

第 III 部 結 論 及 び 提 言

第1章 結論

(1) 衛星画像解析

本年度の衛星画像解析の比演算処理の結果、R21(酸化鉄指標)アノマリーは、調査地域東部の図画 32-q、図画 32-r および図画 31-r に特に纏まった分布をなす。対応する地質単元は PN-ta(新第三系火山岩類)、NQ-ba(第四系火山岩類) および Q-and(現世火山碎屑岩類)に良く纏まり、Ks-ti(上部白亜系貫入岩類)、JK-yu(ジュラ系～白亜系堆積岩類)、Ks-se(上部白亜系堆積岩類)および Ks-ar(上部白亜系堆積岩類)に小規模な分布が認められる。

R57(粘土鉱物指標)アノマリーは、調査地域全域に亘り認められるが、調査地域東部の図画 32-q および図画 32-r に特に纏まった分布をなす。全域における地質単元で見れば、単元 PeB(先カンブリア系変成岩類)、単元 JK-yu(ジュラ系～白亜系堆積岩類)、単元 Ks-ti(上部白亜系貫入岩類)、単元 PN-ta(新第三系火山岩類)、単元 NQ-ba(第四系火山岩類)および単元 Q-and(現世火山碎屑岩類)に集中する傾向があり、沖積層および現河川沿いの分布も顕著である。東部域に限ってみれば、単元 JK-yu、単元 PN-ta、単元 NQ-ba および単元 Q-and での分布が際立つ。

調査地域内のリニアメントはアンデス方向の NW-SE 系が卓越しているが、図画 32-o および図画 32-p においては E-W 系のリニアメントが顕著となる。これは調査地域北方において Abancay 屈曲として知られるアンデス方向の屈曲構造を反映しているものと考えられる。リニアメント密度分布のパターンは、大局的には前記のアンデス方向の屈曲に調和的な配列を示す。更に高密度域はアンデス方向の屈曲部に重複する。リニアメント分布密度を地質単元に対比すれば、第三系～第四系の若い地質単元が卓越する地域においては密度分布は低く、古生層から中生層を主体とする古い地質単元が卓越する地域においては密度分布が高い傾向が認められる。

画像解析結果と既知鉱徴地との関連を取り纏めると、以下の通りとなる。

1. 本調査地域は鉱脈型鉱床を主体としているが、リニアメント分布密度と鉱床分布とは必ずしも相関しない。
2. 鉱脈型鉱床賦存位置と酸化鉄指標および粘土鉱物指標の間には大局的には次ぎの関係が認められる。
 - ① 新生界に鉱床が分布する場合には、いずれかの指標が鉱床の近辺に必ず分布するが、
 - ② 中生界から古生界に鉱床が分布する場合には、いずれかの指標を伴うこともある。
3. マント型鉱床はリニアメント高密度分布域にほぼ重複して分布する。
4. マント型鉱床分布域には酸化鉄指標および粘土鉱物指標のいずれも出現しない。
5. 鉱染型および網状脈型鉱床はリニアメント分布密度の相対的高まりの近辺に位置する。
6. 鉱染型および網状脈型鉱床賦存位置には弱いながらも酸化鉄指標あるいは粘土鉱物指標のいずれかが分布する。特に新生界中の鉱床では明瞭に認められる。

(2) 既存データ解析

調査地域には、先カンブリア紀から第四紀までの変成岩類、堆積岩類および火山岩類が、北西-南東方向に伸張して分布する。これらを買いて、オルドビス紀～シルル紀、白亜紀～古第三紀および新第三紀の貫入岩類が分布する。調査地域南西部～東部に先カンブリア界の変成岩類が分布し、北部に向かい次第に若い時代の堆積岩類および火山岩類が分布する。

本地域は太平洋岸から内陸部に向け Paracas-Chala 鉱床区、Mala-Nazca 鉱床区、Nazca-Ocoña 鉱床区、Puquio-Caylloma 鉱床区が設定されている。従来のペルーの鉱床生成区分に対比すれば、Paracas-Chala 鉱床区は銅鉱床生成亜区、海岸鉄・銅鉱床区、Mala-Nazca 鉱床区は銅鉱床生成亜区、アンデス山麓銅鉱床区、Nazca-Ocoña 鉱床区は銅鉱床生成亜区、金・銅鉱床区、Puquio-Caylloma 鉱床区は西アンデス多金属鉱床生成亜区にそれぞれ対応する。

本地域の鉱床・鉱徴は総計 260 箇所が記載された。これらのうち鉱脈型鉱床が 238 箇所でもっとも多い。金鉱脈鉱床および金・銅鉱脈鉱床が 172 箇所を占め、Nazca-Ocoña 鉱床区の特徴が最も強く現れ、銅鉱脈鉱床の 56 箇所は Mala-Nazca 鉱床区の特徴を示している。ついでマント型鉱床が 15 箇所記載されるが、このうち 12 箇所は鉄マント鉱床、2 箇所は鉄・銅マント鉱床であり、これらはいずれもペルー唯一の鉄鉱生産鉱山である Marcona 鉱床を構成するものである。更に周辺には 6 箇所の鉄鉱脈鉱床および 3 箇所の鉄・銅鉱脈鉱床の記載もあり Paracas-Chala 鉱床区の特徴を示している。この他鉱染型鉱床 4 箇所、網状脈型鉱床 3 箇所が知られている。

鉱物組合せからこれらの鉱徴を考察すれば、金単味の鉱徴が新生界の火山岩中に認められることが非常に重要な意味を持つものと考えられる。即ち新規火山岩類に由来する金鉱化作用の存在を示唆していると解釈することができる。これらの母岩は、下部中新統の Tacaza 層群、Camaná 層群と更新統の Barroso 層群であり、中新世以降現世まで金鉱化作用が継続していることを示している。また、中生界の堆積岩類中に存在する金単味鉱脈鉱床については、層準規制型鉱床の示徴である可能性を検討する必要がある。中生界の Seraj 累層中に小規模ではあるがマント型銅・金鉱徴の記載もあり、検討に値する着眼点であると考えられる。

これらの鉱床・鉱徴に関する鉱床学的検討は Marcona 鉱山を除きほとんど実施されていない。既往資料および鉱徴分布から調査地域の鉱化作用を類型化すれば以下のようにまとめられる。

- ・ 中生代末の安山岩質貫入岩体に関係するマント型および鉱脈型鉄・(銅) 鉱床
- ・ 白亜紀末～古第三紀初頭の海岸底盤に関係するとされる金、金・銅、銅鉱脈鉱床
- ・ 中新世～現世の火山岩類に関連する金鉱脈・鉱染・網状脈鉱床

これらの類型的鉱化作用のうち、本調査による調査ターゲットとしては中新世～現世の火山岩類に関連する金鉱床が最も優先度が高く、次いで海岸底盤に関係するとされる金単

味鉍脈型鉍徴の検討が挙げられる。

(3) 総合解析

衛星画像解析及び既存データ解析の結果に基づき、

- ①衛星画像解析により抽出された酸化鉄指標アノマリー、
- ②衛星画像解析により抽出された粘土鉍物指標アノマリー
- ③リニアメント分布密度、
- ④新生代中新世～更新世火山岩類の分布、
- ⑤中生代 Guaneros 累層、Yura 層群、Casma 層群の分布、
- ⑥既知鉍徴地分布、

を判断基準として調査地域から有望地区を抽出すれば、下記の5地区が掲げられる。

- ① Nazca 地区
- ② Tocota 地区
- ③ Chuquibamba 地区
- ④ Andagua 地区
- ⑤ Orcopampa 地区

これらの判定基準を表示すれば下記の通りである。

有望地区一覧表

| 地区名 | 中心点 座標 | R21 (酸化鉄指標) | R57 (粘土鉍物 指標) | リニアメント 密度分布 | 対象母岩 | 既存鉍徴 |
|-------------------|------------------------|---------------------------------------|---|---|---|-----------------------------|
| ①Nazca | 14° 25' S 75° 15' W | Yura層群周辺 に微弱 | Yura層群中に NW-SE方向に 若干 | 高密度分布 頂部 | JK-yu (Yura層群) | 金単味鉍脈 型 |
| ②Tocota | 15° 40' S 74° 10' W | Guaneros層群 中に小規模 | Guaneros層群 中の断層沿 中規模 | 高密度分布 頂部3箇所 E-W、NW-SE、 NE-SW系断層 分布域 | Js-gu (Guaneros層群) JK-yu (Yura層群) | 金単味鉍脈 型 |
| ③Chuqui- bamba | 15° 40' S 72° 45' W | Tacaza層群中 に大規模 Barroso層群 に連続 | Tacaza層群、 Barroso層群中 に小規模 一部R21に重複 | 密度分布 鞍部 | PN-ta (Tacaza層群) NQ-ba (Barroso層群) | 金鉍染型 |
| ④Andagua | 15° 30' S 72° 25' W | Tacaza層群中 に大規模 Barroso層群 に連続 | Tacaza層群中 に小規模 一部R21に重複 | 高密度分布 頂部2箇所 | PN-ta (Tacaza層群) NQ-ba (Barroso層群) | 無 |
| ⑤Orcopampa | 15° 20' S 72° 15' W | Tacaza層群中 に大規模 Barroso層群 に連続 | Tacaza層群、 Barroso層群中 に中規模 一部R21に重複 | 高密度分布 頂部4箇所 | PN-ta (Tacaza層群) NQ-ba (Barroso層群) | 金単味鉍脈 型 金鉍染型 金網状脈型 |

第2章 将来への提言

本調査で得られる調査・解析結果は広域的な地域の有望性を与えるものであり、現地での確認調査が必要となる。現地調査に際しては、個々の地質現象に留意することが第一ではあるが、その現象が広域的背景の何処に位置付けられるのかを検討する必要がある。かつ各地域の地質的特性はそれぞれ異なることを認識しておく必要がある。以下に抽出された各地域に対する調査の主眼点を記す。

① Nazca 地区

本地区は中生代 Yura 層群が広く分布する地区であり、その南北両側には Tiabaya 岩系の大規模な貫入岩が分布し、鉍脈型金鉍床が集中する。従って、これらの金単味鉍脈鉍床の脈石鉍物組成、鉍床生成温度、画像から抽出できなかった母岩の変質等のデータ収集のための現地踏査を実施し、Yura 層群中に潜在する潜頭型層状鉍床の賦存の可能性を検討する。

② Tocota 地区

本地区は中生代 Guaneros 累層が広く分布する地域であり、その北側には Tiabaya 岩系および Bella Union 複合岩体が分布し、鉍脈型金鉍床が集中する。更に地区東部境界付近の Tiabaya 岩系との接触部周辺には、粘土鉍物指標アノマリーの小規模な集中が認められ、一部では点在する酸化鉄指標アノマリーとも重複する。従って、金単味鉍脈鉍床の脈石鉍物組成、鉍床生成温度、画像から抽出できなかった母岩の変質等のデータ収集のための現地踏査を実施し、Guaneros 累層中の潜頭型層状鉍床の賦存の可能性を検討すると共に、地区東部における交代鉍床賦存の可能性を検討する。

③ Chuquibamba 地区

本地区は新生代中新世 Tacaza 層群を主とし、更新世 Barroso 層群が分布し、リニアメント分布密度の高まりの北斜面に位置し、酸化鉄指標アノマリーが集中し、かつ点在する粘土鉍物指標アノマリーとも一部重複し、鉍染型金鉍徴が存在する。従って、画像から抽出された母岩の変質等の検証および岩石試料採取を含む地質データ収集のための現地踏査を実施し、変質鉍物組成、変質鉍物生成温度、岩石試料の分析結果等を総合的に検討し、浅熱水性金鉍床賦存の可能性を探る。

④ Andagua 地区

本地区は新生代中新世 Tacaza 層群、更新世 Barroso 層群が分布し、リニアメント分布密度の頂部を含む NW-SE 方向の高まりに位置し、酸化鉄指標アノマリーの小規模な集中が認められ、かつ点在する粘土鉍物指標アノマリーとも一部重複する。既存鉍徴は知られて

いないが、画像から抽出された母岩の変質等の検証および岩石試料採取を含む地質データ収集のための現地踏査を実施し、変質鉱物組成、変質鉱物生成温度、岩石試料の分析結果等を総合的に検討し、浅熱水性金鉱床賦存の可能性を探る。

⑤ Orcopampa 地区

本地区は新生代中新世 Tacaza 層群を主とし、更新世 Barroso 層群、現世火山砕屑岩類が分布し、リニアメント分布密度の頂部を含み、酸化鉄指標アノマリーの集中が認められ、かつ点在する粘土鉱物指標アノマリーとも一部重複し、操業中の鉱山も位置する。従って、画像から抽出された母岩の変質等の検証および岩石試料採取を含む地質データ収集のための現地踏査を実施し、変質鉱物組成、変質鉱物生成温度、岩石試料の分析結果等を総合的に検討し、浅熱水性金鉱床賦存の可能性を探る。

以上の留意事項を念頭に置いた現地確認調査の実施が望まれる。

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卷末資料 1 鉦床調査表

TABLE OF MINES AND DEPOSITS

1-13

| | | |
|------------------------------------|---------------------|---|
| Name | | Marcona |
| locality | Position | |
| | city | distrito de San Juan, Provincia de Nazca, departamento de Arequipa. |
| Transportation | | Puerto de San Juan - Mina = 27 Km. (carretera asfaltada) y a 13 Km en línea recta del Puerto de San Nicolás. |
| Geography | | |
| Clime | | |
| Minerals | | Fe |
| Owner | | Shougang Hierro Perú S.A.A. |
| Exploration stage | | Active |
| Geology | | Conformada por el Batolito de composición granodiorítica (Cretácica superior) que intruyó principalmente a metamórficos precámbricos, metasedimentos marinos paleozoicos del carbonífero inferior, metasedimentos continentales y meta-volcánicos mesozoicos (Jurásicos), todas las cuales están muy metamorfasados. Además encontramos tobas con sedimentos del Cretácico inferior y superior, sedimentos terciarios muy poco inclinados y no muy consolidados. Existen diques, derrames tabulares intrusivos que cruzan y cortan todas las formaciones, siendo la mayoría de esas rocas post-mineral. |
| mineralization | | Estructuras de rumbo promedio NE-SO con buzaminetos entre 35 y 65° NO. Un total de 117 cuerpos de mineral están esparcidos en un área aproximada de 10x10 Km., formando depósitos aislados, longitudes y anchos variables. Se encuentran yacimientos definidos y contactos gradacionales de magnetita diseminada. La paragénesis mineral es: actinolita, magnetita, pirita, calcita, y cuarzo. La magnetita cristalizó después que la actinolita, a la que reemplazó en gran parte; seguidamente la pirita se diseminó en forma profusa, en donde el cuarzo y la calcita cristalizaron rellenando los vacíos. El medio ácido, transformó a la pirita en limonita, la actinolita a serpentina y talco, la magnetita fue parcialmente oxidada a hematita. Durante esta alteración se formaron sulfatos de fierro, los que al ser disueltos se combinaron con el cuarzo de la actinolita para formar yeso y anhidrita. |
| reserve | volume | Probadas 840,758.884 TLS y Probables 621,697 TLS. |
| | Metal | Fe |
| | grade | 55.3% Fe, |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | Open Pit |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

14

| | | |
|-----------------------------|--------------|---|
| Name | | A-45 |
| locality | Position | 8.323,144N - 492,497E |
| | city | |
| Transportation | | Se encuentra a 24.5 Km al NE del puerto de San Juan de Marcona. |
| Geography | | 823 sea level meters. |
| Clime | | |
| Minerals | | Fe and Cu. |
| Owner | | Cía Minera Shougang Hierro Perú S.A. |
| Exploration stage | | Inactive |
| Geology | | Mantos de magnetita con minerales de cobre están hospedados en la formación Guaneros de edad Jurásico medio superior (Js-vs). |
| mineralization | | La estructura tiene un rumbo de N-S y 5° E de buzamiento y una potencia de 3.80 m. La mineralización es de brocantita, crisocola, magnetita especularita, hematitas y cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| transportation | life of mine | |
| | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

15

| | | |
|-----------------------------|--------------|--|
| Name | | Veta Pista N° 8 |
| locality | Position | 8,323,978N - 493,366E |
| | city | |
| Transportation | | Se encuentra a 4.5 Km al norte de la mina 14. |
| Geography | | 783 sea level meters. |
| Clime | | |
| Minerals | | Fe and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Andesita de color gris parda con fenos blanquesinos de grano medio, textura porfirítica, la matriz microcristalina parcialmente limonitizada compuesta por microlitos de feldspatos y opacos provenientes de los ferromagnesianos y clorita intersticial. |
| mineralization | | La estructura tiene un rumbo de N 25° O, 35° NE de buzamiento y una potencia de 0.80 m. La mineralización es de brocantita, crisocola, especularita, magnetita, hematitas y cuarzo. Como alteraciones presentan escasas venillas de cuarzo, cloritas y leucoxeno. Las vetas son de variable longitud, alojadas en la Fm. Guaneros (Js-vs). |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Estas estructuras han sido trabajadas superficialmente por mineros informales, en forma de pequeños piques a medias barretas. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

16

| | | |
|-----------------------------|--------------|---|
| Name | | Mirador del Condor |
| locality | Position | 8,307,561N - 520,137E |
| | city | |
| Transportation | | Se encuentra situado al SO del Cerro Pajayuna. |
| Geography | | 1,560 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Fe |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonante es la granodiorita de grano medio, cerca del depósito se altera a clorita. |
| mineralization | | La veta tiene una longitud de 1.5 Km. con rumbo N60° E y buzamiento de 75° NO, su ancho promedio es de 4 m. y localmente llega a 8 m. El mineral predominante es la magnetita masiva que se altera a hematita y marmatita cerca de la superficie. |
| reserve | volume | F. Castilla (1967) calculó 500,000 Tm de mineral |
| | Metal | Fe |
| | grade | |
| exploration of history | | Esta veta fue explorada con 25 taladros por percusión Drill Hole, en secciones espaciadas cada 200 m., y perforaciones por diamantina se realizaron para comprobar la mineralización en profundidad. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | explotación a tajo abierto |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

17

| | | |
|------------------------------------|---------------------|--|
| Name | | Urbina |
| locality | Position | 8308,540 N - 524,340 E |
| | city | |
| Transportation | | Se encuentra situado en el Cerro Los Colorados. |
| Geography | | 1,560 sea level meters, vegetation rare. |
| Clime | | |
| Minerals | | Fe |
| Owner | | |
| Exploration stage | | Active |
| Geology | | El afloramiento tiene una longitud de 1 Km. con rumbo N-S a N 20° E y buzamiento de subvertical, su ancho promedio es de 2 m. acuñándose hasta 0.20 m. |
| mineralization | | El mineral predominante es la magnetita masiva que se altera a hematita y marmatita, presencia de actinolita y trazas de mineral de fosforo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Actualmente se encuentra en estado de explotación por la Cia Aceros Arequipa, con una producción de 80 Tm /día. |

TABLE OF MINES AND DEPOSITS

18

| | | |
|-----------------------------|--------------|---|
| Name | | Central |
| locality | Position | 8309,326 N- 523,273 E |
| | city | District of Chachas - Province Castilla (Arequipa). |
| Transportation | | Se encuentra situado en el Cerro Los Colorados. |
| Geography | | 1,640 sea level meters. |
| Climate | | |
| Minerals | | Fe |
| Owner | | Esta ocurrencia es propiedad de la Cia Aceros Arequipa. |
| Exploration stage | | Active |
| Geology | | El afloramiento tiene una longitud de 1 Km. con rumbo E-O, y buzamiento de 80° S, su potencia promedio es de 1.20 m. acuñándose hasta 0.20 m. |
| mineralization | | El mineral predominante es la magnetita masiva que se altera a hematita y marmatita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores actualmente colapsadas. En los ultimos años se realizaron trabajos exploratorios (cortada de 150m y galeria de 40m.) |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | María 3 |
| locality | Position | 8309,092 N- 522,617 E |
| | city | |
| Transportation | | Se encuentra situado entre los Cerros Quemado y Los Colorados. |
| Geography | | 1,600 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Fe. |
| Owner | | Ocurrencia que pertenece a la Cia Aceros Arequipa. |
| Exploration stage | | Active |
| Geology | | El afloramiento tiene una longitud de 0.700 Km. con rumbo E-O, y buzamiento de 85° S, su potencia de 0.10 a 3.0 m. |
| mineralization | | El mineral predominante es la magnetita masiva que se altera a hematita y marmatita con indicios de mineral de fosfro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

20

| | | |
|------------------------------------|---------------------|--|
| Name | | La Mancha |
| locality | Position | 8305,888 N - 526,107 E |
| | city | |
| Transportation | | |
| Geography | | 990 sea level meters. |
| Clime | | |
| Minerals | | Fe |
| Owner | | Esta ocurrencia es propiedad de la Shougang Hierro Peru S.A.A. |
| Exploration stage | | Inactive |
| Geology | | La roca encajante es granodiorita de grano medio.El fracturamiento de las cajas, permite su explotacion a tajo abierto. |
| mineralization | | Cuerpo mineralizado de gran importancia, de rumbo N40° E y 60-75° NO, con una longitud de 400 m. las potencias varian de 3 a 20 m. El mineral predominante es la hematita y magnetita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

