PROJECT SUMMARY

Gold mines/Ecuador

Mineral reserves that have been hidden due to little interest in applying appropriate research, exploration and exploitation technologies are being uncovered. These reserves of gold and silver minerals are in the order of about 2.5 million ounces of gold and 6 million ounces of silver: They represent a solid and solvent guarantee base as physical collateral for the necessary financing of the project.

Our company is capable of carrying out the development of this project by applying planning, exploitation and processing techniques for these mineral reserves. We are capable of converting these mining areas into one of the most productive mines in Ecuador.

Our activities have been based on the acquisition of mining territories of our extensive knowledge, areas that have been evaluated through geological-mining studies and reserve evaluation. We will proceed to build new mineral production accesses, adapt existing exploitation tunnels and implement a modern mineral processing plant.

New and other mining cores will be acquired to consolidate a reserve of gold and silver minerals sufficient for a sustainable project for about 50 years into the future.

The ecological and social environment will be our main commitment, for which social development and environmental protection programs will be applied, through responsible mining development to forge a society that creates sources of work, opportunities for human improvement and first-class education. for future citizens.

a. REGIONAL GEOLOGY:

In the mining district are the Celica Formation rocks composed of volcanic material, predominantly pyroclastics and sub volcanic basalt and andesite composition and sporadic intercalations of andesitic tuff is common collations sandstones and limestones which gives a correlation with marine sediments Alamor Group.

The rocks are of calc alkaline arc and thickness can reach 500 meters, the age of the formation is Lower Cretaceous. The matrix of the andesite is aphanitic with phenocrystals feldspar very tectonized and altered and metheorized hormblenda

a. LOCAL GEOLOGY:

Primarily in the sector andesitic rocks presents very fractured and silicified form the host rocks are emplaced where quartz veins. It also presents chloritic alteration, breccias and mylonite.

1. DRILLINGS:

Principal data collected during the drilling stage, implemented by the Company,are specified herein by way of general summary.

Hole	C. UTM	Depth from - to	Content pm Au, Ag, %Cu/length in meters
07-04	654924E 9593370N	61.6 to 72.30	8.14, 128.4, 1.13/10.70; Included 16.838, 257.8, 2.25/5.1
07-05	654992E 9593400N	104.79 to 116.43	9.564, 84.8, 0.54/11.64; Included 16.323, 180.2, 1.1/5.21
07-09	654896E 959342N	26.78 to 31.66	2.923, 3.4/4.88 Included 17.05, 10.5, 0.07/0.77
		130.17 to 132.00	1.849, 3.9/1.83
07-11	654844E 9593744N	53.86 to 55.69	5.926, 5.7, 0.1/1.83 Included 17.1, 13.4, 0,94/0.63
		161.94 to 163.06	0.758, 18.7, 0.23/1.12
		255.98 to 257.57	2.243, 7.6, 0.2/1.59 Included 8.5, 10.8, 0.3/0.41
17-15	654886E 9593489N	8.79 to 9.20	2.94, 73.3, 0.76/0.41
		153 to 161.34	3.216, 57.3, 0.46/7.62 Included 5.481, 109.1, 0.81/3.57; y 25.3, 557.0, 4.15/0.69 y 9.51% Zn

2. ESTIMATE OF MINERAL RESERVES:

We have considered the following parameters to determine ore reserves Gold (**Au**):

- **M**acroscopic appearance of the mineralized nuclei obtained in the drilling.
- **C**orrelation with the mineralized material observed in the existing tunnels in the sector.
- **S**patial correlation by the azimuth of the mineralized veins lying in the tunnels and the mineralized bodies intercepted in the drilling.
- **S**patial correlation due to the dipping of the mineralized veins lying in the tunnels and the mineralized bodies intercepted in the drilling.
- **R**elationship of the host rock - mineralized body observed in the cores samples obtained from the drilling and the correlation observed in the tunnels and outcrops of the sector.
- **I**nfluential structures.
- **B**locks with geometric shapes for volumetric calculation were determined.
- **A**UTOCAD program was used for the three-dimensional location of the mineralized bodies and the precision dimensioning in three dimensions.
- **T**o obtain the average values, we used the arithmetic mean method and the weighted average depending on the complexity of the parameter measured (thickness and / or mineral tenor).
- **T**he law used was obtained from the results of the chemical analyzes of the cores samples and the average gold content in the mining sector.
- **T**he extraction factor of 80% and the dilution law of 10% were determined.

These reserves thus obtained are considered as estimated.

Spatial extrapolations to the estimated blocks are considered as probable Reserves, which will be upgraded according to a program indicated in the recommendations.

TOTAL OF ESTIMATED GOLD RESERVES IN THE MINING SECTOR.

