Southwestern States Branch

November 17, 1960

Registered Mail
Return Receipt Requested

Mr. E. N. Pennebaker
P. O. Box 817
Scottsdale, Arizona

Dear Sir:

I am returning herewith the maps and reports on the Mountain City area that you so kindly lent me. I am very grateful to you for the opportunity to use the information on them.

Yours very truly,

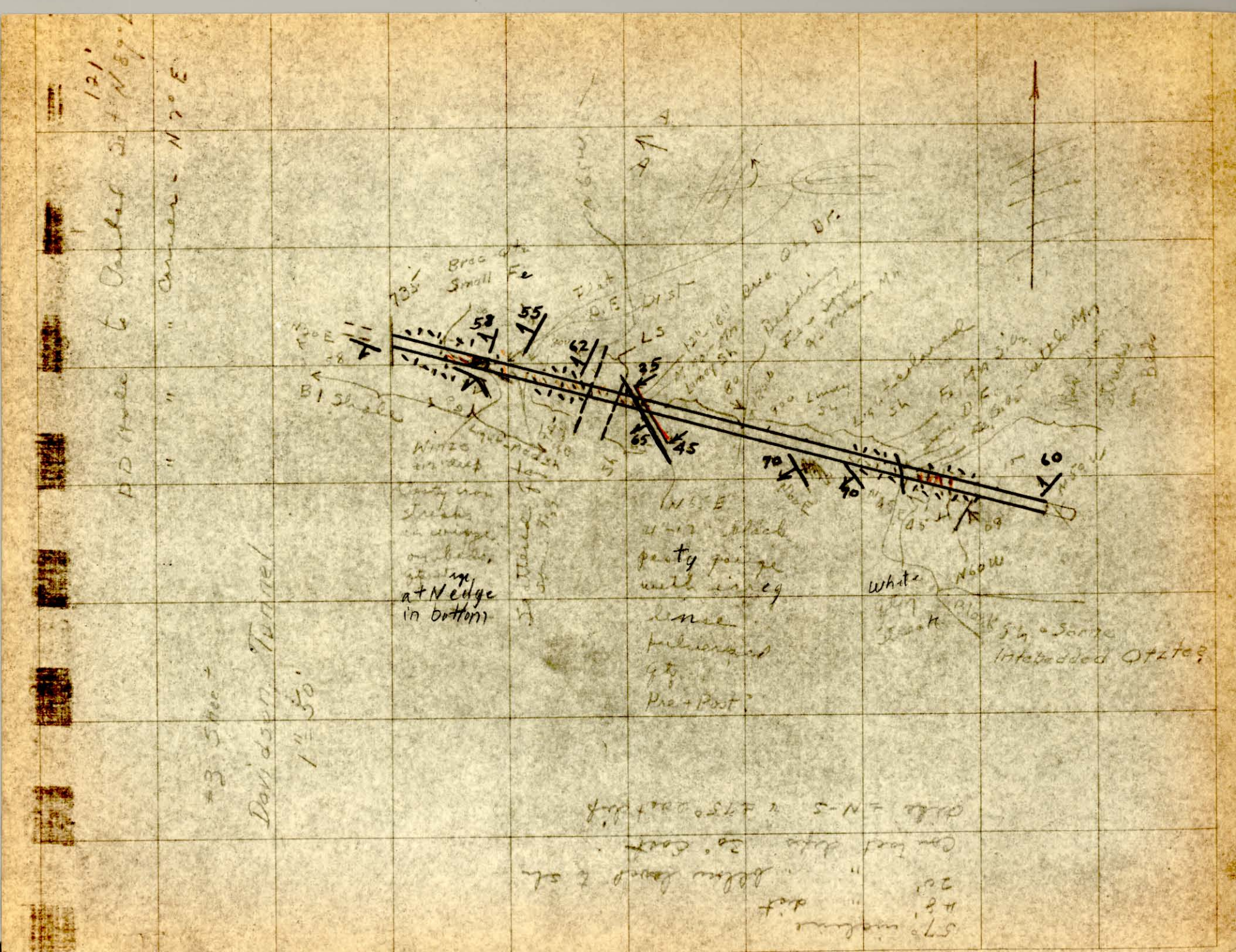
Robert R. Coats
Geologist

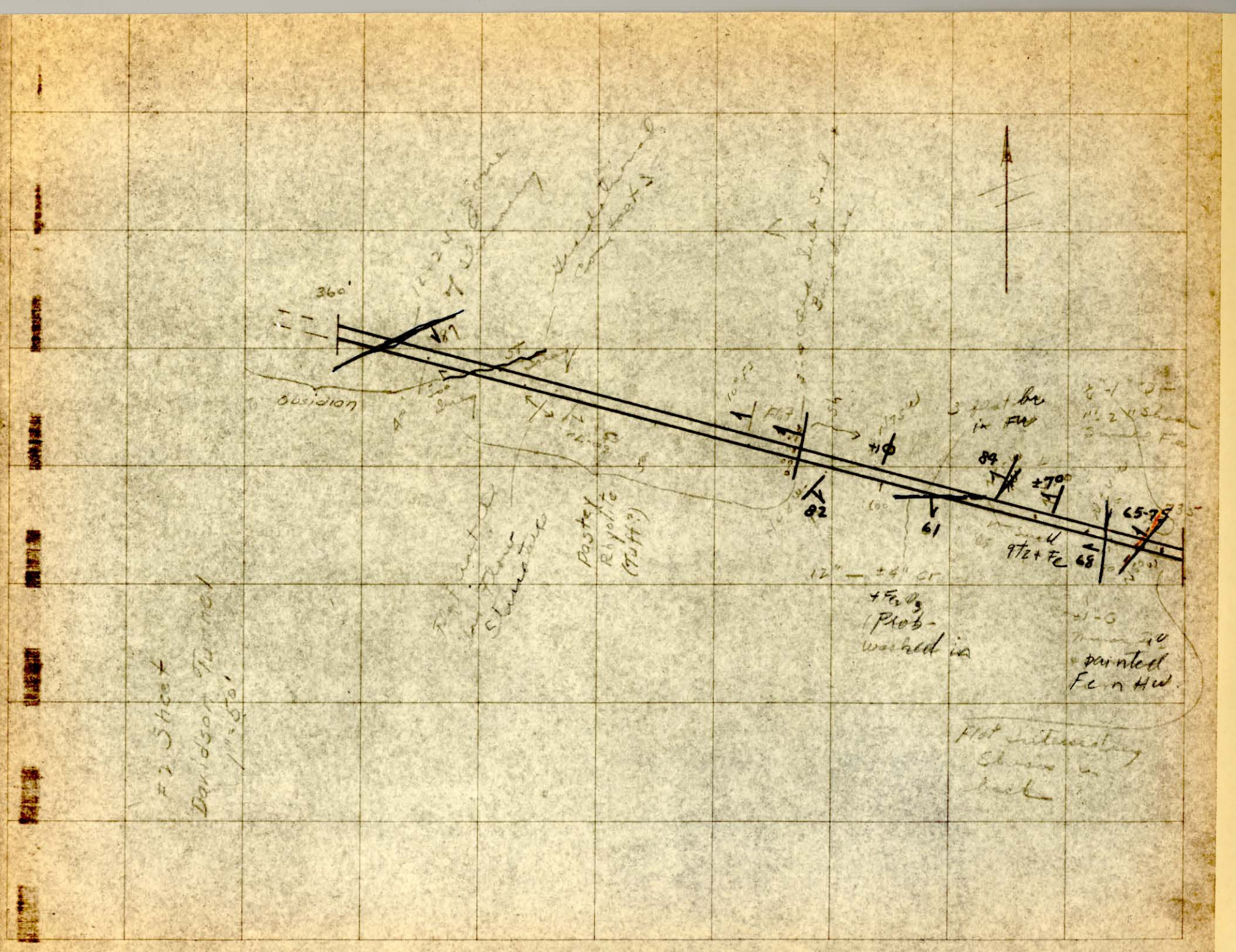
Enclosure

cc: Director's reading file
Coats
Subject file
Reading file (Southwest, M.P.)
RRC/ay

