

GEOLOGY OF THE  
CHAMPION MINE

Bohemia mining district, Oregon

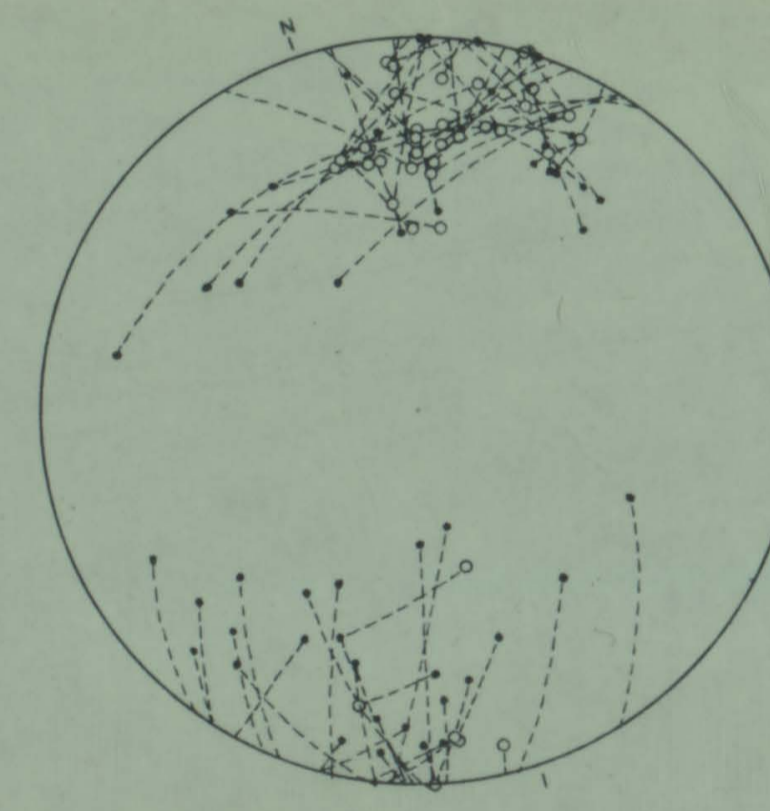
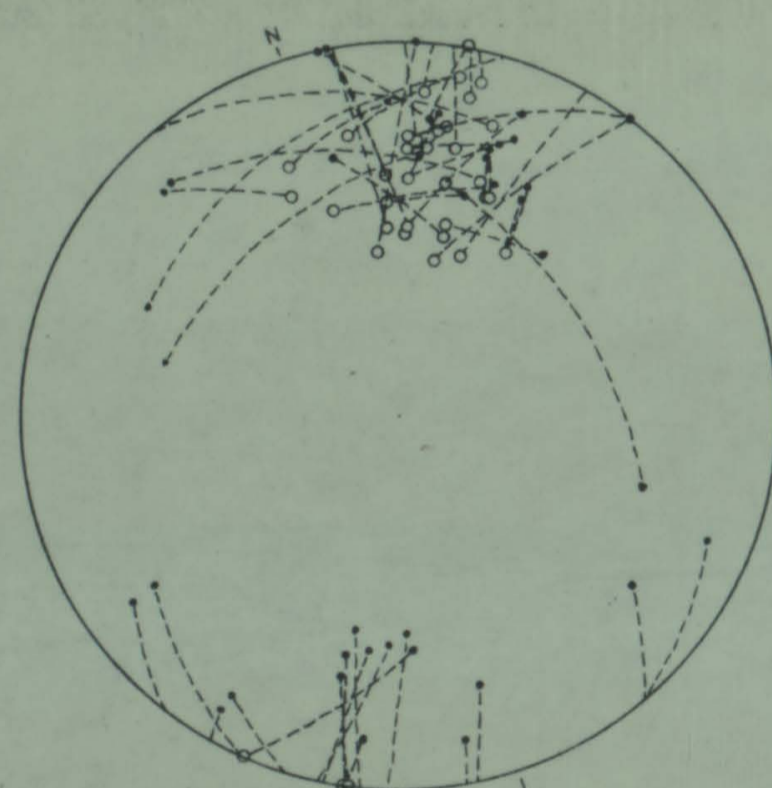