BLOCK	AMOUNT	UNIT OF MEASURE
1.	798060.298	Oz. Au.
2.	2023.6	Oz. Au
3.	4488.45	Oz. Au.
4.	2722.44	Oz. Au
5.	10245.17	Oz. Au.
6.	5764.2	Oz. Au
7.	48517.35	Oz. Au.
8.	22077.46	Oz. Au
9.	57033.95	Oz. Au
10.	48903.58	Oz. Au
11.	70492.58	Oz. Au
12.	55946.22	Oz. Au
Total	**1126275,298**	**Oz. Au**

3. RECOMMENDED EXPLOTAITION PROGRAM

The program is prepared based on the mining geological research study made out in Mining Area, and visits by the adjacent concessions. The correlation between the observed and measured in the underground works, the surface geology and the results of deep drilling resulted in the establishment of ***Exploitation Blocks***.

Exploitation three main fronts that have to communicate with each other to the extent that the working of extraction progress are established..

In this first stage is programmed extraction variable between 30% and 50% of the exploitable volume, leaving a second stage the area north sector and the pillars that originate exploited blocks in the first stage. The amount of exploitation is programmed from 500 to 600 tonnes per day (about 300 to 400 tons of mineralized quartz), so will be used Jumbo type machines for drilling, mine loaders, mining trucks to evacuate ore and waste product, as well as small machines drills and mine cars, to help in areas of difficult access to Jumbo and loader machine, but in no case shall the strong transportation to the outside will with smaller vehicles, the mine cars are converted providers of heavy equipment, or are converted exclusively exploitation auxiliary equipment.

Initially principal tunnels and vents are open, and then proceed to the formation of levels with principal galleries which will be located a vertical distance of 30 m. and 50 m. this function of the angle of dip of the ore body; simultaneously proceed with the opening of principal mine recesses and mineshafts that are distributed along the course of mineralization every 50 meters of horizontal distance, so it is shaping the sub blocks operation to employ a method of collapse or subsidence. Galleries and main undercuts in addition to serving as a source of mineral production shall become lines of communication and transportation of material and personnel. It is contemplated opening inclined tunnels will use to reach lower levels directly and through these transfer conveyors through the mineralized material.

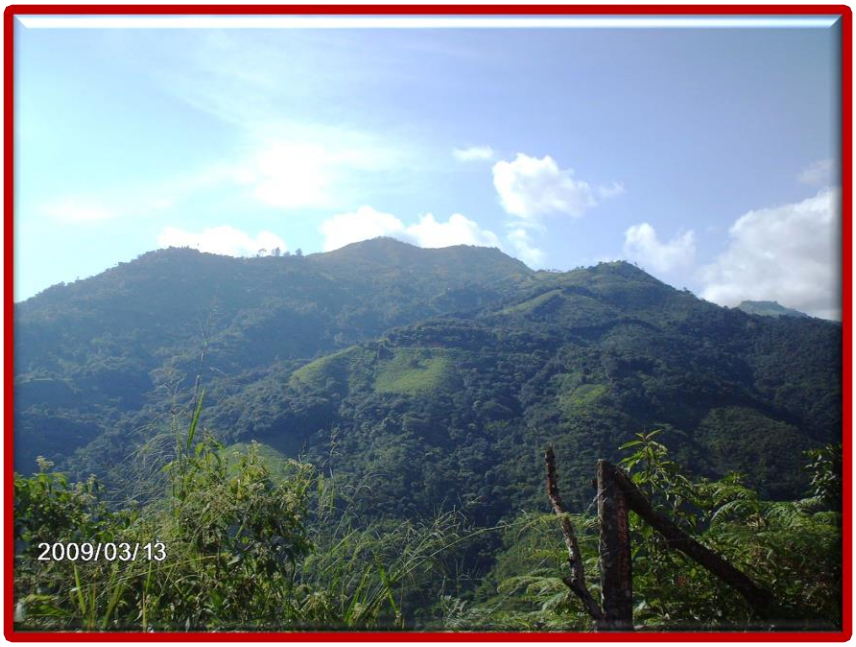
The principal Adit, according to the resistance of the material intercept, will be coated and fortified with reinforced concrete walls, is considered in the case that so warrants the use of rock bolts for stability of the fronts of exploitation. The main adits have lighting and power outlets in all the extension, water and air permanently, starting from which make use of the same.

Volume that program should get to 100 %, one year after the start of the opening of the tunnels and having all necessary equipment and personal for this activity.

CONCLUSIONS:

Based on all investigations conducted to date is determined without a doubt that the mentioned Mining District continues to be the most important of the country. Its long mining history also confirms this position, however disorganized exploitation activity conducted at small-scale mining, but in the whole is a big mining zone considering the large amount of people, great amount of mining concessions and great volumes process.

The sector evaluated corresponds to a place in which little or nothing has been done as to exploitation is concerned, the parallelism of veins identified in the sector, the continuity of the same depth and increased gold values present in the drilling in the northern sector, the recent mining incursion artisanal to the south of project, are guides to develop a program of mineral extraction in an area of 200 hectares approximately, which is the area directly influenced by mining, with large volumes of mineralized quartz, the which are feasible if the area is operated on several levels with various exploitation fronts.



Sector with high mining potential

CORE DRILL

18 Hole (P18).

Section 175.45 - 176.09. Quartz vein with pyrite chalcopyrite and galena.

Section 172.53 - 178.75 has andesite with high chloritization and pyrite.

