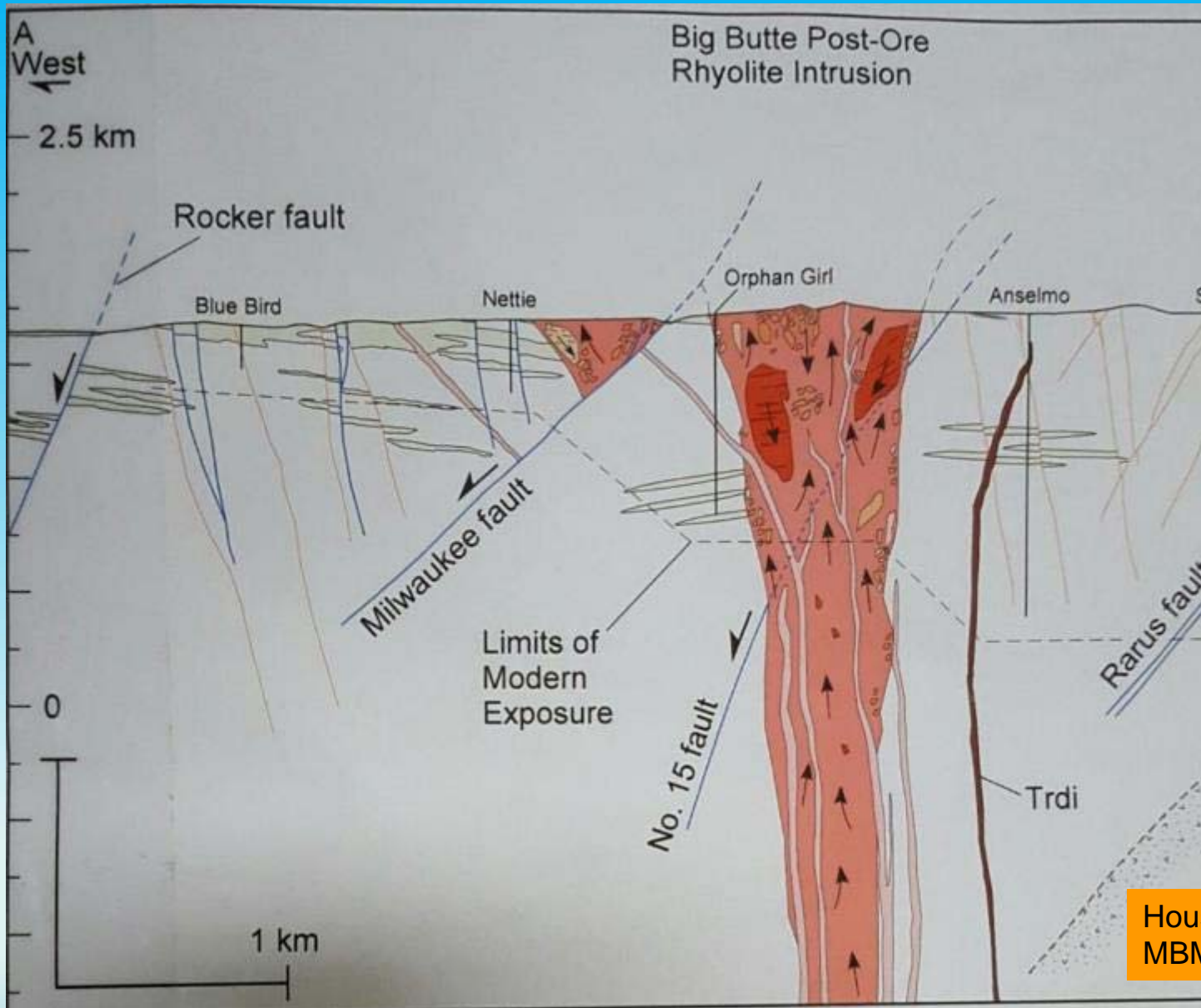


Photo courtesy Ted Antonioli

Geology



Weed, 1912



Houston & Dilles, 2013
 MBMG Open File 627

Some minerals – mine dumps



