

B. 4910 0120

Calculated average grade of metals

Oakland, Cal., Oct. 31, 1910.

by W.G. Luckhardt

"TYBO EXAMINATION"

"2G" VEIN

Mr. John Ryan,
Oakland, Cal.

Dear Sir:

Only the accessible part of the 200 and 300 level and all of the 400 were sampled. Two raises, one from the 300 to 200 and one from the 400 to 300 too, were sampled, the others were too full of water and muck. For this same reason, to have sampled the floor of the levels where there were overhead stopes, would have required considerable and expensive work: therefore in some of the calculations the assay results obtained by a Mr. Freeborn have been substituted.

The samples were taken at widely varying distances apart, principally for checking purposes. Some years ago Mr. Freeborn sampled the workings very thoroughly and usually at the uniform distance of five feet between samples. His data I have calculated and compared with the assay results I obtained. These have checked very closely and, as said, I have adopted his return where I could get no independent samples.

I have endeavored to obtain only the data necessary upon which to base tonnage and values.

ORE DEPOSITS

In general the ore deposits on this "2G" fissure are formed along the planes of a narrow lode porphyry dike, usually on the hanging side, but also often on the foot side, and again as replacements in the lime stones. It is evident that the mineralization along the fissure took place at a later period than at the time of its formation. There is also a possibility of there being two parallel veins and in places the indications are very marked that such is the case, but the lack of sufficient cross-cut of the levels prevents any positive determination.

The minerals are oxides and sulphides of lead and iron, silver, gold and zinc.

MAPS

The accompanying map will show the location of samples by number and the assays, also the location and dimensions of blocks. By comparing with the larger mine map, a copy of which is also furnished, the location of Freeborn's assays can be checked.

