

ANALYSIS OF MINERAL SAMPLES

Samples from Shaft 01 1/2.

Character of Rock	Gold Gr.	Silver Gr.	Value
Hard Sample, Sulphuret Ore	.75	121.	\$ 98.65
White Honeycombed Quartz	.25	2.	6.30
Hard white Quartz	.1	4.	4.00
Pyrite on outcrop of vein	.75	10.	81.50
" " " " 25 ft. north	.4	13.	15.00
" " " " 50 ft. north	1.1	3.	27.30
" " " " 75 ft. north	.4	14.	17.20
" " " " 100 ft. north	1.	3.	25.25
Hard Red Quartz	.2	3.	6.00
Amethyst Quartz	.1	4.	4.00
Banded Quartz	1.	30.	30.50
" " with porphyry	.6	6.5	15.57
White Quartz in center of lead	.6	4.	14.60
Outcrop of vein south of shaft	.4	3.	7.95
" " " north	.5	3.	15.20
Hard Banded Quartz	.3	32.	23.00
Hard Quartz, black stains	.3	3.	9.25
Grey Quartz	.5	4.	12.10
Small strata of outcrop	1.	10.	32.45
General average outcrop of lead	.5	10.	17.50
Mapping all strata of outcrop	1.5	31.	50.15
Hard Brown Quartz	.15	.5	3.25
White & Brown Quartz with blue stain	.25	20.5	18.32
Sulphuret streak in shaft, head sample	1.25	67.	81.55
Small strata of quartz in lower tunnel	.4	3.5	9.62
Second small strata of quartz in lower tunnel	.2	1.	4.65
Outcrop above shaft on left	.4	3.	9.05
Outcrop at top of shaft	.5	9.	16.05
General average outcrop above shaft, 20 ft. north	1.75	30.	54.6
North, open cut, pay streak	1.75	31.	54.50
Droppings north of shaft, general average pay	1.25	5.	28.25
Same cut north	1.25	3.	24.05
Entrance Upper Tunnel (cross-out)	.5	21.	22.00
Outcrop above	.6	3.5	17.52
General average, face upper tunnel (cross-out)	.4	7.	12.55
General average, 8 ft. in. of face	.1	13.	14.25
General average, after sorting	.5	23.	24.05
General average waste	.25	3.	6.05
General average strata in shaft	.3	14.	9.10
General average first four ft. upper tunnel	.4	3.	11.20
General average next eight ft. upper tunnel	.4	1.	8.05
General average last above ft. " "	.4	5.	11.5

Respectfully submitted

(Signed)

Henry Lockhart

MINERAL RESOURCES REPORT

MINING DISTRICT, MONTANA, U.S.A.

No.	Width Feet	Silver Ounces/Ton	Gold Ounces/Ton	Value \$/Ton	Location				
1	10'	3.46	.34	10.86	Portal of Tunnel, Above shaft.				
2	9'	2.14	.16	5.34	10'	north of shaft			
3	10'	3.37	.23	7.97	20'	"	"	"	"
4	14'	2.10	.10	4.10	37'	"	"	"	"
5	14'	5.91	.19	6.11	57'	"	"	"	"
6	14'	1.94	.06	3.14	67'	"	"	"	"
7	15'	1.49	.16	4.59	92'	"	"	"	"
8	20'	1.23	.09	3.02	107'	"	"	"	"
9	20'	1.49	.11	3.59	122'	"	"	"	"
10	25'	.94	.06	2.14	142'	"	"	"	"
11	14'	2.50	.30	6.30	154'	"	"	"	"
12	16'	1.43	.05	3.43	173'	"	"	"	"
13	16'	.27	.01	.47	210'	"	"	"	"
14	14'	.59	.01	.79	246'	"	"	"	"
15	10'	1.13	.02	1.53	265'	"	"	"	"
16	9'	1.99	.04	2.09	353'	"	"	"	"
17	10'	2.31	.09	4.11	356'	"	"	"	"
18	9'	1.07	.05	1.67	373'	"	"	"	"
19	9'	.95	.05	1.95	385'	"	"	"	"
20	10'	1.23	.05	2.23	396'	"	"	"	"
21	9'	.82	.02	1.82	436'	"	"	"	"
22	9'	.42	.01	.62	441'	"	"	"	"
23	8'	.41	.01	.61	441'	"	"	"	"
24	4'	.93	.02	1.33	453'	"	"	"	"
25	4'	1.92	.14	6.72	459'	"	"	"	"
26	6'	.54	.02	.94	464'	"	"	"	"
27	6'	.23	.07	2.23	503'	"	"	"	"
28	8'	.77	.07	2.17	520'	"	"	"	"
29	16'	6.45	.31	9.55	521'	"	"	"	"
30	6'	1.70	.14	4.50	541'	"	"	"	"
31	6'	.20	.49	9.80	551'	"	"	"	"
32	3'	1.09	.07	2.42	551'	"	"	"	"
33	3'	.43	.01	.63	601'	"	"	"	"
34	9'	.74	.06	1.94	621'	"	"	"	"
35	10'	.37	.11	2.37	647'	"	"	"	"
36	6'	2.31	.06	16.11	546'	"	"	"	"
37	3'	.93	.19	4.33	555'	"	"	"	"
38	3'	.27	.01	.47	513'	"	"	"	"
39	4'	.73	.02	1.13	625'	"	"	"	"
40	5'	.71	.05	1.71	621'	"	"	"	"