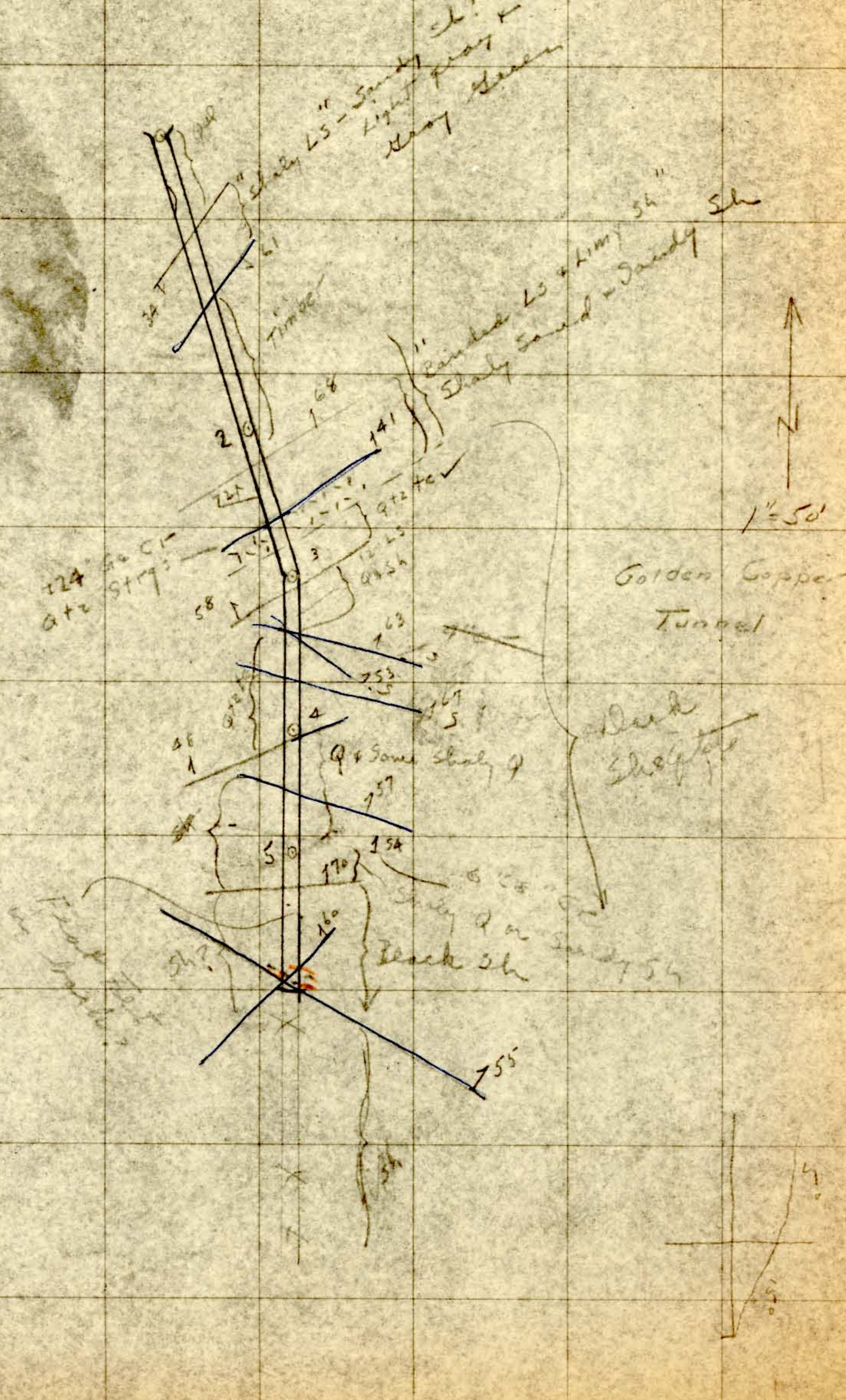
POST OFFICE BOX 817
SCOTTSDALE, ARIZONA

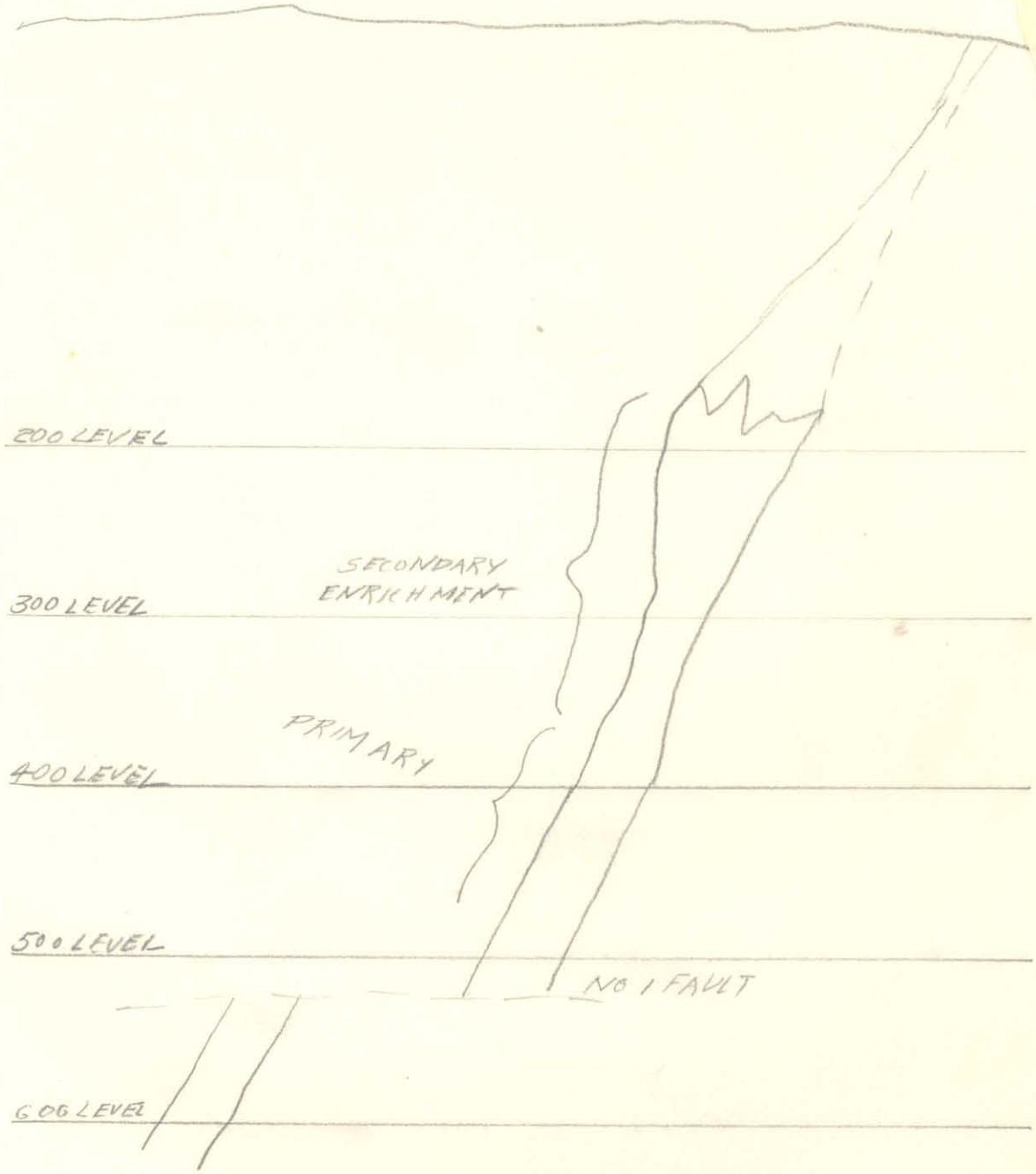
Davidson Tunnel
1" = 50'


Breccia of Small Fe
58
55
62
35
65
45
70
40
60
LS
B1 Shale
Winze in west
at N edge in bottom
white
Black Sh
Interbedded Qtzte?
Pre + Post
Dovidson Tunnel
1" = 50'


360'
obsidian
82
61
89
68
65-75
±70°
±1φ
pasty Rhyolite (Tuff?)
+Fe2O3 (Prob. washed in
painted Fe in HW.
Flat intersecting shear in back
Davidson Tunnel 1" = 50'