ASSAYS

No.	Ounces gold	Value per ton	Ounces silver	Value per ton	Value per ton	Per- cent lead	Value Lead @4.40 per lb	Total Val. per ton	Width	Foot assay Value
1	0.01	.20	3.1	1.55	1.75	2.9	2.55	4.30	2.3	9.89
2	0.10	2.06	15.9	7.95	10.01	14.2	12.50	22.51	1.0	22.51
3	0.10	2.06	12.8	6.40	8.46	9.2	8.09	16.55	1.2	19.86
4	0.15	3.10	12.	6.	9.10	10.9	9.59	18.69	0.7	13.08
5	0.07	1.44	8.4	4.20	5.64	6.9	6.07	11.71	2.8	32.79
6	0.01	.20	1.4	.70	.90	0.4	.35	1.25	2.0	2.50
7	0.20	4.13	22.6	11.30	15.43	13.4	11.79	27.22	3.0	81.66
8	0.12	2.48	33.5	16.75	19.23	16.2	14.26	33.49	3.7	123.91
9	0.40	8.26	39.6	19.80	28.06	22.0	19.36	47.42	2.8	132.78
10	0.04	.82	29.6	14.80	15.62	20.9	18.39	34.01	3.3	112.23
11	0.34	7.02	25.7	12.85	19.87	9.3	8.14	28.01	3.3	92.43
12	0.18	3.72	27.1	13.55	17.27	13.7	12.06	29.33	3.2	93.86
13	0.20	4.13	27.4	13.70	17.83	12.8	11.26	29.09	5.0	145.45
14	0.32	6.61	33.8	16.90	23.51	12.1	10.65	34.11	0.8	27.29
15	0.28	5.78	13.9	6.95	12.73	7.1	6.25	18.98	0.3	5.67
16	0.01	.20	24.0	12.00	12.20	24.3	21.38	33.58	1.2	40.30
17	0.04	.82	44.8	22.40	23.22	38.0	33.44	56.66	0.5	28.33
18	0.01	.20	17.8	8.90	9.10	11.3	9.94	19.04	7.0	133.28
19	0.01	.20	13.6	6.80	7.00	11.8	10.38	17.38	6.6	114.71
20	0.02	.41	22.8	11.40	11.81	8.5	7.48	19.29	1.3	25.08
21	Tr.	-	4.-	2.00	2.00	3.4	2.99	4.99	0.5	2.50
22	Tr.	-	20.0	10.00	10.00	13.0	11.44	21.44	3.3	70.75
23	Tr.	-	7.0	3.50	3.50	4.1	3.61	7.11	6.0	42.66
24	0.04	.82	13.2	6.50	7.42	14.2	12.50	19.92	1.0	19.92
25	0.04	.82	9.5	4.75	5.57	8.3	7.30	12.87	0.8	10.29
26	0.17	3.51	38.3	19.15	22.66	9.3	8.18	30.84	0.7	21.57
27	0.12	2.48	6.8	3.40	5.88	3.8	3.34	9.22	1.5	13.83
28	0.01	.20	6.8	3.40	3.60	2.6	2.29	5.89	2.3	13.55
29	0.36	7.44	6.1	3.05	7.49	8.7	7.66	15.15	0.8	12.12
30	0.22	4.54	2.0	1.00	5.54	0.5	.44	5.98	2.5	14.95
31	0.02	.41	8.8	4.40	4.81	8.8	7.74	12.55	0.8	10.04
32	Tr.	-	13.2	6.60	6.60	8.5	7.48	14.08	0.8	11.26
33	0.04	.82	18.0	9.00	9.82	9.6	8.45	18.27	1.2	21.92
34	0.10	2.06	13.6	6.80	8.26	10.8	9.50	17.76	1.5	26.54
35	0.04	.82	14.2	7.10	7.92	12.7	11.18	19.10	0.8	15.28
36	Tr.	-	13.2	6.60	6.60	9.2	8.10	14.70	0.7	10.29
37	Tr.	-	3.2	1.60	1.60	5.8	5.10	6.70	0.8	5.36
38	0.08	1.65	21.2	10.60	12.25	12.6	11.09	23.34	2.7	63.02
39	0.08	1.65	7.6	3.80	5.45	7.2	6.33	11.78	3.0	35.34
40	0.08	1.65	3.4	1.70	3.35	1.5	1.32	4.67	3.2	14.94
41	Tr.	-	5.0	2.50	2.50	2.5	2.20	4.70	2.2	10.34
42	0.20	4.13	19.50	9.75	13.88	12.3	10.82	24.70	1.4	34.58
43	Tr.	-	.4	.20	.20	0.2	.18	.38	1.3	0.49
44	0.04	.82	4.4	2.20	3.02	1.2	1.06	4.08	1.0	4.08
45	0.08	1.65	15.6	7.80	9.45	9.0	7.92	17.37	1.1	19.11
46	Tr.	-	6.0	3.00	3.00	3.9	3.44	6.44	1.5	9.66
47	0.16	3.30	53.50	26.75	30.05	12.6	11.09	41.14	1.7	69.94
48	0.20	4.13	26.7	13.35	17.48	14.7	12.94	30.42	3.0	91.26
49	0.27	5.58	17.4	8.70	14.28	11.8	10.38	24.66	1.4	34.52
50	0.02	.41	16.8	8.40	8.81	7.4	6.50	15.31	1.3	19.90
51	0.04	.82	11.2	5.6	6.42	9.0	7.92	14.34	3.5	50.19
52	0.30	6.20	20.6	10.3	16.50	8.6	7.57	24.07	2.0	48.14
53	0.03	.62	8.2	4.1	4.72	5.7	5.02	9.74	4.2	40.91
54	0.02	.41	8.8	4.40	4.81	4.2	3.70	8.51	4.5	38.29