21

| | | |
|------------------------------------|---------------------|--|
| Name | | Veta N° 5 |
| locality | Position | 8305,477 N - 529,287 E |
| | city | |
| Transportation | | Situado en el Cerro Campana |
| Geography | | 1,230 sea level meters. |
| Clime | | |
| Minerals | | Fe |
| Owner | | Propiedad de la Shougang Hierro Perú S.A.A. |
| Exploration stage | | Inactive |
| Geology | | La roca encajonante es granodiorita altamente fracturada caolinitizada y cloritizada. |
| mineralization | | Afloramineto de 40 m. de ancho y está bicelado por una falla que desplaza el mineral hacia el oeste, mientras que la parte norte de la mencionada estructura se angosta y se vuelve estéril. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

22

| | | |
|------------------------------------|---------------------|---|
| Name | | Purísima |
| locality | Position | 8312,200 N - 536,738 E |
| | city | |
| Transportation | | |
| Geography | | 1585 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonante es una monzonita cuarcífera algo fracturada perteneciente a la unidad intrusiva Monzonita Cobrepampa (Superunidad Linga). |
| mineralization | | Veta principal con una longitud de 1 Km, de rumbo N 70° O, con un buzamiento de 85° NE y una potencia de 0.50 m., presenta estructura típica en rosario tanto en superficie como en profundidad, sus contenidos metálicos se presentan en óxidos de cobre, calcosina, cuprita, crisocola, azurita, cuarzo y óxidos de fierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | La veta ha sido trabajada en su mayoría, actualmente sus labores se encuentran paralizadas. |

TABLE OF MINES AND DEPOSITS

23

| | | |
|-----------------------------|--------------|---|
| Name | | Magdalena |
| locality | Position | 8315,174 N - 535,549 E |
| | city | |
| Transportation | | |
| Geography | | 1680 sea level meters, vegetation rare. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonante es una monzonita cuarcífera perteneciente a la unidad intrusiva Monzonita Cobrepampa (Superunidad Linga). |
| mineralization | | Veta de rumbo N 60° O, con un buzamiento de 65° NE y una potencia de 0.50 m., presenta estructura típica en rosario, tiene una longitud de 2 km aprox. Ésta veta algo trabajada, contiene minerales como óxidos de cobre, cuprita, calcosina, calcopirita, crisocola, azurita, cuarzo y óxidos de fierro. |
| reserve | volume | |
| | Metal | Au. |
| | grade | |
| exploration of history | | 1934-1942 trabajada por una Cía alemana. 1948 Roman Zuñiga denunció 500 hectareas (Cu, Ag y Au). 1958-actual; en concesion por Sr. Paul Juilland |
| volume of history operation | volume | 3000 TM/day |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

24

| | | |
|------------------------------------|---------------------|--|
| Name | | Condor Grande |
| locality | Position | 8316,995 N - 535,586 E |
| | city | |
| Transportation | | |
| Geography | | 1,720 sea level meters, abrupt topography. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Esta emplazada en una monzonita cuarcífera perteneciente a la unidad intrusiva Monzonita Cobrepampa (Superunidad Linga). |
| mineralization | | El mineral consiste de cuprita, óxidos de cobre, calcopirita, crisocola, azurita, cuarzo y atacamita, muestra un rumbo de N50° O, con un buzamiento de 81° NE y una potencia de 0.80m, presenta estructura típica en rosario en forma de caballos con falla paralela a la mencionada estructura. La zona de oxidación alcanza una profundidad mayor de 100 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Las labores consisten de un pique de 100m. de profundidad, del cual se han desarrollado varios niveles separados 20 y 30 m. para explotar principalmente calcopirita y óxidos de cobre en menor proporción, como ganga especularita y calcita. La zona de oxidación alcanza una profundidad mayor de 100m. |

TABLE OF MINES AND DEPOSITS

25

| | | |
|------------------------------------|---------------------|---|
| Name | | Cobreña |
| locality | Position | 8317,945 N - 534,130 E |
| | city | |
| Transportation | | |
| Geography | | 1650 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Esta emplazada en una monzonita cuarcífera perteneciente a la unidad intrusiva Monzonita Cobrepampa (Superunidad Linga). |
| mineralization | | Esta veta aflora en una longitud de 2 km. aprox. con un rumbo de N50° O, y un buzamiento de 82° NE, su potencia promedio es de 1.20m. La mineralización consiste en cuprita, Óxidos de cobre, calcopirita, crisocola, azurita, cuarzo y atacamita, ésta estructura es la continuación de la veta Condor Grande y Palca, sistema cimoidal. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

26

| | | |
|------------------------------------|---------------------|---|
| Name | | Palca |
| locality | Position | 8318,954 N - 533,538 E |
| | city | |
| Transportation | | |
| Geography | | 1650 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Esta emplazada en una monzonita cuarcífera perteneciente a la unidad intrusiva Monzonita Cobrepampa (Superunidad Linga). |
| mineralization | | Estructura que presenta cuprita, óxidos de cobre, calcopirita, crisocola, azurita, cuarzo y atacamita, aflora en una longitud de 300 m aprox., con un rumbo de N 30° O, y un buzamiento de 82° NE , potencia promedio de 1.0 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

27

| | | |
|-----------------------------|--------------|--|
| Name | | Argentina |
| locality | Position | 8321,084 N - 535,558 E |
| | city | |
| Transportation | | |
| Geography | | 1450 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonante es la adamelita que ha sufrido alteración tanto física como química (decoloración de la roca). Alteración potásica. Se observa claramente este fenómeno en la roca encajonante, la cual cambia de color por el incremento de ortosa, lo mismo ocurre con la textura granular gruesa. |
| mineralization | | Veta de relleno de fracturas con rumbo de N50° O, buzamiento de 86° NE con una potencia promedio de 1.30 m. Alteración del feldespato potásico y cloritización de las cajas, mineralización es irregular tanto en el sentido vertical como horizontal(lentes). Los minerales principales son atacamita, cuprita, crisocola y como ganga se tiene la specularita, calcita, limonita, además del cuarzo que se presenta mayormente en la brecha. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

28

| | | |
|------------------------------------|---------------------|---|
| Name | | Génova |
| locality | Position | 8310,980 N - 534,763 E |
| | city | |
| Transportation | | Afloramiento localizado en la planicie del Cerro Colorado |
| Geography | | 1,735 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Veta de tipo relleno de fracturas en monzonita cuarcífera – granodiorita, tiene un rumbo de N50° O, buzamiento 81° NE, con una potencia promedio de 1.0 m. Geol ó gicamente pertenece a la unidad intrusiva Monzonita Cobrepampa (Superunidad Linga). |
| mineralization | | La mineralización consiste de calcopirita, óxidos de cobre, cuprita, crisocola y covelina en cantidades subordinadas. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | El laboreo se efectúa mediante piques. |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Santa Rosa |
| locality | Position | 8314,139 N - 538,351 E |
| | city | |
| Transportation | | |
| Geography | | 1575 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodiorita de grano grueso.Estas estructuras est á n emplazadas en las Monzonitas Cobrepampa de edad (Superunidad Linga). |
| mineralization | | Estructura mineralizada de rumbo N50° O, buzamiento 72° NE, potencia de 0.80 m. La mineralización rellena fracturas en rosario. Consiste principalmente de malaquita, óxidos de cobre, crisocola, especularita, cuarzo y calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | La unidad Santa Rosa está trabajada por tres vetas, Portachuelo, La Verde y parte de la veta La Curva. |

TABLE OF MINES AND DEPOSITS

30

| | | |
|-----------------------------|--------------|---|
| Name | | Huarato |
| locality | Position | 8314,017 N - 540,650 E |
| | city | District of Huambo - Province Caylloma (Arequipa). |
| Transportation | | |
| Geography | | 1345 sea level meters. |
| Climate | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La mineralización consiste de relleno de fracturas en roca granodiorítica-monzonita cuarcífera. Vetas emplazadas en las Monzonitas Cobrepampa de edad (Superunidad Linga). |
| mineralization | | Estructuras filonianas de rumbo N50° O, buzamiento 80° NE, potencia de 0.30 a 0.50 m. (vetas Nivel - 40 y Pompello). Los minerales reconocidos son calcopirita, óxidos de cobre, cuprita y malaquita en recubrimientos, como ganga tenemos al specularita, actinolita, hematita y cantidades subordinadas de magnetita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | El laboreo se realizó mediante niveles. |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Rosa María |
| locality | Position | 8313,442 N - 536,245 E |
| | city | |
| Transportation | | |
| Geography | | 1450 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Este sistema vetiforme está emplazado en las Monzonitas Cobrepampa (Superunidad Linga). |
| mineralization | | La veta tiene rumbo N 47° O, buzamiento 65° NE, potencia de 0.50 m. Los minerales de mena son malaquita, cuprita, calcosina, y covelina, propios de la zona de oxidación y enriquecimiento supergénico. La ganga está constituida por pirita en finos cristales, lentes de cuarzo lechoso y delgadas láminas de yeso. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Las labores consisten de un pique de 60 m. aprox. en el cual se han desarrollado varios niveles para explotar principalmente la calcopirita y los óxidos de cobre. |

TABLE OF MINES AND DEPOSITS

32

| | | |
|-----------------------------|--------------|---|
| Name | | La Curva |
| locality | Position | 8314,869 N - 537,628 E |
| | city | |
| Transportation | | |
| Geography | | 1755 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | la roca encajonate es una monzonita cuarcífera. Sistema filoneano emplazado en las Monzonitas Cobrepampa (Superunidad Linga). |
| mineralization | | La veta tiene rumbo N 47° O, buzamiento 65° NE, y una potencia de 0.50 m. Los minerales de mena son malaquita, cuprita, calcosina, y covelina, propios de la zona de oxidación y enriquecimiento supergénico. La ganga está constituida por pirita en finos cristales, lentes de cuarzo lechoso y delgadas láminas de yeso, la roca encajonate es una monzonita cuarcífera. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Las labores consisten de un pique de 60 m. aprox. en el cual se han desarrollado varios niveles para explotar principalmente la calcopirita y los óxidos de cobre. |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | San José |
| locality | Position | 8315,832 N - 537,038 E |
| | city | |
| Transportation | | |
| Geography | | 1725 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology. | | la roca encajonate es una monzonita cuarcífera. Este sistema filoneano está emplazado en las Monzonitas Cobrepampa (Superunidad Linga). |
| mineralization | | Estructura mineralizada de rumbo N 55° O, buzamiento 80° NE, potencia de 0.40 m. Los minerales de mena son los óxidos de cobre, cuprita, malaquita, y algo de covelina. La ganga está constituida por pirita, lentes de cuarzo lechoso y venillas de yeso. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Las labores consisten de un pique de 80 m. aprox. en el cual se han desarrollado varios niveles y subniveles. |

TABLE OF MINES AND DEPOSITS

34

| | | |
|-----------------------------|--------------|---|
| Name | | Perricholi |
| locality | Position | 8319,591 N - 535,620 E |
| | city | |
| Transportation | | |
| Geography | | 1,690 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonate es una monzonita cuarcífera. Este sistema vetiforme está emplazado en las Monzonitas Cobrepampa (Superunidad Linga). |
| mineralization | | Veta de rumbo N45° O, buzamiento 77° NE, 0.30 m. de potencia. Los minerales de mena son los óxidos de cobre, cuprita, malaquita, y algo de covelina. La ganga está constituida por pirita, lentes de cuarzo lechoso y venillas de yeso, la roca encajonate es una monzonita cuarcífera. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Las labores consisten de un pique de 50 m. aprox. |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | La Chilena |
| locality | Position | 8319,105 N - 536,038 E |
| | city | |
| Transportation | | |
| Geography | | 1,700 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonate es una monzonita cuarcífera.Sistema vetiforme emplazado en las Monzonitas Cobrepampa (superunidad Linga). |
| mineralization | | La mineralización es un relleno de fractura a lo largo de una falla y ocurre como lentes, venillas, diseminados y lazos cimoides formados por brecha de ruptura. Sistema filoneano de rumbo N48° O, buzamiento 72° NE, potencia de 0.35 m. Los minerales de mena son los óxidos de cobre, cuprita, malaquita, atacamita y algo de covelina. La ganga está constituida por pirita, especularita, calcita, limonita, turmalina, cuarzo lechoso y esporádicamente actinolita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

36

| | | |
|------------------------------------|---------------------|--|
| Name | | La Nusta |
| locality | Position | 8319,639 N - 536,274 E |
| | city | |
| Transportation | | |
| Geography | | 1,680 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | la roca encajonate es una monzonita cuarcifera. Vetas emplazadas en las Monzonitas Cobrepampa (Superunidad Linga). |
| mineralization | | Estructura de relleno con alteracion feidespato potasico, y ocurre como lentes, venillas, diseminados y lazos cimoides formados por brecha de ruptura. Sistema vetiforme de rumbo N52° O, buzamiento 68° NE, y una potencia de 0.38 m. Los minerales de mena son la cuprita, malaquita, atacamita y algo de covelina. La ganga esta constituida por pirita, especularita, calcita, limonita, turmalina, cuarzo lechoso y esporadicamente actinolita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| transportation | life of mine | |
| | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Huarato Viejo |
| locality | Position | 8316,147 N - 542,055 E |
| | city | |
| Transportation | | |
| Geography | | 1,580 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonate es una monzonita cuarcífera. Este sistema vetiforme está emplazado en las Monzonitas Cobrepampa (Superunidad Linga). |
| mineralization | | Estructura de relleno con alteración feldespato potásico, y ocurre como lentes, venillas, diseminados y lazos cimoides formados por brecha de ruptura. Sistema vetiforme de rumbo N57° O, buzamiento 62° NE, potencia de 0.48 m. Los minerales de mena son cuprita, malaquita, atacamita y algo de covelina. La ganga está constituida por pirita, especularita, calcita, limonita, turmalina, cuarzo lechoso y esporádicamente actinolita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

38

| | | |
|-----------------------------|--------------|---|
| Name | | Brasil |
| locality | Position | 8315,635 N - 543,507 E |
| | city | |
| Transportation | | |
| Geography | | 1,500 sea level meters. |
| Climate | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonate es una tonalita. Sistema vetiforme emplazad ó en las Tonalitas Calapampa (Superunidad Linga). |
| mineralization | | La veta tiene un rumbo promedio de N 39° O, buzamiento de 77° NE, potencia de 0.37 m., tipo relleno de fracturas, diseminados y lazos cimoides formados por brecha de ruptura. Los minerales de mena estan constituídos por óxidos de cobre, cuprita, malaquita y atacamita. La ganga está constituída por piritita, especularita, calcita, limonita, turmalina, cuarzo lechoso y esporadicamente actinolita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Mashaynioc |
| locality | Position | 8,319,619 N - 550,987 E |
| | city | District of Otapara - Province Caravelí (Arequipa). |
| Transportation | | se ubica a 14 Km al NE del distrito de Otapara |
| Geography | | 480 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Las unidades mineralizadas son la granodiorita, tonalita Calapampa y el Complejo Santa Rita del Cretácico-Terciario inferior. |
| mineralization | | La estructura tiene un rumbo de N10° O, 73° NE de buzamiento y potencia de 0.50 a 0.80 m. La mineralización consiste de brocantita, crisocola, calcopirita, pirrotita, actinolita, especularita, magnetita, turmalina, hematitas y cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

40

| | | |
|-----------------------------|--------------|--|
| Name | | Ratonera |
| locality | Position | 8,335,554 N - 503,178 E |
| | city | |
| Transportation | | |
| Geography | | 760 sea level meters. |
| Climate | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca encajonante es una andesita porfirítica, del Complejo Bella Unión (Kian/da). |
| mineralization | | Estructura irregular, rumbo de N 30° E y buzamiento de 82° SE.. En los primeros 8 m. presenta una potencia de 0.15 m para después continuar hasta los 30 m con 0.25 m. En cuanto a la mineralización se observan óxidos de cobre, malaquita, crisocola, calcopirita, cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Copara |
| locality | Position | 8,337,205 N - 510,156 E |
| | city | |
| Transportation | | |
| Geography | | 785 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Está emplazada en una arenisca retrabajada gris violácea de grano fino a medio de la Fm. Casma (Kis-vs). |
| mineralization | | La estructura tiene un rumbo de N60° O, 75° NE de buzamiento y una potencia de 0.90 m. En la mineralización se aprecia óxidos de cobre, cuprita, calcopirita, crisocola, malaquita, azurita y cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

42

| | | |
|------------------------------------|---------------------|--|
| Name | | Cerro Negro |
| locality | Position | 8,341,327 N - 503,978 E |
| | city | |
| Transportation | | |
| Geography | | 680 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Se encuentra emplazado en un apófisis de gabrodiorita (Superunidad Patap). |
| mineralization | | La estructura tiene un rumbo de N50° E, 86° NO de buzamiento y 0.25 m de potencia. La mineralización consta de cuprita, óxidos de cobre, malaquita, crisocola, cuarzo hematitas y limonitas. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Monasí |
| locality | Position | 8,276,515 N - 538,765 E |
| | city | |
| Transportation | | |
| Geography | | 200 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una andesita, de color gris, textura porfirítica, compuesta de plagioclasas, carbonatos, cloritas, plagioclasas en fenos, sericita y cuarzo, geológicamente pertenecen al Complejo Bella Unión (Kms-bu). |
| mineralization | | Estructura mineralizada de rumbo predominante N 50° O, buzamiento de 65° NE, la mineralización esta compuesta por óxidos de cobre, cuarzo, hematita, limonita y jarosita, su potencia es variable, de 0.10 a 0.20 m., en algunos tramos leyes de 10.29 % de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

44

| | | |
|-----------------------------|--------------|---|
| Name | | Víbora |
| locality | Position | 8,263,609 N - 604,694 E |
| | city | |
| Transportation | | |
| Geography | | 2070 sea level meters, vegetation rare. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca alterada a cloritas-epidota-carbonatos de color verde oscuro con fragmentos blanco amarillento de textura porfirítica, está emplazada en el Complejo Bella Unión (Ki-an/da). |
| mineralization | | Veta de rumbo N80° O, buzamiento de subvertical, con una potencia promedio de 0.10m, leyes de 103 gr/TM de Au. Estructura de fractura de relleno, compuesta por cuarzo y óxidos de hierro, calcopirita, pirita, limonita y oro libre, la veta presenta espaciamiento de caballos tipo rosario |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

milonita--limonita

TABLE OF MINES AND DEPOSITS

45

| | | |
|------------------------------------|---------------------|---|
| Name | | Reyes |
| locality | Position | 8,265,692 N - 603,554 E |
| | city | |
| Transportation | | |
| Geography | | 1,960 sea level meters, abrupt topography. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca huesped consta de una andesita de anfiboles de color verde con fenos blanquesinos, de textura porfirítica con un ensamble de alteración epidota-sericita-cloritas y carbonatos está emplazada en el Complejo Bella Unión (Kian/da). |
| mineralization | | Estructura mineralizada de rumbo promedio N25° E, buzamiento de 30° NO, con una potencia 0.15 m., leyes de 3.56 gr/TM de Au. Veta de fractura de relleno, compuesta por cuarzo y óxidos de hierro, oro libre, calcopirita, pirita y limonita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

milonita-limonita

TABLE OF MINES AND DEPOSITS

46

| | | |
|-----------------------------|--------------|---|
| Name | | Española |
| locality | Position | 8,265,692 N - 603,554 E |
| | city | |
| Transportation | | |
| Geography | | 1960 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una diorita, verde oscura grisácea de grano fino a medio de textura granular, compuesta por granos de plagioclasas, sericita, anfíboles, cuarzo y cloritas. La roca se encuentra silicificada con patch o pátinas de pirolusita, hematita y jarosita rellenando fracturas. |
| mineralization | | La mineralización tiene como rumbo predominante N10° E, buzamiento variable entre 60-70° NW. La mineralización está constituida principalmente por cuarzo lechoso, oqueroso, granular y con óxidos de hierro, oro libre y crisocola, su potencia es de 0.10 m., leyes de 320 gr/TM igual a (10 onzas Troy) de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Ana María I |
| locality | Position | 8,275,821 N - 678,558 E |
| | city | |
| Transportation | | |
| Geography | | 1,717 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Diorita gris verdosa, fanerítica, grano fino, textura granular hipidiomórfica, compuesta por plagioclasas, anfíboles, epidotas, sericitas, piroxenos, opacos y carbonatos, pátinas de hematita y jarosita rellenando la fractura, la roca presenta alteración de epidota, sericita, arcillas y opacos. Geológicamente estas vetas se encuentran emplazadas en la denominada Super Unidad Linga (Kimmzgr/gr). |
| mineralization | | Veta de rumbo N75° E, buzamiento entre 63-70° NW. La mineralización está constituida por pirita aurífera, calcopirita, cuarzo, óxidos de hierro y crisocola, su potencia es de 0.10 m., leyes de 6.94 a 16.54 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