[illegible]EBAKER
POST OFFICE BOX 817
SCOTTSDALE, ARIZONA





ROUGH SKETCH-MOUNTAIN CITY MINE
TRANSVERSE SECTION
LOOKING EAST TOWARD RIO GRANDE GROUND

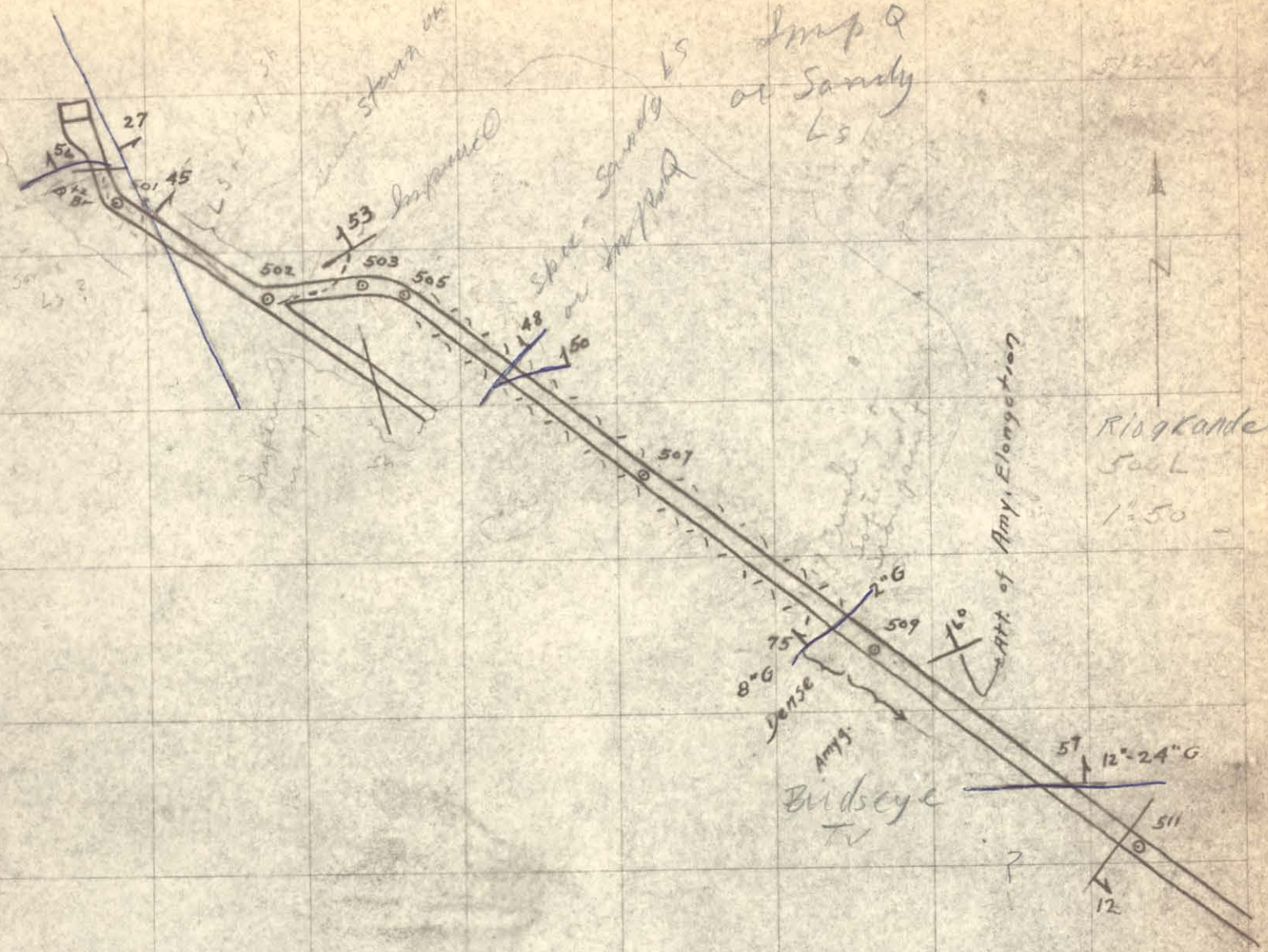
1" = 100'