No.	Ounces silver	Value per ton	Ounces silver	Value per ton	Value per ton	Per cent Lead	Value Lead @4.40	Total value a ton	Width	Foot Assay Value
55	0.24	4.96	33.0	16.50	21.46	20.9	18.39	39.85	1.7	67.75
56	0.06	1.24	18.	9.	10.24	27.	23.76	34.	1.5	51.
57	0.20	4.13	22.2	11.10	15.23	6.0	5.28	20.51	2.0	41.02
58	0.06	1.24	16.5	8.25	9.49	10.3	9.06	18.55	2.8	51.94
59	0.40	8.26	15.6	7.80	16.06	13.7	12.06	28.12	0.8	22.49
60	0.06	1.24	18.0	9.00	10.24	7.6	6.69	16.93	2.3	38.94
61	0.04	.82	13.2	6.60	7.42	4.9	4.31	11.73	5.5	64.51
62	0.12	2.48	17.1	8.55	11.03	6.9	6.07	17.10	4.2	71.82
63	Tr.	-	12.8	6.40	6.40	5.6	4.93	11.33	3.0	33.99
64	0.02	.41	7.4	3.70	4.11	none	-	4.11	1.2	4.93
65	Tr.	-	2.4	1.20	1.20	1.1	.97	2.17	1.5	3.25
66	0.14	2.89	8.9	4.95	7.84	2.6	2.29	10.13	2.0	20.26
67	0.08	1.65	12.8	6.40	8.05	4.5	3.96	12.01	1.2	14.41
68	0.28	5.78	8.8	4.40	10.18	2.5	2.20	12.38	0.8	9.90
69	0.16	3.30	11.8	5.90	9.20	3.8	3.34	12.54	2.0	25.08
70	0.08	1.65	13.6	6.80	8.45	5.1	4.49	12.94	1.0	12.94
71	0.01	.20	2.0	1.00	1.20	0.4	.35	1.55	1.8	2.79
72	0.01	.20	9.2	4.60	4.80	2.2	1.93	6.73	3.5	23.55
73	0.04	.82	16.4	8.20	9.02	6.7	5.90	14.92	3.5	52.22
74	0.08	1.65	21.6	10.80	12.45	7.8	6.86	19.31	9.5	183.45
75	0.12	2.48	18.7	9.35	12.83	7.3	6.42	19.25	4.3	82.77
76	0.12	2.48	17.2	8.60	11.08	6.1	5.37	16.45	0.7	11.51
77	0.04	.82	25.2	12.60	13.42	8.6	7.57	20.99	2.0	41.98
78	0.08	1.65	22.7	11.35	13.00	7.7	6.80	19.80	2.2	43.56
79	0.02	.41	15.2	7.60	8.01	5.8	5.10	13.11	1.2	15.73
80	0.12	2.48	13.6	6.80	9.28	7.3	6.42	15.70	1.3	20.41
81	0.06	1.24	54.8	27.40	28.64	23.1	20.33	48.97	5.0	244.85
82	0.16	3.30	23.9	11.95	15.25	11.0	9.63	24.93	6.9	172.02
83	0.01	.20	0.4	.20	.40	Tr.	-	.40	1.0	.40
84	Tr.	-	8.0	4.00	4.00	5.2	4.53	8.53	1.5	12.87
85	0.04	.82	18.4	9.20	10.02	18.2	16.02	26.04	1.3	33.85
86	0.01	.20	16.0	8.00	8.20	7.5	6.60	14.80	1.3	19.24
87	Tr.	-	5.2	2.60	2.60	5.0	4.40	7.00	10.0	70.00

Ave 2.49

$$\frac{\text{oz Au} \times \text{width}}{\text{sum widths}} = \frac{1766.2}{207.5} = 0.085 \text{ oz Au/Ton}$$

$$\frac{3491.86}{207.5} = 16.83 \text{ oz Ag}$$

$$\frac{1839.51}{207.5} = 8.86 \% \text{ Pb}$$

#56.32

TONNAGE AND VALUES BY BLOCKS

Block "A". This block is divided in three sections, namely: "a" "b" and "c". Section "a" being from sample No. 55, 52 feet westerly along the 200 level to the winze, thence along side of winze 25 ft. to sample No. 58: thence to point of beginning.