Section 199.53 - 200.43 Quartz vein with oxides.

Section 201.56 - 203.52 Quartz vein with oxides and drusen

Section 168.45 - 172.27

Andesitic rock with sulfide dissemination. Quartz vein - Sulfides.

Section 186.75 - 189.47. Andesite with disseminated sulfides, chlorite, quartz vein with pyrite, chalcopyrite, galena.

Section 186.75 - 189.47. Andesite with disseminated sulfides, chlorite, quartz vein with pyrite, chalcopyrite, galena.

Section 181.13 - 185.92.

Andesite with siliceous alteration and chlorite, abundant sulfides.

Section 190.78 - 194.34.

Andesite silisified with abundant sulfides.

Section 194.36 - 199.

zone of intense hydrothermal action, andesite with veins of oxidized quartz, limonite, covelite, chalcopyrite, sphalerite, manganese. The vein is intercepted from 195.3 to 199.

4 Hole. (P4).

‹61.60. Amigdaloide textured andesite, Quartz, Druze, leaching cells.

Section 61.60 - 62.48. Quartz vein with Psilomelano and oxides.

64.50 - 65. Brech with little metallic mineralization.

65.00 - 66.00. Quartz vein, galena, pyrite, chalcopyrite and gold.

67.05 - 68.50. Quartz vein, sulfides and oxides.

Section. 68.50 - 70.10. Quartz, oxides, visible gold.

70.10 - 71.62. Silicified brech, limonite.

72.30 - 73.15. Milonita

73.15 - 74.67. Intense oxidation with quartz and leaching cells.

Sondaje 11. (P11).

Section 52.95 - 54.20. Tonalite

54.20 - 55.69. Gap, quartz veils, Psilomelano. Little amount of sulfide.

Brecha con vetillas de cuarzo y Psilomelano.

Sondaje (P9).

Section 0 - 26.78. Clay material.

27.43 - 30.96. meteorized igneous material, clay, porphyry texture.

30.96 - 34.87. Material with intense meteorization.

30.87 - 31.66. Coloform brech

To 31.66. Quartz, limonite with microscopic gold


2009/04/24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2009/04/24

ESTIMATE OF GOLD RESERVES

We have considered the following parameters to determine the reserves of gold ore (Au).

- Macroscopic aspect of the mineralized nuclei obtained in the boreholes.

- Correlation with the mineralized material observed in the existing tunnels in the sector.

- Spatial correlation by the azimuth of the mineralized veins lying in the tunnels and the mineralized bodies intercepted in the boreholes.

- Spatial correlation by the diving of the mineralized veins lying in the tunnels and the mineralized bodies intercepted in the boreholes.

- Relationship of the embedded rock - mineralized body observed in the witnesses obtained from the boreholes and the correlation observed in the tunnels and outcrops of the sector.

- Influential structures.

- It was determined blocks with geometric shapes for volumetric calculation.

- AUTOCAD program was used for the three-dimensional location of mineralized bodies and precision dimensioning in three dimensions.

- To obtain the average values, the arithmetic mean method and the weighted average were used depending on the complexity of the measured parameter (thickness and / or ore grade).

- The law used was obtained from the results of the chemical analyzes of the witnesses and the law obtained in the mining exploitation of the sector.

- The extraction factor of 80% and the dilution law of 10% were determined.

These reserves thus obtained are considered as estimates or measures.

Spatial extrapolations to the estimated blocks are considered as probable reserves, which will be upgraded according to a program indicated in the recommendations.

Continuing along the azimuth of the veins of the sector can establish a linear correlation of drill hole Mir 07 11 – Mir 07 9 – Mir 07 15 – Mir 07 18 (P11-P9-P15-P18); Mir 07 4 – Mir 07 5 RS2 (P4-P5-RS2), the latter (RS2) is related at the deepest level; RS12 - RS 16 - RS13 - RS4.

As we indicated, the intercepts of the boreholes are correlated with the mineral bodies of the tunnels following the dip and projecting up or down as the case may be.

The forms and dimensions are indicated in the respective maps attached.

1.-

RS2. P5 PRS2)

Subparallel veins - RS2 hole.

Calculation of areas by triangles.

Lower area (Floor) = 34.2877 x 307.3975 / 2 = 53685.83 m2.

Upper area (Ceiling) = 341.332 x 306.9333 / 2 = 52383.104 m2

Average area = 53034.96 m2.

Thickness.

Weighted average calculation.