48

| | | |
|-----------------------------|--------------|--|
| Name | | Orión |
| locality | Position | 8,275,863 N - 577,782 E |
| | city | |
| Transportation | | |
| Geography | | 2,110 sea level meters, abrupt topography. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | La roca caja es subvolcánica de color gris verde oscura alterada, granos finos, en algunos tramos la roca tiene consistencia deleznable presentando alteración de biotita, feldspatos, sericita, cuarzo y epidota (ensamble de una alteración potásica). Geológicamente estas vetas se encuentran emplazadas en el denominado Complejo Bella Unión (Ki-an/da). |
| mineralization | | Veta de rumbo variable N20-75° O, buzamiento 40° NE.. Los minerales están constituidos principalmente por cuarzo aurífero, granular, pirita, calcopirita, con óxidos de hierro, oro libre y crisocola, potencia de la estructura 1.0 m., leyes de 21.32 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Francia |
| locality | Position | 8,275,297 N - 578,370 E |
| | city | |
| Transportation | | |
| Geography | | 1904 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una andesita porfirítica subvolcánica gris verdosa, afanítica, textura holocristalina, compuesta por cloritas, plagioclasas, sericita y anfíboles, presencia de una fuerte cloritización, débil sericitización e incipiente carbonatación. Geológicamente estas vetas se encuentran emplazadas en el denominado Complejo Bella Unión (Ki-an/da). |
| mineralization | | Filón de rumbo N 75° O, buzamiento 38° NE. Los minerales están constituidos principalmente por pirita aurífera, cuarzo ahumado, granular, trazas de calcopirita, con óxidos de hierro y oro libre, su potencia es de 0.80 m, leyes de 10.43 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| specimens | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

50

| | | |
|-----------------------------|--------------|---|
| Name | | Cruz |
| locality | Position | 8,276,341 N - 582,518 E |
| | city | |
| Transportation | | |
| Geography | | 2210 sea level meters, vegetation rare. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja, dacita subvolcánica blanca grisácea, afanítica, de grano fino, textura porfirítica, esencialmente compuesta por plagioclasas, anfíboles, como accesorios cuarzo en fenos, feldespato potásico, cuarzo secundario, esfena, apatito y opacos. Geológicamente este sistema se encuentran emplazado en la denominada Super Unidad Linga (Ki-mzgr/gr). |
| mineralization | | Sistema vetiforme de rumbo N70° O, buzamiento 60° NE.. Los minerales están constituidos principalmente por cuarzo ahumado granular, pirita, calcopirita, con óxidos de hierro, crisocola subordinando al intrusivo, oro libre y limonitas, su potencia es de 0.40 m., leyes de 0.88 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|---|
| Name | | La Maria |
| locality | Position | 8,276,341 N - 582,518 E |
| | city | |
| Transportation | | |
| Geography | | 2,110 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Roca encajonante, toba alterada a clorita, verde grisácea, afanítica, de grano fino y cristales en matriz cripto a microcristalino, roca muy alterada, presenta alteración de cuarzo-feldespato potásico-epidota-leucoxeno de moderada a débil argilitización estando en algunos tramos fuertemente alterada con presencia de caolín, hematitas, pirolusitas. Estas vetas se encuentran en la Formación Guaneros (Js-vs). |
| mineralization | | La estructura mineralizada tiene un rumbo de N20° E, con un buzamiento de 85° SE, con potencias que oscilan de centímetros hasta 0.80 m. La mineralización constituida por cuarzo lechoso, piritas auríferas, calcopirita, venillas de óxidos de cobre y hematita, pero con leyes muy moderadas, con de 35.23 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

52

| | | |
|-----------------------------|--------------|--|
| Name | | San Andrés |
| locality | Position | 8,273,914 N - 590,485 E |
| | city | |
| Transportation | | |
| Geography | | 2,500 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Roca huesped muy fracturada y alterada, se obtuvo una muestra de la zona de diques (10 m de potencia) nos indica que se trata de un metavolcánico de color gris oscuro, afanítico, en superficie intemperizada se observa pirolusita, textura porfidoblástica, conformada esencialmente por anfíboles, biotitas y cuarzo, como accesorios plagioclasas esfena, epídota, limonitas y leucoxeno, como alteraciones tenemos a la sericitización y argilitización. Estas vetas se encuentran emplazadas en la Formación Guaneros (Js-vs) y probablemente intruído por dioritas de la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | Vetas del sistema mantiforme con un rumbo que varía de E-O a N60° O y buzamiento de 5 a 25° NE. La mineralización consiste de cuarzo, óxidos de fierro, jarosita-limonitas, calcopirita, pirita aurifera y arsenopirita. Su potencia es variable de unos centímetros a 0.50 m. con leyes bajas de 0.04 a 0.31 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

53

| | | |
|------------------------------------|---------------------|---|
| Name | | Capitana |
| locality | Position | 8,272,050 N - 601,858 E |
| | city | |
| Transportation | | |
| Geography | | 1,320 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Roca encajonante es una roca volcánica alterada a biotita-epidota, gris oscura verdosa, afanítica con fenos de plagioclasa de grano fino, textura porfírica, presentando una subordinada alteración de biotitas y epidotización. Estas vetas se encuentran emplazadas en la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | La mineralización tiene como rumbo predominante N40° E, buzamiento de 10 a 20° NW. Vetas son fracturas cuyo relleno consiste de cuarzo ferruginoso masivo, pirita, arsenopirita, oro, calcopirita, esfalerita, galena, marcasita, calcita, cuprita, malaquita, hematita, crisocola, y óxidos de manganeso. El oro asociado al cuarzo, pirita y a la arsenopirita. Su potencia es variable desde centímetros a 0.50 m. con leyes de 20.27 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| transportation | life of mine | |
| | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

54

| | | |
|-----------------------------|--------------|---|
| Name | | Chino |
| locality | Position | 8,270,126 N - 602,824 E |
| | city | |
| Transportation | | |
| Geography | | 2,065 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Roca encajonante, tonalita gris verdosa a gris blanquesino, textrura microgranular conformada esencialmente por cloritas, epidotas, plagioclasas y cuarzo, como alteraciones presenta cloritización y epidotización moderada, débil silicificación, ligeramente alterada, y fracturada. Geológicamente estas vetas se encuentran emplazadas en la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | Vetas del sistema mantiforme con un rumbo que varía de E-O a N60° O y buzamiento de 5 a 25° NE. La mineralización consiste de cuarzo, óxidos de hierro, jarosita-limonitas, calcopirita, pirita aurífera y arsenopirita. Su potencia es variable de unos centímetros a 0.50 m. con leyes bajas de 0.04 a 0.31 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | San Juan |
| locality | Position | 8,275,265 N - 597,980 E |
| | city | |
| Transportation | | |
| Geography | | 2,425 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca encajonante consiste de una granodiorita, ligeramente alterada, moderada silicificaci ó n, y una débil cloritizaci ó n. Geol ó gicamente estas vetas se encuentran emplazadas en la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | La estructura mineralizada tiene como rumbo predominante N60 ° O, cuyo buzamiento es de 30 ° NE.. Estas vetas son fracturas cuyo relleno consiste de cuarzo, pirita, oro libre, hematita y limonita. El oro ocurre como diseminaciones en el cuarzo y en la pirita, su potencia es variable de 0.20 a 0.50 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

56

| | | |
|------------------------------------|---------------------|--|
| Name | | Chiachilla |
| locality | Position | 8,283,347 N - 556,117 E |
| | city | |
| Transportation | | |
| Geography | | 600 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploración stage | | Active |
| Geology | | Andesita porfiritica, ligeramente alterada y fracturada con moderada argilitizacion en las cajas. Geologicamente estas vetas se encuentran emplazadas en el Complejo Bella Union (Ki-an/da). |
| mineralization | | Afloramiento superficial de rumbo dominante N30° E, cuyo buzamiento varia de 60 a 70° SE.. Estructura con presencia de oxidos de fierro, jarosita, calcita, vuggy silica con oro, calcopirita, crisocola, yeso y malaquita, su potencia es variable de 1.0 a 1.50 m. con leyes de 0.69gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Castillo |
| locality | Position | 8,255,372 N - 569,420 E |
| | city | |
| Transportation | | |
| Geography | | 330 sea level meters. |
| Clime | | |
| Minerals | | Fe, Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca encajonante, cuarzomonzodiorita, gris verdosa rosácea, de grano medio, textura granular alotriomórfica, compuesta por plagioclasas, sericita, biotita, anfíboles, feldespato potásico y cuarzo, en algunos sectores se aprecia como los anfíboles reemplazan a los piroxenos, la roca se encuentra muy fractura y deleznable. Estas vetas se encuentran emplazadas en la Super Unidad Linga (Ks-mzgr/gr). |
| mineralization | | Sistema filoneano de rumbo N 20° E, buzamiento 85° SE. Veta con presencia de óxidos de fierro, generalmente, malaquita, crisocola, cuarzo y magnetita, su potencia es variable de 0.20 a 0.80 m. con leyes bajas de 0.15 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Tarrillo |
| locality | Position | 8,257,247 N - 569,093 E |
| | city | |
| Transportation | | |
| Geography | | 590 sea level meters. |
| Climate | | |
| Minerals | | Cu and Fe. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca encajonante es una cuarzo monzodiorita de grano grueso, algo deleznable superficialmente y muy compacta. Geológicamente estas vetas se encuentran emplazadas en la Super Unidad Linga (Ks-mzgr/gr). |
| mineralization | | Estructura de rumbo N55° E, buzamiento 40° NO. Veta con presencia de óxidos de hierro, hematita generalmente, malaquita, crisocola, cuarzo y magnetita, su potencia promedio es 0.40 m. con leyes bajas de 0.27 gr/TM de Au. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

59

| | | |
|------------------------------------|---------------------|--|
| Name | | San Francisco |
| locality | Position | 8,242,360 N - 605,488 E |
| | city | distrito de Chala, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica a 11.5 Km al SO en línea recta del pueblo de Achanizo. |
| Geography | | 1,190 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | Cia. Minera San Francisco |
| Exploration stage | | Active |
| Geology | | Roca huesped es una andesita basáltica de color pardo rojiza parcialmente afanítica, textura porfirítica conformada principalmente por plagioclasas y como accesorios tenemos piroxenos, opacos, micas, cloritas, olivino y epidota, los opacos se hallan diseminados en la matriz. Estas estructuras se encuentran en los Volcánicos Chocolate (Ji-vs). |
| mineralization | | Estructura vetiforme mineralizada cuyo rumbo es N60° E, buzamientos de 20-30° NO, potencia promedio de 0.30 m. Los minerales mena observados son pirita aurífera, oro libre, crisocola y calcopirita englobados en el cuarzo ahumado masivo, como minerales ganga tenemos al cuarzo, yeso, calcita y hematitas. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Explotacion es a pequeña escala y de tipo informal. Los trabajos mineros encontrados son abundantes, se trata de pequeños cateos, piques, galerías, cruceros entre otros. |

TABLE OF MINES AND DEPOSITS

60

| | | |
|-----------------------------|--------------|--|
| Name | | Atiquipa |
| locality | Position | 8,252,228 N - 567,771 E |
| | city | |
| Transportation | | |
| Geography | | 185 sea level meters. |
| Climate | | |
| Minerals | | Cu and Fe. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una monzonita, emplazada en la Super Unidad Linga (Ks-mzgr/gr). |
| mineralization | | Existen galerías, sobre esta estructura, observándose fracturas de relleno de óxidos de cobre, cuarzo, calcita, hematita, gohetita y crisocola. Leyes sobre veta arrojaron valores de 9.840 % de Cu, de rumbo N25° E, buzamiento 85° NO, potencia de 0.45 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

61

| | | |
|-----------------------------|--------------|--|
| Name | | Bonanza |
| locality | Position | 8,253,582 N - 652,719 E |
| | city | distrito de Atico, provincia de Caraveli, departamento de Arequipa |
| Transportation | | se encuentra ubicado a 66 Km de la Panamericana Sur (Km 700). |
| Geography | | 2,000 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Emplazada en dioritas del Complejo Bella Union (ki-an/da). |
| mineralization | | Presencia de cuarzo hialino con evidencias de oro en forma de pequenas laminas, ademas limonitas, yeso, calcita y arcillas. Tambien presenta una fuerte y potente fractura mineralizada que tiene una longitud continuada de afloramiento de mas 160 m, con presencia de calcopirita, pirita, oxidos de fierro y crisocola. La veta tiene una direccion promedio de N65° O, buzamiento 45° NE y una potencia promedio de 0.45 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Actualmente la mina se encuentra abandonada. |

TABLE OF MINES AND DEPOSITS

62

| | | |
|-----------------------------|--------------|---|
| Name | | Calpa |
| locality | Position | 8,252,589 N - 659,480 E |
| | city | distrito de Atico, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica a 60 Km de la Panamericana Sur (Km 700). |
| Geography | | 2,000 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | El yacimiento de Calpa consta de una andesita descompuesta de origen igneo, generalmente de origen extrusivo principalmente de textura porfídica, siendo tambien de textura microgranular y pilotáxica, emplazado en el Complejo Bella Unión (Ki-an/da). |
| mineralization | | La característica principal de las vetas de Calpa son: rumbos promedios N75° W, buzamientos 65° NE y brechas de aplita. El country rock es propilitizado, cloritizado, sericitizado, carbonatos y pirita en las fisuras de la roca. El oro está contenido en el cuarzo, en la pirita-aurífera y principalmente en la calcopirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Explotacion es a pequeña escala y de tipo informal. Los trabajos mineros encontrados son abundantes, se trata de pequeños cateos, piques, galerías, cruceros entre otros. |

TABLE OF MINES AND DEPOSITS

63

| | | |
|-----------------------------|--------------|--|
| Name | | Lucchune |
| locality | Position | 8,274,364 N - 653,725 E |
| | city | |
| Transportation | | |
| Geography | | 3,080 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca encajonante, diorita de anfíboles, color gris verdoso, grano medio, textura granular hipidiomórfica, cuyos minerales esenciales son las plagioclasas y los anfíboles, y están emplazados en la Super Unidad Tiabaya (Ks-mzgr/gdi), con una marcada clortización, sericitización, epidotización y biotitización muy débil. |
| mineralization | | Veta principal tiene rumbo N60° O y Buzamiento de 40° NE, potencia de 0.40 m. La mineralización esta en cuarzo cavernoso con oro libre, con limonitas, hematita y Óxidos de manganeso. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Se evidencian trabajos mineros, como cateos, trincheras efectuados por mineros informales. |

TABLE OF MINES AND DEPOSITS

64

| | | |
|-----------------------------|--------------|--|
| Name | | Tambojasa |
| locality | Position | 8 272,130 N - 614, 621 E |
| | city | distrito de Cháparra, provincia de Caravelí, departamento de Arequipa |
| Transportation | | se encuentra ubicado a 6.0 Km al SE del poblado de Huambo. |
| Geography | | 2,900 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodiorita alterada y con un moderado fracturamiento. Emplazada en una granodiorita de la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | El rumbo es de N60° O, de buzamiento subvertical, la veta es irregular en potencia (0.20 a 0.40 m). La mineralización consiste de cuarzo masivo hialino a lechoso, hematita y pátinas de óxidos de manganeso. La alteración hidrotermal están circunscrita a zonas inmediatas a las vetas (cuarzo sericita). En la zona de oxidación se observa una argilitización supérgena de color amarillo rojizo que se muestra como una anomalía de color muy débil. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

65

| | | |
|-----------------------------|--------------|--|
| Name | | Huanuhuanu |
| locality | Position | 8,281,260 N - 616,558 E |
| | city | distrito de Chala, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Ubicada en el Cerro Santa Rita Grande, a 0.6 Km al SE del poblado de Huanuhuanu. |
| Geography | | 2,780 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodiorita alterada, cruzada por diques de naturaleza monzogranito gris claros a ceo, grano grueso, textura granular hipidiomorfa conformado por feldespato potásico, cuarzo y plagioclasas, como alteraciones la argilitización y sericitización, débil epidotización y cloritización. Geológicamente pertenecen a la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | Tiene un rumbo Norte-Sur con buzamientos verticales y una potencia de 0.15 m. La mineralización es de calcopirita, cuarzo, con algo de vuggy silica, limonitas, hematitas, y como minerales ganga tenemos la presencia de yeso, ortosa y óxidos de fierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Estas estructuras han sido trabajadas amplia y superficialmente por mineros informales, mediante pequeños piques de medias barretas y rajos. |

TABLE OF MINES AND DEPOSITS

66

| | | |
|-----------------------------|--------------|--|
| Name | | Molles |
| locality | Position | 8,276, 975 N - 630,019 E |
| | city | |
| Transportation | | |
| Geography | | 2,225 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodiorita de la Super Unidad Tiabaya (Ks-mzgr/gdi), la zona se encuentra muy craquelada, asociada principalmente a hematita y sericita, tambien se observa xenolitos en roca muy diaclasada con presencia esporádica de pátinas de epidota. |
| mineralization | | Afloramiento discontinuo de 50 m, con rumbo N10° E y buzamiento de 80° SE, con potencias variables de 0.10 a 0.25m, debido a la presencia de ramales que forman lazos cimoides. La mineralización de esta veta está conformada por cuarzo hialino, lechoso y venillas de hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Pequeños cateos mineros informales se encuentran abandonados. |

TABLE OF MINES AND DEPOSITS

67

| | | |
|-----------------------------|--------------|--|
| Name | | Las Bravas |
| locality | Position | 8,274,596 N - 632,542 E |
| | city | distrito de Chala, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Ubicada en las inmediaciones del Cerro Las Bravas a 4.5 Km al NE del poblado de Quicacha. |
| Geography | | 2,180 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca huesped, tonalita de color gris claro verde de grano medio a grueso de textura hipidiomórfica conformada por plagioclasas y cuarzo. Geológicamente estos afloramientos estan hospedados en la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | La veta tiene rumbos variables, de N60° W, buzamiento de 85° NE y E-W, buzamiento de 85° N, con potencias de 0.20-0.40 m. respectivamente. La alteración en las cajas es en forma decreciente de la veta hacia afuera va de una sericitización, epidotización, y biotización, argilitización muy débil. La mineralización predominante es el cuarzo, pirita aurífera y óxidos de fierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Estas estructuras han sido trabajadas amplia y superficialmente por mineros informales, mediante pequeños piques de medias barretas y rajos. |

TABLE OF MINES AND DEPOSITS

68

| | | |
|------------------------------------|---------------------|---|
| Name | | Marchahui |
| locality | Position | 8,283,366 N - 640,734 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica a 16.5 Km al NE del pueblo de Quicacha. |
| Geography | | 2,720 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu and Mo. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca encajonante granodiorítica. Geológicamente se encuentran en un cuerpo de roca de naturaleza gabroica (Ki-di/gb). |
| mineralization | | Anomaiía de rumbo N45° E, con un ancho de 400 m., se extiende por mas de 2 Km. horizontales y 500 m. Verticales, presenta un fuerte fracturamiento con venillas de cuarzo, calcopirita, hematita, óxidos de manganeso, carbonatos de cobre y una alteración argilíca. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Perforación diamantina ejecutados en 1980 en el sector de Marchahui, dieron como resultado promedio de 0.10 a 0.47 % para el cobre y de 4.0 - 100 ppm para el molibdeno a profundidades máximas de 150 m. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

69

| | | |
|------------------------------------|---------------------|---|
| Name | | Convento |
| locality | Position | 8,261,496 N - 624,728 E |
| | city | |
| Transportation | | Ubicada en las inmediaciones del Cerro Alto Perú a 3.3 Km al NE del poblado de Chaparra. |
| Geography | | 1,350 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Emplazada en remanete al parecer del Neoproterozoico esquisto de cuarzo-micas (sericita y muscovita) gradando a Gneis gris verdoso, grano grueso, textura porfidoblástica compuesta esencialmente por cuarzo, sericita y cloritas, como accesorios y secundarios tenemos a la muscovita del tamaño 0.5 a 1 cm de diámetro, sericita-clorita, correspondiente al Complejo Basal de la Costa (PeB-gn). |
| mineralization | | Veta reconocida en afloramiento discontinuo por 60 m, con rumbo promedio N50° O, buzamiento 70° NE, 0.10-0.25m de potencia. Relleno de pirita aurífera, cuarzo cristalino y lechoso, oro libre en hojuelas, con óxidos hematíticos; craquelado, principalmente asociado a sericita, hematita; además, se observan limonita y hematita. La alteración hidrotermal cuarzo sericita; la argilización mayormente supérgena, adyacentes a la veta. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

70

| | | |
|-----------------------------|--------------|---|
| Name | | San Silvestre |
| locality | Position | 8,258,915 N - 626,594 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Ubicada a 4.6 Km al E-SE en línea recta del pueblo de Chaparra. |
| Geography | | 2,080 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La caja está moderadamente piritizada y corresponde a una monzonita de la Super Unidad Linga (Ki-zmgr/gr). |
| mineralization | | La veta San Silvestre se compone de cuatro estructuras subparaieias. El rumbo general es E-W, con 55° N de buzamiento y 0.25 m. de potencia. La zona de sulfuros (pirita, calcopirita) muestra la mayor parte de las características primarias de la zona de oxidación. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En la actualidad, estas zonas auríferas vienen siendo explotadas por mineros informales artesanales. |