Section "b". From sample No. 55 easterly along 200 level 204 ft. to sample No. 59: thence to sample No. 50 on the 300 level: thence westerly on the 300 level to sample No. 44: a distance of 268 ft: thence to the point of beginning 85 ft., being the distance on the vein between the levels.

Section "c". From sample No. 59 on 200 level 10 ft. easterly. From sample No. 50 on the 300 ft. level 10 ft. easterly, and 100 ft. along the line of the vein between levels. A wedge shaped section.

Block "B". A wedge shaped section. Beginning at a point 10 ft. easterly from sample No. 50 thence westerly along the 300 level to a point 100 ft. westerly from sample No. 44, a distance of 378 ft. and assuming a depth of 25 ft. below the floor of the 300 level.

Block "C". A block of ground 25 ft. high and from sample No. 42 along the 300 level to Sample No. 33, a length of 220 ft. Less stoped ground 25 x 40 ft.

Block "D". From mine plug No. 301 on the 300 level easterly 380 feet, and from sample No. 16 on the 400 level easterly 224 ft. distance on vein between levels being 115 ft. Less stoped ground 30 X 30 - 900 sq. ft.

Block "E". A wedge shaped block below the 400 level 25 ft. deep and from sample No. 16 easterly, on the 400 ft. level, 224 ft.

Block "F". A wedge shaped block below the 400 level 25 ft. deep and from west face of level to sample No. 15, a distance of 275 feet.

Block "G". From west face cave, 300 level to mine plug T.38-b, a distance of 410 ft. and from west face at 400 level easterly 275 ft. to sample No. 15.

Block "H". From sample No. 63 easterly on 200 level "Crosby" 110 feet to sample No. 63, and from sample No. 72 on 300 level 190 feet easterly to Sample No. 79.

Block "I". A 35 foot block below the 300 level "Crosby" between samples Nos. 72 and 79, a distance of 190 feet.

Block "J". A triangular block. From sample No. 63 on the 200 level easterly 100 ft. thence connecting with sample No. 79 on the 300 level, 85 ft. between levels.

Block "K". From sample No. 60 on the 200 level Crosby, extending 50 feet westerly and from sample No. 72 on the 300 level, extending 50 feet westerly, also the block 50 x 35 feet west of sample No. 72 and below the 300 level. Being a block 50 x 120.

Block "L". Block 70 x 25 below 200 level at samples Nos. 66 to 69.

Block "M". Block 100 x 20 above stope at samples Nos. 84, 85 and 86.

Block "N". From mine plug No. 301 to sample No. 18 in raise being 50 feet below floor at mine plug No. 301, thence westerly 50 ft. A triangular piece of ground.

BLOCK	SAMPLE NUMBERS	NO OF SAMPLES	SUM OF WIDTH	SUM FT ASSAY VALUE	AVERAGE WIDTH VEIN	AVERAGE VALUE PER TON
"A"						
Sec "a"	55-56 58 & (F)	4	8.0	191.57	2.0	23.95
Sec "b"	51-55 & 59	6	16.7	267.77	2.8	16.03
	Freeborn	12	for comparison only		2.7	15.78
	(By inter- polation	3	3.05	63.57	1.0	20.84
	56	1	1.5	51.	1.5	34.00
	Freeborn	44	76.8	1200.25	1.75	15.63
Data used for calculating value is						
		6	16.70	267.77		
		3	3.05	63.57		
		1	1.50	51.00		
		44	76.80	1200.25		
		54	98.05	1582.59	1.81	16.14
Sec "c"	59 & 50 by inter- polation	2	2.10	42.39		
		3	3.05	63.57		
		5	5.15	105.96	2) 1.03	20.57
					.51	12.50
						(assumed value)
"B"	Freeborns	44	76.8	1200.25	2) 1.75	15.63
					.88	12.50
						(assumed value)
"C"	33-42	10	17.5	237.71	1.75	13.58
"D"	31 to 42	12	1.91	259.01	1.6	13.56
	Freeborns	43	(for comparison only)		2.1	10.52
	16 to 25	7	1.41	211.50	2.0	15.00
Data used for calculation-						
		12	19.1	259.01		
		7	14.1	211.50		
		19	33.2	470.51	1.74	14.17
"E"	16 to 25	7	14.1	211.50	2) 2.00	15.00
					1.0	12.50
						assumed value