X = X1 x W1 + X2 x W2 +… .. Xn x Wn / W1 + W2 +… ..Wn

X1 = 13.7889 W1 = 3.5639 X15 = 6.5303 W15 = 10.6241

X2 = 15.0783 W2 = 2.5739 X16 = 3.6414 W16 = 5.7902

X3 = 9.0483 W3 = 2.3485 X17 = 8.1088 W17 = 4.09

X4 = 10.0927 W4 = 1.4228 X18 = 7.8502 W18 = 4.0155

X5 = 10.0528 W5 = 3.3133 X19 = 2.0154 W19 = 4.963

X6 = 3.1474 W6 = 4.1496 X20 = 4.3649 W20 = 5.5841

X7 = 2.2646 W7 = 3.8978 X21 = 2.2312 W21 = 5.7455

X8 = 5.2682 W8 = 6.0322 X22 = 2.244 W22 = 4.0739

X9 = 4.3187 W9 = 8.3951 X23 = 13.5959 W23 = 2.4052

X10 = 15.3869 W10 = 8.1595 X24 = 13.1667 W24 = 3.1657

X11 = 3.8003 W11 = 8.6977 X25 = 33.2825 W25 = 2.5294

X12 = 18.8211 W12 = 9.7233 X26 = 34.2711 W26 = 6.2765

X13 = 8.9369 W13 = 5.9583 X27 = 45.3513 W27 = 5.8467

X14 = 10.1465 W14 = 8.7276 X28 = 6.4274 W28 = 2.8142

X29 = 21.9484 W29 = 1.1941.

X = 1634.753 / 139.082 = 11.754 m.

Thickness P11 = 8.2695 m.

Average thickness = 10.01 m.

V = 53034.096 m2 X 10.01 m = 530964.111 m3.

Material density = 2.8 ton / m3. = 1 ’486699.51 ton.

Gold content tunnel = 5 g / ton = 0.161 oz. / ton.

Gold content hole RS2 = 1.18 oz. / ton.

Average content = 0.161 + 1.18 / 2 = 0.671 oz. / ton (a).

Extraction factor = 80%. 1’486.699.51 X 80% = 1’189,359.61 ton (b).

Dilution = 10%. 1’189,359.61 X 1.1 = 1’308,295.57 ton (c).

Estimated gold content = a X b / c; 0.671 X 1’189,359.61 / 1’308,295.57 = 0.61 oz. / ton.

Estimated reserve = 1’308,295.57 ton with 0.61 oz. / ton =

= 798,060.298 oz. Au.

2.-

BLOCK: A - P11. (Block A P11 diagram)

Sub blocks a, b.

Calculation by triangles.

a)

Upper area (ceiling).

70.893 m X 33.8518 m / 2 = 1197.9278 m2.

Lower area (Floor).

72.9503 X 33.7833 = 1232.2509 m2.

Average area = 1216.089 m2.

Medium thickness.

2.9524 + 0.8738 / 2 = 1.9131 m.

2.9524 + 1.7709 / 2 = 2.362 m.

0.8738 + 1.7709 / 2 = 1.32 m.

Average thickness = 1.9131 + 2.362 + 1.32 / 3 = 1.865 m.

V = 1216.089 X 1.865 = 2268 m3.

Material density = 2.8 ton / m3. = 6350 ton.

b)

Upper area (ceiling).

94.1279 X 16.9103 / 2 = 795.83 m2.

Lower area (Floor).

94.109 X 16.5368 / 2 = 778.131 m2.

Average area = 787 m2.

Medium thickness.

2.9524 + 2.2811 / 2 = 2.62 m.

2,281 + 1.7709 / 2 = 2.026 m.

2.9524 + 1.7709 / 2 = 2.362 m.

Average thickness = 2.336 m.

V = 787 X 2,336 = 1838.43 m3.

Material density = 2.8 ton / m3. = 5147.61 ton.

Sub block a + b = 11497.61 ton.

Gold content hole P11 = 8.788 g / ton.

Gold content Tunnel = 5 g / ton.

Average gold content = 6.894 g / ton. (a).

Extraction factor = 80%. 11497.61 X 80% = 9198.09 ton. (b)

Dilution = 10%. 9198.09 X 1.1 = 10117.90 ton. (c).

Estimated gold content = a X b / c; 6.894 X 9198.09 / 10117.9 = 6.27 g / ton = 0.20 oz. / ton.

Estimated reserves: 10117.9 tons with 0.20 oz. / tons.

= 2023.6 oz. Au.

3.-

BLOCK: B - P11 (Block P11 diagram)

Calculation by triangles.

Upper area (ceiling). Lower area (Floor)

278.7772 X 125.2313 / 2 = 17455.82 m2 ; 279.3165 X 125.243 / 2 = 17491.22 m2.

Upper area + Lower area / 2 = 17473.52 m2.

Medium thickness:

0.107 + 0.8 / 2 = 0.4535 m; 0.8 + 1.5945 / 2 = 1.197 m; 0.1078 + 1.5945 / 2 = 0.851 m.

Average thickness = sum of partial thicknesses / 3 = 0.834 m.

V = 17473.52 m2 X 0.834 m = 14572.92 m3.

Density of mineral material = 2.8 ton / m3. = 40804.17 ton.

Gold content Tunnel = 5 g / ton.

Gold content hole P11: 2,243 g / ton at 1.59 m. 8.5 g / ton at 0.41 m

Weighted average: 2,243 x 1.59 + 8.5 x 0.41 / 1.59 + 0.41 = 3.53 g / ton.

Average gold content = 4,265 g / ton. (a)

Extraction factor = 80%. 40804.17 x 80% = 32643.33 ton. (b)

Dilution = 10%. 32643.33 x 1.1 = 35907.66 ton. (c)

Estimated gold content: 4,265 X 32643.33 / 35907.66 = 3,877 g / ton.