TABLE OF MINES AND DEPOSITS

71

| | | |
|------------------------------------|---------------------|--|
| Name | | Torrecillas |
| locality | Position | 8 257.824 N - 633.614 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica a 11.7 Km al SE en línea recta del pueblo de Chaparra. |
| Geography | | 2,680 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | Cia Minera Surex. |
| Exploration stage | | Active |
| Geology | | Roca volcánica alterada a cuarzo - sericita, gris, parcialmente afanítica, conformada por sericita, cuarzo secundario, se observa moderada a intensa silicificación y sericitización, débil cloritización y esta enmarcada dentro del Complejo Bella Unión (Ki-an/da). |
| mineralization | | Las vetas tienen rumbo promedio N60° O, buzan entre 55 y 60° NE, con 0.50-1.50 m. de potencia. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

72

| | | |
|------------------------------------|---------------------|--|
| Name | | San José I |
| locality | Position | 8,275,385 N - 643,178 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica al Suroeste del Cerro Capillalloc, a 14.7 Km al NE en línea recta del pueblo de Quicacha. |
| Geography | | High platteau 3245 sea level meters, vegetation rare. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Emplazada en un Gneis de plagioclasas-cuarzo-anfíboles-biotita, color gris verdoso, grano fino a medio, textura porfidoblástica, como alteraciones presenta una sericitización y epidotización débiles de las plagioclasas con una incipiente cloritización. Geológicamente pertenece al complejo intrusivo básico de composición gabroica gradando a gabrodiorita (Ki-di/gb). |
| mineralization | | La veta San José, es de tipo filoniano, en rosario, con mineralización hidrotermal. Con rumbo N30-40° O, y buzamiento 45-57° NE y potencias variables entre 0.25 y 1.50 m. La mineralización constituida por pirita aurífera, cuarzo lechoso calcedónico, asociado a sericita, hematita y brechas de fallas con clastos de cuarzo lechoso, matriz hematítica silicificada. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Huayllacha |
| locality | Position | 8,280,625 N - 644,457 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica a 18 Km al NE en línea recta del pueblo de Quicacha. |
| Geography | | High platteau 3245 sea level meters. |
| Clime | | |
| Minerals | | Au and Ag. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas del Batolito de la Costa, las mismas que están ampliamente distribuídas en la zona como granodioritas y tonalitas. Cubriendo parcialmente a estas rocas y a la mineralización se tiene un remanente del volcánico Senca. Corresponden a la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | La veta Huayllacha tiene un afloramiento discontinuo de 250 m, rumbo promedio N25° O, buzamiento de 80° SO en la parte Sur, cambiando al Norte a 80° NE. El relleno mineral consta de pirita aurífera, cobre gris, calcopirita, tetrahedrita, covelina-digenita-calcosina, limonitas, cuarzo y venillas de hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|---|
| Name | | Ranraminas |
| locality | Position | 8,278,048 N - 642,239 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica a 14.5 Km al NE en línea recta del pueblo de Quicacha. |
| Geography | | High platteau 3250 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodiorita de la Super Unidad Tiabaya (Ks-mzgr/gdi) al Norte y gabrodiorita (Ki-di/gb) al Sur; éstas se encuentran débilmente argilizadas, la alteración hidrotermal es cuarzo sericita y sericitización en estructura bandeada, también débil argilización hacia la caja techo de la estructura. En rocas ácidas, al parecer los valores de oro bajan mientras que en las rocas básicas mejoran. |
| mineralization | | La veta tiene un rumbo N30° E y 60° NO de buzamiento y su potencia varía entre 0.48-0.90 m. Está formada por cuarzo, hematita, sericita y menos limonita. Se observan pequeñas y esporádicas Charpas de oro libre. La presencia de óxidos de hierro (especularita, magnetita), indica niveles altos de mineralización. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

75

| | | |
|------------------------------------|---------------------|---|
| Name | | Chuqui |
| locality | Position | 8,241,692 N - 607,010 E |
| | city | |
| Transportation | | |
| Geography | | 2,200 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas intrusivas de composici ó n f é l s i c a de naturaleza granodiorita - monzogranito, grano medio a grueso, textura hipiom ó r f i c a, esencialmente compuesta de feldespatos, cuarzo y plagioclasas, teniendo como accesorios a las arcillas, cloritas, apatito, epidota y ó xidos de fierro. Vetas emplazadas en la Super Unidad Linga (Ki-mzgr/gr). Estos intrusivos demuestran edades radi ó m e t r i c a s de hasta 90 m.a. |
| mineralization | | Estructura vetiforme mineralizada cuyo rumbo es E-O, buzamientos variables de 70 ° S y 75 ° N, potencia promedio de 0.30 m. Los minerales met á l i c o s observados son pirita aurífera, oro libre y calcopirita , como minerales ganga tenemos al cuarzo, yeso, calcita, limonitas y ortosa. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

76

| | | |
|-----------------------------|--------------|---|
| Name | | Puruja |
| locality | Position | 8,263,715 N - 623,624 E |
| | city | distrito de Quicacha, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se ubica en el Cerro Puruja, a 4.5 Km al NE en línea recta del pueblo de Chaparra. |
| Geography | | 2650 sea level meters, vegetation rare. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca intrusiva de naturaleza tonalítica de textura granular hipidiomórfica, elementos esenciales plagioclasas y cuarzo, con una débil a moderada alteración hidrotermal, geológicamente pertenecen a la Super Unidad Tiabaya (Ks-mzgr/gdi). |
| mineralization | | Estructuras vetiformes conteniendo cuarzo-pirita, óxidos de fierro y algo de vuggy silica con leyes de 1.93 a 2.37 gr/TM de Au. Las mediciones en los filones nos indican rumbos de N80° O, buzamiento de 40° SE y una potencia de 0.25 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Cerro Llauqui |
| locality | Position | 8,273,050 N - 610,349 E |
| | city | distrito de Huanuhuanu, provincia de Caravelí, departamento de Arequipa |
| Transportation | | Se encuentra en las estribaciones del Cerro Llauqui, a 1.9 Km al SE en línea recta del poblado de Huambo. |
| Geography | | 2,100 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Emplazada en una metatonalita de color gris verde claro oscuro, grano grueso, textura granular hipidiomórfica conformada esencialmente por plagioclasas y cuarzo, en donde las plagioclasas se alteran a sericita, cloritización débil, argilitización y carbonatación muy débiles y una incipiente epidotización, con fuerte a moderado fracturamiento. |
| mineralization | | El rumbo del filon es de N10° O de buzamiento subvertical, la veta es irregular en potencia, varía de 0.10 a 0.25 m. La mineralización de esta veta está conformada por pirita aurífera, cuarzo masivo hialino a lechoso, oro libre, venillas de hematita y pátinas de óxidos de manganeso. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

78

| | | |
|-----------------------------|--------------|--|
| Name | | Huambo |
| locality | Position | 8,274,750 N - 609,660 E |
| | city | |
| Transportation | | |
| Geography | | 2100 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Emplazada en una granodiorita alterada y con un moderado fracturamiento. En la zona de oxidación se observa un halo enmarcado de color amarillo rojizo. La alteración hidrotermal está representada por una argilitización hacia las cajas de la veta y en la parte zonada, partes de ensanchamiento por una silicificación. |
| mineralization | | La estructura mineralizada mantiene una dirección de N40° E, buzamiento 36° SE, la veta es irregular en potencia, varía de 0.10 a 0.20 m. La mineralización está conformada por cuarzo hialino a lechoso, oro libre, venillas de hematita y pátinas de óxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

79

| | | |
|-----------------------------|--------------|---|
| Name | | Santa Bertita de Humay |
| locality | Position | 8,341,543N - 547,722E |
| | city | distrito de Santa Lucía, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Nasca - Santa Lucía = 104 Km. |
| Geography | | 2,031 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo correspondiente a la Super Unidad Tiabaya, tonalita-granodiorita. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N20° W y buzamiento 75° NE, potencia 0.30m, presenta argilitizacion (caolin). La mineralizacion consiste como mena oro, carbonatos de cobre y crisocola y como ganga cuarzo, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

80

| | | |
|------------------------------------|---------------------|---|
| Name | | Mayta Capac |
| locality | Position | 8,344,735N -542,175E |
| | city | distrito de Santa Lucía, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Nasca - Santa Lucía = 104 Km. |
| Geography | | 1,932 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo correspondiente a la Super Unidad Tiabaya, tonalita-granodiorita. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo E-W y buzamiento 65° N, potencia 0.30m. La mineralizacion consiste como mena pirita aurifera, calcopirita y como ganga cuarzo, oxidos de hierro y oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

81

| | | |
|------------------------------------|---------------------|--|
| Name | | Kjara Kjara |
| locality | Position | 8,346,464N - 544,850E |
| | city | District of Santa Lucía - Province Puquio (Ayacucho). |
| Transportation | | Nasca - Santa Lucía = 104 Km. |
| Geography | | 2,177 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | Cía Minera Laytarumi. |
| Exploration stage | | Active |
| Geology | | Roca caja intrusivo del Tiabaya (tonalita/monzonita), silicificada, fracturado y oxidado. Parte superior derrames piroclasticos (Fm. Nasca - Ts). Fallas (N20° - 30W) aprovechadas por vetas de cuarzo con contenido de oro. |
| mineralization | | Mineralizacion es de relleno de fracturas (N20° W y 60° NE), potencias de 0.30 - 0.50m, longitudes hasta de 1 Km. Minerales de mena, cuarzo aurifero y como ganga pirita, hematita, limonita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | produccion | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En la actualidad trabajan mineros informales empleando quimbaletes. |

TABLE OF MINES AND DEPOSITS

82

| | | |
|------------------------------------|---------------------|---|
| Name | | Los Incas |
| locality | Position | 8,345,666N - 534,361E |
| | city | District of Santa Lucia - Province Lucanas (Ayacucho). |
| Transportation | | Se encuentra a 45 Km del poblado de Nasca. |
| Geography | | 1371 sea level meters, vegetation rare. |
| Clime | | Cold and dry clime. |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Intercalaciones de areniscas, pizarras y niveles cuarciticos con derrames andesiticos (Fm Guaneros - Js). Tambien aflora intrusivo Tiabaya (tonalita/granodiorita) silicificado. Falla regional (N50° W) ha sido aprovechado por fluidos mineralizantes (cuarzo, cobre, pirita). |
| mineralization | | La mineralizacion se encuentra en vetas (NS a N30° W), rellenas con cuarzo, calcopirita y pirita. Controles litologicos son las pizarras alteradas y fracturadas, cuarcitas. La mena esta constituida por calcopirita, malaquita, crisocola, oro y la ganga es de cuarzo, pirita, hematita, especularita y calcita. |
| reserve | volume | Diciembre 2000 - 7784 TM probadas. |
| | Metal | Au. |
| | grade | 0.48 oz/Tc |
| exploration of history | | 1970 Exploraciones. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | 2 levelss |
| | level | 180, 260 |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

83

| | | |
|------------------------------------|---------------------|---|
| Name | | Virgen María |
| locality | Position | 8,348,991N - 533,610E |
| | city | distrito de Santa Lucía, Provincia de Lucanas, departamento de Ayacucho. |
| Transportation | | Nasca - Santa Lucía = 104 Km.(carretera afirmada) Santa Lucía - Mina = 4 Km. (trocha carrozable) |
| Geography | | 1,717 sea level meters. |
| Clima | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Pizarras muy silicificadas (Fm. Guaneros) |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N40° W y buzamiento 35° NE, potencia 0.50m. La mineralizacion consiste como mena oro, crisocola y como ganga cuarzo, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

84

| | | |
|------------------------------------|---------------------|---|
| Name | | Pachacutec |
| locality | Position | 8,348,166N - 535,210E |
| | city | distrito de Santa Lucía, Provincia de Lucanas, departamento de Ayacucho. |
| Transportation | | Nasca - Santa Lucía = 104 Km.(carretera afirmada) Santa Lucía - Mina = 4 Km. (trocha carrozable) |
| Geography | | 1,717 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La zona se encuentra afloramientos intrusivos y andesiticos, que corresponden al Complejo Bella Union. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N70° E y buzamiento 72° NW, potencias entre 0.15- 0.30m. La mineralizacion consiste como mena cuarzo aurifero y como ganga limonita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

85

| | | |
|-----------------------------|--------------|---|
| Name | | Santa Luisa |
| locality | Position | 8,345,033N - 516,956E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 463)-Hda.Las Trancas=13 Km.(carretera afirmada) Hda. Las Trancas - Mina = 3 Km.(camino de herradura) |
| Geography | | 657 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una granodiorita silicificada. |
| mineralization | | Deposito hidrotermal, estructura filoneano. La mineralizacion consiste como mena oxidos de cobre y como ganga cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

86

| | | |
|-----------------------------|--------------|---|
| Name | | Sol de Oro |
| locality | Position | 8,362,266N - 518,122E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Se encuentra a 12 Km al E de la carretera Nasca-Puquio. |
| Geography | | 958 sea level meters, vegetation rare. |
| Climate | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Aflora metasedimentos (Fm. Guaneros) con rumbo N30° W y buzamiento 30° SW, intruidos por intrusivo granodiorítico silicificado (Tiabaya). Fallas regionales NW. |
| mineralization | | Vetas de cuarzo (N40° W y 20° NE), potencia 0.30-0.40m y longitudes hasta de 300m, que rellenan fracturas. Mineralización de cuarzo aurífero, malaquita y como ganga piritá, hematita |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el año 1978-1980. En los últimos años se realizaron trabajos de minería informal. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

87

| | | |
|------------------------------------|---------------------|--|
| Name | | Sol de Oro 1 |
| locality | Position | 8,343,384N -517,539E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Nasca - Mina = 12 Km. |
| Geography | | 664 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Aflora metasedimentos (Fm. Guaneros) con rumbo N30° W y buzamiento 30° SW, andesitas gris verdosas (Tiabaya). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo E-W y buzamiento 30° S, potencia 0.20m. La mineralizacion consiste como mena cuarzo aurifero, calcopirita, malaquita y como ganga, oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

89

| | | |
|------------------------------------|---------------------|---|
| Name | | Chauchilla |
| locality | Position | 8,342,932N - 503,552E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 465)-Pampa Porona-Mina = 13 Km. |
| Geography | | 607 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una roca volcanica andesitica, con tres sistemas de fracturamiento alterados, correspondiente al Grupo Casma. Tambien afloran intrusivos granodioriticos (Tiabaya). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N20° W y buzamiento 25° SW, potencia 0.60m. La mineralizacion consiste como mena malaquita, crisocola y como ganga cuarzo, oxidos y carbonatos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Clavelinas |
| locality | Position | 8,343,200N -503,502E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 465)-Pampa Porona - Mina = 7 Km. |
| Geography | | 555 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es un intrusivo granodioritico con cuerpo lamprófidó (Tiabaya). |
| mineralization | | Deposito hidrotermal (caolinizacion), estructura filoneano con rumbo N20° W y buzamiento 70° SW, potencia 1.00m. La mineralizacion consiste como mena, malaquita, crisocola y como ganga, cuarzo, hematita, pirita, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

91

| | | |
|------------------------------------|---------------------|---|
| Name | | Florencia |
| locality | Position | 8,353,971N - 535,520E |
| | city | distrito de Tambo Quemado, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Carretera a Puquio(Km53)-Chuquimaran=8 Km.(trocha carrozable) Chuquimaran - Mina = 5 horas (camino de herradura) |
| Geography | | 2001 sea level meters, abrupte topography.. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una granodiorita-tonalita que corresponde a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N30° W y buzamiento 20° NE, potencia 0.20m. La mineralizacion consiste como mena malaquita, crisocola y como ganga cuarzo, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | produccion | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Caudalosa |
| locality | Position | 8,350,083N - 520,186E |
| | city | District of Nasca - Province Nasca (Ica). |
| Transportation | | Hacienda Copara - Mina = 14 Km. (trocha carrozable) |
| Geography | | 1,261 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas del Gpo. Yura, silicificadas, alteradas, en contacto al Este con el intrusivo Tiabaya (tonalita/granodiorita). Falla regional inversa. |
| mineralization | | Veta Caudalosa aflora 250m, con relleno de minerales, malaquita, crisocola y como ganga calcita, cuarzo, limonita, especularita. Moderada argilizacion y debil silicificacion. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | 1969 Cerro de Pasco Corporación. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

94

| | | |
|-----------------------------|--------------|---|
| Name | | Cópara N° 1 |
| locality | Position | 8,345,713N - 513,463E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 463)-Desv.Qda.Chauchilla=8Km. Desv.Qda.Chauchilla - Mina(C° Puntilla) = 4 Km. |
| Geography | | 696 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La zona se encuentra afloramientos intrusivos y andesiticos, que corresponden al Complejo Bella Union. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N40° W y buzamiento 65° NE, potencia 2.00m. La mineralizacion consiste como mena calcopirita, malaquita y como ganga cuarzo, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

95

| | | |
|-----------------------------|--------------|--|
| Name | | Chauchilla Alta |
| locality | Position | 8,350,955N - 516,198E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 356)-Qda.Río Seco-Mina = 16 Km. |
| Geography | | 898 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una cuarcita, correspondiente al Grupo Yura. Tambien afloran intrusivos granodioriticos (Tiabaya). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N35° W y buzamiento 60° NE, potencia 0.30m. La mineralizacion se encuentra en forma diseminada y consiste de malaquita, crisocola, cuarzo aurifero y como ganga oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los valores de cobre alcanzan 2.43% Cu y 1.28oz/Tc Au. |

TABLE OF MINES AND DEPOSITS

96

| | | |
|-----------------------------|--------------|---|
| Name | | Santa Inés de Juanillo |
| locality | Position | 8,350,308N - 516,271E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 356)-Qda.Río Seco = 14 Km.(trocha carrozable) Qda.Río Seco - Mina = 6 Km. (camino de herradura) |
| Geography | | 898 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Contacto entre cuarcitas blanquecinas, compactas (Grupo Yura) e intrusivo tonalita-granodiorita (Tiabava). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N50° W y buzamiento 80° NE, potencia 0.30m. La mineralizacion consiste de calcopirita, malaquita, crisocola, cuarzo aurifero y como ganga calcita, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los valores de cobre alcanzan 8% Cu. |

TABLE OF MINES AND DEPOSITS

98

| | | |
|-----------------------------|--------------|--|
| Name | | San Felipe |
| locality | Position | 8,351,390N - 511,182E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Desvío Panamericana Sur - Cerro San Carlos = 15 Km. |
| Geography | | 780 sea level meters. |
| Clime | | |
| Minerals | | Cu y Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Andesitas fracturadas, con vetas de cuarzo rellenas de sulfuros de cobre, cerca al contacto con el intrusivo Incahuasi. |
| mineralization | | Veta con largo promedio de 60m. Se encuentra en contacto transicional entre andesitas y granodioritas. Las vetas con diseminaciones de bornita, calcopirita y como ganga calcita, pirita, cuarzo, especularita, tremolita, actinolita. |
| reserve | volume | |
| | Metal | Cu y Au. |
| | grade | |
| exploration of history | | Minera Río Sanger, Minera Taruga S.A. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

99

| | | |
|------------------------------------|---------------------|--|
| Name | | Santa Polonia |
| locality | Position | 8,352,084N - 511,056E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 356)-Mina = 10 Km.(trocha carrozable) |
| Geography | | 750 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es un intrusivo diorítico correspondiente al Complejo Bella Union. Tambien afloran rocas andesíticas. Presenta silicificación y propilitización. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N75° W y buzamiento 70° NE.. La mineralización consiste de calcopirita, malaquita, cuarzo aurífero y como ganga óxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

100

| | | |
|-----------------------------|--------------|--|
| Name | | Juanillo |
| locality | Position | 8,352,731N - 522,826E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Desvio Panamericana Sur - Mina = 14Km (carretera afirmada) |
| Geography | | 1,459 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intercalaciones de lavas volcánicas con caliza, cuarcitas silicificados, lutitas y limolitas intercaladas (Fm. Guaneros). Tambien intrusivo granodioritico del Tiabaya. Falla regional N-S (conducto mineralizante). |
| mineralization | | Veta de la estructura principal (N70° W y 25° NE), potencia 0.30-0.50m, rellenas con vetillas de cuarzo aurifero y como ganga pirita, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En la actualidad mina abandonada, pero trabajada por informales. |

TABLE OF MINES AND DEPOSITS

101

| | | |
|------------------------------------|---------------------|--|
| Name | | Taruga |
| locality | Position | 8,350,142N - 509,927E |
| | city | distrito de Vista Alegre, Provincia de Nasca, departamento de Ica. |
| Transportation | | Panam.Sur(Km 356)-Taruga-Mina = 8 Km. |
| Geography | | 761 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una granodiorita masiva, poca alterada, que corresponde al Granito Lucumayo. |
| mineralization | | Deposito hidrotermal, estructura fiioneano con rumbo N70° E y buzamiento 85° SE, potencia 0.50m. La mineralizacion consiste como mena malaquita, crisocola y como ganga cuarzo, hematita, especularita, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los valores de cobre alcanzan 2.5% Cu. |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Paulita |
| locality | Position | 8 357,130N - 521,269E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Paraje As de Oro - Mina = 2Km. (camino de herradura) |
| Geography | | 1144 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | Jesús Pickmann. |
| Exploration stage | | Active |
| Geology | | Andesitas (Fm. Guaneros) intercalados con areniscas alterados por intrusivo granodiorítico (con pirita diseminada). Existen vetas de cuarzo, paralelas (N40° W y 40° NE) de 1.0-2.5m de potencia. |
| mineralization | | Relleno de fracturas con oro libre asociado a la pirita y cuarzo, calcopirita, bornita y como ganga hematita, oxidos de cobre y sulfuros de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Actualmente se explota a pequeña escala. |