BLOCK	SAMPLE NUMBERS	NUMBER SAMPLES	SUM OF WIDTHS	SUM FT ASSAY VALUE	AVERAGE WIDTH OF VEIN	AVERAGE VALUE PER TON
"F"	1 to 15	15	35.4	915.91	2)2.36 1.18	25.87 15.00 assumed value
"G"	1 to 15 Freeborns	15 28	35.4 78.8	915.91 1912.80	2.36 2.80	25.87 23.00
		(For comparison only)				
	Freeborns	32	70.7	1397.08		
	26 to 28					
	84 to 86	6	6.6	114.91		
		38	79.3	1511.97	2.10	19.06
		Data for calculations				
		15	35.4	915.91		
		38	79.3	1511.97		
		53	114.7	2427.88	2.10	21.16
"H"	60 to 63 Freeborns	4 17	15.0 (For comparison only)	209.26	3.75 3.10	13.95 18.83
	72 to 79	8	26.9	454.77	3.36	16.90
	Freeborns samples covers only part between samples 75 to 78					
	14 of Freeborns samples gave				3.60	20.67
	as against 4 Nos 75 to 78				2.30	19.55
		Data for calculation				
		4	15.0	209.26		
		8	26.9	454.77		
		12	41.9	664.03	3.50	15.84
"I"					assumed	
"J"					2.0	15.00
					assumed	
"K"					1.5	11.00
					assumed	
"L"					2.0	12.50
	66 to 69 Freeborns	4 10	6.0 (for comparison only)	69.65	1.5 1.7	11.61 10.32
	Freeborns	3	7.8	82.82		
		Data for calculation				
		3	7.8	82.82		
		4	6.0	69.65		
		7	13.8	152.47	2.0	11.05
"M"	84 to 86	3	4.1	65.96	1.4	16.09
"N"	18 19 & 81 Freeborns	3 6 9	18.6 14.6 33.2	492.84 355.65 848.49		
					3.7	25.55
"O"	Freeborns	8	24.8	435.37	3.1	17.55

BLOCK A Sec. "a" Area 1462.5 sq. feet
 average width of vein 2 ft.
 average value per ton \$23.95
 (Assuming 8 cu-ft to the ton.)

$1462.5 \times 2 \div 8 = 364$
 364 tons @ \$23.95 per ton = \$8717.80

Sec. "b" Area 20090 sq. ft.
 Average width of vein 1.81 ft.
 Average value per ton \$16.14
 (assuming 7.5 cu.ft.)

$20090 \times 1.81 \div 7.5 = 4850$
 4850 tons @ \$16.14 = \$78,279.00

Sec. "c" Area 1000 sq.ft.
 Average width of vein 0.51 ft.
 Average value (assumed) \$12.50
 (assuming 7.5 cu-ft)

$1000 \times 0.51 \div 7.5 = 68$
 68 x 12.50 = \$850.00

"A" Total Sec. "a"	364 tons @ \$23.95	\$ 8,717.80
"b"	4850 " @ 16.14	78,279.00
"c"	68 " @ 12.50	850.00
	<hr/>	
	5282 " @ 16.63	87,846.80

"B" Area 9450 sq.ft.