Estimated reserve: 35907.66 tons with 3,877 g / tons. or 0.125 oz. / ton.

= 4488.45 oz. / ton.

4.-

BLOCK: P15 diagram

Sub Blocks: a, b, c.

Calculation by triangles.

a).

Sup. (Ceiling). 92.4896 X 30.4305 / 2 = 1407.255 m2.

Area inf. (Floor) 99.1929 X 31.058 / 2 = 1540.3765 m2.

Average area: 1407.255 + 1540.3765 / 2 = 1473.82 m2.

Average thickness: 1.9609 + 1.359 + 4.4095 / 4 = 1.932 m.

V = 1473.82 X 1.932 = 2847.94 m3.

Density of mineral material = 2.8 ton / m3. = 7974.22 ton.

b).

Sup. (Ceiling). 98.0948 X 31.4738 / 2 = 1543.71 m2.

Area inf. (Floor) 104.6225 X 35.5082 / 2 = 1857.48 m2.

Average area: 1543.71 + 1857.48 / 2 = 1700.6 m2.

Average thickness: 1.359 + 1.1971 + 4.4095 / 4 = 1.49 m.

V = 1700.6 X 1.49 = 2535.4 m3.

Density of mineral material = 2.8 ton / m3. = 7909.06 ton.

c).

Sup. (Ceiling). 104.7374 X 19.7728 / 2 = 1035.74 m2.

Area inf. (Floor) 111.7076 X 20.448 / 2 = 1141.75 m2.

Average area: 1088.7 m2.

Average thickness: 1.197 + 1.8606 + 4.4095 / 4 = 1,866 m.

V = 1088.7 X 1,866 = 2032.35 m3.

Density of mineral material = 2.8 ton / m3. = 5690.6 ton.

Block Tonnage: a + b + c = 20763.8 ton.

Gold content hole P15: 3.216 g / ton in 7.62m; 5.481 in 3.57m; 25.3 g / ton in 0.69m

Weighted average:

3,216 x 7.62 + 5,481 x 3.57 + 25.3 x 0.69 / 7.62 + 3.57 + 0.69 = 5.15 g / ton.

Gold content tunnels: 5 g / ton.

Average gold content: 5.15 + 5/2 = 5.075 g / ton (a).

Extraction factor = 80% 20763.8 x 80% = 16610.4 ton (b).

Dilution = 10%. 16610.4 x 1.1 = 18271.44 ton (c).

Estimated gold content = a x b / c 4.61 g / ton = 0.149 oz. / ton.

Estimated reserves: 18271.44 with 0.149 oz. / ton.

=2722.44 oz. Au

5.-

BLOCK: P18.

Calculation by triangle.

Sub blocks; a, b.

a).

Sup. (Ceiling). 364.4608 X 58.8542 / 2 = 10725.024 m2.

326.8334 X 14.3571 / 2 = 2346.189 m2

a = 10725.024 + 2346.189 = 13071.21 m2.

b).

Area inf. (Floor). 365.9836 X 59.094 / 2 = 10813.71 m2.

328.2744 X 14.2461 / 2 = 2338.15 m2.

b = 10813.71 + 2338.15 = 13152.02 m2.

Average area: a + b / 2 = 13111.62 m2.

Average thickness: 0.9221 + 1.1791 + 1.7387 + 1.2578 / 4 = 1.274 m.

V = 1311.62 X 1,274 = 16709,776 m3.

Density of mineral material = 2.8 ton / m3. = 46787.374 ton.

Gold content Tunnel = 5 g / ton.

Gold content hole P18 = 4.518 g / ton.

Average gold content = 5 + 4.518 = 4.759 g / ton (a).

Extraction factor: 80%. 46787.374 X 80% = 37429.9 ton (b).

Dilution: 10%. 37429.9 X 1.1 = 41172.889 ton (c).

Estimated gold content a X b / c = 4.33 g / ton. = 0.14 oz. / ton.

Estimated reserve: 41172.889 ton with 0.14 oz. / ton.

= 5764.2 oz. Au.

6.-

BLOCK: P15 - P11

Calculation by triangle.

Sub block a, b.

a).

Sup. (Ceiling). 135.5577 X 51.6519 / 2 = 3500.9064 m2.

135,557 X 70.1228 / 2 = 4752.8427 m2.

= 3500.9064 + 4752.8427 = 8253.719 m2.

b).

Area inf. (Floor) 135.4463 X 51.8376 / 2 = 3510.606 m2.

135.4463 X 74.1358 / 2 = 5020.709 m2

= 3510.606 + 5020.709 = 8531.315 m2.

Average area = a + b / 2 = 8392.5 m2.

Average thickness: 2.1315 + 1.7971 / 2 = 1.9643 2.1315 + 1.9609 / 2 = 2.0462

1.7971 + 1.9609 / 2 = 1.879 1.7971 + 6.3759 / 2 = 4.0865

1.9609 + 6.3759 / 2 = 4.1684 2.1315 + 6.3759 / 2 = 4.2537

X = e1 +…. In / # e + 1 2.628 m.