*Vein apparently splits here. Assays 30 to 35 inclusive are from upper leg.
 36 to 40 inclusive from lower leg. The wall is a hard white quartz. The mountain side above vein is very steep and the west side is largely covered with rock, so that the actual width of the vein is unknown and the samples were taken from the exposed portion. In parts of the old workings in the mine it was 60' and mostly ran from 20 to 40'.

(Copy)

GENERAL AVERAGE SAMPLES TAKEN DECEMBER 1917 IN

Prospect Work on the Ellen L, Free Trade, Iron King,

Lone Star and on Dumps at Washington, Crown Point, Etc.

	Vein Width	Oz. Silver	Oz. Gold	Value
<u>Ellen L.</u>				
First level, north, hard white qtz., 154' from entrance	3'	3.75	.07	\$5.16
Second " " " " " 248' " "	3'	6.59	.11	8.79
<u>Free Trade</u>				
At portal of Tunnel	2'	5.36	.08	7.48
23' in tunnel	2' 6"	43.59	.21	47.79
45' " "	1'	5.09	.11	7.29
<u>Iron King</u>				
Bottom of north stope (underhand)	8'	8.43	.17	11.83
Winze bottom south stope	2'	15.39	.21	19.59
Large boulders on dumps		3.31	.09	5.11
Bottom of south stope (underhand)	4'	12.22	.18	15.62
<u>Lone Star</u>				
Main tunnel level, 900' from entry, on right white qtz., decomposed, supposed to be Iron King lead,	4'	1.89	.09	3.69
Croppings of vein parallel and 200' east of Glory Hole on main vein of Lone Star,	5'	.81	.09	2.61
Outcrop 200' south of Glory Hole, white qtz.	4'	2.42	.12	6.02
<u>Ellen L. 1916 assays.</u>				
At start of 44' vein 248' in Crosscut	3'	3.50	.10	5.50
" " " 1st " 154' " "	4'	2.44	.06	3.64
10' in on 1st " 154' " "	4'	6.50	.15	9.50
<u>No Name</u>				
Dump sample (reject from shipping ore)		3.54	.06	4.74
<u>Emerald</u>				
Selected sample		42.00	.40	50.00
Average, face of vein at lower crosscut	3'	3.66	.09	5.46
<u>Washington Dumps, Sampled by J. Gordon Hardy, M.E.</u>				
Sample No. 173	Sampled in 1912, gold at \$20. and silver at ,			12.83
" " 174	50 cents per ounce. The figures given herewith			16.33
" " 175	are with silver at \$1.00 per ounce.			24.75
" " 176	The dump sampled by Hardy is estimated to con-			12.58
" " 177	tain 2000 tons of reject ore, shipping sorted out.			11.27
" " 178	The Fishback dump 500 tons of shipping class.			18.67
	General average of high grade dump by Martin Fishback, M.E.			58.34

COAL MINING COMPANY

MILL REPORT

	Tons Milled	Average Value	Milled Values	Fullton Recovered	Per Cent Recovered
Sept. 1914 to July 1915	18197	\$ 9.61	\$109447.16	\$98586.73	54.6%
July to Nov. 1915	5945	7.97	47385.52	38796.99	39.1%
Nov. 1915 to March 20, 1916 Closed Down					
March 20 1916 to July 1916	6915	6.70	46348.44	39511.33	92.4%
Value in Solution July 1st				3522.14	
July, Aug. and Sept. (See Note)	3000	7.00	21000.00	20398.00	97.1%
Value in Solution Oct. 1st. (See Note)					
Totals	<u>36155</u>	<u>8.43</u>	<u>\$297981.12</u>	<u>\$218080.99</u>	<u>66.3%</u>