Average width of vein 0.88 ft.
 Average value per ton \$12.50
 assuming 7.5 cu.ft.
 $9450 \times 0.88 \div 7.5 = 1109$
 1109 x 12.50 = \$13,862.50

"C" Area 5500 sq.ft.

Average width of vein 1.75 ft.
 Average value per ton \$13.58
 assuming 7.5 cu.ft.
 Stopped area 40 x 25 = 1000 sq.ft.
 5500 - 1000 = 4500 sq.ft.
 $4500 \times 1.75 \div 7.5 = 1050$
 1050 x 13.58 = \$14,259.00

"D" Area 34730 less stopped ground 30 x 30 or 900
 leaves 33830 sq. ft.

average width of vein 1.74 ft.
 average value \$14.17 per ton
 assuming 7.5 cu.ft.
 $33830 \times 1.74 \div 7.5 = 7848$
 7848 x 14.17 = \$111,206.16

"E" Area 5600 sq.ft.
Average width of vein 1.0 ft.
Average value \$12.50 (Assumed 7.5 cu.ft.)
 $5600 \times 1 \div 7.5 = 746$
 $746 \times 12.50 = \dots\dots\dots \$ 9,325.00$

"F" Area 6875 sq.ft.
Average width of vein 1.18 ft.
Average value \$15.00 per ton (assumed) 7.5
 $6875 \times 1.18 \div 7.5 = 1082$
 $1082 \times 15 = \dots\dots\dots \$ 16,230.00$

"G" Area 39330 sq.ft.
Average width of vein 2.1 ft.
Average value \$21.16 per ton 7.5 cu.ft.
 $39330 \times 2.1 \div 7.5 = 11,012$
 $11,012 \times 21.16 = \dots\dots\dots \$233,013.92$

"H" Area 12750 sq.ft.
Average width of vein 3.5 ft.
Average value \$15.84 per ton 6 cu-ft.
 $12750 \times 3.5 \div 6 = 7437$
 $7437 \times 15.84 = \dots\dots\dots \$117,802.08$

"I" Area 6650 sq.ft.
Average width of vein 2.0 ft.
Average value \$15.00 per ton (assumed) 6 c.f.
 $6650 \times 2 \div 6 = 2250$
 $2250 \times 15 = \dots\dots\dots \$ 33,750.00$

"J" Area 4250 sq.ft.
Average width of vein 1.5 ft.
Average value \$11.00 per ton (assumed) 6 c.f.
 $4250 \times 1.5 \div 6 = 1062$
 $1062 \times 11 = \dots\dots\dots \$ 11,882.00$

"K" Area 6000 sq.ft.
Average width of vein 2.0 ft.
Average value \$12.50 per ton (assumed) 6 c.f.
 $6000 \times 2 \div 6 = 2000$
 $2000 \times 12.50 = \dots\dots\dots \$ 25,000.00$

"L" Area 1750 ft.
Average width of vein 2.0 ft.
Average value \$11.05 per ton 7 cu.ft.
 $1750 \times 2 \div 7 = 500$
 $500 \times 11.05 = \dots\dots\dots \$ 5,525.00$

"M" Area 2000 sq.ft.
Average width of vein 1.4 ft.
Average value \$16.09 per ton 8 cu. ft.

2000 x 1.4 + 8 = 3500
3500 x 16.09 - \$ 56,315.00

"N"

Area 1250 sq.ft.
Average width of vein 3.7 ft.
Average value \$25.55 per ton 8 cu.ft.
1250 x 3.7 + 8 = 578
578 x 25.55 - \$ 14,767.90

"O"

Area 1800 sq.ft.
Average width of vein 3.1 ft.
Average value \$17.55 per ton 7.5 cu.ft.
1800 x 3.1 + 7.5 = 745
745 x 17.55 - \$13,074.75

