

622  
Price of the entire properties  
30 Claims - \$200,000.

Graham & Eliza Jane  
Gilpin Co., Colo.

622  
COLORADO SCHOOL OF MINES  
GOLDEN, COLORADO

A Report On The Graham and Eliza Jane Group - The Lilly- Copper  
King Group - The Russell Hill Group - The Cleveland, All in the  
Gregory, Enterprise, Lake, and Pleasant Valley, Gilpin County, COLO.

The Graham and Eliza Jane lode, The Rival, East Rival, and NoneSuch  
Group mining claims are located in Gregory Mining District, Gilpin Co.  
Colorado, and inside the city limit of the City of Black Hawk.

The Graham being a full claim, 1500x 150 feet containing 5.16  
acres, and secured by U. S. Patent.

The Eliza Jane is a valid location and also secured by deed from  
the City of Black Hawk, and no annual labor required, only Taxes to be  
paid the same as that on a government patent.

The above property is located in the same mineral-belt with the  
following famous mines: The Gregory-Bobtail, the Running Lode, the  
Notaway, the Pittsburg and the Belmont, which have produced millions  
of dollars in gold.

The workings consist of one adit level and two shafts, also  
some smaller surface workings.

The tunnel has been driven to the distance of 650 feet. Shaft No  
I is about 95 feet and was connected with the tunnel level at a point  
about 260 feet from the Portal. Shaft No. 2 is about 160 feet to the  
tunnel level and 40 feet below the tunnel level. The vein in both the  
shafts is continuous from the surface down.

About 100 feet from the mouth of the tunnel the vein was encount  
ered which continues to the breast, varying in width from a few inches  
to over 50 feet, and which according to samples taken, having values  
of from \$6.00 to over \$100.00 per ton. At numerous places in the leve  
the outcropping of Pea-cock copper-iron and lead appearing very stron  
gly, and which besides the good gold and silver values, also runs well  
in copper and lead.

The largest portion of the Porphyry Dyke that made the ore in  
the Running Lode and that mine famous, is within the borders of the  
Graham and Eliza Jane ground. The tunnel has been driven through it  
for about 200 feet and cross-cutted on it, showing the vein there to be  
over 30 feet wide and yet no walls.

The whole body being a well mineralized quartz and which accordi  
ng to samples taken, having a value of about \$4.00 to \$7.00 per ton.

There are also numerous feeders and small streaks of copper and  
lead ore running through this body, and a sample from one of these  
streaks went \$74.00 per ton in gold, silver, and copper, and there is  
a very good indication of a large body of that class of ore below.

The depth where the tunnel passed through this porphyry-vein is 75 fee

An estimate of ore in sight in this chute would be pre-mature  
inasmuch as its extent has not yet been fully determined, but I  
estimate that there is above the tunnel level, 20,000 tons of average  
value of \$4.00 to \$5.00 per ton. This ore is principally a free milling  
product and this chute in itself would, no doubt, pay a good profit if  
the proper method of treating it would be used.

From this point in, the tunnel has driven on the main vein to the  
breast through ore of a heavier nature, smelting and concentrating ore,  
having considerable lead and copper in it.

The last part of the tunnel, or about 300 feet from the breast  
back, has been driven through that part where the ore is making a change  
the ore above the level being a mixed material and principally a  
milling and concentrating product, while below the level the cap of the  
solid ore can be plainly seen. One trench above 45 feet west of the  
main-shaft (No.2) about 5 feet showing a very strong streak of the  
higher grade of copper and lead ore of the Pea-cock variety, and from  
which 3 samples were taken running in values one \$94.00, one \$101.00  
and one \$121.00 per ton.

The depth at the breast of the tunnel is about 200 feet, and there  
fore on, depth will be gained more rapidly. The greatest depth that  
can be obtained above the tunnel level will be between 400 and 500  
feet.

Presented by M. W. O'Neil

This district is noted for its large and rich ore-deposits, but such are seldom found before a depth of several hundred feet has been reached, but when found are more uniform in size as well as richness than those in other districts, and I would most earnestly recommend the sinking of shaft No. 2. to a greater depth, as well as driving the tunnel farther into the hill.

The Graham and Eliza Jane is a main-vein of the true fissure type and not a mere feeder from a main-vein, and is practically 2000 feet in length. There are also other veins there, but have not yet been intersected by the tunnel, however, in a small surface hole on one of them, a sample was taken that ran remarkably high, being near the grass-root and only surface quartz. It went about \$20.00 per ton.

The formation and character of ore being about the same as that of the Running Lode and other good mines in the district.

The tunnel has been equipped with 12 $\frac{1}{2}$ " rails from the breast to the dump and ore-shoot, and all is in good condition for mining on a big scale.

About 100 feet from the mouth of the tunnel is a building 40x20 ft. and in first class shape, which could be used for an ore-sortinghouse or shaft house.

Near the mouth of the tunnel is a good blacksmith shop 14x 20 feet.

The C. & S. R. R. is crossing the property at two places, the upper track being above the mouth of the tunnel, and the lower track about 300 feet below the mouth of the tunnel, and from the lower track a spur is laid to the ore shoot.

A drift about 35 feet has just been driven westerly from near the bottom of the main-shaft, and where the continuation of chute No. 3. has been opened up. The width of the smelting ore streak is about 10 to 12 inches.

For values see the 8 samples on sample-sheet hereto attached.

This ore-shoot is spreading out towards the shaft and would be found in the shaft also, if it be sunk a few feet deeper.