Recapitulation

Total Tons Milled	36155 tons at	8.43	Per Ton
Total Value Milled		\$297981.12	
Total Value Fullton Recovered		\$218080.99	
Per Cent Recovery Sept. 1914 to June 1915		54.6%	on 18197 tons ore
Per cent Recovery July to Oct. 1915		39.1%	on 5945 "
Per cent recovery March to November 1916		92.4%	" 6915 "
Per Cent Recovery, general average		66.3%	" 36155 "

Note.

Not having the Mill Reports for July, August and September 1916, I have estimated them on the June basis, which would be approximately correct.

respectfully submitted,

(Signed)

Henry Lockhart

Values based on Gold \$20. per oz.
Silver 50 cents per oz.
Present value of silver is 1.00 per oz.

ASSAYS ON SAMPLES OF OUTCROPS BY GOSSAK MINING COMPANY, 1916.

<u>Lone Star Mine</u>	<u>Values.</u>
East of open cut on trail up mountain	\$17.92
Open cut drillings	32.17
White rock on trail	8.13
Sample of ledge near discovery	12.36
Sample taken along croppings	35.02
 <u>Albenarle Mine</u>	
At shaft 3' (not full width)	8.53
" " 8'	9.27
25 ft. north of shaft, 10' wide	12.74
Under head of blowout, broken qtz., west side of hard qtz. side outcrop, 6' wide, 100' north of shaft	14.08
8' above last sample, 3 $\frac{1}{2}$ ' wide	7.09
Footwall under same 4' wide	2.05
Across vein at south side of shaft, on top 20' wide	5.35
Footwall under outcrop below last sample, 5' wide	2.12
Near head of blowout on top, 15' wide	3.24
White qtz., footwall side of vein, 100' south of north gully 20' north of head of blowout	13.58
	3.40
North point of outcrop on top, 12' wide	5.07
Footwall side of vein in north arroyo, 6' wide	2.00
Between north point of blowout and arroyo	17.02
Dump over hill south of creek (Pamlico Mine)	5.37
25' north of shaft on above, white qtz., on foot, 8' wide	5.50
 <u>Free Trade Mine</u>	
At tunnel	17.21
Outcrop (Location not specified)	7.05
" " " "	3.20
" " " "	3.21
 <u>Denver Girl</u>	
North end of big red blowout, 200' east of pipeline, near top of hill sample taken from under root of pine tree	6.17
Fine stuff, same location as above	3.07
 <u>Red Cloud</u>	
Sample location not specified	3.17
" " " "	3.07
" " " "	1.30
 <u>Uncle Joe</u>	
Vein on trail above mill to east	2.70
Ledge, crossing trail east of ore bins, streak 8" wide on top	1.30
Entire ledge	.33
 Note: - The Gossak Mill is located on the Uncle Joe claim, the Denver Girl and Red Cloud adjoining, also the Bull of the Woods of the Crown Point group, on the east. Very little prospecting has been done on these claims.	

Crown Point Dumps

Estimated general average value, Estimated tonnage, 2000 \$12.00

Lone Star Dump

There is a large dump, which at present price of silver can be handled at a profit. I have no estimate of tonnage or values.

Iron King Dump

There is a considerable tonnage in the Iron King dumps, but have made no tests as to values. Believe at least a portion can be handled.