Galena, sphalerite





chalcedony

At the mill site



Each approx.
1 cm

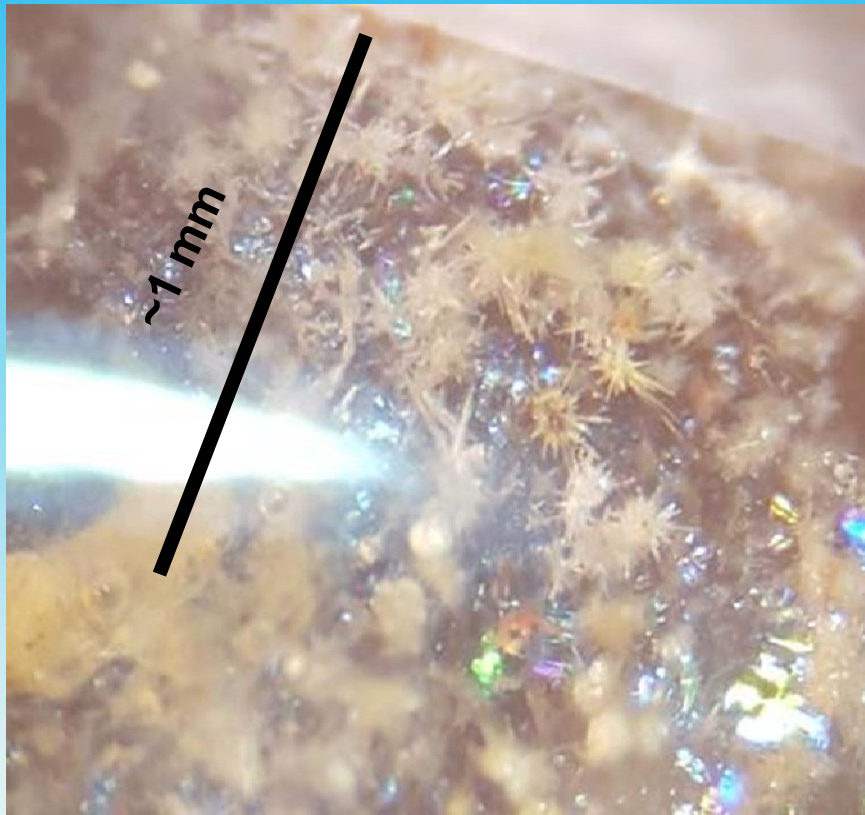


Collected in 2016

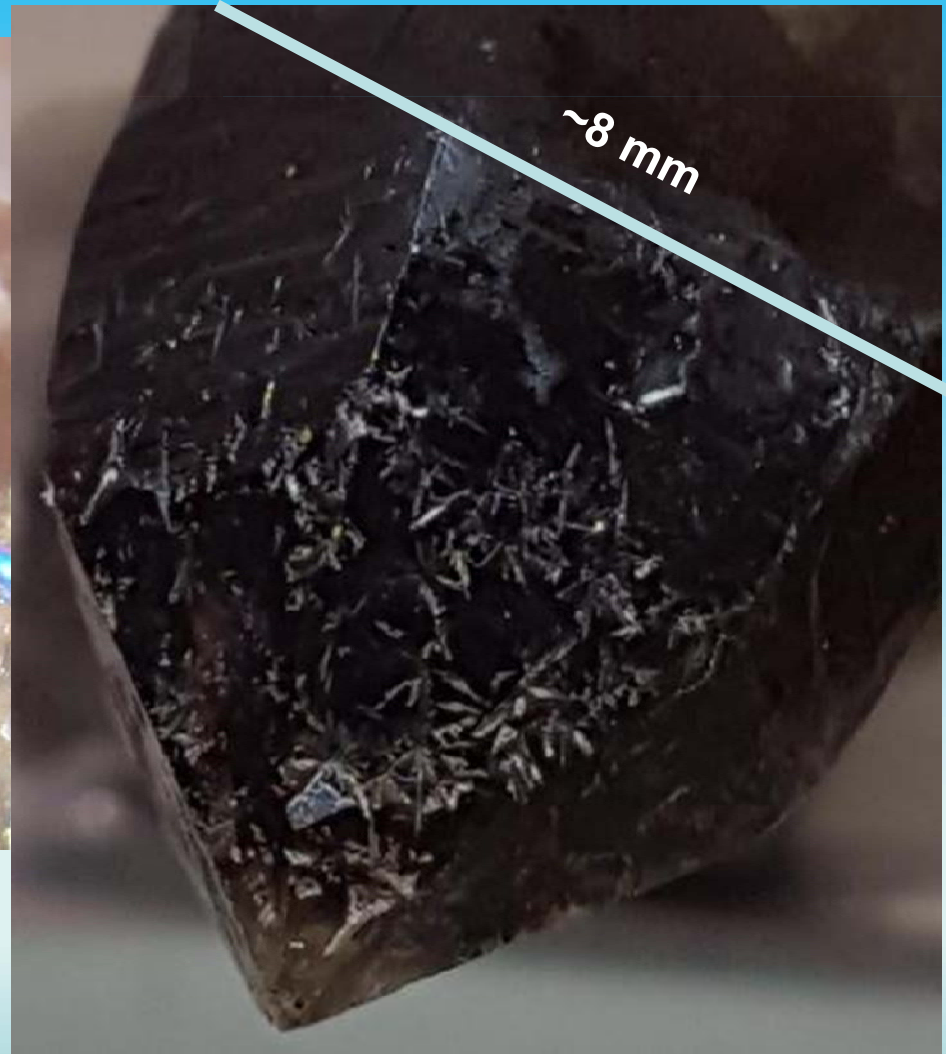