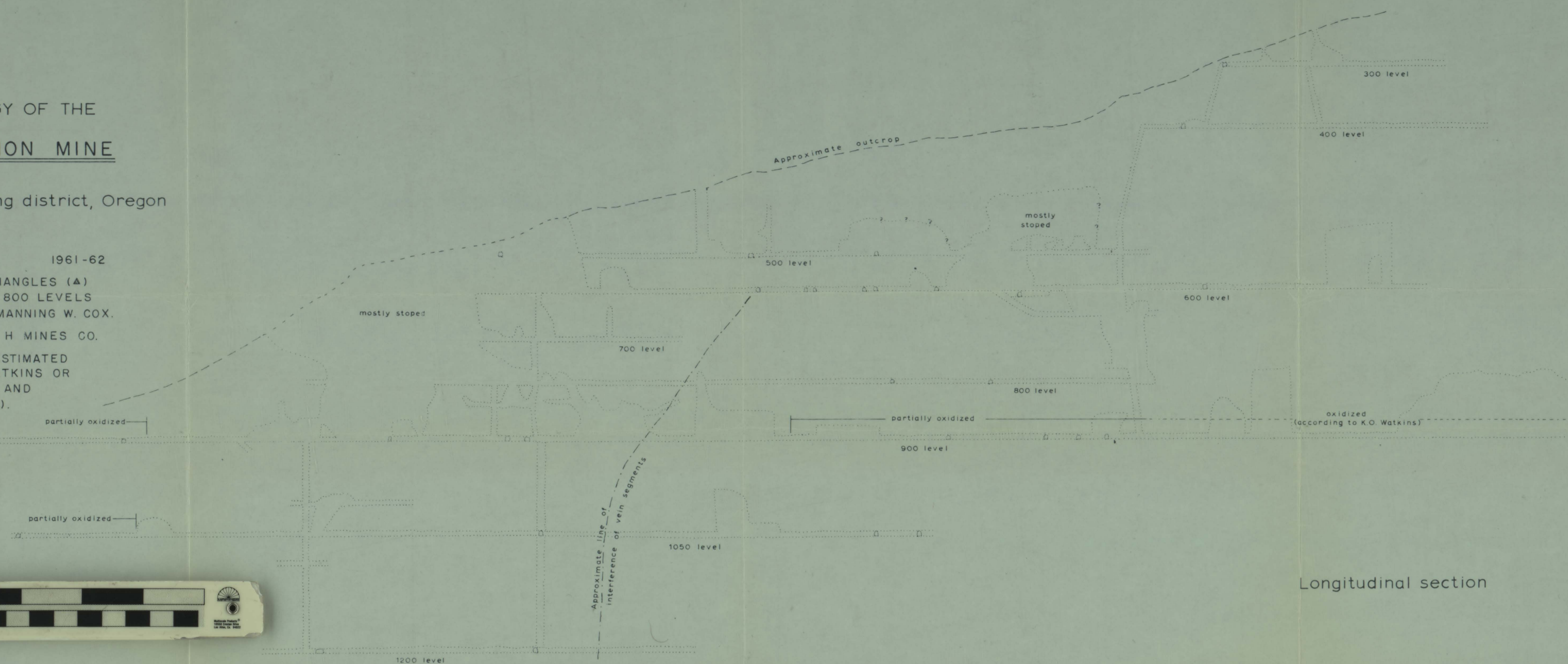
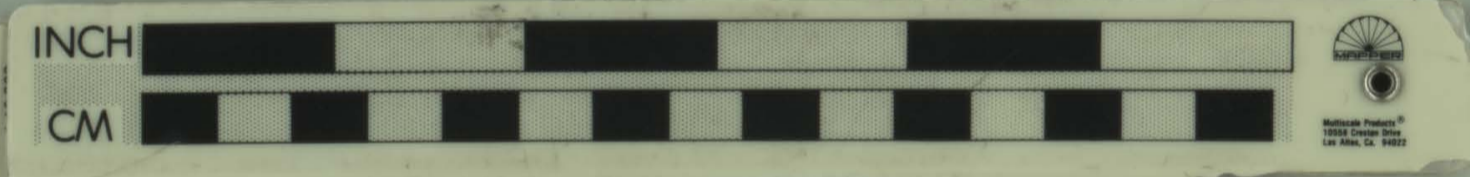
RICHARD J. LUTTON 1961-62