SUMMARY OF TONNAGES & GROSS VALUES

Block	Tons	Value per ton	Gross value	Per cent deducted	tons	Gross value
A	5282	\$16.63	\$ 87846.80	25	3,962	\$ 65,885.10
B	1109	12.50	13862.50	25	832	10,396.88
C	1050	13.58	14259.00	25	788	10,694.00
D	7848	14.17	111206.16	33-1/3	5,232	74,137.44
E	746	12.50	9325.00	25	560	6,993.75
F	1082	15.00	16230.00	25	812	12,172.50
G	11012	21.16	233013.92	33-1/3	7,342	155,342.61
H	7437	15.84	117802.08	25	5,578	88,351.56
I	2250	15.00	33750.00	25	1,688	25,312.50
J	1062	11.00	11682.00	25	797	8,761.50
K	2000	12.50	25000.00	25	1,500	18,750.00
L	500	11.05	5525.00	25	375	4,143.75
M	3500	16.09	56315.00	25	2,625	42,236.25
N	578	25.55	14767.90	25	434	11,075.93
O	745	17.55	13074.75	25	559	9,806.06
46201		16.35	763660.11		33,084	544,059.83

33084 tons - average \$16.44 per ton Gross Value \$544,059.83

Silver @ 50¢ Lead @ ~~40¢~~ 4.40¢

DEVELOPED & PROBABLY ORE

Blocks	Tons	Value per ton	Gross value of block
A	3962		\$ 65,885.10
C	788		10,694.00
D	5232		74,137.44
G	7342		155,342.61
H	5578		88,351.56
M	2625		42,236.25
N	434		11,075.93
O	559		9,806.06
	26520	\$17.25	\$457,528.95

ORE DEVELOPED ON ONE SIDE ONLY

B	832		10,396.88
E	560		6,993.75
F	812		12,172.50
I	1688		25,312.50
J	797		8,761.50
K	1500		18,750.00
L	375		4,143.75
	6564	\$13.18	86,530.88

CONCLUSIONS:

No account has been taken of the iron, zinc, and sulphur, etc., contents of the ore, for I assume the bonuses will about offset the penalties. Nor have I gone into costs data. This Mr. John B. Farish has covered fully and no doubt the Company will furnish a copy or memo of same upon request.

In addition to the above mentioned blocks of ore, there are other unworked areas which were not accessible, and much unstoped ground remains above the 200 and 300 levels.

The average values and widths in the bottom of the mine hold up to the results obtained in the upper level and there is reason to believe that good bodies of ore will be encountered in depth.

Cross-cutting should be done on the lower levels: one should be run southerly about 25 feet westerly from mine plug No. 38 on the 300 ft. level and one to the north at or near plug 314. On the 200 level at the East face or north side are good indications for ore. One or two short cross cuts should be run to the north between samples 53 to 55 and also between samples 52 to 59.

The main shaft should be sunk and a lower level opened.

The "Crosby" shoot is very strong and should be thoroughly developed. On the 200 level at the west face a cross-cut should be made to a little west of north.

Beside the properties belonging to the Nevada Smelting & Mines Corporation there are several other groups, namely:-

The Tybo Lead Co.
The Haumeister Group.
Idol's Eye Group

and several smaller holdings. These are on the same fissure and the developments on these groups prove that the mineralization extends over two miles.

Since my leaving Tybo Mr. Hunt, who assisted me, acting upon the supposition that there are two paralleling veins, has opened six feet of good ore on the hanging side of the porphyritic dike. His work heretofore has been confined to the footwall vein. This goes to prove, at least as far as the Idol's Eye Group, which is several thousand feet easterly from the "Nevada" Smelting and Mines Corporation ground, between which two groups The Haumeister Group lies, is concerned, that there are two distinct veins.

Mr. Haumeister assured me that upon working being begun on the construction of the Goldfield Ely section, he would immediately start active exploitation and development of his group.

Respectfully submitted,

(Signed) W. G. LUCKHARDT.