V = 8531.315 X 2.628 = 22420.28 m3.

Density of mineral material = 2.8 ton / m3. = 62776.79 ton.

Gold content hole P15 = 5.15 g / ton.

Gold content hole P11 = 1.83 m with 5.9269 g / ton; 17.1 m with 0.63 g / ton.

Weighted average: X = 5.926 x 1.83 + 17.1 x 0.63 / 1.83 + 0.63 = 8.799 g / ton.

Average gold content = 5 g / ton.

Block gold content = 8.788 + 5 + 5.15 / 3 = 6.313 g / ton (a). = 0.204 oz. / ton (a)

Extraction factor: 80% 62776.79 X 80% = 50221.43 ton (b).

Dilution: 10%. 50221.43 X 1.1 = 55243.58 ton (c).

Estimated gold content a X b / c 0.204 X 50221.43 / 55243.58 = 0.185 oz. / ton.

Estimated reserves: 55243.58 ton with 0.185 oz. / ton

= 10245.17 oz. Au

7.-

BLOCK P9 - P5.

Calculation by triangles.

Sup. (Ceiling). 280.29 X 96.21 / 2 = 13483.35 m2.

Area inf. (Floor). 292.29 X 96.13 / 2 = 14048.92 m2.

= 13483.35 + 14048.92 / 2 = 13766.61 m2.

Thickness: 12.3114 + 4.3484 / 2 = 8.3299 m.

4.3484 + 10.5848 / 2 = 7.4666 m.

10.5848 + 12.3114 / 2 = 11.4481 m.

Average thickness = 8.3299 + 7.4666 + 11.4481 / 4 = 6.811 m.

V = 13766.61 X 6.811 = 93764.38 m3.

Density = 2.8 ton / m3. = 262540.266 ton.

Gold content tunnel = 5 g / ton.

Gold content hole P5: 9,654 g / ton at 11.6 m.; 16,323 g / ton at 5.21 m.

Weighted average: 9.564 X 11.6 + 16.323 X 5.21 / 11.6 + 2.21 = 11.66 g / ton.

Gold content hole P9: 2.923 g / ton at 4.88 m.; 17.050 g / ton at 0.77 m.

Weighted average: 2.923 X 4.88 + 17.05 X 0.77 / 4.88 + 0.77 = 4.848 g / ton.

Average gold content: (5 + 11.66 + 4.848) / 3 = 7.17 g / ton = 0.23 oz / ton (a).

Extraction factor: 80% 262540.266 X 80% = 210032.21 ton (b).

Dilution: 10%. 210032.21 X 1.1 = 231035.43 ton (c).

Estimated gold content: 0.23 X 210032.21 / 231035.43 = 0.21 oz. / ton.

Estimated reserves: 231035.43 ton with 0.21 oz. / tons.

= 48517.35 oz. Au.

8.-

BLOCK: RS12.

Calculation by triangles.

Area sup. (205.15 X 70.51 / 2 = 7232.5623 m2.

(Floor): 248.464 X 61.0047 / 2 = 7578.7359 m2.

= 7232.5623 + 7578.7539 / 2 = 7405.6496 m2.

Average thickness: 0.7395 + 0.7581 + 0.7581 + 4.9715 / 4 = 1.617 m.

V = 7405.6496 X 1.617 = 11976.972 m3.

Density of mineralized material = 2.8 ton / m3 = 33535.5 ton.

Gold content hole RS12 = 2.17 oz / ton. = 67.27 g / ton.

Gold content tunnel = 5 g / ton.

Average gold content = 67.27 + 5/3 = 24.9 g / ton. = 0.777 oz. / ton. (a).

Extraction factor: 80%. 33535.5 X 80% = 28428.4 ton. (b)

Dilution: 10%. 28428.4 X 1.1 = 31271.24 ton. (c).

Estimated gold content: a X b / c 28428.4 X 0.777 / 31271.24 = 0.706 oz. / ton.

Estimated reserves: 31271.24 with 0.706 oz. / ton.

= 22077.46 oz. Au

9.-

BLOCK: SUPERIOR RS4.

Calculation by rectangular prism.

. It is considered a dimension by Azimuth of 20 meters towards each side of the point of intersection of the hole with the vein.

. It is considered a dimension by the dip of 72.45 meters.

. The thickness at the interception of the hole with the vein is 4.6816. 50% of the thickness measured in the borehole is taken as the thickness towards the upper and lower ends.

With what we get the average thickness = 4.6816 + 2.34 + 2.34 / 3 = 3.12 m.

V = 40 X 72.45 X 3.12 = 9041.76 m3.

Density of mineralized material = 2.8 ton / m3 = 25316.93 ton.

Gold content vein intercepted in hole = 2.82 oz. / ton. (a).

Extraction factor: 80% 25316.93 X 80% = 20253.54 ton. (b)

Dilution: 10% 20253.54 X 1.1 = 22278.89 ton. (c).

Estimated Gold content = a X b / c 2.82 X 20253.54 / 22278.89 = 2.56 oz. / ton.