TABLE OF MINES AND DEPOSITS

105

| | | |
|-----------------------------|--------------|--|
| Name | | Mina de Oro |
| locality | Position | 8,359,270N - 521,873E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Nasca-Carretera Puquio(Km 20)-C ^o Yanaorjo |
| Geography | | 1299 sea level meters. |
| Climate | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas silicificada intercalados con areniscas cuarciticas (Fm. Guaneros). Afloramientos granodioriticos del Complejo Bella Union. |
| mineralization | | Relleno de fracturas con oro libre asociado a la pirita y cuarzo y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

106

| | | |
|------------------------------------|---------------------|--|
| Name | | San Lorenzo N° 22 |
| locality | Position | 8,362,266N - 518,122E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Carretera Puquio(Km 18) - Prospecto San Lorenzo = 2 Km. |
| Geography | | 158 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de rocas volcanicas andesiticas intercalados con cuarcitas lutitas pizarrosas (Fm. Guaneros). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N40° W y buzamiento 60° NE, potencia 0.16m. Relleno de fracturas con oro libre asociado a la pirita y cuarzo, malaquita, crisocola y como ganga hematita. Impregnaciones de oxidos de cobre en los planos de estratificacion. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

107

| | | |
|-----------------------------|--------------|---|
| Name | | Mollepampa |
| locality | Position | 8,369,225N - 534,420E |
| | city | |
| Transportation | | Carretera a Puquio(Km44)-Mina Molletambo=10 Km(trocha carroz.) Mina Molletambo-Mina=3 Km(camino herradura) |
| Geography | | |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una granodiorita caolinizada, granular, que corresponde a la Super Unidad Tiabaya. Se observan 3 estructuras mineralizadas. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N20° E y buzamiento 70° SE, potencia 0.20m. La mineralizacion consiste como mena calcopirita, malaquita, oxidos de cobre y como ganga cuarzo, hematita, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual 3 muestras de cobre alcanzan valores de 4.88%, 4.15% y 6.83%. |

TABLE OF MINES AND DEPOSITS

108

| | | |
|------------------------------------|---------------------|---|
| Name | | Santa Catalina |
| locality | Position | 8,368,734N - 521,067E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Panam.Sur(Km 447) - Mina = 20 Km. |
| Geography | | 1146 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas silicificada intercalados con areniscas cuarciticas (Fm. Guaneros). Afloramientos granodioriticos de la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N25° W y buzamiento 45° SW. Relleno de fracturas con calcopirita, cuarzo aurifero y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

111

| | | |
|------------------------------------|---------------------|--|
| Name | | Rey de Oro |
| locality | Position | 8,369,730N - 515,347E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Panam.Sur (Km.439)-Desvío Qda. Socos=15 Km.(trocha carroz.). Luego 2 Km. camino de herradura hasta la mina. |
| Geography | | |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Andesitas silicificadas (Fm. Guaneros) intercalados con cuarcitas y apófisis de granodioritas (Tiabaya). Partes altas derrames piroclasticos (Fm Nasca). |
| mineralization | | Relleno de fractura, cuarzo aurifero, cavernoso, fracturado, oxidos de cobre y ganga de piritita diseminada. Estructura aflora 100m, potencia 0.35m, rumbo N85° W y buza 65° SW. |
| reserve | volume | 100,000 TM (estimado) |
| | Metal | Cu y Au. |
| | grade | |
| exploration of history | | 1978 Denuncio para explotacion (100 hectáreas). |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

112

| | | |
|------------------------------------|---------------------|---|
| Name | | Alto Pongo |
| locality | Position | 8,369,008N -510,796E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Panam.Sur(Km 439) - Mina = 14 Km. |
| Geography | | 1136 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de cuarcitas blanquecinas, compactas (Grupo Yura) y andesitas alteradas(Fm. Guaneros). |
| mineralization | | Deposito hidrotermal controlado por falla regional, estructura filoneano con rumbo N15° W y buzamiento 40° NE. Relleno de fracturas con cuarzo aurifero, oxidos de cobre y como ganga pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los valores de cobre alcanzan 5.84% Cu. |

TABLE OF MINES AND DEPOSITS

114

| | | |
|-----------------------------|--------------|--|
| Name | | Trapiche |
| locality | Position | 8,375,234N - 527,798E |
| | city | District of Tambo Quemado - Province Puquio (Ayacucho). |
| Transportation | | Panam.Sur (Km.442)-Desvío Qda. Río Aia=75 Km.(trocha carroz.). Luego 2 Km. camino de herradura hasta la mina. |
| Geography | | 1,945 sea level meters. |
| Climate | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodiorita silicificada y fracturada cortado por diques silíceos. Parte superior volcanicos piroclasticos (Fm. Nasca) y cuarcitas silicificadas (Gpo. Yura). Veta principal de cuarzo, 0.30m de potencia, 600m. de longitud. |
| mineralization | | Mineralizacion de malaquita, crisocola, cuarzo aurifero de textura cavernosa y como ganga piritita y hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Trabajos mineros desde 1977. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Pirca Grande |
| locality | Position | 8,371,730N - 527,163E |
| | city | distrito de Tambo Quemado, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Panam. Sur (Km442)-Mina=2 Km.(trocha carrozable) |
| Geography | | 2461 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una granodiorita que corresponde a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N30° E y buzamiento 80° SE, potencia 0.80m. La mineralizacion consiste como mena malaquita, crisocola, cuarzo aurifero y como ganga oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

116

| | | |
|-----------------------------|--------------|--|
| Name | | Oropalla N° 3 |
| locality | Position | 8,376,889N - 517,325E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Panam. Sur (Km.480) - Qda. Oropalla = 20 Km. (trocha carrozable) |
| Geography | | 715 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Granito con xenolitos de dioritas, argilizado (Lucumayo) que intruye a cuarcitas intercaladas con andesitas alteradas (Fm. Guaneros). Falla regional N45° W, es el patron direccional de la mineralizacion. |
| mineralization | | Dos vetas principales con rumbo promedio NW y buzamiento NE (en andesitas). Afloran 350m de longitud, 1.5m y 0.50m. de potencias. Mineralizacion de cuarzo aurifero con plata, malaquita, crisocola y ganga de pirita diseminada |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Laboreo de mina, pique principal 70m., dos sistemas de vetas. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

117

| | | |
|-----------------------------|--------------|--|
| Name | | El Condor |
| locality | Position | 8,374,027N - 510,569E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Panam.Sur(Km 480) - Mina = 15 Km. |
| Geography | | 1335 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos granodioriticos caolinizado de la Super Unidad Tiabaya que intruyen a las Cuarcitas (Fm. Guaneros) |
| mineralization | | Deposito hidrotermal controlado por falla regional, estructura filoneano con rumbo N10° E y buzamiento 25° NW. Relleno de fracturas con calcopirita, cuarzo aurifero y como ganga calcita, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | produccion | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

118

| | | |
|-----------------------------|--------------|--|
| Name | | Tunal |
| locality | Position | 8,381,287N - 507,961E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Desvío carretera a Ingenio - Mina = 7Km (carretera afirmada) |
| Geography | | 1,390 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Aflora un intrusivo granodiorítico silicificado (Tiabaya), intercalado con cuarcitas y pizarras (Gpo. Yura). |
| mineralization | | Veta de cuarzo aurífero, con panizo, rumbo N60° W, buzamiento 30° NE y potencia 1.0m., con hematita, malaquita, crisocola. Estructura hidrotermal. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En la actualidad mina abandonada. |

TABLE OF MINES AND DEPOSITS

120

| | | |
|------------------------------------|---------------------|--|
| Name | | Hualpoca |
| locality | Position | 8,382,854N - 504,814E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Desvío Qda. Ingenio - Qda. Molino = 22 Km. (trocha carroz.) Qda. Molino-Mina=2 Km(camino herradura) |
| Geography | | 749 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de granodiorita-tonalita (Super Unidad Tiabaya). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N10° W y buzamiento 80° SW, potencias entre 0.20-0.30m. Relleno de fracturas con malaquita, cuarzo aurifero y como ganga oxidos de hierro y de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | produccion | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

122

| | | |
|-----------------------------|--------------|---|
| Name | | Agua Perdida |
| locality | Position | 8,388,668N - 512,311E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Desvío Qda.Ingenio - Mina = 36 Km (trocha carrozable) |
| Geography | | 1,100 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de cuarcitas blanquecinas, compactas, correspondientes al Grupo Yura. |
| mineralization | | Deposito hidrotermal, estructura filoncana con rumbo N70° W y buzamiento 60° SW. Relleno de fracturas con cuarzo aurifero y como ganga oxidos de hierro y de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

123

| | | |
|-----------------------------|--------------|--|
| Name | | Aidita |
| locality | Position | 8,387,885N - 513,758E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Desvio carretra a Ingenio - Mina (paraje Huarasaca)= 23Km (carretera afirmada) |
| Geography | | 1,308 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive ? |
| Geology | | Intrusivos daciticos porfiriticos a granodioritas alteradas, del Tiabaya y Bella Union respectivamente, que cortan metasedimentos del Gpo. Yura. |
| mineralization | | Relleno de fracturas con mineralizacion de oro, asociado al cuarzo y la pirita, en estructuras brechadas (N30° E y 75° NW) con potencia de 1.5m y 300m. de longitud, silicificadas, con venillas de cuarzo, calcita y caolin. La dacita argilizada, está fallada, con escasa mineralizacion de pirita y oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En la actualidad se explota a pequeña escala. Se tiene una pequeña Planta de Procesamiento de mineral en Huarasaca. |

TABLE OF MINES AND DEPOSITS

124

| | | |
|-----------------------------|--------------|--|
| Name | | Túpac Amaru |
| locality | Position | 8,391,610N - 533,352E |
| | city | distrito de Tambo Quemado, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Desvío Qda.Ingenio - Otoa - Mina = 4 Km |
| Geography | | 2902 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de cuarcitas compactas, correspondientes al Grupo Yura. Tambien hay apósisis de roca granodiorita en los alrededores. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N30° E y buzamiento 80° SE.. La mineralizacion consiste como mena calcopirita, cuarzo aurifero y como ganga turmalina, oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

125

| | | |
|-----------------------------|--------------|---|
| Name | | Yanajaja |
| locality | Position | 8,392,230N - 534,154E |
| | city | distrito de Tambo Quemado, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Desvío Qda.Ingenio - Otoa - Mina(C° Jotorumi) = 3 horas |
| Geography | | 2501 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de cuarcitas intercaladas con pizarras, correspondientes al Grupo Yura. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N-S y buzamiento 20° W, potencia de 0.50m. La mineralizacion consiste como mena calcopirita y como ganga cuarzo, oxidos de hierro, especularita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

126

| | | |
|-----------------------------|--------------|---|
| Name | | El Diluvio |
| locality | Position | 8,391,649N - 531,684E |
| | city | District of Tambo Quemado - Province Puquio (Ayacucho). |
| Transportation | | Panam.Sur (Km.422)-Piedra Lajas = 60 Km. (trocha carroz.). Luego 9 Km. camino de herradura hasta la mina. |
| Geography | | 2,840 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas compactas silicificadas (Gpo. Yura), intercaladas con pizarras y andesitas fracturadas, rumbo N60° E y buzan 45° NW. |
| mineralization | | Relleno de fracturas(N30° W y 70° SW), con vetillas de cuarzo cavernoso brechado, potencias de 0.50-1.45m y con proyeccion de veta de 800m. La mineralizacion consiste de calcopirita, galena argentífera, esfalerita y como ganga piritita y cuarzo. |
| reserve | volume | 4,000 TM |
| | Metal | Cu |
| | grade | 6.3% Cu, 13.1 oz/Tc. Ag, 2.52% Pb, 3.24% Zn. |
| exploration of history | | 1970 Informes del Banco Minero del Perú |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

131

| | | |
|-----------------------------|--------------|--|
| Name | | Huaranguillo Alto |
| locality | Position | 8,345,513N - 542,513E |
| | city | distrito de Santa Lucía, Provincia de Puquio, departamento de Ayacucho. |
| Transportation | | Nasca - Panam.Sur(Km 509) - Mina = 104 Km. |
| Geography | | 2085 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de granodiorita correspondientes a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N30° W y buzamiento 65° NE, potencia de 0.15m. La mineralizacion consiste como mena cuarzo aurifero y como ganga pirita diseminada, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

132

| | | |
|-----------------------------|--------------|--|
| Name | | Condor 1 |
| locality | Position | 8,377,444N - 516,006E |
| | city | District of Vista Alegre - Province Nasca (Ica). |
| Transportation | | Nasca - Panam.Sur(Km 431) - Mina = 26 Km. |
| Geography | | 1,776 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una granodiorita masiva, poca alterada, que corresponde al Granito Lucumayo. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N50° W y buzamiento 60° SW, potencias entre 0.10-0.20m. Relleno de fracturas con cuarzo aurifero y como ganga pirita, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

133

| | | |
|-----------------------------|--------------|---|
| Name | | El Fraile |
| locality | Position | 8,377,064N - 493,770E |
| | city | District of El Ingenio - Province Palpa (Ica). |
| Transportation | | Panam.Sur (Km.430) - Mina = 10 Km. (trocha carrozable). |
| Geography | | 715 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas estratificadas, alteradas y fracturadas(Gpo. Yura) intercaladas con pizarras fracturadas. Alrededor intrusivos alterados (Bella Union). |
| mineralization | | Falla regional N-S, portadora de vetas de cuarzo aurifero, calcopirita, malaquita y como ganga pirita, calcita y caolin. Estructura principal es una veta con rumbo N-S y buza 65° W, potencia 0.30m y aflora 200m de longitud. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | 1970 Informes del Banco Minero del Perú |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

134

| | | |
|-----------------------------|--------------|--|
| Name | | Santa Rica |
| locality | Position | 8,384,019N - 491,383E |
| | city | District of El Ingenio.- Province Nasca (Ica). |
| Transportation | | Desv.carretera a Ingenio-Qda. Ayapana=7Km.(trocha carroz.) Qda. Ayapana - Mina = 8 Km. |
| Geography | | 696 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo alterado y argilizado (C.Bella Union), en contacto con cuarcitas fracturadas (Gpo. Yura), debido a falla regional N45° W. |
| mineralization | | Estructura principal fallada, con panizo (N30° W y 60° SW), potencia 0.30-1.00m, 200m de longitud. Contiene vetillas de cuarzo aurífero(con oquedades), escasos minerales de oxidos de cobre y ganga con hematita, goethita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde 1970. Informes del Banco Minero 1974. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

137

| | | |
|------------------------------------|---------------------|---|
| Name | | Ornilla N° 2 |
| locality | Position | 8,382,794N - 497,388E |
| | city | District of El Ingenio - Province Palpa (Ica). |
| Transportation | | Panam.Sur(Km 416) - Tulin - Mina = 6 Km. |
| Geography | | 633 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas intercalados con pizarras (Fm. Guaneros). Afloramientos granodioriticos del Complejo Bella Union. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N50° W y buzamiento 25° NE, potencia de 0.40m. Relleno de fracturas con cuarzo aurifero y como ganga oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

138

| | | |
|------------------------------------|---------------------|---|
| Name | | Tentadora |
| locality | Position | 8,382,452N - 490,785E |
| | city | District of El Ingenio - Province Palpa (Ica). |
| Transportation | | Desv.carretera a Ingenio-Qda. Ayapana=7Km.(trocha carroz.) Qda. Ayapana - Mina = 3 Km. |
| Geography | | 601 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas alteradas y fracturadas(Gpo. Yura) intercaladas con andesitas intruidos por granodioritas alterados (C.Bella Union). Localmente cuarcitas plegadas y craqueladas debido a falla N30° W. |
| mineralization | | La mineralizacion consiste de cuarzo aurifero, oxidos de cobre y como ganga calcita y hematita. Estructura principal es una veta con rumbo N60° W y buza 40° SW, potencia 1.50m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Existen laboreos mineros cerca de la Planta Paraiso Minero. |

TABLE OF MINES AND DEPOSITS

141

| | | |
|-----------------------------|--------------|---|
| Name | | Centauro |
| locality | Position | 8,385,337N - 490,536E |
| | city | District of El Ingenio - Province Nasca (Ica). |
| Transportation | | Panam. Sur(Km.413)- Mina = 13Km.(carretera afirmada) |
| Geography | | 884 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Intrusivos alterados (C. Bella Union) en contacto con niveles de cuarcitas, areniscas, volcánicos, limolitas (Gpo. Yura). Falla N40° W produce sistemas de fracturas transversales paralelas. |
| mineralization | | Relleno de fracturas (N60° E y 65° NW), potencia de 0.30 - 0.90m. Con mineralizacion de cuarzo aurifero, calcopirita y como ganga calcita, hematita, pirita, caolin. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Cía. Minera El Condor (Labores mineras). |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | produccion | |
| electricily | | |
| personnel | | Aproximadamente 100 personas. |
| refinery or smelter | | |
| speccals | | |
| comments | | Actualmente explotan la mina trabajadores informales. |

TABLE OF MINES AND DEPOSITS

144

| | | |
|-----------------------------|--------------|---|
| Name | | Luz del Sol |
| locality | Position | 8,392,264N - 498,223E |
| | city | distrito de Otoca, Provincia de Palpa, departamento de Ayacucho. |
| Transportation | | Desvío Qda.Ingenio - Tulin - Mina = 15 Km. |
| Geography | | 1019 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de granodiorita correspondientes a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N20° E y buzamiento 25° NW, potencia de 0.10m. La mineralizacion consiste como mena cuarzo aurifero, malaquita, crisocola y como ganga oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

145

| | | |
|------------------------------------|---------------------|---|
| Name | | Luz del Sol 1 |
| locality | Position | 8,386,769N - 496,023E |
| | city | District of El Ingenio - Province Palpa (Ayacucho). |
| Transportation | | Desvio Qda.Ingenio - Tulin - Mina = 15 Km. |
| Geography | | 835 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos granodioriticos del Complejo Bella Union. Tambien andesitas intercalados con serie sedimentaria de pizarras y cuarcitas (Fm. Guaneros). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N25° W y buzamiento 70° NE. Relleno de fracturas con cuarzo aurifero, malaquita, crisocola y como ganga oxidos de cobre. |
| reserve | volume | 22,500 TM. |
| | Metal | Cu |
| | grade | 3-4% |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

146

| | | |
|------------------------------------|---------------------|---|
| Name | | Apacheta |
| locality | Position | 8,390,240N - 498,025E |
| | city | distrito de El Ingenio, Provincia de Palpa, departamento de Ica. |
| Transportation | | Desvío Qda.Ingenio - Tulin - Mina = 6 Km. |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de granodiorita-tonalita correspondientes a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N15° E y buzamiento 45° SE, potencia de 1.00m. La mineralizacion consiste como mena cuarzo aurifero y como ganga oxidos de cobre y hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

147

| | | |
|------------------------------------|---------------------|---|
| Name | | Esperanza |
| locality | Position | 8,386,769N - 494,172E |
| | city | District of El Ingenio - Province Palpa (Ica). |
| Transportation | | Desvio Qda.Ingenio - Tulin - Mina = 8 Km.(carretera afirmada) |
| Geography | | 894 sea level meters. |
| Clime | | |
| Minerals | | Au . |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos granodioriticos del Complejo Bella Union. Tambien andesitas porfiriticas intercalados con serie sedimentaria de pizarras y cuarcitas (Fm. Guaneros). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N10° W y buzamiento 55° NE, potencia de 0.50m. Relleno de fracturas con cuarzo aurifero, malaquita, crisocola y como ganga oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

148

| | | |
|------------------------------------|---------------------|--|
| Name | | Yapana |
| locality | Position | 8,390,337N - 498,400E |
| | city | District of Otocha - Province Palpa (Ayacucho). |
| Transportation | | Desv.carretera a Ingenio-Qda.La Apacheta=8Km.(trocha carroz.) Qda. La Apacheta - Mina = 3 Km. |
| Geography | | 1,066 sea level meters. |
| Clima | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Roca caja, granodiorita (Tiabaya), argilizada, textura granular. Afloramiento de cuarcitas (Gpo. Yura). Sistemas de diaclasamiento E-W y N60° W. |
| mineralization | | Relleno de fracturas(N30° E y 40° NW), con vetillas de cuarzo lechoso, con oquedades, potencia de 0.20m y con veta de 800m. de afloramiento. La mineralizacion consiste de cuarzo aurifero, oxidos de cobre y como ganga pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Existen trabajos de mineros informales. |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|---|
| Name | | Santa María |
| locality | Position | 8,389,632N - 495,987E |
| | city | District of El Ingenio - Province Palpa (Ica). |
| Transportation | | Desvio carretera a Ingenio - Mina = 8Km. |
| Geography | | 817 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas (Gpo.Yura) intercalados con andesitas. Apofisis granodioritico alterado (C. Bella Union). Falla N40° W al sur del depósito. |
| mineralization | | Estructura principal con panizo, de rumbo N20° W y buzamiento 60° SW, potencia de 0.25-1.00m, con mineralizacion de cuarzo aurifero y como ganga hematita, oxidos de cobre, pirita. La veta tiene potencia y leyes irregulares. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