Tourmaline, feldspar

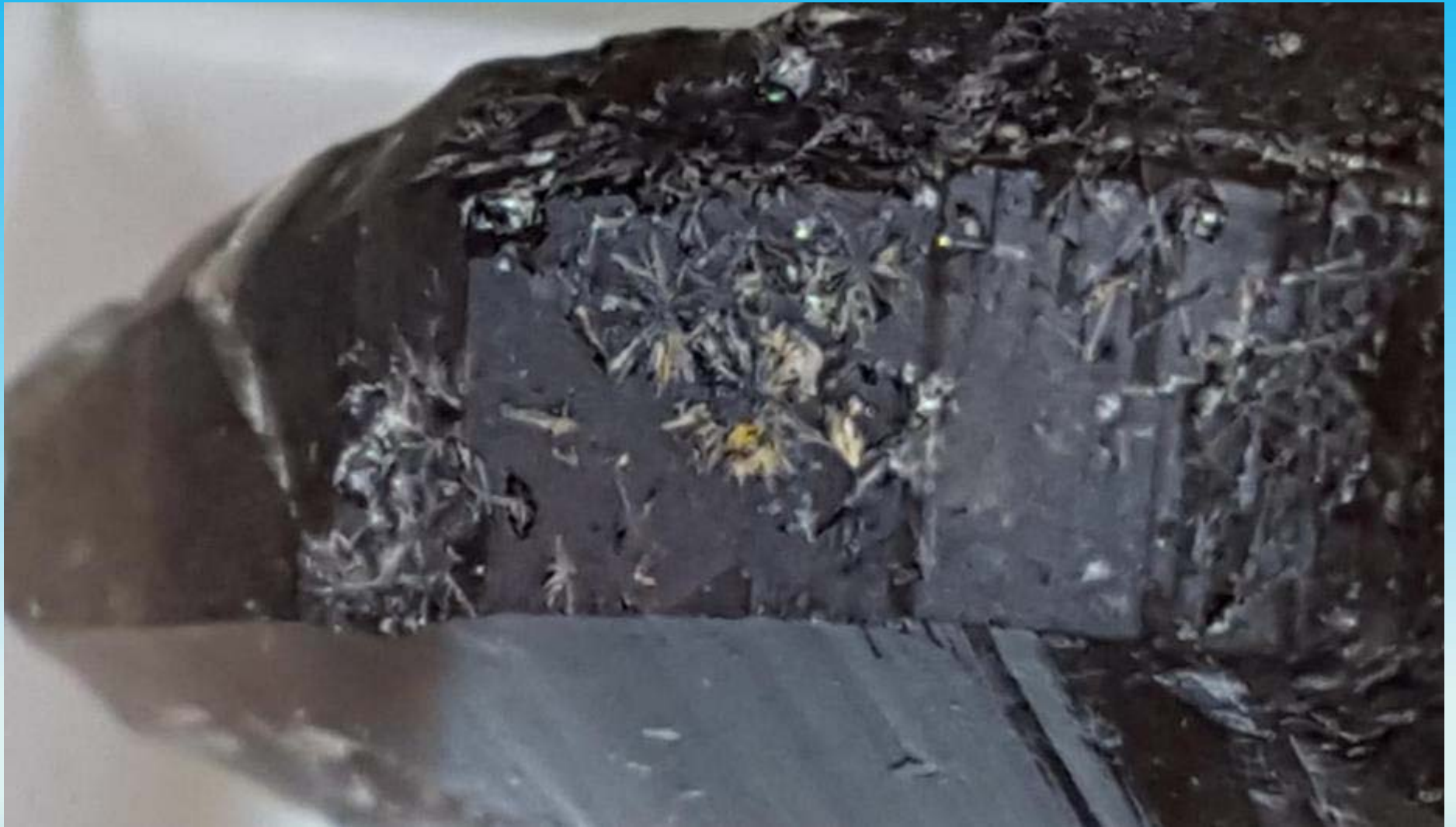


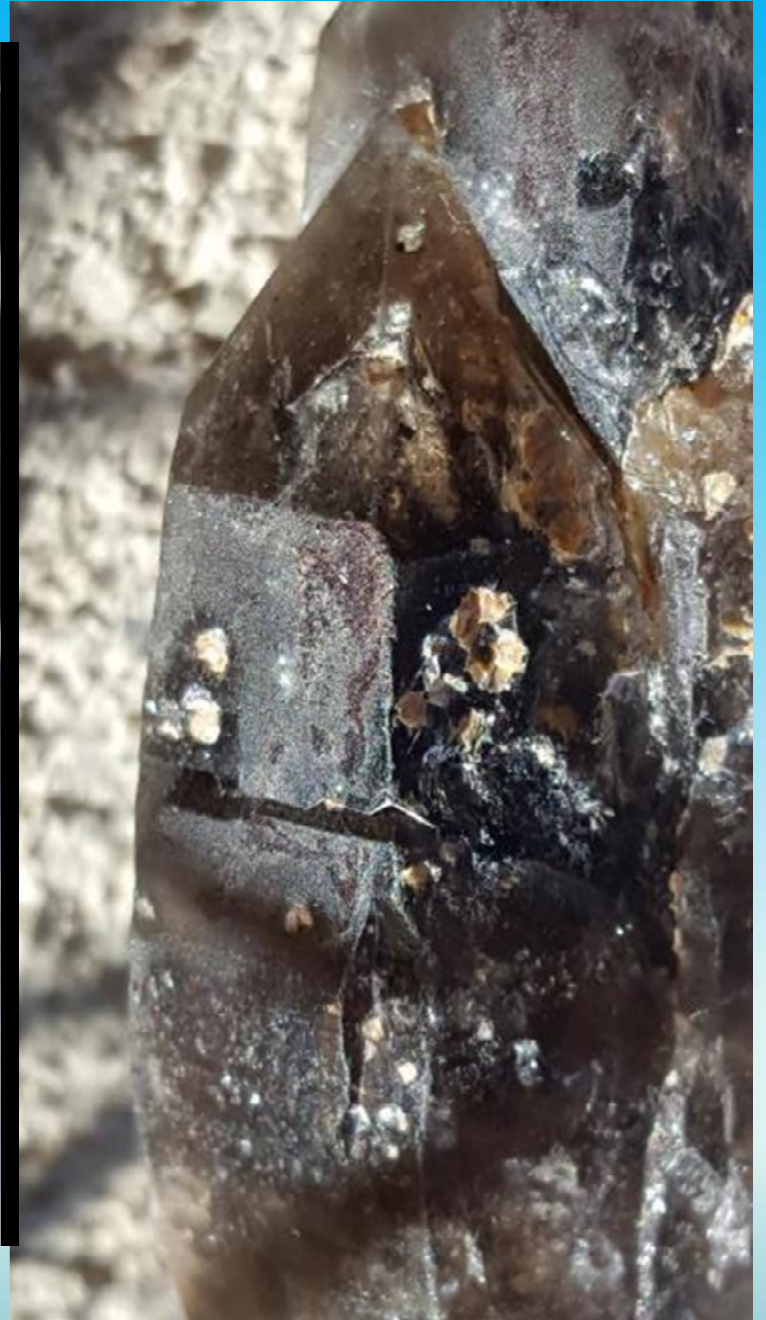
Inclusions in quartz



9 x 3 mm