The vein after leaving the Porphyry Dyke and running into the granite formation, retains the porphyritic vein-filling and which with depth is gradually changing from quartz to ore, particularly when nearing the sulphide zone, when it becomes harder and impregnated with copper and lead. Porphyry of the class occurring in this vein associated with the strong crystallization is the sure maker of high class ores.

In conclusion I will say that, the many favorable conditions for operation the mine at the minimum cost, the exceptionally good showing of ore in the mine, as well as the strongest indication of a still richer and larger ore-body at a greater depth, will without doubt make this a large producing and paying mine.

Respectfully Submitted,

G.E. Bolander.

Practical Mining Engineer and Mine Adviser.

	Gold OZ.	Silver OZ.	Copper %.	Lead %.
No. 1	0.52	57.60	17.30	17.10
" 2	4.72	5.30		
" 3	0.20	90.00	19.60	
" 4	3.40	6.60		
" 5	1.04	3.60		
" 6	0.21	29.00	23.14	3.60
" 7	2.40	5.20		
" 8	0.20	46.00	13.60	
" 9	0.30	20.00	11.30	3.00
" 10	1.60	14.60	3.70	2.70
" 11	0.32	27.20	11.01	17.05
" 12	0.32	25.00	10.05	30.00
" 13	0.44	28.20	18.05	20.05
" 14	0.64	41.96	7.50	14.00
" 15	1.90	37.60	13.50	2.00
" 16	0.90	30.00	7.50	22.00

The above samples were taken from ore-chute No. 3.

	Gold OZ.	Silver OZ.	Copper %.	Lead %.
No. 1	0.52	57.60	17.30	17.10
" 2	4.72	5.30		
" 3	0.20	90.00	19.60	
(8) 4	3.40	6.60		
" 5	1.04	3.60		
" 6	0.21	29.00	23.14	3.60
" 7	2.40	5.20		
" 8	0.20	46.00	13.60	
(2) 9	0.30	20.00	11.30	3.00
" 10	1.60	14.60	3.70	2.70

The above samples were taken from the ore-streak at the breast of drift about 40 feet below the tunnel level, from the easterly edge-cap of ore chute No. 3.

These samples being the same as those marked (8), and (2) on the sample sheet attached to the description.

	Gold.	Silver.	Copper %.	Lead %.
No. 1	0.32	27.20	11.01	17.05
" 2	1.10	25.00	10.05	30.00
" 3	0.44	28.20	18.05	20.05

These three samples were also taken from chute No. 3. at breast of drift giving these results.

Copy of Samples taken at different times, at various places in the tunnel and shaft No. 2.

No.	Gold OZ.	Silver OZ.	Copper %.	Lead %.
No. 1-	0.22	1.98		
" 2-	0.23	2.38		
" 3-	0.26	25.74	23.10	1.20
" 4-	3.60	10.80	7.70	950
" 5-	0.33	12.18	6.50	25.00
" 6	1.10	18.20	14.60	4.00
" 7-	0.24	87.24	20.10	
" 8-	0.26	8.56		
" 9-	0.48	2.56	0.15	
" 10-	0.48	9.52	4.06	
" 11-	0.52	23.58	14.55	
" 12-	0.40	6.12	0.42	
" 13-	1.35	15.90	14.30	8.40
" 14-	0.68	28.38	8.30	15.00
" 15-	1.04	26.40	7.00	8.50
" 16-	0.56	6.44	0.60	0.30
" 17-	1.22	9.40		
" 18-	1.04	16.56	4.30	0.30
" 19-	0.64	41.96	7.50	14.00
" 20-	1.90	37.60	13.50	2.00
" 21-	0.90	30.00	7.50	22.00
" 22-	0.22	3.18		
" 23-	0.16	8.84		
" 24-	0.64	11.16	4.40	8.20
" 25-	0.34	9.46		
" 26-	2.10	28.50	18.00	6.50
(8) 27-	9.20	15.20		44.00
" 28-	0.52	57.60	17.30	17.10
" 29-	4.72	5.30		
" 30-	0.20	90.00	19.60	
" 31-	3.40	6.60		
" 32-	1.04	3.60		
" 33-	0.21	29.00	23.14	3.60
" 34-	2.40	5.20		
" 35-	0.20	46.00	13.60	
(2) 36-	0.30	20.30	11.30	3.00
" 37-	1.60	14.60	5.70	3.70

Porphyry vein, 28 ft. wide.  
 " " 9 " "  
 " " Copper Streak.

Between Shafts No. 1 & 2.

Shaft No. 2 above the level a few feet, and in the level at various places between Shaft No. 2. and the breast of tunnel.

Winze "C" 40 feet west of Shaft No. 2, and about 5 ft. D.

Shaft No. 2 below the tunnel level.  
 Concentrates.

Breast of drift west of Main shaft (shaft No. 2) nearly 40 feet below the tunnel level.

The two last samples taken from the same place as the (8) samples mentioned above were taken.

One Mill-run of #99 went \$7.02 per ton.

" " " " #25 " 8.75 " "

Several of the above samples were not tested for copper-- lead. Sample No. 27 was high-grade separated while passing over the table, from a lot of concentrating ore shipped to the mill, and only enough of this was cut out of this lot, for a sample to ascertain if the milling ore had any high grade in it, and this sample shows it had.

The concentrates without separation from this lot went  
 0.69 OZ. Gold- 7.58 OZ. Silver, per ton.