150

| | | |
|------------------------------------|---------------------|---|
| Name | | Cerca de Belaunde |
| locality | Position | 8,391,200N - 495,219E |
| | city | distrito de Otoca, Provincia de Palpa, departamento de Ayacucho. |
| Transportation | | Desvío Qda.Ingenio - Tulin - Mina = 13 Km. |
| Geography | | 973 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de pizarras, delesnables, alteradas, correspondientes al Grupo Yura. |
| mineralization | | Deposito hidrotermal. estructura filoneano con rumbo N30° E y buzamiento 40° NW. Relleno de fracturas con cuarzo aurifero, calcopirita, malaquita, crisocola y como ganga oxidos de hierro y de cobre, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

151

| | | |
|------------------------------------|---------------------|--|
| Name | | Yurisviscas |
| locality | Position | 8,394,197N - 486,201E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Panam.Sur(Km 353) - Sonaque = 9 Km. Sonaque - Mina = 3 Km. |
| Geography | | 753 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas porfiriticas, gris verdosas. Tambien afloramientos granodioriticos del Complejo Bella Union. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N50° W y buzamiento 80° SW, potencia de 0.40m. Relleno de fracturas con cuarzo aurifero, malaquita, crisocola y como ganga oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

153

| | | |
|-----------------------------|--------------|--|
| Name | | San Martin de Orongo |
| locality | Position | 8,394,889N - 473,843E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Palpa - Mina = 14 Km. |
| Geography | | 810 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas y afloramientos de granito blanquecino (Complejo Bella Union). |
| mineralization | | Deposito hidrotermal, estructura fiogenea con rumbo N45° W y buzamiento 85° SW, potencia de 0.10m. Relleno de fracturas con cuarzo aurifero y como ganga piritita, oxidos de hierro y cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| transportation | life of mine | |
| | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

154

| | | |
|-----------------------------|--------------|--|
| Name | | Yuri |
| locality | Position | 8,396,611N - 496,551E |
| | city | District of Otopa - Province Palpa (Ayacucho). |
| Transportation | | Desvio carretra a Ingenio - Mina = 19Km. |
| Geography | | 1,573 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas (Gpo.Yura) con rumbo N80° W y buzamiento 25° SW, plegados, silicificados. Las vetas siguen la direccion del sinclinal. |
| mineralization | | En la interseccion de una falla E-W y la veta (N-S), se concentra la mineralizacion de sulfuros de cobre. Como mena se tiene calcopirita, bornita, calcosina y como ganga pirita, calcita, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | 35 TM/día; 2 onz/Tc. |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Tiene infraestructura instalada, con planta de tratamiento. |

TABLE OF MINES AND DEPOSITS

159

| | | |
|------------------------------------|---------------------|---|
| Name | | Cruz de Chapi |
| locality | Position | 8,375,677N - 499,630E |
| | city | distrito de El Ingenio, Provincia de Palpa, departamento de Ica. |
| Transportation | | Panam.Sur(Km 423) - Mina = 4 Km. |
| Geography | | 810 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de granodiorita-tonalita, caolinizados, correspondientes a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N30° W y buzamiento 45° SW, potencia de 0.25m. La mineralizacion consiste como mena cuarzo aurifero, malaquita, crisocola. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|---|
| Name | | Los Colorados |
| locality | Position | 8,371,073N - 496,067E |
| | city | District of ???????? - Province Palpa (Ica). |
| Transportation | | Panam. Sur(Km.426)- Cerro Los Colorados = 3Km.(trocha carroz.) |
| Geography | | 744 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo granodioritico (Tiabaya) argilizado, en contacto con niveles de cuarcitas silicificadas y fracturadas (Gpo. Yura). |
| mineralization | | La estructura principal contiene venillas de cuarzo aurífero, malaquita, crisocola y ganga con oxidos de hierro y especularita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

163

| | | |
|-----------------------------|--------------|--|
| Name | | Mina Coquimbana |
| locality | Position | 8,428,614N - 490,056E |
| | city | District of Tibillo - Province Palpa (Ica). |
| Transportation | | Palpa - Mina = 47 Km. (carretera afirmada). |
| Geography | | 1,361 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo granodioritico (Tiabaya). Afloramientos de cuarcitas silicificadas (Gpo. Yura), fracturadas y alteradas. En la zona de contacto se observa argilización y caolinización. |
| mineralization | | Veta principal de cuarzo con rumbo N30° W. La mineralizacion consiste de vetillas de cuarzo aurifero, galena y como ganga pirita diseminada. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Se encuentran labores mineras abandonadas. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Irma Nelida |
| locality | Position | 8,410,076N - 482,232E |
| | city | District of El Ingenio - Province Nasca (Ica). |
| Transportation | | Palpa - Cerro Pinto = 28 Km. Cerro Pinto - Mina = 3 Km. |
| Geography | | 746 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivos granodioritico alterados (Pampahuasi) en contacto con cuarcitas fracturadas, silicificadas (Gpo. Yura). |
| mineralization | | Relleno de fracturas (N10° E y 75° NW), potencias de 0.10 - 0.20m. Con mineralizacion de cuarzo aurifero, escaso oxidos de cobre y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

165

| | | |
|-----------------------------|--------------|---|
| Name | | Irma Nérida 2 |
| locality | Position | 8,409,822N - 482,188E |
| | city | District of Santa Cruz - Province Nasca (Ica). |
| Transportation | | Palpa - Gramadal Chico - Mina = 3 Km (trocha carrozable) |
| Geography | | 746 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de cuarcitas blanquecinas, compactas, correspondientes al Grupo Yura. |
| mineralization | | Deposito hidrotermal (silicificacion), estructura filoncana con rumbo N10° E y buzamiento 75° NW, potencias entre 0.10-0.15m. Relleno de fracturas con cuarzo aurifero y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

166

| | | |
|------------------------------------|---------------------|---|
| Name | | La Isla 1 |
| locality | Position | 8,402,818N - 480,198E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Palpa - La Isla - Mina = 2 Km. |
| Geography | | 541 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas porfiriticas y afloramientos de granodioritas blanquecinas (Complejo Bella Union). Roca caja fracturada (rumbo promedio NW). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumboN45° W y buzamiento 35° NE, potencias entre 0.20-0.25m. Relleno de fracturas con cuarzo aurifero y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los valores de oro alcanzan 2.5gr/TM Au. |

TABLE OF MINES AND DEPOSITS

167

| | | |
|------------------------------------|---------------------|---|
| Name | | La Isla 2 |
| locality | Position | 8,402,878N - 480,198E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Palpa - La Isla - Mina = 2 Km. |
| Geography | | 521 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Diques andesiticos porfiriticos, oxidados y afloramientos de granodioritas (Complejo Bella Union). Alrededores cuarcitas blanquecinas, craqueladas. Roca caja fracturada (rumbo promedio NW). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N15° W y buzamiento 25° NE. Relleno de fracturas con cuarzo aurifero y como ganga, pirita, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | San Miguel |
| locality | Position | 8,404,659N - 479,271E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Palpa - La Isla - Mina = 2 Km. |
| Geography | | 569 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Contacto entre rocas volcanicas andesiticas intercaladas con cuarcitas (Gpo. Yura) y afloramientos de granodioritas (Complejo Bella Union). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N46° W y buzamiento 15° SW, potencia de 0.10m. Relleno de fracturas con malaquita, crisocola, cuarzo aurifero y como ganga, hematita y oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

170

| | | |
|-----------------------------|--------------|---|
| Name | | Yauricho |
| locality | Position | 8,404,200N - 478,390E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Palpa - La Isla = 22 Km. La Isla - Cerro Llamicho? = 2 Km. |
| Geography | | 500 sea level meters. |
| Climate | | |
| Minerals | | Cu and Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo diorítico, alterado, fracturado, silicificado, de textura porfírica (Bella Union). También afloramientos de cuarcitas fracturadas (Gpo. Yura). En la zona de contacto se forman estructuras con mineralización. |
| mineralization | | Veta principal de cuarzo con rumbo N40° W, potencia de 0.20-0.40m. La mineralización consiste de vetillas de cuarzo aurífero, calcopirita, bornita, malaquita, crisocola y como ganga pirita diseminada, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Se encuentran labores mineras abandonadas. Pique de 25m. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

171

| | | |
|------------------------------------|---------------------|---|
| Name | | Denuncio Amarillo |
| locality | Position | 8,402,818N - 480,198E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Palpa - Cerro La Isla = 22 Km. Cerro La Isla - Mina = 2 Km. |
| Geography | | 541 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo alterado (C. Bella Union) en contacto con afloramientos de cuarcitas (Gpo. Yura). Area fuertemente craquelado y oxidado. |
| mineralization | | Veta cuarzo con rumbo N45 ° W y buza 35 ° NE, potencia 0.25m. La mineralizacion consiste de vetillas de cuarzo aurifero, malaquita, crisocola y como ganga hematita, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

173

| | | |
|-----------------------------|--------------|---|
| Name | | Denuncio Capac Chico |
| locality | Position | 8,412,336N - 494,396E |
| | city | District of Ocana - Province Huancasancos (Ayacucho). |
| Transportation | | Palpa - Tacarpo = 30 Km. Tacarpo - Prospecto Capac Chico = 3 Km. |
| Geography | | 1,565 sea level meters. |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo silicificado (Tiabaya), en contacto con cuarcitas alteradas (Gpo. Yura), donde se encuentra varios sistemas de vetillas de cuarzo. |
| mineralization | | La mineralización consiste de cuarzo aurífero, escasos óxidos de cobre y como ganga hematita, algo de caolín. Estructura principal es una veta con rumbo N40° W y buzca 20° SW, potencia 0.30m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Se encuentra antiguas labores pequeñas, de trabajos informales. |

TABLE OF MINES AND DEPOSITS

174

| | | |
|-----------------------------|--------------|--|
| Name | | Prospecto Capac Grande |
| locality | Position | 8,414,074N - 493,113E |
| | city | District of Ocana - Province Huancasancos (Ayacucho). |
| Transportation | | Palpa - Tacarpo = 30 Km. Tacarpo - Prospecto Capac Grande = 2 Km. |
| Geography | | 1,282 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo granodioritico silicificado, argilizado (Tiabaya), en contacto con cuarcitas silisificadas (Gpo. Yura), donde se encuentra varios sistemas de vetillas de cuarzo. El area presenta sombrero de hierro. |
| mineralization | | La mineralizacion consiste de cuarzo aurifero con oquedades, malaquita, escasos oxidos de cobre y como ganga hematita. Falla regional (N60° W) es el patrón que origina vetas con rumbos promedios N40° W. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

175

| | | |
|------------------------------------|---------------------|--|
| Name | | Santuario I |
| locality | Position | 8,404,401N - 487,368E |
| | city | distrito de Río Grande, Provincia de Palpa, departamento de Ica. |
| Transportation | | Palpa - Hornuyoc - Mina = 2 Km. |
| Geography | | 851 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Afloramientos de granodiorita correspondientes a la Super Unidad Tiabaya. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N30° E y buzamiento 75° NW, potencia de 0.10m. La mineralizacion consiste de vetillas con cuarzo aurifero y como ganga oxidos de hierro, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|---|
| Name | | Samarca |
| locality | Position | 8,397,514N - 489,088E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Panam. Sur (Km.345) - Mina = 12 Km. (carretera afirmada). |
| Geography | | 675 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Intrusivo alterado, fracturado y argilizado (C. Bella Union). Afloramientos de cuarcitas (Gpo. Yura), con alteracion en los contactos. |
| mineralization | | Relleno de fracturas(N30° E y 20° NW), potencias de 0.20-0.50m y con veta de 200m. de afloramiento. La mineralizacion consiste de cuarzo aurifero, calcopirita, bornita, galena argentifera y como ganga hematita, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Cía Minera Samarca realiza labores mineras actualmente |

TABLE OF MINES AND DEPOSITS

178

| | | |
|-----------------------------|--------------|--|
| Name | | Los Icas |
| locality | Position | 8,413,997N - 449,949E |
| | city | District of Ocucaje - Province Ica (Ica). |
| Transportation | | Panam. Sur(Km.356)-Mina(C° Huayuri) = 13Km.(trocha carrozable) |
| Geography | | 735 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas andesiticas fracturadas intercalados con sedimentos calc á reos y cuarcitas. |
| mineralization | | Estructura principal (veta de cuarzo) obedece a falla regional y a la vez afectado por el intrusivo monzodioritico que no aflora y produce fracturamiento y craquelamiento. Mineralizacion de calcopirita, calcosina, bornita, malaquita, crisocola y ganga de hematita, carbonatos. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Labores mineras abandonadas, con 8 frentes de explotacion. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

179

| | | |
|-----------------------------|--------------|--|
| Name | | Minas |
| locality | Position | 8,417,726N - 447,751E |
| | city | District of Ocucaje - Province Ica (Ica). |
| Transportation | | Panam. Sur(Km.352)-Mina = 14Km.(trocha carrozable) |
| Geography | | 815 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Intrusivo monzonítico local, alterado y silicificado, que intruye andesitas intercaladas con calizas y cuarcitas (Fm. Guaneros). Falla regional paralela a la quebrada. |
| mineralization | | Veta de cuarzo, brechada, con rumbo N30° W y buza 85° NE, potencia de 0.30m. La mineralizacion consiste de calcopirita, calcosina, bornita, cuarzo aurifero, galena y como ganga, hematita, calcita, pirita, caolin. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | 1970 Labores mineras abandonadas |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

183

| | | |
|------------------------------------|---------------------|---|
| Name | | Prospecto Mollecancha |
| locality | Position | 8,451,739N - 476,165E |
| | city | District of Tibillos - Province Palpa (Ica). |
| Transportation | | Ica - Huambo - C ^o Mollecancha = 90 Km. C ^o Mollecancha - Prospecto = 12 Km. |
| Geography | | 3,368 sea level meters. |
| Clime | | Cold and dry clime. |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo monzotonalitico (Incahuasi)silicificado. Arriba volcanicos piroclasticos rioliticos y daciticos (Pocoto). |
| mineralization | | Estructura mineralizada (veta de cuarzo), con rumbo N50° E y buzamiento subvertical, potencia de 0.10-0.15m, longitud de 30 m. La mineralizacion consiste de malaquita, crisocola y como ganga, hematita, cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|---|
| Name | | Ornolloc |
| locality | Position | 8,451,371N - 475,572E |
| | city | District of ??? - Province Huaytara (Huancavelica). |
| Transportation | | Huambo - Qda. Mollecancha = 12 Km. Qda. Mollecancha - Mina = 4 Km. C ^o Mollecancha - Prospecto = 4 Km. |
| Geography | | 3,302 sea level meters, abrupte topography. |
| Clime | | Cold and dry clime. |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo monzonitico silicificado(Super Unidad Incahuasi), fracturado. Tambien afloramientos de granodioritas. |
| mineralization | | Estructura mineralizada (veta de cuarzo craqueladas), con rumbo N50° E y buzamiento subvertical, potencia de 0.10m. La mineralizacion consiste de malaquita, crisocola y como ganga, hematita, cuarzo, oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

186

| | | |
|-----------------------------|--------------|--|
| Name | | Chavez 8 |
| locality | Position | 8,428,908N - 456,677E |
| | city | District of Ocucaje - Province Palpa (Ica). |
| Transportation | | Ica - carretera a Cordova (Km. 38.5) - Mina = 6 Km. |
| Geography | | 1,330 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas intrusivas monzodioritas (Super Unidad Linga), textura granular, fracturado y brechado. |
| mineralization | | Estructura mineralizada, con rumbo N50° W y buza 75° NE, potencias entre 0.50-0.80m. La mineralizacion consiste de malaquita, crisocola, oxidos de cobre y como ganga, hematita, cuarzo, especularita, caolin. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

187

| | | |
|------------------------------------|---------------------|---|
| Name | | Rescate |
| locality | Position | 8,428,460N - 456,164E |
| | city | District of Ocucaje - Province Palpa (Ica). |
| Transportation | | Ica - carretera a Cordova (Km. 38.5) - Mina = 5 Km. |
| Geography | | 1,205 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas intrusivas monzodioritas (Super Unidad Linga), fracturado y brechado. |
| mineralization | | Estructura mineralizada, con rumbo N40° E y buza 65° SE, potencia de 0.70m. La mineralizacion consiste de malaquita, crisocola, oxidos de cobre y como ganga, hematita, cuarzo, especularita, caolin. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

188

| | | |
|------------------------------------|---------------------|---|
| Name | | Chavez 2-Concesion |
| locality | Position | 8,429,449N - 455,098E |
| | city | District of Ocucaje - Province Palpa (Ica). |
| Transportation | | Caserío Huarangal - Mina = 4Km. |
| Geography | | 1,145 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas intrusivas monzodioritas alterados(margen derecha Qda. Pampa Blanca)y volcanicos Quilmaná (margen izquierda). |
| mineralization | | Estructura mineralizada, con rumbo N50° E y buza 65° SE, longitud de 2 Km. La mineralizacion consiste de calcopirita, bornita, malaquita, crisocola y como ganga, hematita, cuarzo, caolin. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Labores mineras abandonadas. |

TABLE OF MINES AND DEPOSITS

191

| | | |
|------------------------------------|---------------------|---|
| Name | | Laura Cristina |
| locality | Position | 8,427,272N - 454,958E |
| | city | District of Ocucaje - Province Palpa (Ica). |
| Transportation | | Ica - carretera a Cordova (Km. 35) - Mina = 5 Km. |
| Geography | | 1,196 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una roca volcanica andesitica porfiritica, fracturado, alterado, correspondiente al Grupo Casma. Tambien afloran intrusivos monzodioriticos (Humay). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N75° E y buzamiento 60° NW. La mineralizacion consiste como mena malaquita, crisocola y como ganga, cuarzo y hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

192

| | | |
|------------------------------------|---------------------|---|
| Name | | Chavez y Camborda |
| locality | Position | 8,428,094N - 451,554E |
| | city | District of Ocucaje - Province Ica (Ica). |
| Transportation | | Ica - Desvio Huarangal = 37 Km. Desvio Huarangal - Mina = 2.5 Km. |
| Geography | | 957 sea level meters. |
| Clime | | |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas porfiriticas intercaladas con calizas fracturadas, alteradas y silicificadas intruidos por diques y mantos de andesitas. |
| mineralization | | Veta de cuarzo, brechada, con rumbo N60° E a E-W, potencia de 0.50m, longitud de 50m. La mineralizacion consiste de calcopirita, calcosina, malaquita, crisocola y como ganga hematita, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Actualmente labores mineras paralizadas. |

TABLE OF MINES AND DEPOSITS

193

| | | |
|------------------------------------|---------------------|---|
| Name | | Loropuquio |
| locality | Position | 8,447,019N - 457,015E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Ica - Cocharcas - Llipapata |
| Geography | | 1,490 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas del Gpo. Yura en contacto con la diorita silicificada Pampahuasi. En la zona de contacto se observa alteracion silicificada con caolin y fracturamiento. |
| mineralization | | Veta de cuarzo (cavernoso) con rumbo N10° W a NS y buzamiento subvertical. La mineralizacion consiste de malaquita y como ganga, cuarzo, hematita, pirita diseminada. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

194

| | | |
|-----------------------------|--------------|--|
| Name | | Denuncio Llipapata |
| locality | Position | 8,447,988N - 456,988E |
| | city | District of Curis - Province Ica (Ica). |
| Transportation | | |
| Geography | | 1,469 sea level meters. |
| Climate | | |
| Minerals | | Au and Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas del Gpo. Yura en contacto con la diorita silicificada Pampahuasi. En la zona de contacto se observa alteracion silicificada con caolin y fracturamiento. |
| mineralization | | Veta de cuarzo (cavernoso) con rumbo N70° W a NS y buza 60° NE. La mineralizacion consiste de cuarzo aurifero, malaquita y como ganga, hematita, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Labores mineras abandonadas. |

TABLE OF MINES AND DEPOSITS

197

| | | |
|------------------------------------|---------------------|---|
| Name | | Mina Santa María |
| locality | Position | 8 443,580N - 452,841E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Carhua - Mina = 1 Km. |
| Geography | | 1,208 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo diorítico (Super Unidad Pampahuasi). La roca caja contiene pirita diseminada. |
| mineralization | | Veta de cuarzo con rumbo N45° E y buzamiento 75° SE, potencia de 1.00m. La mineralización consiste de malaquita, crisocola y como ganga, hematita, calcita, cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | produccion | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

198

| | | |
|-----------------------------|--------------|---|
| Name | | Palmerito |
| locality | Position | 8,444,278N - 450,293E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Ica - Cocharcas - Pampahuasi - Carhua Carhua - Mina = 3.5 Km. |
| Geography | | 1,237 sea level meters. |
| Climate | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es un intrusivo diorítico (Super Unidad Pampahuasi). Epidota, clorita en las fracturas. |
| mineralization | | Veta de cuarzo con rumbo N25° W y buzamiento 20° SW, potencia de 1.00m. La mineralización consiste de cuarzo aurífero y como ganga, ortosa, cuarzo, óxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