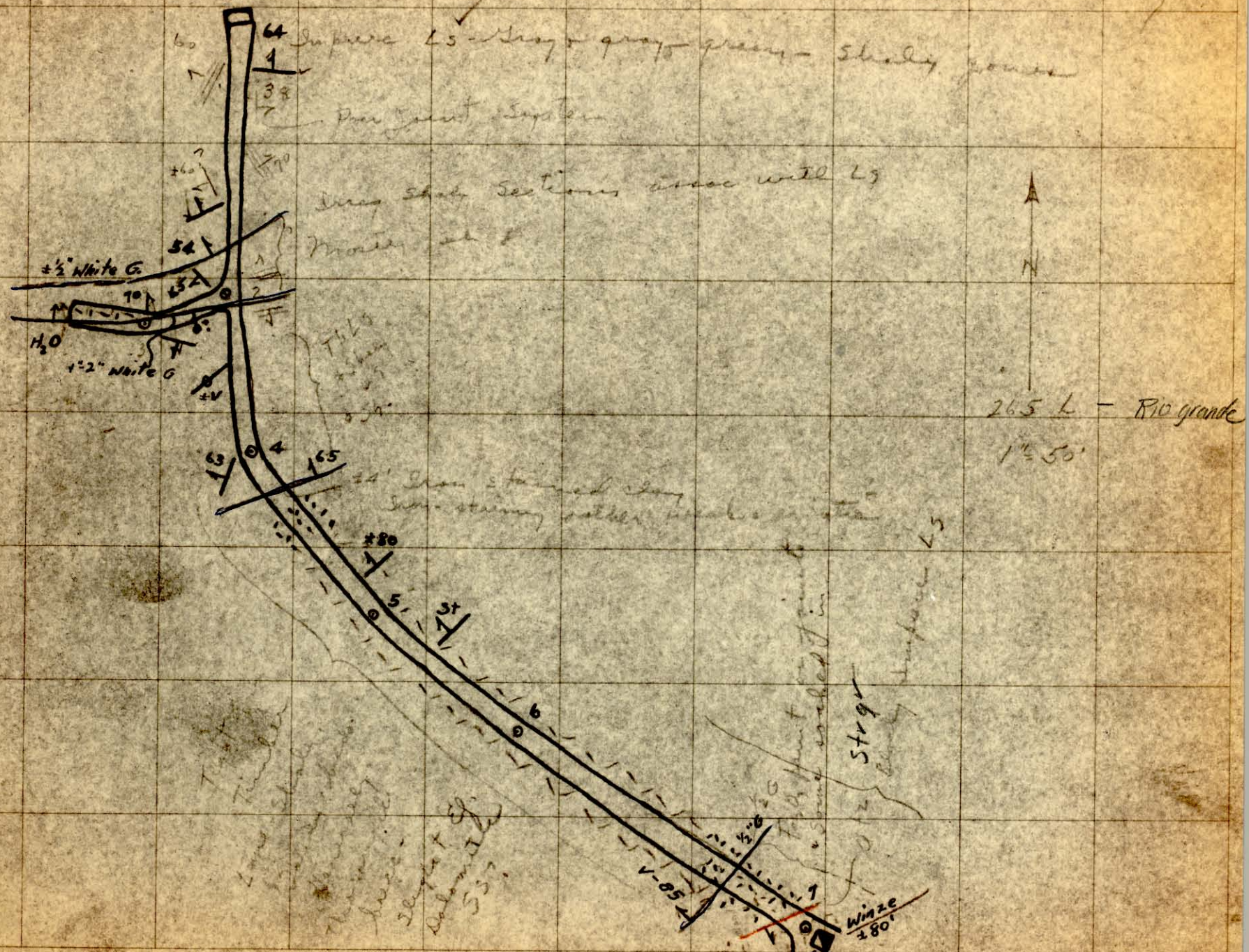
From E.N. Pennebaker

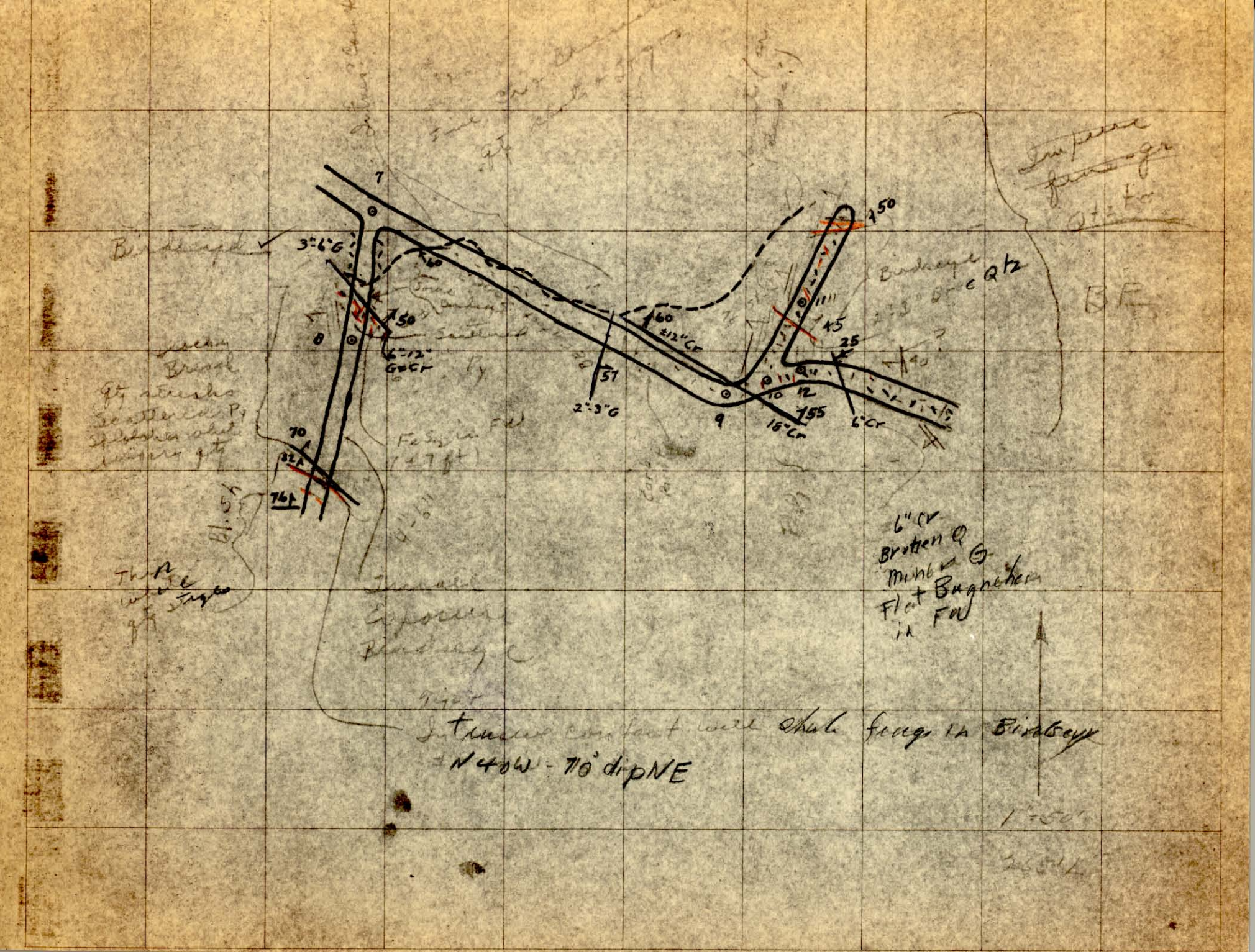
(Confidential) From ward carithers, Air Metal Climax.
(Montrose)