AREAS BEYOND TRIANGLES (▲) AND ON 600 AND 800 LEVELS FROM NOTES BY MANNING W. COX.

BASE MAP BY H & H MINES CO.

STOPE OUTLINES ESTIMATED BY KENNETH O. WATKINS OR FROM CALLAGHAN AND BUDDINGTON (1938).

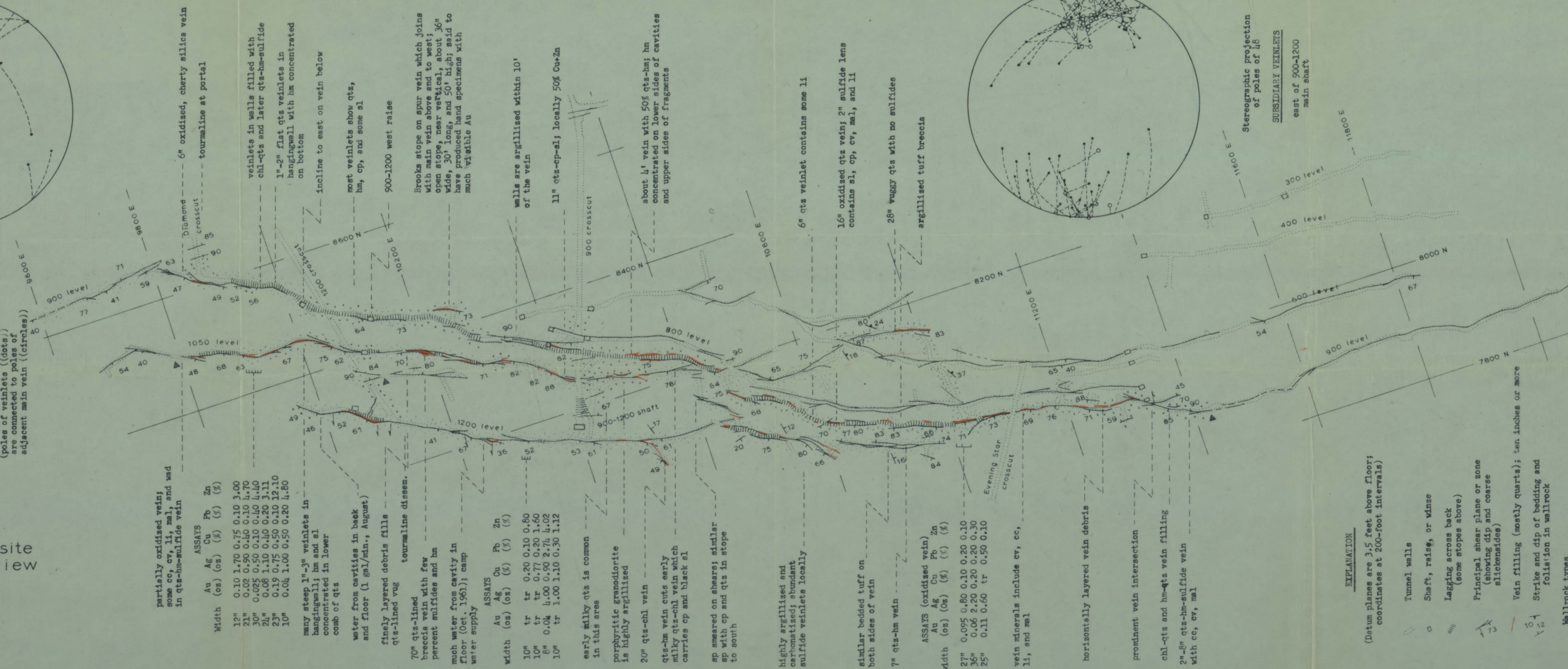
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Stereographic projection of Poles of 10 SUBSIDIARY VEINS west of 900-1200 main shaft. (poles of veinlets (dots) are connected to poles of adjacent main vein (circles))

Stereographic projection of poles of 18 SUBSIDIARY VEINS east of 900-1200 main shaft