199

| | | |
|-----------------------------|--------------|--|
| Name | | Santa Elena |
| locality | Position | 8.442,240N - 446.878E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Ica - Cocharcas - Quilque - Desv. Mina Desv. Mina - Mina = 2 Km. |
| Geography | | 857 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es un intrusivo diorítico (Super Unidad Pampahuasi). Moderado fracturamiento. |
| mineralization | | Veta de cuarzo con rumbo N60° W y buzamiento 60° NE. La mineralizacion consiste de malaquita, crisocola y como ganga, cuarzo, calcita, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

200

| | | |
|-----------------------------|--------------|---|
| Name | | Cancha Seca |
| locality | Position | 8,438,867N - 454,112E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Ica - Pampahuasi - Qda. Orongocucho Qda. Orongocucho - Mina = 6 Km. |
| Geography | | 1,529 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo diorítico (Super Unidad Pampahuasi). La roca caja contiene pirita diseminada. Estructuras de falla con panizo y caolinizado. |
| mineralization | | Veta de cuarzo con rumbo N40° E y buzamiento 20° NW, potencia de 0.40m. La mineralizacion consiste de malaquita, crisocola y como ganga, calcita, oxidos de cobre y hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Se encuentran labores de media barreta, de epoca colonial. |

TABLE OF MINES AND DEPOSITS

201

| | | |
|-----------------------------|--------------|---|
| Name | | Cabeza de Negro |
| locality | Position | 8,450.535N - 446,003E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Ica - Cocharcas - Desv. Qda. Calabayaso = 4 Km. Desv. Qda. Calabayaso - Mina = 10 Km. |
| Geography | | 1,326 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo diorítico (Super Unidad Pampahuasi), fracturado, caolinizado. |
| mineralization | | Veta de cuarzo con rumbo N50° E y buzamiento 70° NW, potencia de 0.50m. La mineralizacion consiste de malaquita, crisocola, cuarzo aurifero y como ganga, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

203

| | | |
|------------------------------------|---------------------|---|
| Name | | Sotelo |
| locality | Position | 8,414,300N - 479,442E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Palpa - Orongo - Sotelo = 60 Km. Sotelo - Mina = 1 Km. |
| Geography | | 1148 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es un intrusivo diorítico de textura granular (Super Unidad Pampahuasi), fracturado, alterado. |
| mineralization | | Veta de cuarzo con rumbo N70° E y buzamiento 80° NW. La mineralizacion consiste de malaquita, crisocola, cuarzo aurifero y como ganga, calcita, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

204

| | | |
|------------------------------------|---------------------|---|
| Name | | Unidad Piedra Pintada |
| locality | Position | 8,419,384N - 477,231E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Palpa - Piedra Pintada - Malpaso Chico = 45 Km Malpaso Chico - Mina = 1.5 Km. (camino de herradura) |
| Geography | | 1314 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es un intrusivo diorítico de textura granular (Super Unidad Pampahuasi), fracturado, alterado. También afloramientos de cuarcitas y lutitas pizarrosas (Fm Guaneros). |
| mineralization | | Veta de cuarzo con rumbo N70° E y buzamiento 80° NW, afloramiento de 300m. de longitud. La mineralización consiste de malaquita, crisocola, óxidos de cobre y como ganga, cuarzo, hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

207

| | | |
|-----------------------------|--------------|--|
| Name | | Huarangal |
| locality | Position | 8,442,578N - 481,906E |
| | city | District of Tibillo - Province Palpa (Ica). |
| Transportation | | Palpa - P.Pintada - Tibillo - Mina = 70 Km. |
| Geography | | 2,292 sea level meters. |
| Climate | | Cold and dry climate. |
| Minerals | | Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo tonalítico (Super Unidad Incahuasi), alterada, silicificada y fracturada. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo E-W y buzamiento subvertical, potencia 0.20m, presenta argilitizacion (caoiin). La mineralizacion consiste como mena malaquita, crisocola, oxidos de cobre y como ganga cuarzo, hematita, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Labores mineras (cateos, media barreta) abandonadas de epoca colonial. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

208

| | | |
|------------------------------------|---------------------|--|
| Name | | Jalaorcco |
| locality | Position | 8,443,083N - 481,045E |
| | city | District of Tibillo - Province Palpa (Ica). |
| Transportation | | Palpa - P.Pintada - Tibillo = 70 Km, Tibillo - Mina = 2 Km. |
| Geography | | 2,355 sea level meters. |
| Clime | | Cold and dry clime. |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo tonalítico (Super Unidad Incahuasi), alterada, argilitizada y fracturada. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo E-W y buzamiento subvertical, potencia 0.50m, presenta caolinizacion en las paredes de la falla. La mineralizacion consiste como mena cuarzo aurifero, oxidos de cobre y como ganga hematita, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Labores mineras (cateos, media barreta) abandonadas de epoca colonial. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

209

| | | |
|-----------------------------|--------------|---|
| Name | | Huaranchayoc |
| locality | Position | 8,443,386N - 480,910E |
| | city | District of Tibillo - Province Palpa (Ica). |
| Transportation | | Palpa - P.Pintada - Tibillo = 70 Km, Tibillo - Mina = 2 Km. |
| Geography | | 2,150 sea level meters. |
| Clime | | Cold and dry clime. |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo tonalítico (Super Unidad Incahuasi), alterada, argilitizada y fracturada. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N70° E y buzamiento 30° NW, potencia de 0.20m, fracturada, con panizo. La mineralizacion consiste como mena cuarzo aurifero, oxidos de cobre y como ganga piritita diseminada, oxidos de hierro. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

210

| | | |
|-----------------------------|--------------|---|
| Name | | Sumba |
| locality | Position | 8,437,449N - 480,792E |
| | city | District of ??? - Province Huaytara (Huancavelica). |
| Transportation | | Palpa - Sumba = 62 Km, Sumba - Mina = 2 Km. |
| Geography | | 2,148 sea level meters. |
| Clime | | Cold and dry clime. |
| Minerals | | Cu, Au, and Pb. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Cuarcitas del Gpo. Yura en contacto con la tonalita de la Super Unidad Incahuasi. En la zona se observa una falla regional con rumbo N70° W |
| mineralization | | Veta de cuarzo con rumbo N20° W y buzamiento 60° SW, potencia de 0.20m, 300m de longitud. La mineralizacion consiste de malaquita, crisocola, galena y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

211

| | | |
|------------------------------------|---------------------|--|
| Name | | Incapchacra |
| locality | Position | 8,434,552N - 477,843E |
| | city | District of Curis - Province Palpa (Ica). |
| Transportation | | Palpa - Qda. Jaguar = 57 Km. Qda. Jaguar - Mina = 3 Km. |
| Geography | | 2,144 sea level meters. |
| Clime | | Cold and dry clime. |
| Minerals | | Cu, Au and Pb. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo monzotonalítico (Incahuasi) que intruye a cuarcitas (Gpo. Yura). El area de la mina está alterada, silicificada y fracturada. Falla local E-W a lo largo de la quebrada. |
| mineralization | | Relleno de fracturas con mineralizacion de cuarzo aurifero, calcopirita, galena y como ganga hematita, piritita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

213

| | | |
|-----------------------------|--------------|--|
| Name | | Tinguayoc |
| locality | Position | 8,402,818N - 480,198E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Palpa - Locari - Tinguayoc, Tinguayoc - Mina = 2 Km. |
| Geography | | 890 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas porfiricas y afloramientos de granodioritas (Complejo Bella Union). Roca caja fracturada y alterada muy cerca al contacto con cuarcitas del Gpo. Yura. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N40° W y buzamiento subvertical, potencias de 0.50m. Relleno de fracturas con malaquita, crisocola, cuarzo aurifero y como ganga hematita, calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

214

| | | |
|-----------------------------|--------------|---|
| Name | | Locari |
| locality | Position | 8,400,427N - 473,305E |
| | city | District of Rio Grande - Province Palpa (Ica). |
| Transportation | | Palpa - Locari, Locari - Mina = 1 Km. |
| Geography | | 608 sea level meters. |
| Climate | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcanicas andesiticas porfiricas y afloramientos de granodioritas (Complejo Bella Union). Roca caja fracturada y alterada. Alrededores lutitas pizarrosas. |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo N20° E y buzamiento 70° SE, potencias de 0.40m, afloramiento de 150m de longitud. Relleno de fracturas con malaquita, crisocola, cuarzo aurifero y como ganga hematita, oxidos de cobre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|---|
| Name | | Piedra Pintada |
| locality | Position | 8,421,929N - 475,817E |
| | city | District of Tibillos - Province Palpa (Ica). |
| Transportation | | Palpa - Piedra Pintada = 45 Km. Piedra Pintada - Mina (C ^o Bodegayoc) = 2.5 Km. |
| Geography | | 1,401 sea level meters. |
| Clime | | |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Predomina diorita alterada, silicificado (Pampahuasi), textura porfirítica. |
| mineralization | | Veta de cuarzo fracturada, fallada y con panizo(N30° W y 75° SW), potencias de 0.30 - 1.00m, afloramiento de 1.2Km. Con mineralizacion de cuarzo aurifero, malaquita, crisocola y como ganga calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | Labores mineras abandonadas, con 3 niveles de explotacion. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

217

| | | |
|-----------------------------|--------------|---|
| Name | | Orongo |
| locality | Position | 8,409,209N - 476,085E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Palpa - Qda. Orongo = 27 Km. Qda. Orongo - Mina = 3 Km. |
| Geography | | 1,131 sea level meters. |
| Climate | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Intrusivo gabrodiorítico (Pampahuasi). También afloramientos de cuarcitas intercalados con andesitas (Gpo. Yura) y areniscas (Fm. Guaneros). La roca caja contiene pirita diseminada. |
| mineralization | | Veta de cuarzo con panizo, con rumbo N80° E y buza 55° NW, potencia de 0.30-1.00m. La mineralización consiste de calcopirita, bornita, azurita, malaquita, crisocola y como ganga, hematita, calcita, cuarzo, caolin. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Labores mineras abandonadas. |

TABLE OF MINES AND DEPOSITS

219

| | | |
|-----------------------------|--------------|--|
| Name | | Potrero |
| locality | Position | 8,411,508N - 467,317E |
| | city | District of Santa Cruz - Province Palpa (Ica). |
| Transportation | | Panam.Sur(Km 376)-Pampa Junin = 7 Km. Pampa Junin - Qda.Piedra Blanca - Mina = 9 Km. |
| Geography | | 971 sea level meters. |
| Clime | | |
| Minerals | | Au |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas monzodioriticas (Super Unidad Linga), de textura granular, grano grueso, sistema de fracturamiento regional con rumbo NW. |
| mineralization | | Vetillas paralelas de cuarzo, con rumbo N40° W y buzamiento subvertical, potencia entre 0.10-0.20m, longitud de 35m. La mineralizacion consiste de cuarzo aurifero, calcopirita, malaquita, crisocola y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

221

| | | |
|------------------------------------|---------------------|--|
| Name | | San Miguel |
| locality | Position | 8.414,697N - 448,919E |
| | city | District of Ocucaje - Province Palpa (Ica). |
| Transportation | | Panam.Sur(Km 356) - Mina = 17 Km. |
| Geography | | 914 sea level meters. |
| Clime | | |
| Minerals | | Cu |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Intrusivo granodioritico-monzonitico (Super Unidad Tiabaya), en contacto con andesitas(Fm Guaneros), donde se encuentra varios sitemas de vetillas de cuarzo. |
| mineralization | | La mineralizacion consiste de calcopirita, bornita, crisocola y como ganga cuarzo, calcita, oxidos de hierro, pirita. Estructura principal es una veta con rumbo N20° W y buza 85° NE, potencia 0.40m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

224

| | | |
|-----------------------------|--------------|--|
| Name | | San Pedro |
| locality | Position | 8,451,274N - 435,760E |
| | city | District of Yauca del Rosario - Province Ica (Ica). |
| Transportation | | Ica - Qda. Cansas = 17 Km (trocha carrozable). |
| Geography | | 934 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Diorita cuarcifera, monzonita, silicificada, textura granular (B. De la Costa). |
| mineralization | | Estructura mineralizada (veta de cuarzo), con rumbo N60° E y buza 75° NW, 1.20m. de potencia. La mineralizacion consiste de cuarzo aurifero, calcopirita, malaquita, crisocola, especularita y como ganga, hematita, pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | 1980 Labores mineras abandonadas. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

225

| | | |
|-----------------------------|--------------|---|
| Name | | Cansas |
| locality | Position | 8,450,000N - 436,749E |
| | city | District of San José de los Molinos - Province Ica (Ica). |
| Transportation | | Ica - Mina = 10Km. (trocha carrozable) |
| Geography | | 1,139 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Gabrodioritas, monzonitas, dioritas (B. de la Costa) en contacto con volcanicos andesiticos (Quilmaná). La zona de contacto silicificada y argilizada. |
| mineralization | | Veta de cuarzo, brechada, con rumbo N70° E y buza 80° NW, potencia de 0.25-0.80m, longitud de 120m. La mineralizacion consiste de cuarzo aurifero, calcopirita, malaquita, crisocola y como ganga hematita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | 1970 Labores abandonadas. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

226

| | | |
|------------------------------------|---------------------|--|
| Name | | Saya Saya(Umachulco) |
| locality | Position | 8318,556 N - 779,173 E. |
| | city | distrito de Orcopampa, provincia de Castilla y departamento de Arequipa. |
| Transportation | | Se ubica a 4 km. al NW del caserío de Umachulco, ocupando la parte NE é intermedia del Cerro Saya Saya. |
| Geography | | High platteau 4259 sea level meters, vegetation rare. |
| Clime | | |
| Minerals | | Au. |
| Owner | | Cia. de Minas Buenaventura |
| Exploration stage | | Inactive |
| Geology | | Asociado con un estrato-volcán andesítico erosionado, que corresponde al Grupo Barroso. |
| mineralization | | Se trata de una zona de intensa alteración silícea y argílica, que corresponde al área de Umachulco. La mineralización presenta leyes de Oro y sulfuros en profundidad y que gradan a metales pesados como el Zinc. La ocurrencia de pirita está presente en todo los casos. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

227

| | | |
|------------------------------------|---------------------|--|
| Name | | Orcopampa (Vetas Layo) |
| locality | Position | 8,319,289N y 798,068E |
| | city | distrito de Orcopampa, provincia de Castilla y departamento de Arequipa. |
| Transportation | | se ubica en el flanco Oeste de la Cordillera Occidental, a 14 km. al NE de la mina Orcopampa. |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Se emplaza en el pórfido dacítico y en la lava Jullujia en contacto con el pórfido cuarcífero perteneciente al Grupo Tacaza. Estructuralmente la zona tuvo una gran actividad tectónica basado en la deformación rocosa (fallamientos y fraturamientos), que fueron receptáculos para las soluciones mineralizantes. |
| mineralization | | La mineralización es de origen hidrotermal, del tipo de relleno de fracturas y emplazadas en los volcánicos del Grupo Tacaza. Las vetas de gran longitud y exhiben una zona de óxidos en la parte superior, en donde se presenta los mejores tenores de Oro y Plata y sulfuros (enriquecimiento primario y secundario) en profundidad, que gradan a metales pesados tales como Plomo y Zinc. La alteración hidrotermal está ligada a las estructuras en donde los halos de ensambles de sílice-sericita-alunita gradan hacia la periferie a caolín-sílice y por último a propilita; piritita presente en todo los casos. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

229

| | | |
|------------------------------------|---------------------|---|
| Name | | Orcopampa (Veta Calera Sur) |
| locality | Position | 8303920N - 790604E |
| | city | District of Orcopampa - Province Castilla (Arequipa). |
| Transportation | | Arequipa - Caylloma - Orcopampa. |
| Geography | | 3,890 sea level meters. |
| Clime | | Cold and dry clime. |
| Minerals | | Au and Ag. |
| Owner | | Compañía Minas Buenaventura S.A. |
| Exploration stage | | Active |
| Geology | | Emplazado en lavas y brechas volcánicas (Grupo Tacaza). Existe una falla normal de rumbo E-W con múltiples inflexiones y diferentes "lazos cimoides". |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo E-W y buzamiento subvertical, presenta argilitizacion, silicificacion y propilitización (yacimento de baja sulfuración, tipo adularia-sericita). La mineralizacion consiste como mena tetrahedrita, galena, calcopirita, esfalerita, pirargirita, bornita, oro y como ganga cuarzo, sílice, rodocrosita, pirita, baritina y calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | La veta Calera ha sido datada en 17 a 16.5 m.a. |

TABLE OF MINES AND DEPOSITS

230

| | | |
|------------------------------------|---------------------|--|
| Name | | Ares |
| locality | Position | 8,336,400N - 804,480E |
| | city | distrito de Río Grande, provincia de Condesuyos y departamento de Arequipa. |
| Transportation | | Se ubica en el flanco meridional de la zona sur de la Cordillera de los Andes. |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | Grupo Hoschchild S.A. |
| Exploration stage | | Active |
| Geology | | La mina Ares está alojada en andesitas y riocitas del Grupo Tacaza, seguida de tufos, aglomerados, brechas y andesitas (Formación Alfabamba) y coronando la secuencia de lavas andesíticas y riolíticas (Grupo Barroso). |
| mineralization | | Estructuralmente, existen 3 sistemas de fallas y vetas: el primero de rumbo N60° W (vetas Guadalupe, Claudia, Tania y Diana), el segundo de rumbo N50° E (vetas Victoria, Maruja y Lula) y el tercer de rumbo N-S (veta N-S). Consiste de vetas simples y "lazos cimoides" de baja sulfuración y con leyes altas de Au-Ag. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|-----------------------------|--------------|--|
| Name | | Chorunga (Veta San Juan) |
| locality | Position | 8242,524 N y 707,910 E |
| | city | distrito de Río Grande, provincia de Condesuyos y departamento de Arequipa. |
| Transportation | | se ubica en el flanco SE del Cerro San Juancito, en la margen derecha del valle de Chorunga. Ocoña - Mina = 92 Km. |
| Geography | | |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | La masa plutónica, donde se emplaza la mayor mineralización, es conocida como Super Unidad Incahuasi (Cretáceo Superior) constituida por facies granodiorita-tonalita, de color gris blanquecino y textura hipidiomórfica; de grano medio a grueso, afectado por numerosas fracturas y fallas. |
| mineralization | | La alteración hidrotermal es potásica así como la presencia de una cloritización y silicificación. Las fallas en la zona del yacimiento ha sido pre y post-mineral, con rumbo N 60-85° W y buz. 60-75° al N y/o S y que han sido receptáculo de las soluciones mineralizantes y formaron las vetas principales. Minerales predominantes, cuarzo y pirita, con pequeñas ocurrencias de chalcopirita, pirrotita oro libre, electrum, calcita, siderita, ortosa, galena esfalerita, bornita covelita, malaquita y limonitas (jarosita, hematita y goetita). |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

233

| | | |
|------------------------------------|---------------------|---|
| Name | | Chorunga(Clarita Stock) |
| locality | Position | 8,236,621N - 713,729E. |
| | city | |
| Transportation | | Se ubica a 7 km. al SE de la mina San Juan de Chorunga, siguiendo por la quebrada Esbilla. |
| Geography | | 998 sea level meters. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | El yacimiento se encuentra emplazada en el contacto entre el intrusivo alterado granodiorítico del Incahuasi y las rocas hipabisales del Complejo Bella Unión |
| mineralization | | con dirección principal N 80° E y buzamiento 65° SE.. También se encuentran apófisis del Grupo Yura de la formación Labra y Cachíos. La mineralización la constituyen venillas de cuarzo asociado a pirita, calcopirita, magnetita, molibdenita y yeso con espesor que varía de 0.5 a 0.40 m. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

236

| | | |
|------------------------------------|---------------------|---|
| Name | | Chalhuane |
| locality | Position | 8240,417 N - 722,139 E. |
| | city | |
| Transportation | | Se sitúa a 1.5 km. al N de la hacienda Chalhuane, enclavado en la unión de las Quebradas Chalhuane y Purimarca. |
| Geography | | 1524 sea level meters, vegetation rare. |
| Clime | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | El área presenta una superficie de alteración de mas o menos 4 x 4.5 km ² emplazados en rocas intrusivas de composición tonalítica y sedimentarias. |
| mineralization | | La alteración es intensa con un fuerte metamorfismo, fracturamiento y mineralización de oro nativo, pirita y cobre; epidota, sulfatos y carbonatos en la zona de oxidación. En el área esta alteración esta bastante fracturada y craquelada por el intrusivo y por numerosos diques que se caracterizan por su alteración. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