Table 3 - X-ray Fluorescent Spectrographic Analyses of Oxybee Samples in Percent, Semiquantitative
(Marlyn L. Salmon, Analyst)

Element	"Central" Area Pits (around MoS_2 vein) 4123	4128	4130	4131	"South" Area 4133	"NE" Area 4134	Specimen (Near MoS_2 vein) 4136	Black Shale 4137	Gen. Dump (Anaconda DDH#1 50-200' grab) 7842	DDH #3 (60-70' grab) 7843
Copper	.016	.002	.012	.008	.012	.003	.034	.017	.018	.044
Silver	.003	-	-	-	-	-	.004	-	-	.0044
Zinc	.021	.006	.019	.013	.019	.005	.051	.008	.046	.035
Cadmium	.001	.006	-	-	-	-	.0032	.010	.0042	.008
Tin	-	-	-	-	-	-	.0082	-	-	.046
Lead	.013	.009	.011	-	.006	.030	-	-	-	.071
Arsenic	-	-	-	.009	.018	.038	.009	-	.030	.0084
Antimony	.018	-	-	-	-	-	-	-	.0072	-
Tellurium	-	-	-	-	-	-	-	-	.0088	-
Iron	3.10	2.20	4.00	2.20	3.40	2.10	3.90	2.8	4.2	6.7
Cobalt	.006	.003	.017	.010	-	-	.029	-	.020	.026
Nickel	.092	.057	.067	.016	.008	.001	.100	.007	.046	.017
Rubidium	.016	.021	.023	-	.011	.018	.016	.014	.009	.018
Barium	.073	.150	.200	.068	.160	.110	-	.100	.095	.170
Strontium	.013	.010	.013	-	.019	.021	.0024	.010	.020	.022
Titanium	.270	.430	.300	.062	.500	.350	-	.510	.690	2.100
Zirconium	.009	.023	.010	-	.019	.021	.0024	.026	.021	.020
Thorium	-	-	-	-	-	.011	.0098	-	-	-
Vanadium	-	-	-	-	-	.027	-	-	-	.071
Columbium	-	-	-	-	.002	-	-	-	-	-
Chromium	.270	.022	.210	.280	.075	.035	.540	.047	.075	.230
Molybdenum	.029	-	.004	.004	-	-	.0077	-	.014	.003
Uranium	-	-	-	.006	-	-	.0045	-	.0084	.007
Manganese	.170	.062	.150	.027	.084	.023	.320	-	.110	.110
Lanthanum	-	-	-	-	.030	.020	-	-	-	-
Cerium	-	-	-	-	.060	.050	-	-	-	-
Yttrium	-	.006	.008	-	.004	.005	.0026	.007	.0048	.011