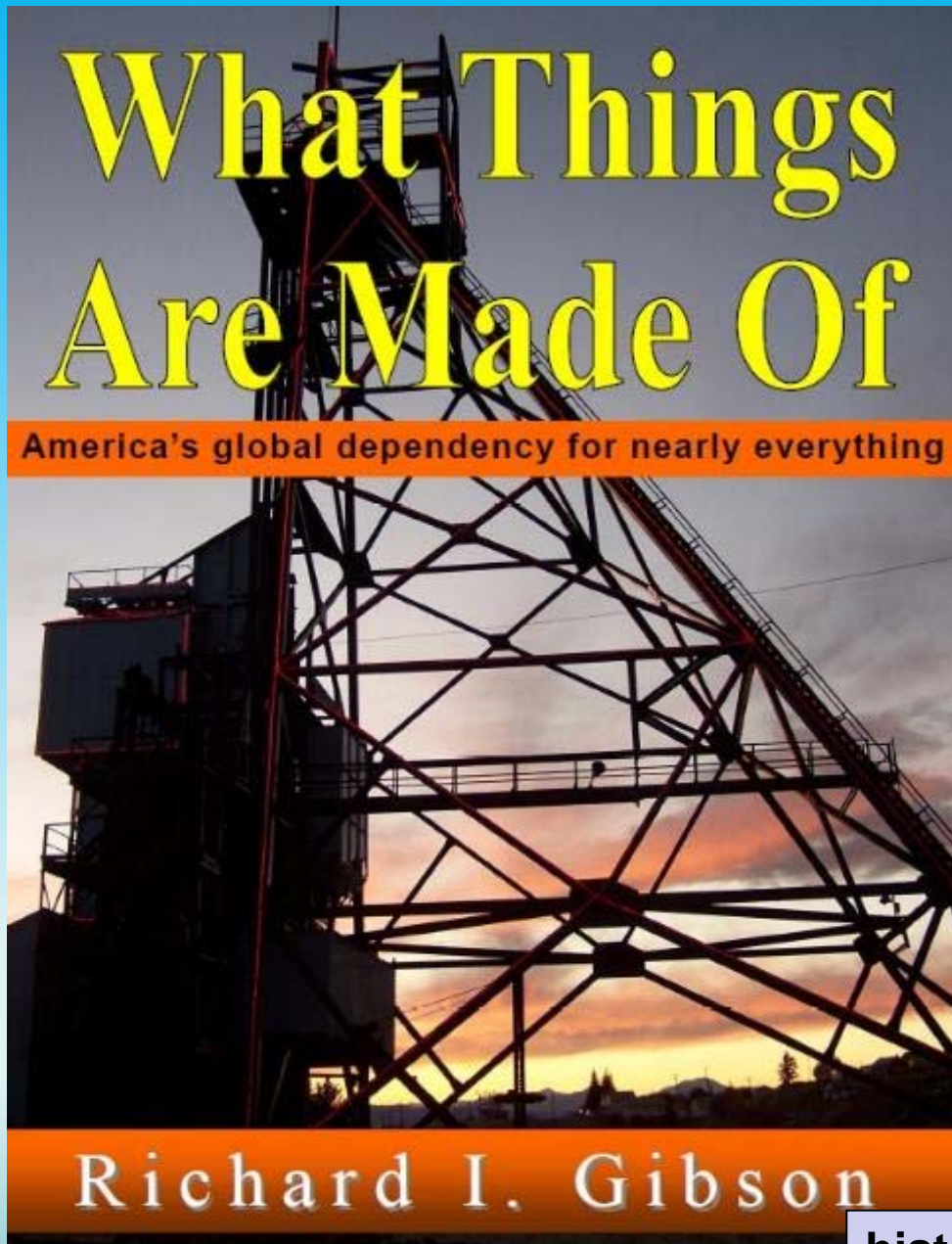


What are they?

- Muscovite?
 $\text{KAl}_2(\text{AlSi}_3\text{O}_{10})(\text{OH})_2$
- Chlorite-talc?
- Pyrophyllite?
 $\text{Al}_2\text{Si}_4\text{O}_{10}(\text{OH})_2$
- Diaspore? $\text{AlO}(\text{OH})$

Raman spectroscopy inconclusive





**THANK
YOU!**



historyoftheearthcalendar.blogspot.com