Composite plan view



partially oxidized veins  
some cv, tr, ml, and wd  
in qtz-hm-sulfide vein

ASSAYS

	Au	Ag	Cu	Pb	Zn
Width (oz) (%) (%) (%) (%) (%)	0.10	1.70	0.75	0.10	3.00
15"	0.025	0.50	0.10	0.10	1.40
20"	0.025	0.50	0.10	0.10	1.40
25"	0.025	0.50	0.10	0.10	1.40
30"	0.025	0.50	0.10	0.10	1.40
35"	0.025	0.50	0.10	0.10	1.40
40"	0.025	0.50	0.10	0.10	1.40
45"	0.025	0.50	0.10	0.10	1.40
50"	0.025	0.50	0.10	0.10	1.40
55"	0.025	0.50	0.10	0.10	1.40
60"	0.025	0.50	0.10	0.10	1.40
65"	0.025	0.50	0.10	0.10	1.40
70"	0.025	0.50	0.10	0.10	1.40
75"	0.025	0.50	0.10	0.10	1.40
80"	0.025	0.50	0.10	0.10	1.40
85"	0.025	0.50	0.10	0.10	1.40
90"	0.025	0.50	0.10	0.10	1.40
95"	0.025	0.50	0.10	0.10	1.40
100"	0.025	0.50	0.10	0.10	1.40
105"	0.025	0.50	0.10	0.10	1.40
110"	0.025	0.50	0.10	0.10	1.40
115"	0.025	0.50	0.10	0.10	1.40
120"	0.025	0.50	0.10	0.10	1.40

many steep 15-30° veinlets in  
breccias; hm and al  
concentrated in lower  
comb of qtz

water from cavities in back  
and floor (1 gal/min., August)

steeply layered debris fills  
qtz-lined vug  
tourmaline dissem.

70° qtz-lined  
breccia vein with few  
percent sulfides and hm

much water from cavity in  
floor (Oct. 1961); camp  
water supply

ASSAYS

	Au	Ag	Cu	Pb	Zn
Width (oz) (%) (%) (%) (%) (%)	0.10	1.70	0.75	0.10	3.00
15"	0.025	0.50	0.10	0.10	1.40
20"	0.025	0.50	0.10	0.10	1.40
25"	0.025	0.50	0.10	0.10	1.40
30"	0.025	0.50	0.10	0.10	1.40
35"	0.025	0.50	0.10	0.10	1.40
40"	0.025	0.50	0.10	0.10	1.40
45"	0.025	0.50	0.10	0.10	1.40
50"	0.025	0.50	0.10	0.10	1.40
55"	0.025	0.50	0.10	0.10	1.40
60"	0.025	0.50	0.10	0.10	1.40
65"	0.025	0.50	0.10	0.10	1.40
70"	0.025	0.50	0.10	0.10	1.40
75"	0.025	0.50	0.10	0.10	1.40
80"	0.025	0.50	0.10	0.10	1.40
85"	0.025	0.50	0.10	0.10	1.40
90"	0.025	0.50	0.10	0.10	1.40
95"	0.025	0.50	0.10	0.10	1.40
100"	0.025	0.50	0.10	0.10	1.40
105"	0.025	0.50	0.10	0.10	1.40
110"	0.025	0.50	0.10	0.10	1.40
115"	0.025	0.50	0.10	0.10	1.40
120"	0.025	0.50	0.10	0.10	1.40

early milky qtz is common  
in this area

porphyritic granodiorite  
is highly argillized

20° qtz-hm vein  
qtz-hm vein cuts early  
milky qtz-hm vein which  
carries cp and black sl

sp measured on chert; similar  
with cp and qtz in stopes  
to south

highly argillized and  
carbonatized; abundant  
sulfide veinlets locally

similar bedded tuff on  
both sides of vein

7° qtz-hm vein

ASSAYS (oxidized vein)

	Au	Ag	Cu	Pb	Zn
Width (oz) (%) (%) (%) (%) (%)	0.10	1.70	0.75	0.10	3.00
15"	0.025	0.50	0.10	0.10	1.40
20"	0.025	0.50	0.10	0.10	1.40
25"	0.025	0.50	0.10	0.10	1.40
30"	0.025	0.50	0.10	0.10	1.40
35"	0.025	0.50	0.10	0.10	1.40
40"	0.025	0.50	0.10	0.10	1.40
45"	0.025	0.50	0.10	0.10	1.40
50"	0.025	0.50	0.10	0.10	1.40
55"	0.025	0.50	0.10	0.10	1.40
60"	0.025	0.50	0.10	0.10	1.40
65"	0.025	0.50	0.10	0.10	1.40
70"	0.025	0.50	0.10	0.10	1.40
75"	0.025	0.50	0.10	0.10	1.40
80"	0.025	0.50	0.10	0.10	1.40
85"	0.025	0.50	0.10	0.10	1.40
90"	0.025	0.50	0.10	0.10	1.40
95"	0.025	0.50	0.10	0.10	1.40
100"	0.025	0.50	0.10	0.10	1.40
105"	0.025	0.50	0.10	0.10	1.40
110"	0.025	0.50	0.10	0.10	1.40
115"	0.025	0.50	0.10	0.10	1.40
120"	0.025	0.50	0.10	0.10	1.40