237

| | | |
|-----------------------------|--------------|---|
| Name | | Misky |
| locality | Position | 8233700 N - 693750 E |
| | city | Atico-Caravelí-Mina = 130 km. de recorrido. |
| Transportation | | se ubica en la margen derecha del río Ocoña, parte baja de la quebrada Seca de Posco y rodeado por los cerros Infiernillo y Los Mellizos. |
| Geography | | |
| Climate | | |
| Minerals | | Au and Cu. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Rocas hipabisales subvolcánicas del Complejo Bella Unión, considerado como el metalotecto regional; que son intruidas por rocas granodioríticas-dioríticas del Cretáceo superior - Terciario inferior, que se presentan en forma de diques ó apofisis irregulares las que sirven de roca/caja a las estructuras mineralizadas. |
| mineralization | | Sistema de vetas que se presentan en un área de 3 kms., siendo las más importantes Santa Rosario y Soledad con rumbo promedio N70° E y buzamiento 70° SE y potencias que varían de 0.20 a 0.70 m y longitudes que sobrepasan los 1,000 m. El yacimiento mineral es de origen hidrotermal, epitermal con mineralización de oro libre asociado al cuarzo y/o pirita aurífera que se encuentra diseminada en las cajas de las vetas de cuarzo. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

238

| | | |
|------------------------------------|---------------------|--|
| Name | | Huaca |
| locality | Position | 8233,487 N - 699,168 E. |
| | city | |
| Transportation | | Se ubica a 4 km. al sur del pueblo de Iquipí, y debajo del C° Mina de Huaca, margen derecha del río Ocoña. |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La veta atraviesa casi en forma vertical a rocas subvolcánicas del complejo Bella Unión y granodioritas fuertemente fracturadas. |
| mineralization | | Se trata de una veta reconocida de rumbo N 15° W y buzamiento 40° NE, con un espesor promedio de 0.45 m. (Nivel 650), que después de una cortada se sigue 70m. sobre estructura. |
| reserve. | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

239

| | | |
|-----------------------------|--------------|--|
| Name | | Sauce-Fortuna |
| locality | Position | 8237917 N - 699,275 E |
| | city | |
| Transportation | | se ubican en la margen izquierda del río Ocoña, aproximadamente 3.5 km. al NW del pueblo de Iquipí. |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Constituida por rocas del Complejo Basal, rocas sub-volcánica del Complejo Bella Unión y por monzonitas, granodioritas y dioritas de las Superunidades Linga e Incahuasi; donde se pudo apreciar un intenso fracturamiento y fallamiento. |
| mineralization | | La veta Sauce intruye a una granodiorita fuertemente fracturada y silicificada y alcanza hasta 500 m. de longitud y un rumbo N75° W y un ancho promedio de 0.30 m. Contiene cuarzo, pirita y arsenopirita dentro de las cuales se distribuyen escasos valores de oro como inclusiones. Como minerales primarios hay bornita, chalcopirita, pirrotita, galena y hematita. La veta Fortuna, con 1500 m de longitud y la veta con un ancho promedio de 0.35 m |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

240

| | | |
|-----------------------------|--------------|---|
| Name | | Coropuna (Pucahilla) |
| locality | Position | 8,276,085N - 744,206E. |
| | city | |
| Transportation | | Se ubica al pié del nevado Coropuna |
| Geography | | |
| Clime | | |
| Minerals | | Au and Ag. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Emplazado en el volcánico Tacaza, con una extensión de 4.5 x 1.0 km y orientado hacia el SE y la presencia de cuerpos de brecha hidrotermales así como cuerpos hipabisales andesíticos con abundantes óxidos de fierro (limonitas). |
| mineralization | | El tipo de alteración es mayormente Argílico-Siliceo estando hacia los bordes constituidos por una propilitización; el tipo de sílice es amorfa con presencia de calcedonia. La muestra petrografica nos indica una andesita porfirítica con una silicificación moderada a intensa, limonitización. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

242

| | | |
|------------------------------------|---------------------|--|
| Name | | Chipmo (Proyecto Claudia) |
| locality | Position | 8.311.411N - 779.802E |
| | city | |
| Transportation | | |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Emplazadas mayormente en un complejo de domos daciticos miocenicicos, posiblemente correspondientes a los volc á nicos Sarpame de 18.3 a 19.5 Ma. |
| mineralization | | Tres estructuras alineadas al NE, cuya mineralogía consiste en venillas de cuarzo - óxidos y arcillas. En la veta Claudia 3, la alteración consiste en una silicificación, cuarzo? argilitización, cuyos valores en 2 muestras tomadas aleatoriamente, arrojan: OR-Q-130: 0.34 gr/Au, 22 gr/Ag, 0.03% Pb, 0.30 ppm Hg y 613 ppm Ba. OR-Q-131: 0.30 gr/Au, 458 gr/Ag, 0.03% Pb, 5.06 ppm Hg y 1118 ppmBa. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Actualmente la Cia. viene realizando exploraciones en la parte alta de esta estructura. |

TABLE OF MINES AND DEPOSITS

243

| | | |
|-----------------------------|--------------|---|
| Name | | Chipmo (Proyecto Santa María) |
| locality | Position | 8,308,796N - 781,642E |
| | city | |
| Transportation | | |
| Geography | | |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | La alteración en las cajas lo constituye una silicificación masiva la que grada hacia sus extremos en caolinita-dickita. La mineralización consiste de venas de cuarzo lechoso y baritina, rellenando a la brecha que es masiva y craquelada, lo que constituye una estructura brechoide con halos de alteración de dickita y cuarzo, se observa además pirita en ganga arcillosa y limonítica, así como cobres grises asociado a la galena y pirita. |
| mineralization | | La veta Natividad se emplaza en una brecha silícea masiva tectónica-hidrotermal, con un rumbo N70 ° E y buzamiento subvertical y aflora discontinuamente en una longitud de 70 m. La mineralización consiste de venas de cuarzo lechoso y baritina, rellenando a la brecha que es masiva y craquelada (estructura brechoide) con halos de alteración de dickita y cuarzo, se observa además pirita en ganga arcillosa y limonítica, así como cobres grises asociado a la galena y pirita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

244

| | | |
|-----------------------------|--------------|---|
| Name | | Chipmo (Veta Prometida) |
| locality | Position | 8,311,034N - 782,349E |
| | city | |
| Transportation | | |
| Geography | | |
| Climate | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Roca encajonante los tufos Pisaca (base de los volcánicos Tacaza), de textura porfirítica a afanítica (auto-brecha y microbrecha de la misma composición), y naturaleza riolítica. También se observan diques de andesita porfirítica y cuarzo latítico de probable ambiente sub-volcánico. Estructuralmente, se ubica entre 2 fracturas anulares y su lado Este está posiblemente limitada por una falla denominada Chilcaymarca. |
| mineralization | | La veta Prometida de rumbo general N50° E y buzamiento 60-80° SE y presenta 2 inflexiones de rumbo EW, localizándose en el lado E la mineralización económica. La mineralogía en esta veta es compleja, en donde el oro se presenta como oro nativo y en forma de telururos. El depósito ha sido considerado en el grupo de Sulfato-ácido (cuarzo-alunita-pirofilita), con mineralización de oro y pequeñas cantidades de plata. El oro se distribuye indistintamente en los lazos cimoides y los stock-work. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

245

| | | |
|------------------------------------|---------------------|---|
| Name | | Shila (Proyecto Chinchon) |
| locality | Position | 8305,595 N - 800,944 E |
| | city | |
| Transportation | | Se encuentran ubicadas en la Cordillera del Shila |
| Geography | | |
| Clime | | |
| Minerals | | Au, Ag. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Se trata de un halo de alteración hidrotermal del tipo sílice-alunita-pirita (brecha tipo Crackel), habiendose detectado 2 anomalías de oro en extensiones de 250 x 110 y 250 x 180 m.; con posibilidades de presentarse un yacimiento de oro diseminado. |
| mineralization | | Este proyecto vendría a constituirse en un depósito de alta sulfuración? por Au diseminado, rodeado de yacimientos de Au - Ag de baja sulfuración. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

246

| | | |
|-----------------------------|--------------|--|
| Name | | Shila (Proyecto Chuañuma) |
| locality | Position | 8,298,724N - 795,500E |
| | city | |
| Transportation | | |
| Geography | | |
| Climate | | |
| Minerals | | Au, Ag. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Compuesto por lavas intermedias asociados e estructuras subvolcánicas. |
| mineralization | | Se ha determinado una brecha hidrotermal donde presenta alteraciones cuarzo-silicificación, con relleno de fracturas. La Cia Paula SAC, desarrolla programas de exploración. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Paula (Area Neck) |
| locality | Position | 8,288,211N - 811,880E |
| | city | |
| Transportation | | Se encuentra ubicadas en la Cordillera del Shila |
| Geography | | |
| Clime | | |
| Minerals | | Au and Ag. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | La geología local consta de una secuencia definida de brechas y lavas, así como de un intrusivo p ó r fido andesítico. Las alteraciones hidrotermales están compuestas de tres tipos : Una potasificación de microlitas feldespáticas, una pseudomorfosis de biotitas y anfíboles magmáticos por un ensamble de clorita-epidota-calcita, acompañada de un emplazamiento parcial de fenocristales de plagioclasa por la sercita y la calcita, finalmente sericitización masiva de la roca, asociada a cuarzo, pirita y trazas de calcita. |
| mineralization | | La mineralogía de ganga está compuesta de rodonita/rodocrosita y adularia. La paragenesis sulfurada muestra una sucesión compleja dominada por sulfuros y sulfosales de plata (Ag-tetraedrita, polibasita, jalpaita y acantita) asociados a la pirita, esfalerita, chalcopirita y galena. Así mismo electrum y trazas de enargita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

249

| | | |
|-----------------------------|--------------|---|
| Name | | Tinoray (Veta California) |
| locality | Position | 8,246,211N - 695,305E |
| | city | |
| Transportation | | Se ubica entre los Cerros Elvia y Callanga |
| Geography | | 1948 sea level meters, vegetation rare. |
| Climate | | |
| Minerals | | Au, Ag, Cu. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | La roca caja consiste en un intrusivo granodiorítico, de textura porfírica poco alterado, silicificado y oxidado. Se aprecia minerales de arcilla, pirita diseminada y oro refractario milimétrico. |
| mineralization | | Se trata de una veta orientada N60° E, buzando subverticalmente al NO. Presenta una estructura de 0.9-2.0 mts. de ancho; correspondiente a un relleno de fractura en forma de rosario. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

| | | |
|------------------------------------|---------------------|--|
| Name | | Tinoray (Chimenea Tinoray) |
| locality | Position | 8246,313 N - 695,785 E |
| | city | |
| Transportation | | Ubicada a 250 m. al E de la Veta California |
| Geography | | |
| Clime | | |
| Minerals | | Au, Ag, Cu. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Intrusivo granodiorítico, de textura porfirítica poco alterado y oxidado. Corresponde a la Super Unidad Pampahuasi (Ks-gd/to-p). La alteraciones corresponden: zona de óxidos (1.20 m. de espesor) constituida por limonitas, goethita y cuarzo lechoso fuertemente fracturado y contenido esporádico de "Vuggy sílica"; la zona silicificada (1.10 m. de espesor) donde predomina el cuarzo. |
| mineralization | | Chimenea de 10 metros de profundidad la cual corta una veta de 2.5 mts, de ancho, orientado al E-O y 60° N de buzamiento. La mineralización en términos generales consiste de cuarzo ahumado y lechoso, cuarzo con óxidos de Fe, pirita, hematita. Muestreo realizado en la chimenea, nos dá: (zona de óxidos): 8.17 gr/Au, 9.00 gr/Ag, y 0.09% Cu, 0.43 ppm Hg; (zona de Sulfatos): 16.33 gr/Au, 0.50 gr/Ag, 0.76% Cu y 0.05 ppm. Hg. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

252

| | | |
|-----------------------------|--------------|--|
| Name | | Tinoray (Veta Poderosa) |
| locality | Position | 8242,630N - 690,686 E |
| | city | |
| Transportation | | Ubicado a 2 km. al Sur de la cumbre del C ^o Venado (trocha carrozable) |
| Geography | | 1992 sea level meters. |
| Clime | | |
| Minerals | | Au, Ag, Cu. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | La roca caja consiste en un intrusivo granodioritico, de textura porfirítica poco alterado a silicificación? y oxidado. Corresponde a la Super Unidad Pampahuasi (Ks-gd/to-p). |
| mineralization | | Dos estructuras bien definidas. El ancho de la veta de mayor interés es de 0.30 m. Muestra escogida de la veta principal, nos arroja los siguientes valores: 633.33 gr/Au, 40 gr/Ag, 13.30% Fe y 2.95 ppm de Hg. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

253

| | | |
|-----------------------------|--------------|--|
| Name | | Iruyoc |
| locality | Position | 8,253,180N - 809,634E |
| | city | District of Huambo - Province Caylloma (Arequipa). |
| Transportation | | |
| Geography | | High platteau 3970 sea level meters, vegetation rare. |
| Clime | | Cold and dry clime. |
| Minerals | | Cu and Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Las rocas calcáreas constituyen la caja (Fm Seraj). Esta formación suprayace en discordancia erosional a la Fm. Arcurquina e infrayace con discordancia angular a la Fm. Huanca. |
| mineralization | | La mineralizacion es del tipo manto (se encuentra intercalado con estratos de areniscas calcáreas y caliza marmolizada), con 0.50m de potencia. Las labores se encuentran dispersas en 25 hectáreas (pequeños socavones y cateos). Las estructuras mineralizadas tienen rumbo E-W y buzamiento 24° S. La mena está constituida por malaquita, crisocola y la ganga es de hematita, limonita, yeso, arcillas y calcita. |
| reserve | volume | |
| | Metal | Cu and Au. |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los resultados analiticos indican leyes 0.0.5 gr/Tm Au, 1.5% Cu, 315 ppm Pb, 428 ppm Zn. |

TABLE OF MINES AND DEPOSITS

254

| | | |
|------------------------------------|---------------------|--|
| Name | | El Gallo |
| locality | Position | 8,267,935N - 805,284E |
| | city | District of Huambo - Province Caylloma (Arequipa). |
| Transportation | | |
| Geography | | 1,717 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Secuencia estratigrafica constituida por gneis granitico, con hilillos y franjas oscuras de biotita cloritizada. Los gneis estan cubiertos por derrames volcanicos del Gpo. Barroso |
| mineralization | | Vetas que tienen hasta 0.50m de potencia y rellenas por cuarzo con contenido de oro, galena y cuprita. La mineralizacion presenta estrucutras con rumbo N38° E, buzamiento 40° SE y los mantos rumbo N55° E y buzamiento subhorizontal. Alteracion propilitica con silicificacion, limonitizacion. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | 8 personas (informales), temporal y rotativo. |
| refinery or smelter | | |
| speccals | | |
| comments | | En la actualidad trabajan mineros informales empleando quimbaletes. Su produccion promedio diaria es de 3 gr/lata. |

TABLE OF MINES AND DEPOSITS

255

| | | |
|-----------------------------|--------------|---|
| Name | | Ajpi (Piucirca) |
| locality | Position | 8,273,720N - 816,225E |
| | city | District of Huambo? - Province Caylloma (Arequipa). |
| Transportation | | Se encuentra a 16 Km al W del poblado de Cabanaconde. |
| Geography | | 2,060 sea level meters, abrupte topography. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Se encuentra dentro de un halo de alteracion, en el ortogneis del Complejo de la Costa (precambrica). |
| mineralization | | Vetas que contienen como mena oro, galena, esfalerita y como ganga piritita y limonita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores en media barreta. |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

256

| | | |
|-----------------------------|--------------|---|
| Name | | Piraucho |
| locality | Position | 8,266,010N - 780,237E |
| | city | District of Machahuay - Province Castilla (Arequipa). |
| Transportation | | Se encuentra a 15 Km al E del poblado de Machahuay |
| Geography | | High platteau 4380 sea level meters, vegetation rare. |
| Clime | | Cold and dry clime. |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Rocas volcánicas (Gpo Tacaza), andesitas fracturadas. Aflora tambien un intrusivo adamelitico en contacto con calizas formando un skarn de granate con mineralizacion de malaquita y crisocola. Ademas caliza marmolizada. |
| mineralization | | La mineralizacion de las vetas de cuarzo con oro se encuentran junto con la pirita, galena, limonita y jarosita. Las alteraciones hidrotermales del intrusivo constituidas por cuarzo-sericita y silicificacion. Las vetas tienen un rumbo N20° -50° E y buzamiento sub-vertical hacia el Este. |
| reserve | volume | |
| | Metal | Au. |
| | grade | |
| exploration of history | | 1934-1942 trabajada por una Cía alemana. 1948 Roman Zuñiga denunció 500 hectareas (Cu, Ag y Au). 1958-actual; en concesion por Sr. Paul Juilland |
| volume of history operation | volume | 3000 TM/day |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | |

TABLE OF MINES AND DEPOSITS

257

| | | |
|-----------------------------|--------------|---|
| Name | | Toncoro |
| locality | Position | 8,283,050N - 795,731E |
| | city | District of Chachas - Province Castilla (Arequipa). |
| Transportation | | Se encuentra a 4 Km al SE del poblado de Chachas (carretera afirmada). |
| Geography | | High platteau 3256 sea level meters, vegetation rare. |
| Clime | | Cold and dry clime. |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | La roca caja es una cuarcita (Gpo.Yura). En la parte superior rocas volcanicas y en la parte inferior intrusivo tonalítico. |
| mineralization | | Sistema de vetas de cuarzo con contenido de oro. Tambien abundante especularita y calcita. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | La mina ha sido trabajada desde el tiempo de la colonia, con labores actualmente colapsadas. En los ultimos años se realizaron trabajos exploratorios (cortada de 150m y galeria de 40m.) |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | producction | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | En los trabajos de exploracion actual los valores de oro son erraticos (1 a 2 gr/Tm). |

TABLE OF MINES AND DEPOSITS

258

| | | |
|-----------------------------|--------------|--|
| Name | | Ursula 1 |
| locality | Position | 8,270,000N - 806,600E |
| | city | District of Choco - Province Castilla (Arequipa). |
| Transportation | | Se encuentra a 6 Km al SW del caserío de Ajpi. |
| Geography | | 1700 sea level meters, vegetation rare. |
| Climate | | |
| Minerals | | Au, Ag, Cu. |
| Owner | | |
| Exploration stage | | Inactive |
| Geology | | Granodioritas con diques diorítico-andesítico. Sistema de vetas, paralelas entre sí, origen hidrotermal. |
| mineralization | | La mineralización de las vetas con oro se encuentran junto con la calcopirita, pirita, cuarzo, limonita y hematita. Las vetas tienen rumbos N65-75W y potencias de 0.40-0.45m. |
| reserve | volume | 10,718TM |
| | Metal | Au, Ag, Cu |
| | grade | 9.02g/TM, 1.58g/TM, 0.10%Cu |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | Amalgamación, cianuración |
| | quantity | |
| | production | |
| electricity | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Existe gran cantidad de labores minerales de la época de la colonia. |

TABLE OF MINES AND DEPOSITS

259

| | | |
|------------------------------------|---------------------|---|
| Name | | Ishihuinca |
| locality | Position | 8257329N - 671132E |
| | city | District of Caravelí - Province Castilla (Arequipa). |
| Transportation | | 5 Km. al NO de Caravelí (trocha carrozable). |
| Geography | | 1,900 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Afloran rocas igneas y metamorficas (Complejo Bella Unión) y rocas del Batolito de la Costa. La roca caja es granodioritica correspondiente a la Superunidad Linga con intensa alteración argílica y silicificación. Existen dos sistemas de fracturas (NO-SE y NE-SO). |
| mineralization | | Deposito hidrotermal, estructura filoneano con rumbo promedio N45° E y buzamiento 75° NW, potencias promedio de 1.50 m. y hasta 1 Km. de largo. La mineralización consiste de cuarzo con hematita, pirita, oro libre. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Una muestra recolectada contiene 3.54 gr/TM de Au. |

TABLE OF MINES AND DEPOSITS

260

| | | |
|------------------------------------|---------------------|--|
| Name | | Ishihuinca |
| locality | Position | 8252143N - 671674E |
| | city | District of Caravelí - Province Caravelí (Arequipa). |
| Transportation | | 6 Km. al Oeste de Caravelí. |
| Geography | | 1,990 sea level meters. |
| Clime | | |
| Minerals | | Au. |
| Owner | | |
| Exploration stage | | Active |
| Geology | | Afloran rocas igneas y metamorficas (Superunidad Tiabaya y Complejo Bella Unión). Existen dos sistemas de fracturas (NO-SE y NE-SO). |
| mineralization | | Deposito hidrotermal, estructura filoneano (16 vetas) con rumbo promedio N45 ° E y buzamiento 70° NW, potencia promedio de 1.50 m. y hasta 1 Km. de largo. La paragenesis es de cuarzo lechosos con hematita, limonita y sulfuros. |
| reserve | volume | |
| | Metal | |
| | grade | |
| exploration of history | | |
| volume of history operation | volume | |
| | grade | |
| | period | |
| production | method | |
| | skeleton | |
| | level | |
| | life of mine | |
| transportation | method | |
| others | drainage | |
| | water | |
| Plant | method | |
| | quantity | |
| | production | |
| electricily | | |
| personnel | | |
| refinery or smelter | | |
| speccals | | |
| comments | | Una de las muestras recolectadas en la veta principal contiene 8.25 gr/TM de Au. |