Estimated reserve: 22278.89 ton with 2.56 oz. / ton.

= 57033.95 oz. Au.

10.-

BLOCK: LOWER RS4.

Rectangular prism calculation.

. It is considered a dimension by Azimuth of 20 meters towards each side of the point of intersection of the hole with the vein.

. It is considered a dimension by the dip of 67.00 meters.

. The thickness at the interception of the hole with the vein is 2.00. 50% of the thickness measured in the borehole is taken as the thickness towards the upper and lower ends.

With what we get the average thickness = 2.00 + 1.00 + 1.00 / 3 = 1.33 m.

V = 40 X 67.00 X 1.33 = 6237.7 m3.

Density of mineralized material = 2.8 ton / m3 = 17465.656 ton.

Gold content hole RS4: 3.5 oz. / ton. (a).

Extraction factor: 80%. 17465.656 X 80% = 13972.45 tn. (b).

Dilution: 10%. 17465.656 X 1.1 = 15369.69 tn. (c).

Estimated gold content: a X b / c 3.5 X 13972.45 / 15369.69 = 3.18 oz. / ton.

Estimated reserve: 15369.69 with 3.18 oz. / ton.

= 48903.58 oz. Au.

11.-

BLOCK: A RS16 - RS13

Sub Blocks a, b, c.

a).

Area Sup. 42.6698 X 86.2031 = 3.668.7867 m2.

Lower Area (Floor). 42.5598 X 86.1957 = 3668.6292 m2.

Thickness = 3.05m.

A Sup. + A inf. / 2 = 3668.6292 m2.

Va = 3688.6292 X 3.05 = 11189.3192 m3.

b). Calculation by triangles

Area Sup. (ceiling). 160.3157 X 616057/2 = 4938.1805 m2

160.3157 X 50.8934 / 2 = 4079.5055 m2.

Sup. = 4938.1805 + 4079.5055 = 9017.686 m2.

Inf. Area (Floor). 159.4122 X 62.287 / 2 = 4964.6539 m2.

159.4122 X 51.8989 / 2 = 4136.6589 m2.

Area inf. = 4934.6539 + 4136.6589 = 9101.3128 m2.

Sup. + inf. / 2 = 9059.4994 m2.

Average thickness: 3.05 + 1.05 + 1.09 + 3.05 / 4 = 1.55 m.

Vb = 1.55 X 9059.4994 m3.

c).

Area Sup. (ceiling). 417911 X 98.2057 = 4104.1242 m2.

Inf. Area (Floor). 41.7911 X 98.2362 = 4105.3989 m2.

A Sup. + A inf. / 2 = 4104.7615 m2.

Average thickness = 1.05 + 1.05 + 1.09 + 1.09 / 4 = 1.07 m.

Vc = 1.07 X 4104.7615 = 4392.0948 m3.

Va + Vb + Vc = 11189.3192 + 14107.0348 + 4392.0948 = 29688.449 m3.

Density of mineralized material = 2.8 ton / m3 = 83127.657 ton.

Gold content in hole vein hole RS13 = 1,052 oz. / ton.

Gold content in hole vein RS16 = 1.16 oz. / ton.

Average gold content = 1.06 oz. / ton. (a).

Extraction factor: 80%. 83127.657 X 80% = 66502.126 ton. (b).

Dilution: 10%. 83127.657 X 1.1 = 73152.338 ton. (c).

Estimated gold content: a X b / c 0.964 oz. / ton.

Estimated Reserve 73152.338 ton with 0.964 oz. / ton.

= 70492.25 oz. Au.

12.-

BLOCK: B RS16 - RS13.

Sub block a, b, c.

a).

V = 42.5598 X 86.1957 X 0.76 = 2788.038 m3.

b).

Calculation by triangle.

Area Sup. (ceiling). 152.3991 X 67.7089 / 2 = 5159.049 m2.

152.3891 X 56.8808 / 2 = 4334.0669 m2.

= 5159.049 + 4334.0669 = 9431.16 m2.

Area inf. (Floor). 152.2398 X 68.0378 / 2 = 5179.0305 m2.

152.2398 X 57.0063 / 2 = 4339.3139 m2.

= 5179.0305 + 4339.3139 = 9518.3444 m2.

A Sup. + A inf. / 2 = 9505.7302 m2

Average thickness = 0.76 + 0.76 + 0.35 + 0.35 / 4 = 0.555 m.

V = 9505.7302 X 0.555 = 5275.6003 m3.

c).

Area Sup. (ceiling). 41.7911 X 98.2057 = 4104.1242 m2.

Area inf. (Floor). 41.7911 X 98.0765 = 4098.7248 m2.

A Sup. + A inf. / 2 = 4101.4245 m2.

Average thickness = 0.35 m.

V = 4104.4245 X 0.35 = 1425.4986 m3.

Va + Vb + Vc = 2788.038 + 5275.6003 + 1435.4245 = 9499.0628 m3.

Density of mineralized material = 2.8 Ton / m3 = 26597.376 ton.

Gold content in hole vein RS13 = 1.12 oz. / ton.