vein minerals include cv, cc,  
11, and ml

horizontally layered vein debris

prominent vein intersection

chl-qtz and hm-qtz vein filling

2°-8° qtz-hm-sulfide vein  
with cv, tr, ml

- EXPLANATION
- (Datum planes are 3.5 feet above floor; coordinates at 200-foot intervals)
- Tunnel walls
  - Shaft, raise, or mine
  - ▨ Lagging across back (same stopes above)
  - ▧ Principal shear plane or zone (showing dip and coarse silicemoides)
  - ▩ Vein filling (mostly quartz); ten inches or more
  - ▭ Strike and dip of bedding and foliation in wallrock
  - ▮ Wallrock types
  - Pyroclastics
  - Porphyritic granodiorite
  - Basic lava or dike
  - Rhyolite
- Abbreviations of minerals
- py pyrite
  - hm hematite
  - cp calcoprite
  - sp sphalerite
  - sl sphalerite
  - chl chalcocite
  - 11 limonite
  - qtz quartz
  - ml malachite
  - cv covellite
  - cc calcocite
  - 11 limonite
  - ml malachite

8.210

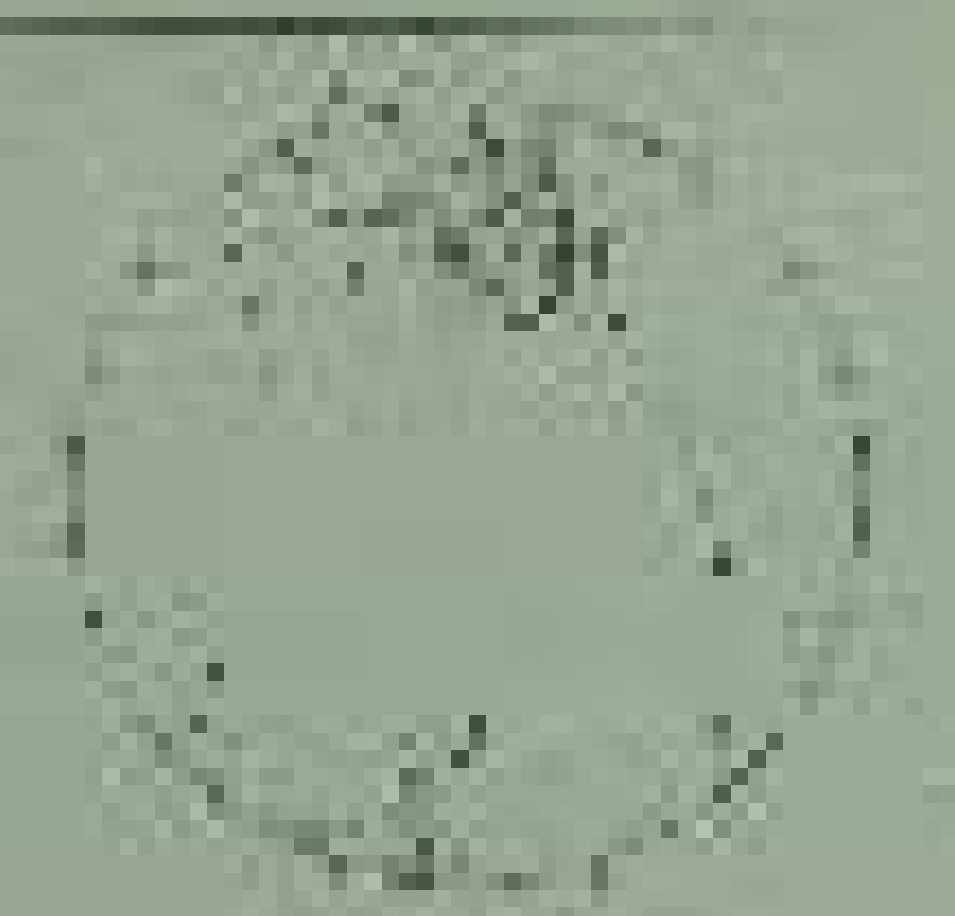
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### LEGEND

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 4. ...  
 5. ...  
 6. ...  
 7. ...  
 8. ...  
 9. ...  
 10. ...



4160



1. ...  
 2. ...  
 3. ...

Scale