HENRY LOCKHART

GREEN POINT MINING COMPANY

Assays from Shaft in Sinking. Character

of Sample

	Gold Oz.	Silver Oz.	Value
Sulphuret Strata (Pay Streak)	1.8	190.5	\$153.50
General Average (Excluding Pay Streak)	.2	16.	14.40
Hard Blue Quartz	tr.		2.40
Sulphuret Ore Right Side	.6	94.4	73.36
" " Bottom of Shaft	4.2	338.	303.70
General Average " "	1.	100.	90.85
Sulphuret Strata " "	2.85	201.	187.65
" " " "	3.15	209.5	199.17
Porphyry in foot wall	tr.	1.75	1.13
Pay Streak in bottom	1.	103.	86.95
General Average	.7	71.5	60.47
Sulphuret Strat	1.5	195.	156.75
Hard Brown Red Quartz	.3	5.	9.25
Soft " " "	1.2	75.7	73.20
Hard White Quartz	tr.	5.	3.25
White & Yellow Quartz	1.7	3.	35.95
Sulphuret Strata	2.	140.	131.00
Sulphuret Strata	2.1	300.	237.00
Brown Quartz	.4	1.25	8.81
Sulphuret Strata on Foot wall	1.6	125.00	113.25
Banded Quartz	.9	36.5	41.07
White Quartz right side of Shaft	.3	12.	13.80
Brown Banded Quartz	.85	13.	25.45
Red & Black Quartz	.5	70.	55.50
Green Stained Quartz	tr.	4.2	2.73
Sulphuret Strata	1.5	181.	147.65
Second Grade	.75	54.	50.10
General Average low grade Ore	.2	14.5	13.42
General Average " " "	.75	11.	22.15
General Average " " "	.3	17.	17.05
General Average Dump Before Sorting	.75	51.	48.15
" " " " "	.4	36.	31.40
" " " after "	.3	17.	17.05
" " " " "	.2	15.75	14.23
" " Waste	.2	5.	7.25
" " Dump Before Sorting	.4	35.	30.75
" " " " "	.3	45.5	35.57
" " Waste	.1	4.	4.60
" " " "	.2	8.5	9.52
Sulphuret Strata	1.5	131.	115.15
Browned Stained Quartz	.75	27.5	32.87
General Average Face of Shaft	.5	43.	37.95
" " " "	.5	25.5	26.57
" " (Excluding Pay Streak)	.4	10.5	14.82
" " (After Sorting Shipping)	.3	7.	10.55
Quartz, green stain	.3	5.	7.25
" green & black	.5	26.	26.90
" hard sulphuret	1.	70.	65.50

CHARACTER OF SAMPLE	GOLD OZ.	SILVER OZ.	VALUE
Brown Quartz at 100 ft.	1.	11.	27.15
Green Crevice Matter Soft	1.	3.	25.20
Brown Quartz	1.	10.5	26.82
Soft Sulphuret at 3" Level	1.6	114.5	106.42
Hard Sulphuret at 3" Level	4.5	280.	272.00
Soft Iron Stained Quartz	.6	14.	21.10
Hard " " "	.6	7.	16.55
Crystalized White Quartz	.1	8.	7.20
L.w Grade from sorting table	.5	29.5	28.52
General Average 2" grade	1.6	9.	27.85
Yellow Mud	tr.	3.5	2.27
Footwall Streak	5.	2.	101.30
Talc Streak on hanging wall	1.	30.	39.50
Quartz next hanging wall	1.	105.	88.25
Quartz hard on center face	.5	24.	25.66
" iron oxide	.6	3.	13.95
" next hanging wall	1.6	133.5	118.77
Iron Oxide	.3	3.	7.95
" crystalized	.4	3.	9.95
" Copper Stain	.4	2.	9.30
Brown Quartz	.2	3.	5.95
Hard White Quartz	1.	20.	33.00
Soft Quartz & porphyry	.6	4.	14.60
Blue Mottled Quartz	.4	32.	28.80
White Honeycombed Quartz	.4	10.	14.50
Hard Quartz with porphyry	.5	50.	42.50
Hard Quartz on foot wall	.4	11.	15.15
" " on hanging wall	.6	30.	31.50
Soft Quartz on hanging wall	.75	57.	52.05
Mud Seam	.2	5.	7.25
Talc Strata	1.	72.	66.80
Black Mottled Quartz	.5	75.5	59.07
Hard Quartz	.3	19.	12.50

SAMPLES TAKEN BY H. T. LANTIS M.E. AS FOLLOWS:

Footwall Strata	.3	14.5	15.42
Hanging Wall Strata	.3	21.5	19.97
General Average of bottom	1.	27.	37.55

Hard Grey Quartz, hanging wall	.8	4.	18.60
Sulphuret Quartz on foot wall	.8	50.	48.50
Center of face	.8	18.5	28.02
South Side	.8	27.5	33.87
North Side	.8	64.	57.60
Hard White Quartz	.5	2.5	11.62
Quartz with porphyry	.4	12.5	16.12
White Quartz dark seams	.5	12.5	18.12
Hard White & Brown Quartz	.2	5.	7.25
Amethyst Quartz & Iron	.4	20.	21.00
Quartz & Porphyry, Sulph. Streaks	.5	32.5	31.12
Hard Blue Quartz	.4	30.	27.50
White & Amethyst Quartz	.3	4.	8.60