Gold content in hole vein RS16 = 4.15 oz. / ton.

Average gold content = 2.635 oz. / ton. (a).

Extraction factor: 80% 26597.376 x 80% = 21277.09 ton. (b).

Dilution: 10% 21277.9 X 1.1 = 23405.69 ton. (c).

Estimated gold content: a X b / c 21277.9 X 2,635 / 23405.69 = 2.39 oz. / ton.

Estimated reserve: 23405.69 tons with 2.39 oz. / tons.

= 56064.89 oz. Au.

TOTAL ESTIMATED PROOF OF GOLD RESERVES IN THE MINING SECTOR

BLOCK	AMOUNT	UNIT OF MEASURE
1	798060.298	Oz. Au.
2	2023.6	Oz. Au
3	4488.45	Oz. Au.
4	2722.44	Oz. Au
5	5764.2	Oz. Au.
6	10245.17	Oz. Au
7	48517.35	Oz. Au.
8	22077.46	Oz. Au
9	57033.95	Oz. Au
10	48903.58	Oz. Au
11	70492.58	Oz. Au
12	56064.89	Oz. Au
Total	**1.126.393,638**	**Oz. Au**

MINING WORK

Block	Main Work	Secondary Work	Quantity	Total
P11 PRS2	P. Adit		365 m	
	Adit (45º)		226 m	
	Main galleries and cross cuts		4836 m	
		Galleries	8270 m	
		Cut up	15462	
				29159 m
Exploited Volume.			157,945.888 m3	
Volume of mineralized Quartz			156,474.39 m3	
Tons of mineralized quartz			428,739.83 tn	
Estimated gold content			0.61 oz./tn	
Gold Production			261,531.3 oz./tn	261,531.3 oz.

Block	Main works	Secondary works	Quantity	Total
P5 P9	Main galleries and cut up		892 m	
		Galleries – cut up	3,940 m	
				4832 m
Exploit. Vol.			37,731.558 m3	
Volume of mineralized Quartz			34,568.126 m3	
Tons of mineralized quartz			94,716.66 tn	
Estimated gold content			0.21 oz./tn	
Gold Production			19,890.449 oz./tn	19,890.449 oz.

Block+	Main works	Secondary works	Quantity	Total
AP11	Galleries – cut up		101 m	
		Galleries – cut up	415 m	
				516 m
Exploit. Vol.			4,030.114 m3	
Volume of mineralized quartz			3,281.76 m3	
Tons of mineralized quartz			94,716.66 tn	
Estimated gold content			0.21 oz./tn	
Gold Production			19,890.449 oz./tn	19,890.449 oz./tn

Block	Main works	Secondary works	Quantity	Total
P18	Adit (24°)		118 m	
	Galleries – cut up		482 m	
		Galleries – cut up	2,844 m	
				3,444 m
				4,644 m
Exploit. Vol.			27,274.292 m3	
Volume of mineralized quartz			13,304 m3	
Tons of mineralized quartz			36,452.96 m3	
Estimated gold content			0.14 oz./tn	
Gold Production			5,103.414 oz.	5,103.414 oz.

Block	Main works	Secondary works	Quantity	Total
P15P11	Galleries – cut up		347 m	
		Galleries – cut up	2,482 m	
				2,829 m
Exploit. Vol.			21,728.253 m3	
Volume of mineralized quartz			18,940.155 m3	
Tons of mineralized quartz			51,896.024 tn	
Estimated gold content			0.185 oz./tn	
Gold Production			9,600.764 oz./tn	9,600.764 oz.

Block	Main works	Secondary works	Quantity	Total
BP11	Miranda Adit		339 m	
	Chimneys		248 m	
	Galleries – cut up		487 m	
		Galleries – cut up	3570 m	
				4,644 m
Exploit. Vol.			28,659.452 m3	
Volume of mineralized quartz			11,456.968m3	
Tons of mineralized quartz			31,392.092 tn	
Estimated gold content			0.1274 oz./tn	
Gold Production			3,999.352 oz./tn	3,999.352 oz

Block	Main works	Secondary works	Quantity	Total
P15	Adit		298 m	
	Chimneys		218 m	
	Galleries – cut up		1,053 m	
		Galleries – cut up	1,053 m	
				1,745 m
Exploit. Vol.			12,630.317 m3	
Volume of mineralized quartz			4,977.45 m3	
Tons of mineralized quartz			13,638.213 tn	
Estimated gold content			0.149 oz. /tn	
Gold Production			2,032.093 oz./tn	2,032.093 oz.

Block	Main works	Secondary works	Quantity	Total
Rs12	Galleries – cut up		520 m	
		Galleries – cut up	2,763 m	
				3,283 m
Exploit. Vol.			25,641.215 m3	
Volume of mineralized quartz			15,170.73 m3	
Tons of mineralized quartz			41,567.8 tn	
Estimated gold content			0.706 oz/tn	
Gold Production			29,346.866 oz.	29,346.866 oz.

Totals:

Exploited Volume = 339,373.089 m^3

Volume of mineralized quartz = 258,173.579 m^3

Tons of mineralized quartz = 707,395.601 m^3