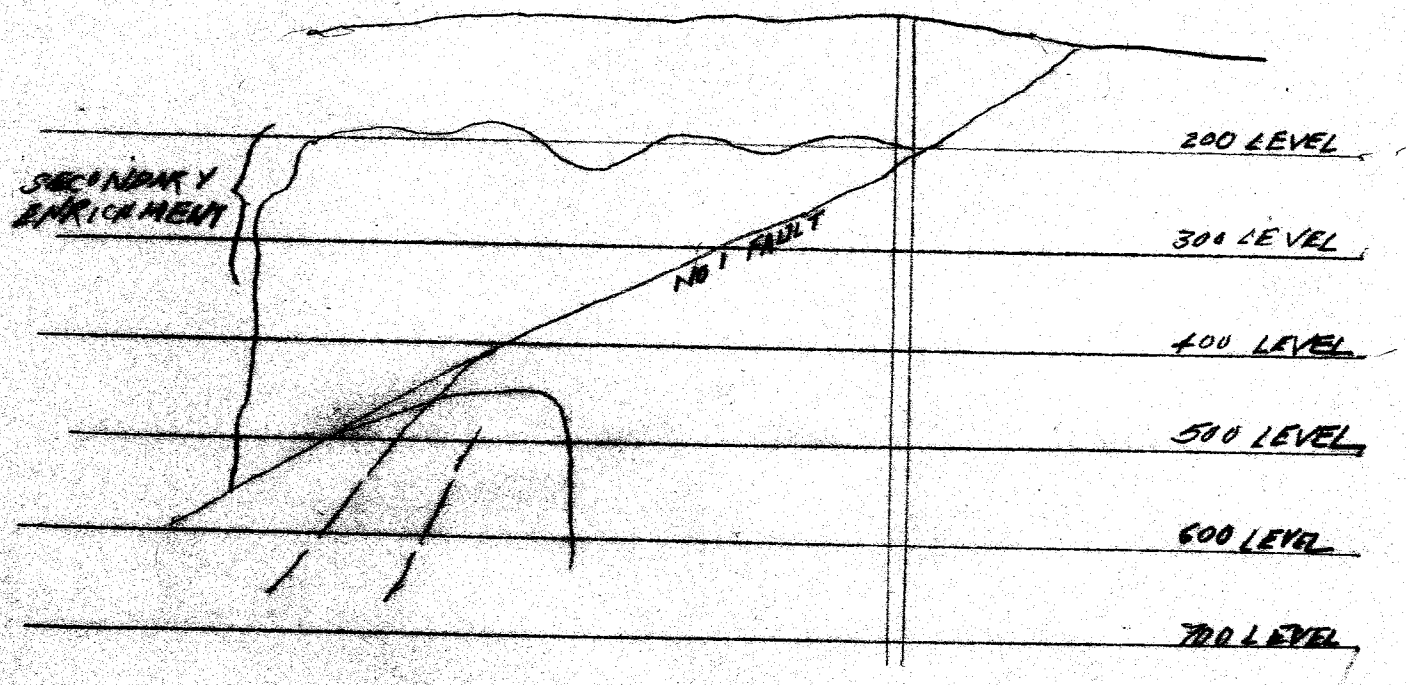



Surface L5 - Stage, grays, greens - Shaly zones
Pre Quartz Syenite
Long shaly sections areas with L5
Moderate at 4
N
265 L - Rio grande
1" = 50'
±½" White G.
H2O
1"-2" White G
±V
±4' Iron stained clay
Sun-stained rather hard to water
Strgr
Winze
±80'
V-85



Intrusive contact with shale frags in Birdseye

N40W - 70° dip NE



ROUGH SKETCH MOUNTAIN CITY MINE

LONGITUDINAL SECTION
LOOKING NORTH

Scale 1" = 200'

From E.N. Pennebaker

Kimberly, Nevada
July 25, 1938

Mr. George B. Thatcher
206 North Virginia St.
Reno, Nevada

Dear George:

On a recent trip to Mountain City I had a quick look at the activities of the Mountain City Consolidated's operations. They are located somewhat over a mile west of Hunt's Rio Tinto shaft on the Combine group of claims in an area I mapped several years ago.

They are in a group of interbedded shales and limestones which I believe to be somewhat north (in the hanging wall) of the beds productive in the Rio Tinto group. However, I think they are not far north of the productive horizon. To the north on the surface the interbedded shales and limestones are covered by younger volcanics. The ground is not far away from the Mountain City granite body, and I believe this gives some attraction.

Exploration to date consists of about 200 feet of winding tunnel and crosscuts and a few surface trenches. The tunnel cuts limestone and shale and exposes a dike-like wall of younger intrusive basalt. Along this east-west wall, dipping north, is a seam of gouge with small lenses of quartz and calcite carrying a thin sprinkling of sulphides. These chunks vary in width from 1/2 inch to 2 inches and are reported to have given copper assays. Jack Richards and I picked out two sacks of these which were assayed here at Kimberly and gave only a trace.

The tunnel shows some iron-staining and leaching in the shale and limestone. It impressed me as a very weak gossan, and the fact that no copper carbonates were precipitated in the limestone is significant.

To date the showings are very skinny. However, the situation of the ground is good, and I believe the Mountain City Copper bunch is keeping an eye on it. It is spoken of in the district as a good prospect.

Its further exploration can be accomplished in two ways. Either cut through the ground on the tunnel level in the hopes of finding a strong gossan on which to sink, or sink from the tunnel level on the showing now exposed. I believe that some additional work is warranted, but I do not think any great expenditure should be made unless stronger showings are found.

With kind regards,

E. N. Pennebaker

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